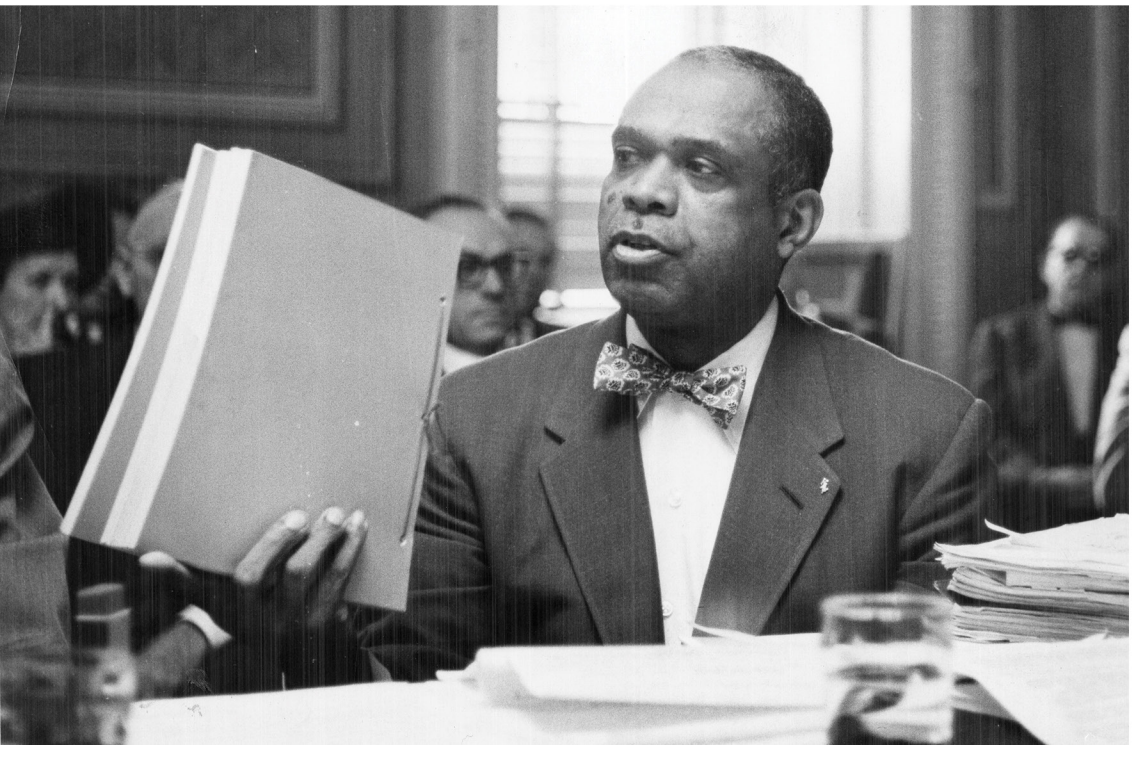
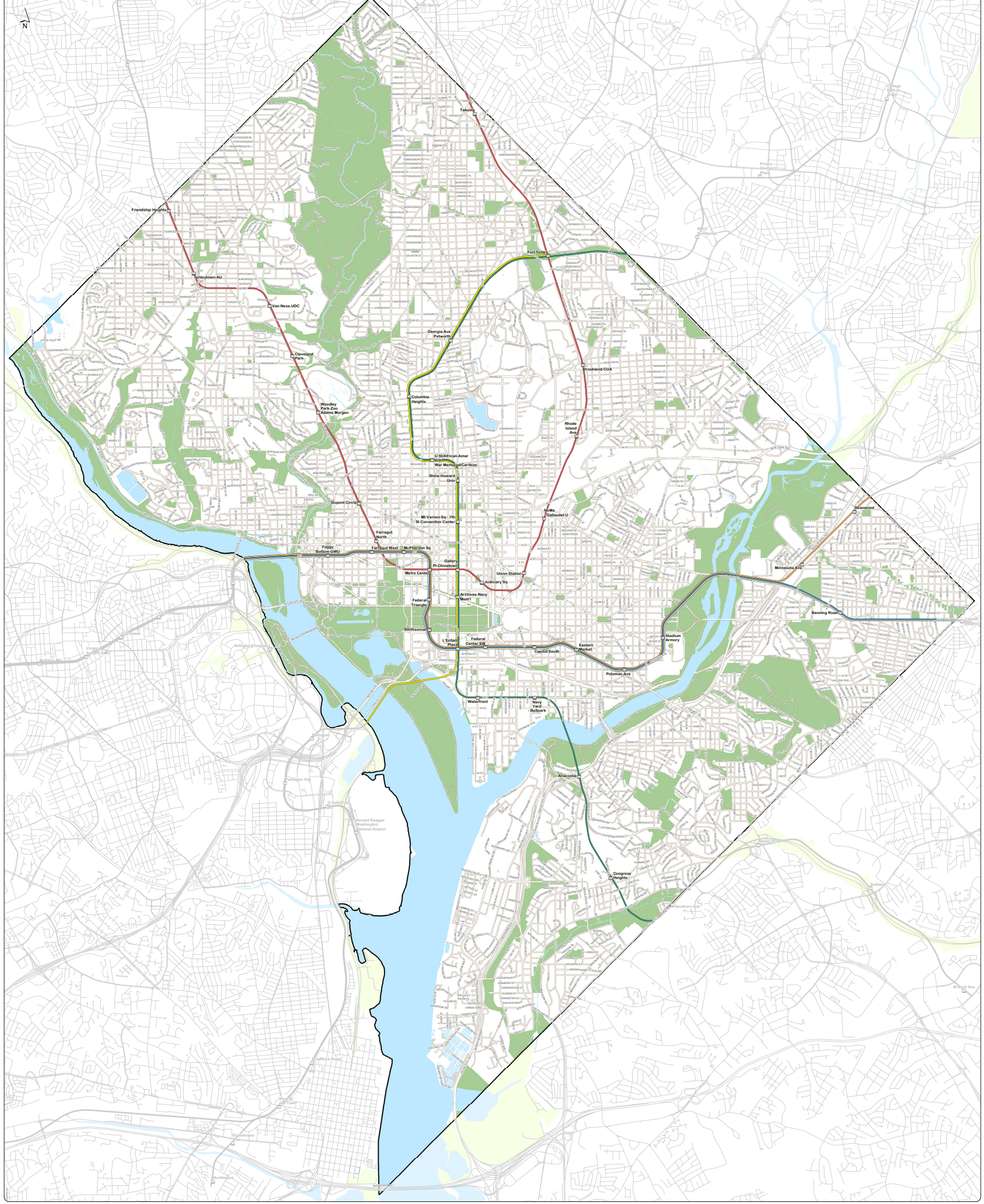
THE PUBLIC SERVICE COMMISSION OF THE DISTRICT OF COLUMBIA

THE FIRST CENTURY

Serving the Public Interest, 1913-2013



A Socioeconomic History of Electric, Gas, and Telephone Regulation in the District of Columbia



N
Takoma
Friendship Heights
Tenleytown-AU
Van Ness-UDC
Cleveland Park
Woodley Park-Zoo Adams Morgan
Dupont Circle
Farragut North
Farragut West
McPherson Sq
Foggy Bottom-GWU
Metro Center
Gallery Pl-Chinatown
Federal Triangle
Smithsonian
L'Enfant Plaza
Federal Center SW
Capitol South
Eastern Market
Potomac Ave
Stadium Armory
Union Station
Judiciary Sq
Archives-Navy Mem'l
Mt Vernon Sq - 7th St Convention Center
Shaw-Howard Univ
U St/African-Amer War Memorial/Cardozo
Columbia Heights
Georgia Ave Petworth
Fort Totten
Brookland-CUA
Rhode Island Ave
NoMa Gallaudet U
Deanwood
Minnesota Ave
Benning Road
Waterfront
Navy Yard - Ballpark
Anacostia
Congress Heights
Ronald Reagan Washington National Airport
Pentagon City
Crystal City
Bethesda
Prince George's Plaza
West Hyattsville
Naylor Road
Southern Ave
Suitland
Branch Ave
Braddock Road
King St - Old Town
Eisenhower Ave
Huntington

The First Century

Serving the Public Interest, 1913–2013

A Socioeconomic History of Electric, Gas, and Telephone Regulation
in the District of Columbia

By Phylicia Fauntleroy Bowman, PhD

Executive Director Emerita

The First Century Serving the Public Interest, 1913–2013

A Socioeconomic History of Electric, Gas and Telephone Regulation in the District of Columbia

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Front Cover Images

Top: A Public Service Commission hearing held at 1333 H Street NW.

Left: PUC Chairman George E.C. Hayes testifies before the House District Committee, 1956.

Right: Commission Chairman Howard C. Davenport (writing) and Commissioner Edward M. Meyers (middle) tour payphone sites with Consumer Utility Board President Daniel Wedderburn (left) and People's Counsel Elizabeth Noel (right), 1991.

Back Cover Images

Left (clockwise):

PEPCO rate case hearing at 450 5th Street, NW; Chairman Howard Davenport presiding with Commissioners Agnes Alexander and Edward Meyers.

Commissioners Agnes Alexander Yates and Ed Meyers listening to a DC resident testify at one of its community hearings at a local church.

Productivity Improvement Working Group (PIWG) meeting in 2008 with PEPCO engineers, William Gausman and Chet Knapp and PEPCO attorney Marc Williams; OPC attorney Brian Edmonds; and PSC technical staff chief engineer Udeozo Ogbue, chief economist Dr. Grace Hu, and senior economist Dr. Roger Fujihara.

Take It to the Streets Outreach Event where PSC consumer services staff Lystra Khan and Patricia Walker were educating a consumer about new high efficiency light bulbs.

Gas stove flame.

PEPCO Benning Road power station in Washington, DC, as seen from the Washington Metro tracks. The plant supplied power via a rotary frequency changer to the Pennsylvania Railroad (and successor lines) from 1935 until 1986. PEPCO permanently closed the power station in 2014. Source: Wikipedia.

The telephone is always in use in a World War II-era boarding house. Source: Library of Congress.

Foreword

The Public Service Commission of the District of Columbia (PSC) was established by Congress in 1913 to regulate the transportation companies (streetcars, buses, taxis, etc.) as well as the electric, gas, and telephone companies serving the District. Since then, it has worked to ensure the public utility companies serving DC are financially viable so they can provide safe, reliable, and quality services at reasonable rates for residential, business, and government customers in the city. Today, the Commission continues to help modernize the energy grid, conserve natural resources, preserve the quality of the environment, and advance the District's climate policy commitments.

The PSC has chronicled its storied history in two books. The first book was released in 2016, following the Commission's centennial celebration. It is entitled, *The First 100 Years Protecting the Public Interest, 1913–2013*. The book describes the Commission's creation, its early struggles to establish authority over the local utility companies, the evolving changes in the PSC's mission and responsibilities as it regulated each of the public utility industries, the importance of public input, and the role the PSC played in the racial integration of the utility industries in DC. This second book, *The First Century Serving the Public Interest, 1913–2013*, provides more detailed information on electric, gas, and telephone regulation, which continued after the PSC no longer regulated other services. Therefore, it complements the first book by primarily serving as a reference document for those working in the field of public utility regulation.

A primary conference room at the PSC offices at 1325 G St, NW is named in honor of Dr. Phylicia Fauntleroy Bowman.

As one of the oldest continually operating agencies of the District government, we are especially proud to be the first to release a book covering our first century of operation. Moreover, we are unique in that none of the 50 state public utility commissions has preserved their history in this manner.

Although many people, both within and outside of the Commission, have contributed to both PSC history books, neither of these books would have seen the light of day were it not for Executive Director Emerita, Dr. Phylicia Fauntleroy Bowman. I want to thank her formally for her 31 years of service to the Commission and throughout her retirement to date for ensuring the PSC's history is well preserved. I am also proud to work with dedicated public servants like Dr. Bowman and the more than 90-member Commission staff who are fulfilling its mission and energizing the District for current public utility customers and future generations.

Thank you for your interest in the Public Service Commission of the District of Columbia and its history.

Emile C. Thompson
Chairman, Public Service Commission of the District of Columbia

Preface: The Journey 1

The Centennial Project 2

DC-Specific Data 4

Future Research Opportunities 5

Acknowledgments 5

Postscript 10

FY 2013 Organizational Chart with Office Directors 11

Table P.1: Commission Employees by Office, 2013 12

Table P.1: Commission Employees by Office 2013 (continued) 13

Chapter 1: The 1913 Creation 15

A. Other Notable Events in 1913 17

B. National and Local Anti-Monopoly Sentiment Brought Regulation 17

Tables and Figures 21

Table 1.1: Gross Earnings of Utility Companies by Industry and DC Cash Receipts,1913–1941 21

Table 1.2: Personal DC Taxes Paid by Utility Companies and DC Revenue, 1913–1941 22

Figure 1.1: Gross Earnings of Utility Companies, 1913–1941 23

Figure 1.2: Personal DC Taxes on Utility Companies' Earnings, 1913–1941 23

Figure 1.3: Total Personal Taxes Share of Utility Companies' Earnings, 1913–1941 24

Figure 1.4: Utility Companies' DC Taxes as a Share of DC Revenue, 1913–1941 24

Chapter 2: The Context: A Brief Profile of Washington, DC, 1913–2013 25

A. Washington, DC in 1913 25

B. Major Demographic Changes Between 1913 and 2013 33

C. A Forward Look—A Socioeconomic Profile of the District in 2013 35

Views of the recently developed areas of the District in 2013 38

Tables 39

Table 2.1: DC Population and Income, 1916–2013 39

Table 2.2: DC Population Demographics, 1910–2010 43

Table 2.3: No. of PEPCO's Customers in DC, 1956–2013 44

Table 2.4: No. of WGL's Residential Customers in DC, 1956–2013 46
Table 2.5: Homeownership Rates in DC by Race, 1900–2012 47
Table 2.6: Socioeconomic Profile of DC and US, by Race, in 2013 49
Table 2.7: Socioeconomic Profile of DC and US in 2013 50
Table 2.8: 2013 Household Income Distribution, by Race, in DC 51
Table 2.8a: 2013 Distribution of Household Income by Race/Ethnicity, in DC 52
Table 2.9: 2013 Household Income Distribution, by Race, in US (Numbers in Thousands) 53
Table 2.10: Summary of 2013 US Income Distribution, by Race (Numbers in Thousands) 54
Table 2.11: Comparison of 2013 Income Distribution Percentages, By Race, in DC and US 54

Chapter 3: The Mission: To Serve the Public Interest 55

A. Genesis of the Phrase "Serving the Public Interest" 55
B. The Public Interest in the Original Act 55
C. Interpretations of "Serving the Public Interest" 56
D. A Public Interest Standard 58
E. Mission Statement 60
Tables 61
Table 3.1: History of PEPCO's Bond and Stock Sales, 1914–2016 61
Table 3.2: History of WGL's Bond and Stock Sales, 1917–2015 64
Table 3.3: History of Telephone Bond and Stock Sales, 1913–2012 66
Table 3.4: History of PSC Mergers and Acquisitions Cases, 1913–2015 67
Table 3.5: History of Settlement Agreements in PSC Formal Cases, 1913–2019 69

Chapter 4: Mission Accomplished: Summary Conclusion 75

A. Declining Real Rates 75
Figure 8.3: PSC-Calculated Real Average Residential Electricity Rates per Kwh, 1913–2013 76
Figure 9.3: PSC-Calculated Real Residential Natural Gas Rates per Therm, 1913–2013 76
Figure 10.2: Real Monthly Residential Rates for Single-Line Telephone Service,1913–2013 76
Table 4.1: Percentages of Households By Heating Fuel – DC and US, 1940–2013 78
Table 4.2: 2013 Average Residential Rates, DC and US 78

B. ...Have Contributed to a Rise in the Standard of Living 78

Table 4.3: Summary of Results from PEPCO's 2000 and 2015 Appliance Saturation Surveys 79

C. ...While Utility Companies Have Prospered 80

D. ...The Cost of Regulation Has Been Minimal 80

Table 4.4a: Calculation of the 2013 Cost of PSC Regulation 81

Table 4.4b Final Summary Review of 2014 Annual Assessment Surveys 82

Chapter 5: … In the Life of the Commission 83

A. The Commission's Changing Jurisdiction 83

B. Profile of the Commissioners 84

C. Commissioners' Grades and Salaries 85

D. The First Organizational Structure 87

E. Commission Funding and Assessments on the Utility Companies 88

1. Assessments for Annual Operating Budgets 88

2. Assessments for Proceedings 90

F. The Commission's Operating Budget and Staffing 91

Figure 5.1: Commission's Nominal Annual Budgets, 1913–2013 92

Figure 5.2: Commission's Real Annual Budgets, 1913–2013 92

G Commission Locations and Hearing Rooms 93

H. The Commission's Docketing System 97

I. Evolution of Technology at the Commission 99

J. Organizational Assessments, Strategic Planning, and Performance-Based Management 102

K. The Changing Role of Commission Staff 104

L. The Commission's Appeals Record 106

M. Team-Building Initiatives 107

N. NARUC/NRRI and Regional Participation 108

O. Training 109

P. Foreign Delegations and Exchange Programs 110

Q. The Commission As a Good Citizen 112

Photos: Commission Locations 114

Photos: Commission Hearing Rooms 115

Photos: Chairpersons 116
Photos: Commissioners 118
Tables 121
Table 5.1: List of Commissioners, Chairpersons, and their Terms, 1913–2024 121
Table 5.2: PSC's Annual Budgets in Nominal and Real Dollars, 1913–2013 125
Table 5.3: DC Appropriations and PSC's Annual Budgets, 1913–2013 127
Table 5.4: PSC's Appeals Record, 1914–2016 131

Chapter 6: From the Purge to the White House: We Stand on the Shoulders of Giants 156

Chapter 7: Bringing the Public to the Table: The Role of Public Input at the Commission 171
Part 1—Citizen Participation 172
A. Citizen Organizations that have played a Significant Role in Commission Proceedings 172
1. Federation of Citizens' Associations 172
2. The First People's Counsel 173
3. DC Federation of Civic Associations 173
4. Advisory Neighborhood Commissions Created by the 1973 Home Rule Act 174
5. Office of the People's Counsel 174
6. Consumer Utility Board 176
B. Citizens and Their Representatives' Participation in Commission Activities 176
1. Citizen Participation in Hearings 176
2. Consumer Complaints, Inquiries, and Requests for Service 177
3. Electric and Gas Meter Tests Requested by Consumers 178
C. Major Consumer Issues and Concerns 179
D. Commission Encouragement of Citizen Participation 180
1. Creation of the Commission's Office of Consumer Services 181
2. Expanded Education and Outreach—People Serving the Community (PSC) 182

Part 2—Case Studies 183
A. Capital Transit Streetcar and Bus Rate Case, FC No. 309 183
B. Extension of Service on Takoma, Petworth, and Chillum Streetcar and Bus Routes and Service 184
C. PEPCO's Proposed Expansion of its Benning Road Generating Station, FC No. 877 187
D. WGL's Petition to Close its Anacostia Customer Service Center, FC No. 1014 189
E. Innovative Community-Based Outdoor Public Payphone Complaint Program, FC Nos. 829 and 712 189
F. Summary and Conclusions 193
Tables 194
Table 7.1: History of PSC Consumer Complaints and Inquiries (Excluding Meter Tests), 1913–1955 194
Table 7.2: History of PSC Consumer Complaints and Inquiries (Excluding Meter Tests), 1974–2013 196
Table 7.3: History of PSC Gas and Electric Meter Tests Requested by Consumers, 1913–2013 197
Table 7.4: History of PSC Payphone Complaints, 1913–2013 198

Chapter 8: From Luxury to Necessity: The History of Electricity Regulation in the District 200
A. Background 200
B. Importance of Electricity to the District 202
C. Electricity Regulation Goals 202
D. How the PSC Met Those Goals 204
1. Ensuring Just and Reasonable Rates 204
a. The Early Years 204
b. Sliding-Scale Approach to Setting Rates 205
c. Rate Base Rate of Return Regulation 207
d. Economic and Social Ratemaking 212
2. Mitigating the Impact of Rate Increases 214
3. Promoting Energy Conservation, Energy Efficiency, and Protection of the Environment 214
4. Introducing Competition 219
Chart 8.1 Residential Electricity Customers in a Competitive Environment, 2001–2013 222
Chart 8.2 Commercial Electricity Customers in a Competitive Environment, 2001–2013 222
Chart 8.3 Number of Renewable Portfolio Standard Applications Received 224
5. Dynamic Pricing 226

6. Back to Rate Cases 227
a. Master Meter Apartment Rates 228
b. Trends in Residential Electricity Rates in the District, 1913–2013 229
Figure 8.2: PSC-Calculated Nominal Average Monthly Residential Electricity Rates per Kwh, 1913–2013 231
Figure 8.3: PSC-Calculated Real Average Monthly Residential Electricity Rates per Kwh, 1913–2013 232
Figure 8.4: Average Nominal Residential Electricity Rates per Kwh, (Two methods) 1930–2013 232
Figure 8.5: Average Real Residential Electricity Rates per Kwh, (Two methods) 1930–2013 232
7. Ensuring Safe, Reliable, and Quality Service 233
a. Electric System Reliability and Storm Restoration 236
b. Manhole Incidents and Aging Infrastructure 238
c. Back to Storm Restoration 240
d. Smart Grid Technology to Reduce Restoration Times 241
e. Undergrounding as a Long-Run Solution to Minimize Outages 241
f. Storm Restoration Benchmarks and Plan 244
g. The Derecho Game Changer 245
h. Blue Sky Outages and Electric Reliability Goals and Benchmarks 246
Tables 252
Table 8.1: DC Average Monthly PEPCO Residential Electricity Usage, 1913–2013 252
Table 8.2: PSC-Calculated Average Monthly PEPCO Residential Electricity Rates in DC, Nominal and Real, 1913–2013 253
Table 8.3: DC Average Monthly PEPCO Nominal Residential Electricity Rates, PSC and Traditional Calculations, 1930–2013 255
Table 8.4: DC Average Monthly PEPCO Real Residential Electricity Rates, PSC and Traditional Calculations, 1930–2013 256
Table 8.5: PSC's Tracking of PEPCO's Reliability Performance Standards and Record, 1998–2020 257
PEPCO Certificate of Incorporation 260

Chapter 9: From Gas Lights to Gas Heating and Appliances: The History of Gas Regulation in the District 261
A. Background 261
B. The Commission's Gas Rate-Making Record 262
1. Changes in Input Prices 262
2. Sliding-Scale Arrangements 264
3. Switch from Manufactured to Natural Gas 265
4. Rate Base Rate of Return Regulation 265
5. Natural Gas Shortages 268

C. Inflation, Low-Income Discount Program, and Energy Conservation 271
D. Introduction of Competition and the 21st Century 273
Figure 9.1 - Competitive Residential Natural Gas Rates, by Company, 1999–2015 (Cents Per Therm) 275
Chart 9.1 - Residential Natural Gas Customers in a Competitive Environment, 1999–2013 275
Chart 9.2 - Commercial Natural Gas Customers in a Competitive Environment, 1999–2013 275
Figure 9.2 - PSC-Calculated Average Monthly Nominal WGL Residential Gas Rates in DC, 1913–2013 278
Figure 9.3 - PSC-Calculated Average Monthly Real WGL Residential Gas Rates in DC, 1913–2013 278
E. Ensuring Safe, Reliable, and Quality Natural Gas Service 278
Figure 9.4 - PSC-Calculated and USDOE Nominal WGL Residential Gas Rates in DC, 1928–2013 279
Figure 9.5 - PSC-Calculated and USDOE Real WGL Residential Gas Rates in DC, 1928–2013 279
1. Natural Gas Pipeline Safety Program 283
2. The District's Miss Utility/One-Call Program 284
3. Cast Iron Replacement Program 285
4. Investigations of WGL's Gas Distribution System 285
5. Natural Gas Quality of Service Standards 287
6. WGL's Accelerated Pipeline Replacement Program 288
Tables 290
Table 9.1: DC Average Monthly WGL Residential Gas Usage and PSC-Calculated Nominal and Real Gas Rates, 1913–2013 290
Table 9.2: DC Average Monthly WGL Residential Gas Usage and PSC-Calculated and USDOE Nominal and Real Rates, 1928–2013 292

Chapter 10: From Telephones to Telecommunications:The History of Telephone Regulation in the District 295
A. Introduction 295
B. Rate Regulation 296
Table 10.1: DC Monthly Nominal and Real Residential Single Line Flat Rates in Selected Years, 1913 and 2013 296
1. Early Local Telephone Rate Regulation in DC 297
2. Maturing Rate Regulation 301
3. Rate-Making in a New Era 305
4. Modified Final Judgment (MFJ) 305
5. Rate-Making After Divestiture 308
6. Alternative Regulation 309
7. Price Cap Regulation 310

Figure 10.1 - DC Average Monthly Nominal Residential Flat Telephone Rates for Single Line Service, 1913–2013 313
Figure 10.2 - DC Average Monthly Real Residential Flat Telephone Rates for Single Line Service, 1913–2013 313
C. Introduction of Competition 314
1. Origins of Telecommunications Competition 314
2. Early Stages of Competition in the District of Columbia 315
3. Telecommunications Act of 1996 317
4. Local Service Competition in DC 318
5. Availability of Advanced Telecommunications Services in the District 319
6. Fostering Competition 319
7. Current Status of Competition 322
D. Protecting Consumers 322
1. Universal Service 322
2. Consumer Bill of Rights 326
3. Additional Consumer Protections 327
4. Quality of Service Standards 327
5. E911 Emergency Service 329
6. Participation in Policy-Making 330
7. Deployment of Verizon's FiOS Service in the District 332
8. Disconnect for Nonpayment of Long Distance Service Policy 333
E. Conclusion 333
F. A Forward Look 333
Table 334
Table 10.2: DC Monthly Nominal and Real Residential Flat Telephone Rates for Single Line Service, 1913–2013 334

Chapter 11: Econometric Analysis of the Residential Demand for Electric and Gas Service in the District of Columbia 336
A. Theoretical Concepts 336
B. Residential Electricity Demand in the District of Columbia 338
Table 11.1: Summary Results for Electricity Demand Regressions Before Correction for Serial Correlation, 1930–1969 and 1970–2013 340
Table 11.2: Summary Results for Electricity Demand Regressions After Correction for Serial Correlation, 1930–1969 and 1970–2013 340
Table 11.3: Summary of Short-Run Residential Electricity Price Elasticity of Demand Studies Presented to the PSC, 1989–1994 342

C. Residential Gas Demand in the District of Columbia 343

Table 11.4: Summary of Short-Run Residential Natural Gas Price Elasticity of Demand Studies Presented to the PSC, 1985–2007 343

Table 11.5: Correlation Coefficient Matrix 345

Table 11.6: Summary Results for Gas Demand Regressions Before Correction for Serial Correlation, 1930–2013 346

Table 11.7: Summary Results for Gas Demand Regressions After Correction for Serial Correlation, 1930–2013 346

Table 11.8: Variables in the Electricity Regressions, 1930–2013 347

Table 11.9 Variables in the Gas Regressions, 1930–2013 350

Table 11.10: Regression Results Using Real USDOE Gas Rates and No Electricity Rates, 1930-2013, 1970-2013, 1930-1949, and 1930-1969 353

Appendices 354

List of Acronyms in Alphabetical Order 355

Tables 360

Table 8.1: PEPCO's PUC/PSC-Approved Residential Rate Designs, 1899–2014 (Per Kwh) 361

Table 8.1a: PEPCO's PUC-Approved Residential Rate Designs (Schedule A), 1932–1938 (Per Kwh) 362

Table 8.1b: PEPCO's PUC-Approved Residential Rate Designs (Schedule A and Schedule R), 1939–1948 (Per Kwh) 363

Table 8.1c: PEPCO's PUC-Approved Residential Rate Designs (Schedule R), 1951–1955 (Per Kwh) 364

Table 8.1d: PEPCO's PUC/PSC-Approved Residential Rate Designs (Schedule R), 1959–1966 (Per Kwh) 364

Table 8.1e: PEPCO's PSC-Approved Residential Rate Designs (Schedule R), 1970 (Per Kwh) 365

Table 8.1f: PEPCO's PSC-Approved Residential Rate Designs (Schedule R), 1972–1973 (Per Kwh) 366

Table 8.1g: PEPCO's PSC-Approved Residential Rate Designs (Schedule R), 1975–1979 (Per Kwh) 367

Table 8.1h: PEPCO's PSC-Approved Residential Rate Designs (Schedule R), 1980–1981 (Per Kwh) 368

Table 8.1i: PEPCO's PSC-Approved Residential Rate Designs (Schedule R), 1982–2000 (Per Kwh) 369

Table 8.1j: PEPCO's PSC-Approved Residential Rate Designs for Standard Offer Service (SOS) Customer (Schedule R), 2001–2009 (Per Kwh) 370

Table 8.1k: PEPCO's PSC-Approved Residential Rate Designs for Standard Offer Service (SOS) Customers (Schedule R), 2010–2014 (Per Kwh) 371

Table 8.2: Calculation of PEPCO's Residential Rates, 1913–2013 373

Table 8.3: PEPCO's PSC-Approved Residential All Electric (AE) Rate Designs, 1975–2014 (Per Kwh) 386

Table 8.3a: PEPCO's PSC-Approved Residential All Electric (AE) Rate Designs, 1980–1981 (Per Kwh) 386

Table 8.3b: PEPCO's PSC-Approved Residential All Electric (AE) Rate Designs, 1982–2000 (Per Kwh) 387

Table 8.3c: PEPCO's PSC-Approved Residential All Electric (AE) Rate Designs for Standard Offer Service (SOS) Customers, 2001–2009 (Per Kwh) 388

Table 8.3d: PEPCO's PSC-Approved Residential All Electric Rate (AE) Designs for Standard Offer Service (SOS) Customers, 2010–2014 (Per Kwh) 390

Table 8.4: PEPCO's PSC-Approved Low-Income Residential Aid Rider/Aid Discount (RAR/RAD) Rate Designs for Standard Offer (SOS) Customers, 2001-2014 (Per Kwh) 392

Table 8.4a: PEPCO's PSC-Approved Residential Aid Rider/Aid Discount (RAR/RAD) Rate Designs for SOS Customers, 2001-2009 (Per Kwh) 394

Table 8.4b: PEPCO's PSC-Approved Residential Aid Rider/Aid Discount (RAR/RAD) Rate Designs for SOS Customers, 2010-2014 (Per Kwh) 396

Table 8.5: PEPCO's PSC-Approved Low-Income All Electric Residential Aid Rider/Aid Discount (RAR-AE/RAD-AE) Rate Designs, 1982–2014 (Per Kwh) 398

Table 8.5a: PEPCO's Residential Aid Rider/Aid Discount All Electric (RAR-AE/RAD-AE) Rate Designs, 1982–1988 (per Kwh) 400

Table 8.5b: PEPCO's Residential Aid Rider/Aid Discount All Electric (RAR-AE/RAD-AE) Rate Designs, 1989–2000 (per Kwh) 401

Table 8.5c: PEPCO's PSC-Approved Low-Income All Electric Residential Aid Rider/Aid Discount (RAR-AE/RAD-AE) Rate Designs for Standard Offer Service (SOS) Customers, 2001–2014 (Per Kwh) 402

Table 9.1: Competitive Average Annual Residential Natural Gas Rates, by Company, 1999–2015 (Cents Per Therm) 404

Table 9.2: WGL's PUC/PSC-Approved Rate Designs, 1913–2013 409

Table 9.2a: WGL's PUC-Approved Declining Block Rate Designs, 1920–1930 410

Table 9.2b: WGL's PUC-Approved Declining Block Non-Heating Rate Design, 1930–1935 411

Table 9.2c: WGL's PUC-Approved Fixed/Variable Space Heating Rate Design, 1930–1942 412

Table 9.2d: WGL's PUC-Approved Schedule A Fixed/Variable Declining Block Non-Heating Rate Designs, 1935–1939 412

Table 9.2e: WGL's PUC-Approved Declining Block Rate Designs, Schedule A, 1940–1946 413

Table 9.2f: WGL's PUC-Approved Schedule A Fixed/Variable Declining Block Rate Designs, 1947–1953 414

Table 9.2g: WGL's PUC/PSC-Approved Schedule A Fixed/Variable Declining Block Rate Designs, 1954–1976 415

Table 9.2h: WGL's PSC-Approved Residential Fixed/Variable Rate Designs, 1976–1983 416

Table 9.2i: WGL's PSC-Approved Residential Fixed/Variable Rate Designs, 1986–1994 417

Table 9.2j: WGL's PSC-Approved Residential Fixed/Variable Rate Designs, 1999–2013 418

Table 9.3: Calculation of WGL's DC Average Monthly Residential Gas Rates, without Adjustments,1913–2013 419

Table 9.4: Calculation of WGL's DC Average Monthly Residential Gas Rates, with Adjustments, 1913–2013 424

Table 10.1: PUC and PSC-Approved Local Telephone Rate Designs, 1913–2013 428

Table 10.2: Summary of Economy II Rates and Savings, 1986–2014 431

Table 11.1: Summary of Preliminary Results for Residential Electricity Demand Regressions 434

Table 11.2: Summary of Preliminary Results for Residential Gas Demand Regressions – Version 1 436

Table 11.3: Summary of Preliminary Results for Residential Gas Demand Regressions – Version 2 438

Table P1: Nominal Streetcar and Bus Fares, 1913–1985 (Cents) 441
Table P2: Nominal DC Taxicab Fares, 1913–1985 (Cents) 451
Table R1: DC Public Service Commission Rate Case Information, 1921-2021 All Utilities 455
Original 1913 Law Creating the Commission 469
Annual Report of the Commissioners of the District of Columbia, Year Ended June 30, 1913, Vol. II, Engineer Department Reports, page 8, Public Utilities Commission 487

2009 formal PEPCO rate case hearing presided over by Chairman Betty Ann Kane (middle) and Commissioners Richard Morgan and Lori Murphy Lee.

PREFACE

The Journey

This book commemorates the Public Service Commission of the District of Columbia's (PSC's) first centennial anniversary. It covers the period from 1913, when the Commission was created, through 2013, its 101st year. We hope that the record established in this book, including the accompanying tables, graphs, and ancillary materials, will provide a foundation for those in the Commission and the industry who will contribute to the history of its second century.

As a quasi-judicial body, the Commission is like a court. It renders its decisions through orders in formal, often adversarial, cases based on record evidence submitted by parties that include the utility companies on the one hand and their customer groups on the other hand, including consumers and their representatives plus other stakeholders. The relevant parties file written testimony, motions, and briefs and testify orally at public hearings. This book describes how the Commission's decisions have been influenced by and have directly impacted the public, and particularly residential consumers, over its first century. In so doing, we are illustrating how the Commission has "served the public interest" for all segments of the District of Columbia.

The idea for a commemorative book came from Commission Chairman Betty Ann Kane in 2012. An avid student of DC history, Chairman Kane began her 40-plus-year District government career as a member of the DC Board of Education, where she successfully advocated for the teaching of DC history in the public schools. The Commission's intention was to release the book at an event on or near March 4, 2013, the date of its centennial anniversary. To that end, we immediately started our research. By the beginning of 2013, we planned to host a centennial anniversary symposium on March 4, but as the date neared, we decided to defer completion of the book until after the symposium. This allowed us to capture in the book the presentations and comments at the symposium and also those from a subsequent presentation at the annual conference of the DC historical society later that year.

The symposium took place at Gallaudet University on March 15, 2013. Over 200 persons attended. In addition to all PSC employees, other attendees included DC mayor Vincent Gray; city administrator Allen Lew; several District government agency heads and DC Council members, including Kenyon McDuffie, chairman of the Commission's oversight committee at the Council; current and former commissioners and employees; all employees from the Office of the People's Counsel; representatives of the utility companies and other stakeholders; representatives of Advisory Neighborhood Commissions; citizens and civic associations; representatives of the National Association of Regulatory Utility Commissioners (NARUC); and current and former consultants and utility industry experts.

The Centennial Project

In conducting the research, we compiled much more information than could fit into one book. Thus, "the book" evolved into a "Centennial Project," in which two books on the history of the Commission were written. The first book, entitled, *The First 100 Years Protecting the Public Interest, 1913-2013*, covers the PSC's first century (March 4, 1913–March 4, 2013) when it regulated local transportation systems such as streetcars, buses, and taxis as well as electric, gas, and telephone services. It was printed, released, and distributed locally and nationally to the state regulatory public utility commissions in 2016. It was also placed on the Commission's Local Area Network (LAN) and the electric, gas, and telephone chapters were placed on the Commission's website.

We call it the "layman's version" because it was written primarily for the lay reader who does not have firsthand knowledge about the PSC or public utility regulation. It has been characterized as a coffee-table book, with lots of pictures and stories, and is an easy and entertaining read. While I was the subject matter expert with overall responsibility for the book, the principal writer and co-author was local historian, Mara Cherkasky, who placed the role of the Commission in the broader context of the District of Columbia. She provided a perspective of the Commission through the eyes of the media and general public based on articles about the PSC in DC newspapers as well as the Commission's annual reports.

This second book, *The First Century Serving the Public Interest, 1913-2013*, is meant to be a reference document. I am its principal author but, as is evident from the acknowledgements, many people have contributed to its contents. The book is based primarily on a search of the Commission's records, specifically its formal cases, orders, annual reports, and minutes of Commission meetings. Thus, it is written through the lens of the Commission, a relatively small DC government agency that has never had more than 100 employees and for much of its existence fewer than 30. Nevertheless, the Commission has had a broad impact on residents and businesses in the District as well as on the federal government in the nation's capital.

We refer to this second book as the "professional's" version. The audience for this book includes practitioners in DC who work in the utility regulatory industry, such as past, present, and future employees of the Commission; the utility companies; the Office of the People's Counsel; the District Department of the Environment; the DC Office of the Attorney General; the General Services Administration that represents the federal government in Commission proceedings; and the Apartment and Office Building Association, to name a few. Because many of the issues and functions described herein are not unique to DC, other state and federal public utility commissions and the companies they regulate may also be interested in parts of this book.

The book is designed so its value will increase over time, as what is familiar today is likely to be unfamiliar to future generations. By preserving the past, we are informing and educating those who will follow us. To that end, for the most part, the topics selected for inclusion pertain to the regulation of local electric, gas, and telephone services as of 2013 that were likely to continue even if not in their current form. Not included in this book is the Commission's regulation of streetcars and buses, taxicabs, and securities because, in 2013, those services were no longer regulated by the PSC.[1]

This book contains 11 chapters. Chapter 1 describes the 1913 creation of the Commission. Chapter 2 offers a brief presentation of the context: Washington, DC, between 1913 and 2013. Chapter 3 explains how the Commission's mission to serve the public interest has evolved. Chapter 4 summarizes the Commission's major achievements in serving the public interest—the decline in real electric, gas, and telephone prices over 101 years that has contributed to a dramatic rise in the standard of living for all segments of the District. Chapter 5 contains an overview of the Commission, including a profile of the 69 commissioners who have served, 28 of whom as chairpersons, and the evolution of its internal operations. Chapter 6 describes the leadership role of the Commission in the gender and racial integration of the Commission, the public utilities, and the regulatory community in the city. Chapter 7 focuses on the role of public input in framing the Commission's agenda and its impact on Commission decisions over its first century. Chapters 8, 9, and 10, respectively, highlight the public policy issues the Commission has addressed in its formal cases and other proceedings and its accomplishments and effectiveness in regulating the electric, gas, and local telecommunications industries in DC. Chapter 11 quantifies the relationship between the Commission's electric and gas ratemaking responsibilities and the use of those services by estimating the demand for electricity and gas in the District using standard econometric methods.

A significant achievement that was initiated in the early 1950s was the hiring and promotion of Black people and women in the Commission and in the utility companies at a time when Black citizens were becoming the majority of the city's population. At the 2014 annual conference of the DC historical society, I was a panelist on one of the sessions and I discussed my research on these hiring trends. After my presentation, an older White man in the audience asked me why it was important to hire Black people and women. Although I did not get to talk with the audience member after my presentation, I encountered him again at the 2015 annual conference, where he acknowledged that the idea that Black people and women were not qualified "did cross his mind." In the event that there are readers of this book who are unaware of the history of Black residents in the District or still question their qualifications during the early years, I have devoted several pages in Chapter 2 to this history to establish a foundation for the discussion of the Commission's equal-opportunity achievements in Chapter 6. Documentation is provided in the footnotes for this section and I am grateful for the reviews of Chapter 2 by DC historians Dr. Elizabeth Clark-Lewis, Dr. Jerome Paige, Dr. Maurice Jackson, Dr. Michael Winston, and Mara Cherkasky.

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1 Tables showing the rates for streetcars/buses and taxicabs over the 101-year period appear in the appendix to this book (see Appendix Tables P.1 and P.2).

The history of the Commission had never been written, so one of the purposes of both books is to "complete the record." Existing histories of DC and of the utility companies and their services have only a few references to the Commission, if any. The second volume of Constance McLaughlin Green's seminal book on the history of Washington between 1879 and 1950, for example, mentions the Public Utilities Commission (PUC) or commissioners in only five sentences on four different pages. Washington Gas Light's two-part history of the company references the Commission in one sentence.[2] There are scarce references to the Commission in the histories of PEPCO and C&P.[3] Even several histories of streetcars in the District do not appear to have used Commission records as sources and thus provide an incomplete portrayal of the Commission despite the fact that the "Transit Commission," as the Public Utilities Commission of the District of Columbia (PUC) often was called, set the rates and conditions of streetcar service for nearly 50 years.[4] I found no biography of President William Howard Taft that mentioned him signing the bill that created the Commission. One of his granddaughters was my dissertation advisor, and when I went to her funeral in 2013, none of the family to whom I mentioned this history was aware of it.

DC-Specific Data

As an economist, my first thought in preparing this book was to trace the history of residential electric, gas, and telephone rates back to 1913. I was delighted to find some residential data in the Commission's annual reports, but I soon realized the data represented the utility companies' entire service area which extended beyond the District of Columbia into parts of Maryland and Virginia. However, DC-specific data are important because there are periods during the Commission's history when trends in the District differ from trends in the companies' Maryland and Virginia service areas. For example, DC's population peaked in the mid-1940s at about 900,000 and fell by nearly 30 percent between 1955 and 2005. Over the same period, population and utility customer growth accelerated in the Maryland and Virginia suburbs that are served by the same utility companies. Thus, the companies' system-wide growth after World War II is not representative of DC.

It also became apparent that we needed to distinguish between electric and gas rate designs and rates. Over the period, the PSC, like most state PSCs, did not set electric and gas rates, as is commonly thought. Rather, it approved electric and gas rate designs while actual rates varied based on usage by individual residential, commercial, and government customers. Thus, to determine average residential gas and electric rates, we had to multiply the rate designs by average monthly residential electric and gas consumption or usage. We sought DC-specific average monthly usage data from PEPCO and WGL and they provided the data they could assemble, but there were gaps. We compiled data from multiple other sources, including rate cases, the Federal Power Commission (now called the Federal Energy Regulatory Commission),

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2 *Growing with Washington, The Story of Our First 100 Years* by Washington Gas Light Co., 1948, and *Growing with Washington Part II, The History of WGL 1948–2012.*

3 William Beck, *100 Years of Matchless Service* by the Potomac Electric Power Company, April 28, 1996, and Joseph H. Cromwell, *The C&P Story: Service in Action*, 1981.

4 See John DeFerrari, *Capital Streetcars* (History Press, 2015) and Wikipedia, "Streetcars in Washington, DC" at http://en.wikipedia.org/wiki/Streetcars_in_Washington,_DC

and electric and natural gas least cost plans. In this way, the rate-making sections of the electric and gas chapters show the average residential gas and electric rates we constructed after making several assumptions and adjustments. Importantly, we have set the stage for the collection of DC-specific usage, rates, and other data going forward.

Future Research Opportunities

The regulation of taxicabs from 1913 to 1986 and the regulation of the securities industry from 1964 to 1996 are two subjects to which I wish we could have devoted more time. The minutes of Commission meetings are a vital record that should be tapped for research on these topics, and I am hopeful the Commission will digitize these records so that the information is more readily accessible and practicable to employees and researchers.

Some topics are inadequately covered in this book because we lacked significant information. When we began our work, I thought the Commission's orders, which we had compiled back to 1913, would provide a complete picture of its activities and decisions. This proved not to be the case. We learned that for the first half century, the Commission spoke not only through formal cases (FC Nos.) and orders as it does today, but also in letters and other forms of communication filed in what were called PUC Nos. We were unable to obtain and review most of this record. The best source has been the minutes of Commission meetings, where PUC Nos. are cited but few details are given. We know from the minutes of meetings and the DC Office of Public Records that the Commission sent several hundred boxes of information to the National Archives and Records Administration (NARA) in 1965. We also know that the boxes are stored in two Maryland locations (College Park and Suitland), but there is no index of box contents.

Also absent are legal opinions prepared by the Commission's general counsels, who, prior to 1980, were also the DC corporation counsels. Except for the first few years after the Commission was created, those documents were not housed at the Commission, and it is unknown if they have been maintained by what is now called the DC Office of the Attorney General.

Acknowledgments

It is often said that the journey is as important, if not more important, than the destination. The process of researching and writing this book is itself an historic event, in that it is the largest and most collegial and collaborative project in the Commission's history. Many contributors should be acknowledged and thanked.

Starting at the beginning, I admire and appreciate our predecessors at the Commission who had the foresight to leave a detailed record of their activities, especially given the technology of the time. Some of the annual reports were hundreds of pages each, with data-driven tables and handmade charts and graphs. Minutes of Commission meetings—more than

11,000 pages—were a very useful source of information on the public policy issues of most concern to the District and thus to the commissioners.

This book would not have been possible had the Office of the Commission Secretary not compiled the Commission's annual reports, formal cases, and orders back to 1913. The seeds were first planted nearly ten years ago when Dorothy Wideman-Davis, the recently hired director of the Office of the Commission Secretary who previously served in the same position at the Michigan Public Service Commission, began to compile the Commission's annual reports back to 1913 and post them on the PSC's website. She succeeded in doing so for all reports back to 1941. She and her staff also began compiling a list of all of the Commission's formal cases and orders back to 1913. Before she retired from the Commission in 2011, she hired Marvin Briggs as records manager. He completed the task by locating the remaining annual reports at NARA in College Park, having them digitized, and making them accessible on the website. The subsequent director of the Office of the Commission Secretary, Brinda Westbrook-Sedgwick, and regulatory docket manager, Carmen Davis, completed the list of formal cases and the compilation of all of the orders and had them placed on the website by 2012. Carmen Davis also brought to my attention the 14 volumes of Commission minutes representing 1913 through the mid-1960s that were vital resources. Alphonzo Harris, Stacey Durham, and Khadysha Moore were extremely helpful in locating old Commission documents.

Issaya Whitesides, a college student who graduated from School Without Walls in DC, worked on the Centennial Project during the summers of 2012 and 2013 and during his January breaks by preparing tables and charts and compiling information from the Library of Congress and the National Archives.He also was our research assistant in the latter half of 2015. Another intern, Matthew Mercogliano, a math major, has since joined the Commission and has been instrumental in constructing the electric and gas price series and conducting the econometric analysis. We also engaged LandL Consulting, headed by Marie Johns, former president of Bell Atlantic-DC, to draft Chapter 7, The Role of Public Input. Veronica Ahern, PSC deputy general counsel, is the principal author of Chapter 10, which covers the role of telecommunications regulation. She drafted the chapter from notes prepared by Hank Ambrose of L&L Consulting. I wrote the remaining chapters.

Virtually all Commission employees since 2012 have contributed to this book and the Centennial Project. A complete list of these employees and a photograph of Commission employees before the centennial anniversary symposium in 2013 is at the end of this preface.

Chairman Kane and Commissioner Joanne Doddy Fort have been strong supporters, encouraging staff research and the dissemination of our findings. They both served as panel moderators at the centennial anniversary symposium. Mable Spears, executive assistant to former Commissioner Lori Murphy Lee's and Commissioner Fort's offices, and LaWanda Hale, executive assistant to many Commission chairpersons over the last 30 years, shared documents from their well-kept files. Commissioner Fort also reviewed and provided comments on the first draft of this book.

Attorneys in the Office of the General Counsel prepared a list of legal milestones by decade. Lara Walt, senior telecommunications attorney-advisor, reviewed and commented on the telecommunications chapter. Senior attorney-advisor Kim Lincoln-Stewart provided comments on the gas chapter and paralegal Merancia Noelsaint helped compile information on the Commission's appeals record.

The Office of Human Resources (OHR) through Natalie Taylor and OHR chief Benita Anderson compiled a list of Commission employees dating to 1913; OHR staff is maintaining the list going forward.

The Office of Technical and Regulatory Analysis (OTRA), which includes accountants, economists, engineers, and financial analysts, prepared numerous tables and charts depicting the history of rate cases; the history of electric, gas, and telephone rates; the history of the electric, gas, and telephone low-income discount rates; and more. Noteworthy contributions were made by Dr. Grace Hu, chief economist; Felix Otiji, chief of accounting and finance; Timour Skrynnikov, financial analyst; Dr. Roger Fujihara, senior economist; Don Jackson, compliance and enforcement officer; Dr. Edward Ongweso, economist; Udeozo Ogbue, chief engineer; Rodney Wilson, accountant; and Virgil Young, senior telecommunications engineer. Drs. Hu and Fujihara also reviewed and commented on the electricity and econometrics chapters, respectively.

Damon Patterson of the Office of Consumer Services compiled statistics on the number of consumer complaints and meter tests each year and prepared the GIS maps used in the chapter on the role of public input. He also compiled a list of community hearings for that chapter.

The Office of the Deputy Executive Director for Administrative Matters played a vital role. In addition to providing data and information on administrative matters, the IT manager, Paul Martinez, established a centennial section of the LAN, where much of the information in this book is maintained and preserved.

Lastly, I want to thank my executive assistant, Aminta Daves. It is not an overstatement to say that I could not have done this without her. She has been dedicated to this project over the past four years, having joined the Commission and my office in 2006. I appreciate her many contributions to the Office of the Executive Director and particularly to this book and the Centennial Project. An accomplished artist, she has worn many hats—as a researcher, graphic artist, IT manager, and organizer, to name a few. She also managed logistics for the centennial anniversary symposium. She has played a lead role in everything I have engaged in, including arranging meetings, trips, visits by foreign delegations, and parties for staff. We have formed a lifelong partnership and friendship, and every accomplishment or success I have achieved at the Commission since 2006 reflects her efforts as well as my own.

The centennial anniversary was truly a collaborative effort. Among my fondest memories is the way Commission staff worked together to prepare for the symposium, often without my asking for their help. Teams from each office staffed

the registration desk; Wendy Newkirk, executive assistant to Chairman Kane, used her artistic skills to create a large collage of Commission employees; Carmen Davis prepared the large posters of commissioners and chairpersons based on newspaper articles gathered by Issaya Whitesides. The result surpassed my dreams, and much of the information from the symposium, including the posters and videos, is available on the Commission's website.

Former Commission employees also played key roles. Former commissioner Rick Morgan's presentation on the history of the Commission's leadership in promoting energy conservation and efficiency and renewable energy at the symposium formed the basis for the abbreviated summary in the book. He also reviewed and commented on that section. Norman Reiser, director of accounting and finance for over 20 years, commented on the draft of the telecommunications chapter. Dr. Robert Loube, former director of the Office of Economics, who subsequently worked at the Federal Communications Commission and is a telecommunications faculty member at the Michigan State University Institute of Public Utilities each year, reviewed and provided comments on the entire book. The Commission's first general counsel, Lloyd Moore, shared multiple stories, as did the Commission's first executive director, Mel Doxie.

PEPCO, Verizon, and WGL made important contributions to this book. Beverly Perry, executive vice president of PEPCO's parent company, PEPCO Holdings, Inc., was the first person outside of the Commission to provide information, and many PEPCO employees compiled rate and energy usage data. Dr. Mark Browning, retired manager of load forecasting at PEPCO, and William Gausman, senior vice president for strategic planning at PEPCO Holdings, reviewed a draft of Chapter 8, the electricity regulation chapter. At Verizon, Larry Graham and Kathy Buckley provided telephone data for C&P and its successor organizations, Bell Atlantic and Verizon. Hank Ambrose at Verizon-DC located a history of C&P at a library at the University of Indiana that former Verizon-DC attorney and Maryland company president Sherry Bellamy knew existed. WGL president Adrian Chapman reviewed Chapter 9 on gas regulation. Kenny Mitchell, WGL senior specialist-regulatory affairs, and WGL vice president and former Commission deputy general counsel Roberta Willis Sims shared data, pictures, and copies of the two volumes of the history of WGL. We could not have prepared the gas price series without data, help, and input from WGL's James Wagner, director of rates and regulatory affairs, and Lucinda Gianiny, supervisor-pricing. Bernice McIntyre, regulatory program director for WGL Energy and former chairperson of the Massachusetts Public Service Commission, reviewed and commented on the first draft of Chapter 1 that is now divided into Chapters 1, 3, and 4. Dr. Elizabeth Clark-Lewis, history professor at Howard University, also provided useful comments on the original version of Chapter 1.

Comments from former Commission chairpersons and current and former presidents of the utility companies at the symposium helped frame this book. The former chairpersons are George Avery, Elizabeth Patterson, Patricia Worthy, Howard C. Davenport, Marlene Johnson, and Angel Cartagena. The utility company presidents are John Derrick and Joseph Rigby from PEPCO and Adrian Chapman from WGL. Vice president Karen Campbell represented Verizon at the symposium. Other stakeholders and citizens who contributed include Sandra Mattavous-Frye of the Office of the People's Counsel and her staff, who provided information and reviewed the first draft of Chapter 7 about public input.

Economist Dr. Jerome S. Paige, principal of Jerome S. Paige and Associates, reviewed and commented on several chapters. Frann Francis, the longest serving attorney appearing before the Commission, spoke on behalf of the Apartment and Office Building Association at the symposium. I am especially appreciative to Dr. Bernard Demczuk, assistant vice president for District Relations at George Washington University and a faculty member at School Without Walls, for educating me about the role of Black citizens in the city's history.

Dr. Phylicia Fauntleroy Bowman, March 15, 2013 centennial anniversary symposium during her presentation.

Chapter 11, the econometric estimation of the demand for electricity and gas in the District, would not have been possible without the assistance of Paul Raab, president of Paul H. Raab Economic Consulting. The Commission lacked the software to run some of the regressions to correct for serial correlation. Having previously served as an econometrician for WGL in multiple cases, Mr. Raab agreed to run the regressions for us. Dr. Subodh Mathur, who has been an econometrics consultant for both the Commission and the Office of the People's Counsel, reviewed and provided comments on drafts of the chapter.

Working on this book was my last official act before retiring in January 2015. Since it was not complete when I left the Commission, I continued to work on it while retired.[5] It has been an honor to serve first as director of the Office of Economics for six years and for more than 20 years as executive director, particularly at this significant time in the Commission's history. I am pleased that I was able to serve in a leadership role for the preparation and completion of this book. The enthusiastic response to calls for input and assistance from all within and outside of the Commission is the ultimate way to cap off my half-century-long work life, more than 30 years of which was spent at the Commission.

Gratefully,

Phylicia Fauntleroy Bowman, PhD
Executive Director Emerita
phybowman@icloud.com

April 2016

5 Chapter 7 (Role of Public Input), Chapter 10 (Regulation of Local Telecommunications), and the first half of Chapter 8 (Electricity Regulation) were written in 2014. The remaining chapters were written after I retired in 2015. There are a few places where information beyond 2013 is included in the book.

Postscript

This book has been prepared in four stages. Stage 1 covers the period 2012 through 2016 as described above. Stage 2 occurred in 2019 when, on my own initiative, I modified this book by splitting Chapter 1 into three separate chapters, a change that impacted the book's pagination, including its tables, figures, and charts. The plan was to replace the 2016 version on the LAN and the selected electric, gas, and telephone chapters on the website with the updated version, but that never occurred and no copy of the book was printed.

The next version of this book was prepared in stage 3 in 2023 and 2024. In late 2022, PSC Chairman Emile Thompson approved the preparation of the book for possible printing and publication by Monumental Communications (MonComm). The work began in 2023. Kellie Didigu, PSC's communications officer, supervised the project. I worked with MonComm's CEO, Ron Dixon, and his copyeditor, Diane Lazarus, as well as Kellie and her staff, Steven Schwark, Whitney Douglas, and PSC contractor, Elise An. PSC senior financial analyst Timour Skrynnikov joined the team and, among other things, revised all of the graphs.

Because several years had passed since most of this book had been researched and written and the PSC had moved its offices during the interim, I contacted Commission staff who previously had helped with the project to verify the accuracy of some of the information and to improve the photo images by locating the original photos and files in off-site storage. I am most appreciative of Brinda Westbrook, Carmen Davis, and Marvin Briggs, staff in the Office of the Commission Secretary; other technical staff Felix Otiji, Dr. Roger Fujihara, and Matthew Mercogliano; Office of General Counsel deputy Angela Lee; director of the Office of Consumer Services Maurice Smith; Mable Spears in Commissioner Richard Beverly's office; and Aminta Daves, special assistant to the Executive Director. Retired deputy executive director Jesse Clay also helped with the update. Finally, a special thank you to former Commission Executive Director Veronica "Ronnie" Ahern, who reviewed this report in its entirety.

The 4th and final stage occurred in 2025. The Commission engaged a new copy editor to finalize the book.

PSC Employees, 2013

FY 2013 Organizational Chart with Office Directors

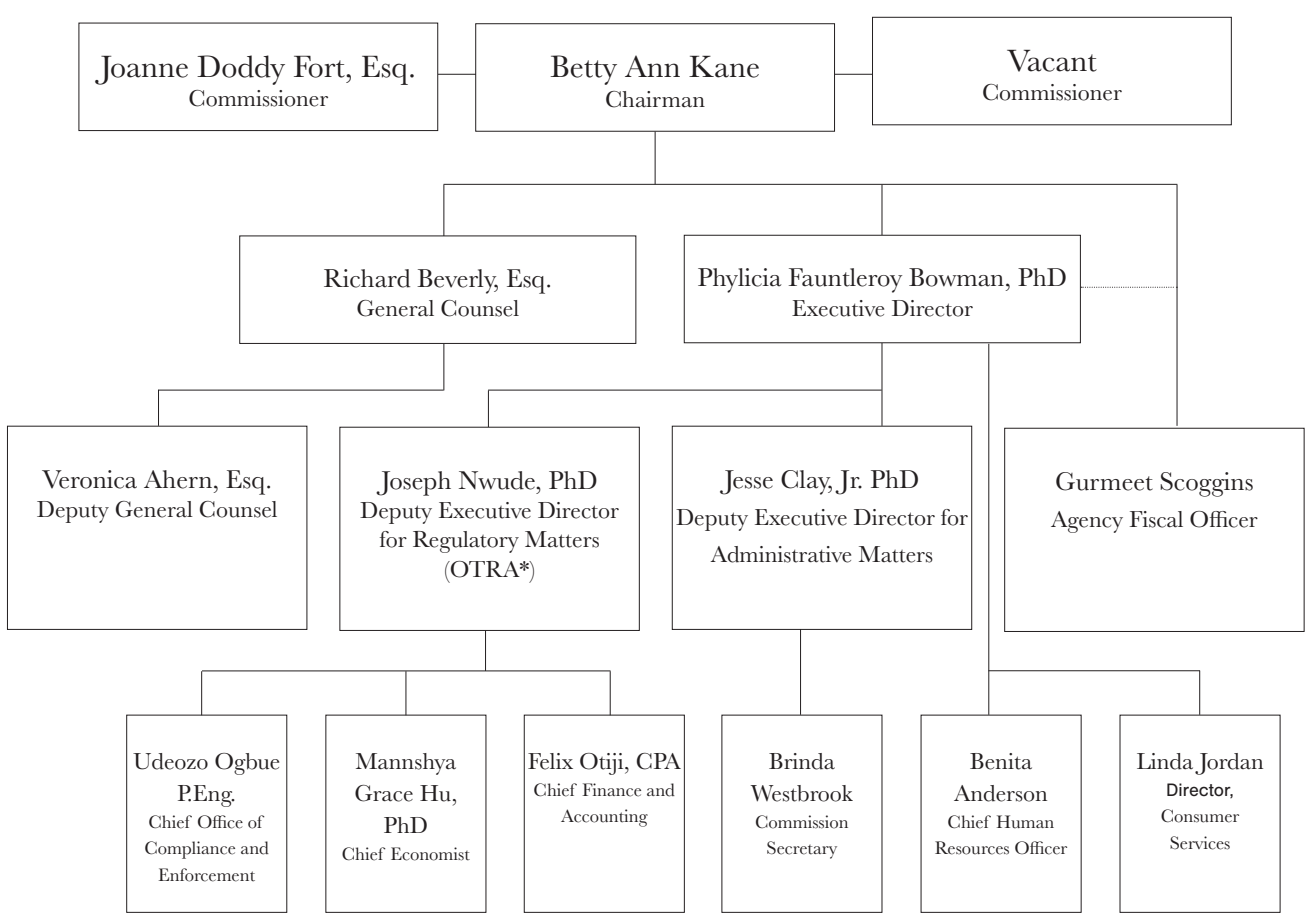

Table P.1: Commission Employees by Office, 2013

POSITION TITLE	NAME
OFFICE OF CHAIRMAN KANE	
1. Chairman	Betty Ann Kane
2. Policy Advisor	Daniel Cleverdon
3. Policy Advisor	Cary Hinton
4. Executive Assistant	Wendy Newkirk
OFFICE OF COMMISSIONER FORT	
5. Commissioner	Joanne Doddy Fort, Esq.
6. Policy Advisor	Brian Edmonds, Esq.
7. Policy Advisor	Angela Lee, Esq.
8. Executive Assistant	Mable Spears
OFFICE OF COMMISSIONER [VACANT]	
9. Commissioner	Vacant
10. Executive Assistant	LaWanda Hale
11. Policy Advisor	Vacant
OFFICE OF THE GENERAL COUNSEL (OGC)	
12. General Counsel	Richard Beverly, Esq.
13. Deputy General Counsel	Veronica Ahern, Esq.
14. Attorney Advisor	Noel Antonio, Esq.
15. Attorney Advisor	Craig Berry, Esq.
16. Attorney Advisor	James Brown, II; Esq.
17. Regulatory Affairs Specialist	Tiffany Frazier
18. Legal Assistant	Brandon Gillard
19. Attorney Advisor	Kenneth Glick, Esq.
20. Attorney Advisor	Richard Herskovitz, Esq.
21. Attorney Advisor	Kenneth Hughes, Esq.
22. Attorney Advisor	Kimberly Lincoln-Stewart, Esq.
23. Attorney Advisor	Christopher Lipscombe, Esq.
24. Paralegal Specialist	Arick Sears, Esq.
25. Attorney Advisor	Naza Shelley, Esq.
26. Paralegal Specialist	Randal Smith
27. Attorney Advisor	Sanford Speight, Esq.
28. Attorney Advisor	Lara Walt, Esq.
OFFICE OF THE EXECUTIVE DIRECTOR (ED)	
29. Executive Director	Dr. Phylicia Fauntleroy Bowman
30. Executive Assistant	Aminta Daves
OFFICE OF HUMAN RESOURCES (OHR)	
31. Chief Human Resources Officer	Benita Anderson
32. Human Resources Specialist	Sophia Pryce
33. Human Resources Assistant	Natalie Taylor
OFFICE OF TECHNICAL and REGULATORY ANALYSIS (OTRA)	
34. Deputy ED for Regulatory Matters	Dr. Joseph Nwude
35. Pipeline Safety Engineer	Ahmadou Bagayoko
36. Senior Accountant	Jason Benati
37. General Engineer (Gas)	Mayauda Bowens
38. General Engineer	Philip Browne
39. Electrical Engineer	Jorge Camacho
40. Economist	Brian Doherty
41. Program Support Specialist	Bernadette Francis
42. Senior Economist	Dr. Roger Fujihara
43. Economist	John Howley
44. Chief Economist	Dr. Grace Hu

Table P.1: Commission Employees by Office 2013 (continued)

POSITION TITLE	NAME
45. Compliance and Enforcement Officer	Donald Jackson
46. Natural Gas Pipeline Safety Engineer	Amrik Kaisth
47. One Call Inspector	James Modozie
48. Economist	Jonathan Morse
49. Chief Office of Compliance and Enforcement	Udeozo Ogbue, P.E.
50. Economist	Dr. Edward Ongweso
51. Chief, Finance and Accounting	Felix Otiji, CPA
52. Program Support Specialist	Anjanette Parker
53. Compliance Inspector	Damon Patterson
54. Pipeline Safety Engineer	Manmohan Singh
55. Financial Analyst	Timour Skrynnikov
56. Auditor	Rodney Wilson
57. Telecommunications Specialist	Virgil Young, Jr.
OFFICE OF THE DEPUTY EXECUTIVE DIRECTOR FOR ADMINISTRATION (ODEDAM)	
58. Deputy ED for Administrative Matters	Dr. Jesse Clay, Jr.
59. Contract Specialist	Ceasar Augustus
60. Chief Information Technology Officer	Paul Martinez
61. Administrative Support Specialist	Darnice Wright
OFFICE OF THE COMMISSION SECRETARY (OCMS)	
62. Commission Secretary	Brinda Westbrook-Sedgwick
63. Records Management Specialist	Marvin Briggs
64. Regulatory Docket Manager	Carmen Davis
65. Public Information Assistant	Hazel Doe
66. Staff Assistant	Stacey Durham
67. Regulatory Docket Specialist	Alphonzo Harris
68. Program Specialist	Patrice Jones Hunter
69. Regulatory Docket Specialist	Matthew Mercogliano
70. Regulatory Docket Specialist	Mavis Oudkerk
71. Regulatory Docket Specialist	Christopher Starks
OFFICE OF CONSUMER SERVICES (OCS)	
72. Director, Consumer Services	Linda Jordan
73. Director, Consumer Services (Acting)	Susan Nelson (Interim)
74. Staff Assistant	Aaron Aylor
75. Media Specialist	Kellie Didigu
76. Consumer Service Specialist	Kenneth Ford
77. Supervisory Consumer Services Specialist	Annette (Frances) Johnson
78. Consumer Service Specialist	Margaret Moskowitz
79. Consumer Service Specialist	Karen Nurse
80. Retail Choice Market Specialist	Maurice Smith
81. Supervisory Consumer Services Specialist	Patricia Walker
OFFICE OF THE AGENCY FISCAL OFFICER (OAFO)	
82. Agency Fiscal Officer	Gurmeet Scoggins
83. Budget Analyst	Fatai Popoola
84. Budget Analyst	Vanetta Wells

Presidents Taft and Wilson riding in the inaugural parade on March 4, 1913.
Library of Congress

CHAPTER 1

The 1913 Creation

March 4, 1913 was a pleasant day in Washington, DC, especially compared with four years earlier, when a snowstorm forced William Howard Taft's inauguration indoors.[6] The weather was overcast, but there was no precipitation and the temperature was a comfortable 55 degrees. The day's big event, dominating national news, was the inauguration of a new President, Dr. Thomas Woodrow Wilson, giving the city the "opportunity to show off."[7] The DC Commissioners' 1913 annual report to Congress noted:

> *It was the largest and most enthusiastic occasion of the kind. There were no serious assaults. The increased population of the District on the occasion aggregated over half a million of people, as reported through transportation sources, and but few trifling accidents were reported to the police or hospitals.*[8]

For citizens of the nation's capital, another momentous event occurred that day: One of President Taft's last official duties was to sign into law a District of Columbia Appropriations Act.[9] Section 8 of the act created the Public Utilities Commission of the District of Columbia (hereinafter referred to as the DC Public Utilities Commission or simply the PUC or Commission) for the purpose of regulating the local, privately owned companies that controlled the public utility services in the District like electric, gas, telephone, and transportation (such as streetcars and taxis). The signing of the bill made the local news.

Why did Taft involve himself with a DC appropriations bill? Before 1975, the year when Home Rule was formally instituted, Congress passed local laws that were signed by the President of the United States. Since the District government operated as part of the federal government, the President appointed senior District government officials, such as the DC Commissioners who ran the city day-to-day, and Congress confirmed them. Even after Home Rule, Congress and the President can override DC laws, and local events often intertwine with national politics.

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6 Charles Emmerson, 1913: *In Search of the World Before the Great War* (Public Affairs, 2013), 144.

7 Ibid., 145.

8 Annual Report of the Commissioners of the District of Columbia Year Ended June 30, 1913, Volume I Report of Commissioners Miscellaneous Report, 20.

9 Pub. L. No. 435 (62d Cong., 3d sess.).

President Taft signing the act creating the Commission.

APPROVED BY TAFT

District Appropriation Bill as Passed by Congress.

CHANGES IN EXCISE LAW

Public Utilities Commission Created. Anti-Merger Provision Retained.

The House put the finishing touches upon the District appropriation bill yesterday afternoon when it adopted the conference report on that measure. The report had already been approved by the Senate. As soon as the bill was in proper shape it was sent to the President for his signature, and is now a law.

The District bill conference report was adopted in the House yesterday without debate. When Mr. Burleson called up the report he asked that the statement of the conferees be read in place of the detailed report. Minority Leader Mann asked if the excise amendment and the public utilities commission amendment were included in the statement. Mr. Burleson said no. Mr. Mann said that he did not believe in passing measures in the House without having them read in full, but when Mr. Burleson explained that it would take three or four hours to have the whole report read, and that these items had been printed in the Congressional Record yesterday morning, Mr. Mann waived his objections.

Appropriation Totals $11,395,099.

The bill as finally passed carries $11,395,099. It also carries the excise measure, the anti-merger provision aimed at the street railways which have proposed a merger, and the clause creating a public utilities commission for the District. All of these provisions were put on as amendments to the appropriation bill when it reached the Senate. They had previously passed the Senate as separate measures, but they had never been reported out of the House District committee, though they had many friends among the membership of the House.

Public Utilities Provision.

Although the hardest fight came over the excise measure carried in the bill, it is conceded that the provision for a public utilities commission is by far the most important to the citizens of the District.

The conferees made practically no changes in the excise law from the compromise measure which was passed by the House Saturday night. The hour of closing saloons and other places where liquor is sold was made 1 o'clock in the morning instead of 12 o'clock midnight.

TAFT'S PEN TO CLAYTON

Marks Success of His Fight for Public Utilities Commission for District.

The fact that the District appropriation bill contains the provision for the public utilities commission will obtain for William McK. Clayton, president of the Federation of Citizens' Associations, who has been active in the fight for this commission for three years, the pen with which President Taft affixes his signature to the bill making it a law.

Soon after the federation was organized in May, 1911, it instructed its president to prepare and have introduced a bill providing a public utilities commission for the District. The importance of the bill has been kept constantly before the citizens' associations. President Taft has twice recommended it to Congress in messages, and the press of the city has supported it.

Importance of Measure.

The bill is declared to be the most important and satisfactory piece of legislation which has been obtained for the District within a decade. Under it complete control is given over the service and rates of telephone, gas and electric light companies and it places outside the controversial stage many conflicts of control of various degrees heretofore attempted to be exercised by various official bodies. It is characterized to place the District on a progressive par with New York, New Jersey, Wisconsin and Iowa.

TROOPS NOT BEYOND LINE OF THE XEXICAN BORDER

Battle of Sunday, in Which 2,000 Shots Were Exchanged—Precautions Taken.

DOUGLAS, Ariz., March 4.—Four dead Mexican soldiers, and unknown number

Evening Star — March 4, 1913, page 13

A. Other Notable Events in 1913

In addition to the transfer of presidential power on March 4, 1913, other significant national events occurred that same week. On March 1, Congress gave the Interstate Commerce Commission (ICC), the federal department that regulates railroads, authority to use physical valuation of the railroads as a basis for ratemaking. The railroads had opposed the use of physical valuation for over a decade, while the ICC refused to raise rates as the industry wanted. Finally, the railroads acquiesced. Also on March 1, in the Webb-Kenyon Act, Congress gave the states authority to control interstate liquor traffic within their jurisdictions. President Taft refused to sign that bill, but Congress overrode his veto. On March 3, when Congress passed the DC appropriations act, the top news story of the day was one of the nation's first integrated women's demonstrations, a women's suffrage march down the same "Avenue of the Presidents" where Wilson rode the next day to his inauguration.[10] Along with signing the DC appropriations act on March 4, President Taft also signed a bill that day to create separate federal departments of commerce and labor and elevate them to cabinet-level status.[11]

B. National and Local Anti-Monopoly Sentiment Brought Regulation

There was both national and local pressure to regulate the privately owned utility companies. Starting in 1870, many states had established commissions to regulate the railroad companies because of their growing concentration and abusive tactics as they misused land grants to hike prices. The rationale for regulation of public utilities across the nation stemmed from this, and, in 1913, the DC Public Utilities Commission (later named the Public Service Commission of the District of Columbia) joined 15 existing state public utilities commissions. Although the names varied among the states, the Virginia State Corporation Commission (VSCC), established in 1903, was the first state public utility commission. It was followed by New York and Oklahoma in 1907; Vermont in 1908; Maryland, New Jersey, and South Carolina in 1910; Connecticut, Kansas, New Hampshire, Nevada, Ohio, and Washington (state) in 1911; and New Mexico and Rhode Island in 1912. In 1913, Hawaii, Idaho, Illinois, Indiana, Massachusetts, Montana, and West Virginia joined the list with DC.[12]

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10 Delta Sigma Theta sorority, founded in Washington, DC, in the same year, integrated the historic March 3, 1913 women's suffrage march. See Paula Giddings, *When and Where I Enter: The Impact of Black Women in Race and Sex in America* (New York: Harper Collins, 2007), 95–134, and Corrine M. McConnaughy, *The Woman Suffrage Movement in America: A Reassessment* (New York: Cambridge University Press, 2015) 207–250.

11 There were additional milestone events throughout 1913. On February 25, 1913, the required number of states ratified the 16th amendment authorizing the imposition of a federal income tax. As a follow-up to ratification, on October 3, 1913, Congress passed the Revenue Act of 1913 that re-imposed the federal income tax. The Revenue Act, perhaps better known as the Tariff Act or Underwood Act, also lowered the tariff on a broad range of imports from 40 percent to 25 percent to stimulate competition that would lead to lower prices. Ratification of the 17th amendment replaced the election of Senators by state legislatures with election by popular vote. 1913 was also the first year of the current version of the Consumer Price Index. The first minimum wage law was enacted in Oregon; Henry Ford introduced the first moving assembly line; the first crossword puzzle was printed in New York; and the Federal Reserve was created. Englishman Henry Brearley produced the first stainless steel in an electric furnace on August 13, 1913. Two US Presidents were born that year—Richard Nixon and Gerald Ford—as were Jimmy Hoffa, Vince Lombardi, Jesse Owens, Rosa Parks, and Loretta Young. Both J.P. Morgan and Harriet Tubman died in 1913.

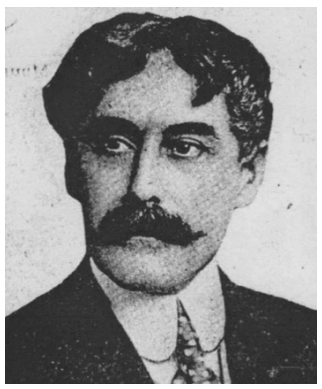
12 For a complete list, see *Historical Evolution of the Public Service Commissions* (Beecher, March 2015), Institute of Public Utilities, Michigan State University.

Women's suffrage march parading down Pennsylvania Avenue on March 3, 1913.

Although President Taft was a Republican and President Wilson was a Democrat, they shared the Progressive Movement's anti-monopoly view. They disagreed, however, on how to break up the monopolies. Taft, a Teddy Roosevelt and Robert LaFollette Progressive, supported the creation of state public utility commissions on the grounds that they would serve as a surrogate for competition to offset the monopolistic tendencies in the provision of public utility services because their high capital-investment costs were a barrier to entry. Accordingly, President Taft supported the creation of a public utility commission in DC and mentioned it in his 1910 and 1912 State of the Union speeches. In contrast, Wilson supported limited government and an increase in the use and enforcement of antitrust laws.

> *The Progressive social movement swept America in the early 1900s calling for public ownership of electric, gas, and water utilities. Utilities were considered natural monopolies, and if the government didn't own them outright, it wanted the right to regulate their rates and conditions of service.*[13]

13 William Beck, *100 Years of Matchless Service: Potomac Electric Power Company 1896-1996* (Washington, DC, 1996), 212–13.



William McK. Clayton, president of the Federation of Citizens' Associations

Taft's views were coupled with local interests that also contributed to the formation of the PUC. For one, area citizens opposed Congress's plan to construct a central power plant near the Potomac River to serve the Capitol and other federal buildings because of concern about adverse environmental impacts.[14] Local pressure also came from the DC Commissioners in their 1908 annual report to Congress. William McK. Clayton, president of the two-year-old Federation of Citizens' Associations (FCA), sought consumer protection from the privately owned companies that controlled the city's utility services. In appreciation of Clayton's efforts, President Taft gave him the pen Taft used to sign the appropriations act.

An anti-merger law that prohibited all public service corporations doing business in the District from owning, controlling, holding, or voting stock or bonds of any other public corporation doing business there was appended to the law that created the Commission. This expanded the Commission's role as specified in paragraph 54 of the act, which required any franchise for street railroads to be approved by the Commission and prohibited any street railroad corporation, gas corporation, electric corporation, or other public utility corporation from directly or indirectly acquiring stock or bonds of any other corporation engaged in similar business without approval by the Commission. The anti-merger law was a reaction to a recent merger attempt among the District's street railway and electric utility companies.

One of the first moves toward consolidation had occurred in 1912, when an attempt was made to merge a raft of local street railway and electric utilities companies, including WRECo[15] and several suburban streetcar lines and power companies, into what the Sunday Star called a "gigantic corporation," the Washington Utilities Company. The ambitious scheme alarmed local officials and Congressional overseers, who feared the effects such a monopoly would have on the cost and quality of service. It is no coincidence that Congress created the Public Utilities Commission that same year. Congress also prohibited further consolidation of public utilities, including street railways, in the District of Columbia.[16]

That these companies dominated the city's private sector in earnings and employment elicited concern. In 1913, the street railway, gas, electric, and telephone companies' assets totaled over $100 million and net income totaled nearly $5 million.[17] In the aggregate, their gross earnings totaled $10.4 million (see Table 1.1 and Figure 1.1), equivalent to over two-thirds of the District government's $15 million operating budget.[18] Their personal taxes totaled over $439,000, which accounted for 5.6 percent of DC revenue from taxes and miscellaneous sources (see Table 1.2 and Figures 1.2, 1.3, and 1.4).

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14 Ibid., 213.

15 WRECO is an acronym for the Washington Railway and Electric Company.

16 John DeFerrari, *Capital Streetcars: Early Mass Transit in Washington, DC* (History Press, 2015), 150.

17 1913 Public Utilities Commission annual report, 153–168.

18 About a third of the District budget came from a US payment to the District, which was made in lieu of permitting the District, the seat of the nation's capital, to tax the federal government. There were no federal income taxes at the time since the 16th Amendment that authorized the imposition of a federal income tax had just been ratified in February 1913.

Another key local issue was Washington Railway and Electric Company's (WRECO's) vertical ownership of streetcars and the Potomac Electric Power Company (PEPCO), the electric company that supplied the energy for the cars to run.[19] Streetcars were the principal means employees had to get to and from work. Streetcars were the primary way employees traveled to and from work, so fares, which reflected electricity costs and service conditions, were a major concern for residents and businesses. In 1908, Congress had relinquished its oversight of District streetcars to the ICC but it continued to set gas and electric rates.

PUC Chairman, Chester Harding

Not surprisingly, one of the first acts of the new public utilities commissioners—who were sworn in by Wilson and in fact were the same people previously appointed by Taft as DC Commissioners[20]—was to try to break up the relationship between WRECO and PEPCO. In addressing WRECO's increase in dividends on its common stock without providing for depreciation as prescribed by the public utilities law, PUC chairman Chester Harding personally conducted an investigation of the company's books and records. The Commission adopted the chairman's report and recommendations, which concluded that the relationship between the two companies was not in the public interest because: (1) the contractual price that WRECO was to pay PEPCO for electricity was being ignored, (2) WRECO was selling electricity to its subsidiary railway companies at different rates and based on different units of measurement, and (3) property was being transferred between the two companies at arbitrary values. The Commission did not stop there. It also submitted to Congress a draft bill that required the complete separation of the two companies.[21] Congress did not pass that bill, and despite further attempts, it took many more years before WRECO ceded control of PEPCO. The "death sentence"[22] to that relationship occurred as a result of the Public Utilities Holding Company Act of 1935, but its implementation was delayed by World War II so the law did not take effect until December 22, 1947.

19 WRECO was a subsidiary of the North American Company, a holding company that owned 80 operating companies providing electric service in 17 states and the District of Columbia.

20 President Wilson appointees Oliver Newman and Frederick Siddons began their dual service as DC Commissioners and PUC commissioners on July 19, 1913, shortly after the utilities commission was created.

21 1914 Public Utilities Commission annual report, 10–11.

22 According to PEPCO's history, *100 Years of Matchless Service*, p. 28, "Included in the legislation was the 'Death Sentence,' a provision which required utility holding companies to divest themselves of noncontiguous operating utilities."

Tables and Figures

Table 1.1: Gross Earnings of Utility Companies by Industry and DC Cash Receipts,1913–1941

Year	Gas Companies	Electric Companies	Telephone Companies	Street Railway Companies	Total Gross Earnings	DC Cash Receipts	Gross Earnings/ Cash Receipts
1913	$2,228,282	$1,686,822	$1,515,355	$4,988,336	$10,418,795	$15,099,390	69.00%
1914	$2,319,963	$1,825,468	$1,640,914	$5,104,109	$10,890,454	$14,992,322	72.64%
1915	$2,364,813	$1,896,895	$1,795,551	$5,039,269	$11,096,527	$15,684,914	70.75%
1916	$2,432,492	$2,034,331	$1,880,909	$5,023,605	$11,371,337	$16,201,401	70.19%
1917	$1,823,674	$2,203,135	$1,949,020	$5,192,374	$11,168,203	$17,837,918	62.61%
1918	$1,693,888	$2,200,999	$1,988,770	$5,431,919	$11,315,575	$22,404,025	50.51%
1919	$1,761,065	$2,238,729	$2,497,245	$7,111,099	$13,608,138	$19,694,612	69.10%
1920	$1,629,852	$2,521,551	$3,271,916	$9,498,850	$16,922,169	$20,467,301	82.68%
1921	$2,087,904	$2,900,419	$3,682,724	$11,424,312	$20,095,359	$22,505,087	89.29%
1922	$2,397,810	$3,300,206	$4,390,410	$11,572,035	$21,660,462	$23,104,799	93.75%
1923	$2,849,450	$3,725,395	$4,796,485	$10,543,007	$21,914,337	$24,729,789	88.62%
1924	$2,848,825	$3,854,295	$5,125,235	$10,312,818	$22,141,173	$24,468,158	90.49%
1925	$3,074,746	$4,494,831	$5,409,127	$9,895,582	$22,874,286	$28,718,386	79.65%
1926	$3,279,423	$8,133,060	$6,098,792	$10,952,706	$28,463,981	$31,564,805	90.18%
1927	$3,346,758	$6,282,362	$6,652,794	$11,103,199	$27,385,113	$34,327,630	79.78%
1928	$3,453,107	$6,859,802	$7,347,783	$10,990,139	$28,650,832	$36,997,649	77.44%
1929	$3,794,559	$7,483,796	$7,915,870	$10,936,147	$30,130,372	$38,065,545	79.15%
1930	$4,035,007	$8,067,293	$8,244,021	$10,985,572	$31,331,893	$39,333,467	79.66%
1931	$4,236,357	$8,478,904	$8,420,991	$10,757,161	$31,893,413	$40,077,589	79.58%
1932	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1933	$4,846,115	$9,059,005	$9,355,385	$8,791,744	$32,052,248	$42,778,928	74.93%
1934	$4,732,054	$9,090,955	$9,013,865	$3,020,276	$25,857,151	$45,207,106	57.20%
1935	$5,003,143	$10,084,119	$9,329,884	$7,262,293	$31,679,439	$56,039,152	56.53%
1936	$5,181,990	$10,863,428	$8,721,460	$7,707,869	$32,474,747	N/A	N/A
1937	$5,588,967	$11,664,095	$10,209,902	$7,522,883	$34,985,847	N/A	N/A
1938	$5,576,386	$12,321,855	$10,674,137	$7,483,330	$36,055,708	N/A	N/A
1939	$5,372,693	$12,443,209	$11,023,521	$7,415,059	$36,254,483	N/A	N/A
1940	$6,174,549	$12,778,675	$11,560,149	$6,174,549	$36,687,923	N/A	N/A
1941	$8,045,640	$13,390,255	$10,620,906	$8,328,471	$40,385,272	N/A	N/A

Data for 1932 are not available (NA).

Sources: DC Commissioners' annual reports to Congress, 1913-1941

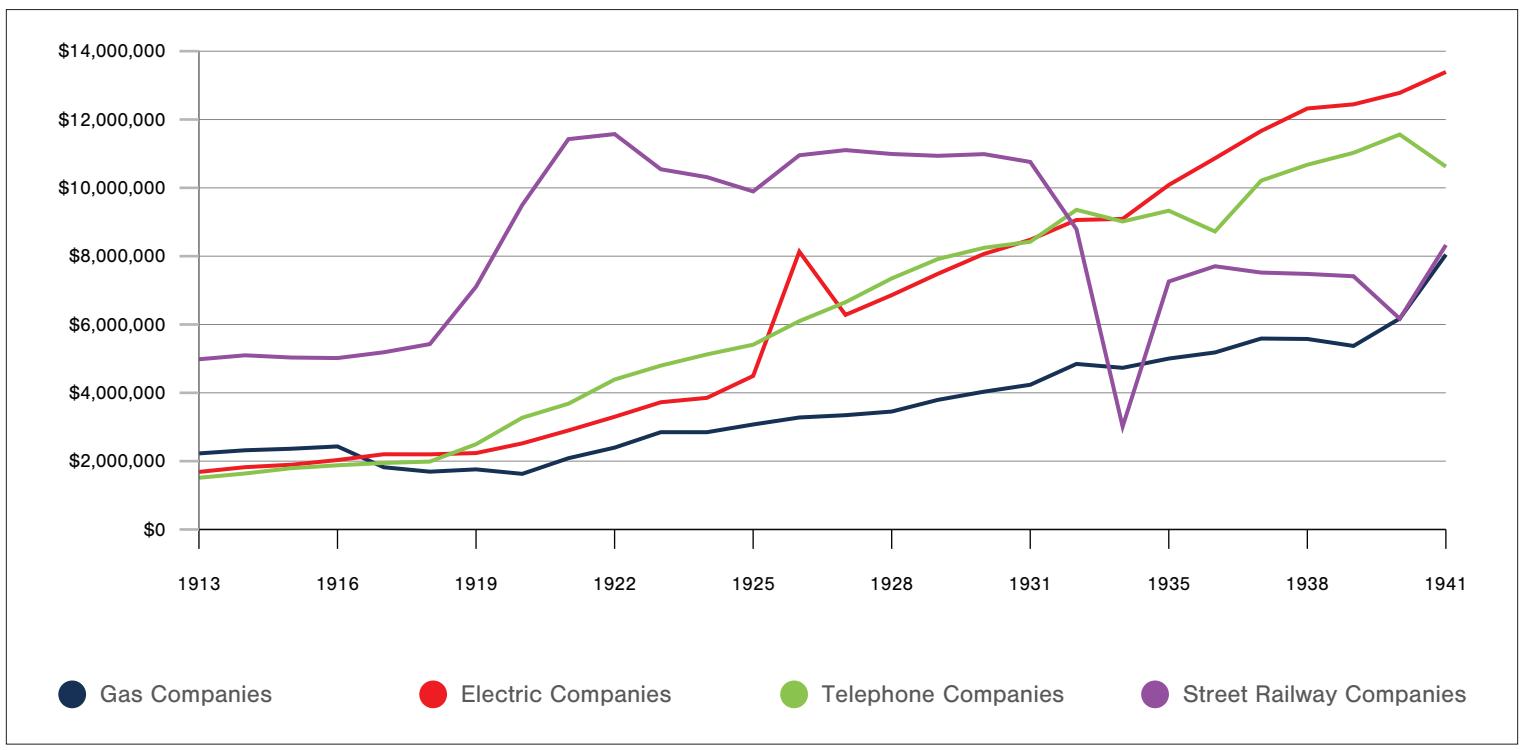
Table 1.2: Personal DC Taxes Paid by Utility Companies and DC Revenue, 1913–1941

Year	Gas Companies	Electric Companies	Telephone Companies	Street Railway Companies	Total Personal Taxes	DC Revenues (from Taxes and Miscellaneous)	Utility Companies' Share of DC Revenue	Total Utility Companies' Personal DC Taxes/ Utility Companies' Earnings
1913	$111,414	$67,473	$60,614	$199,533	$439,035	$7,797,174	5.63%	4.21%
1914	$115,998	$73,019	$65,637	$204,164	$458,818	$8,801,900	5.21%	4.21%
1915	$118,241	$75,876	$71,822	$201,571	$467,509	$8,351,050	5.60%	4.21%
1916	$121,625	$81,373	$75,236	$209,944	$488,178	$9,185,600	5.31%	4.29%
1917	$91,184	$88,125	$77,961	$207,695	$464,965	$9,397,350	4.95%	4.16%
1918	$84,694	$88,040	$79,551	$217,277	$469,562	$9,547,800	4.92%	4.15%
1919	$88,053	$89,549	$99,890	$284,444	$561,936	$10,129,450	5.55%	4.13%
1920	$81,493	$100,862	$130,877	$379,954	$693,185	$14,034,400	4.94%	4.10%
1921	$104,395	$116,017	$147,309	$456,972	$824,693	$15,085,315	5.47%	4.10%
1922	$119,801	$132,008	$175,616	$462,881	$890,307	$13,917,006	6.40%	4.11%
1923	$142,473	$149,016	$191,859	$421,720	$905,068	$15,819,703	5.72%	4.13%
1924	$142,441	$154,171	$205,009	$412,513	$914,134	$15,337,701	5.96%	4.13%
1925	$153,737	$179,793	$216,365	$395,823	$945,719	$18,483,005	5.12%	4.13%
1926	$163,971	$325,322	$243,952	$438,108	$1,171,353	$22,564,805	5.19%	4.12%
1927	$167,338	$251,294	$266,112	$444,128	$1,128,872	$25,327,630	4.46%	4.12%
1928	$172,655	$274,392	$293,911	$439,606	$1,180,565	$27,929,606	4.23%	4.12%
1929	$189,728	$299,352	$316,635	$437,446	$1,243,160	$28,930,142	4.30%	4.13%
1930	$201,750	$322,692	$329,761	$439,423	$1,293,626	$30,125,874	4.29%	4.13%
1931	$211,818	$339,156	$336,840	$430,286	$1,318,100	$30,416,540	4.33%	4.13%
1932	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1933	$242,306	$362,360	$374,215	$351,670	$1,330,551	$28,165,647	4.72%	4.15%
1934	$236,603	$363,638	$360,555	$120,811	$1,081,607	$27,581,662	3.92%	4.18%
1935	$250,157	$403,365	$373,195	$290,492	$1,317,209	$29,135,051	4.52%	4.16%
1936	$259,099	$434,637	$348,858	$306,315	$1,348,910	$29,786,141	4.53%	4.15%
1937	$279,448	$466,564	$408,396	$300,915	$1,455,324	$29,906,457	4.87%	4.16%
1938	$278,819	$492,874	$426,965	$299,333	$1,497,992	$35,462,159	4.22%	4.15%
1939	$293,634	$497,938	$440,930	$296,602	$1,529,105	$36,350,007	4.21%	4.22%
1940	$308,727	$511,147	$462,406	$153,994	$1,436,275	$35,882,822	4.00%	3.91%
1941	$321,826	$555,610	$424,836	$249,854	$1,552,126	$38,549,309	4.03%	3.84%

Data for 1932 are not available (N/A).

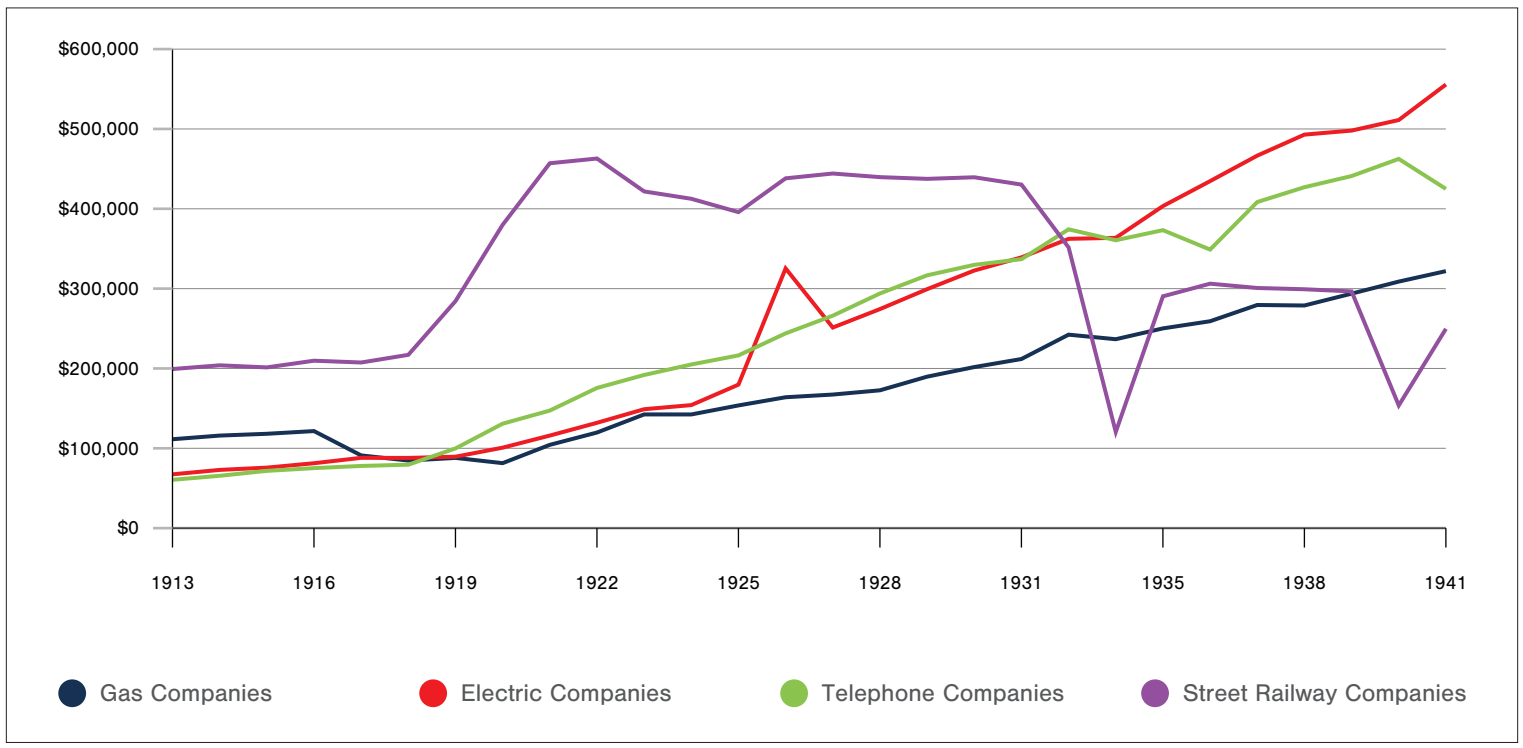
Sources: DC Commissioners' annual reports to Congress, 1913-1941

Figure 1.1: Gross Earnings of Utility Companies, 1913–1941



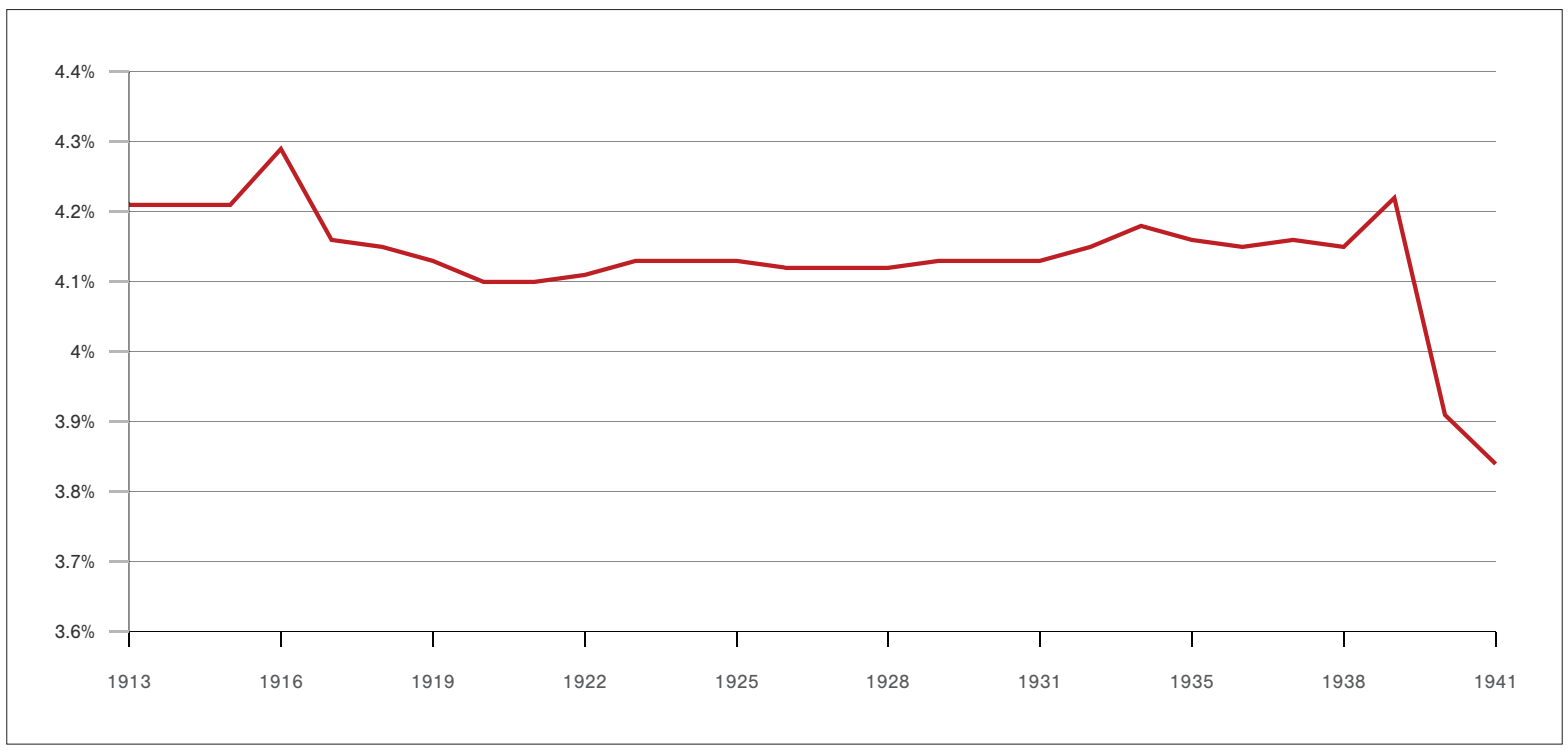
Data for 1932 are not available (NA).
Sources: DC Commissioners' annual reports to Congress, 1913–1941

Figure 1.2: Personal DC Taxes on Utility Companies' Earnings, 1913–1941



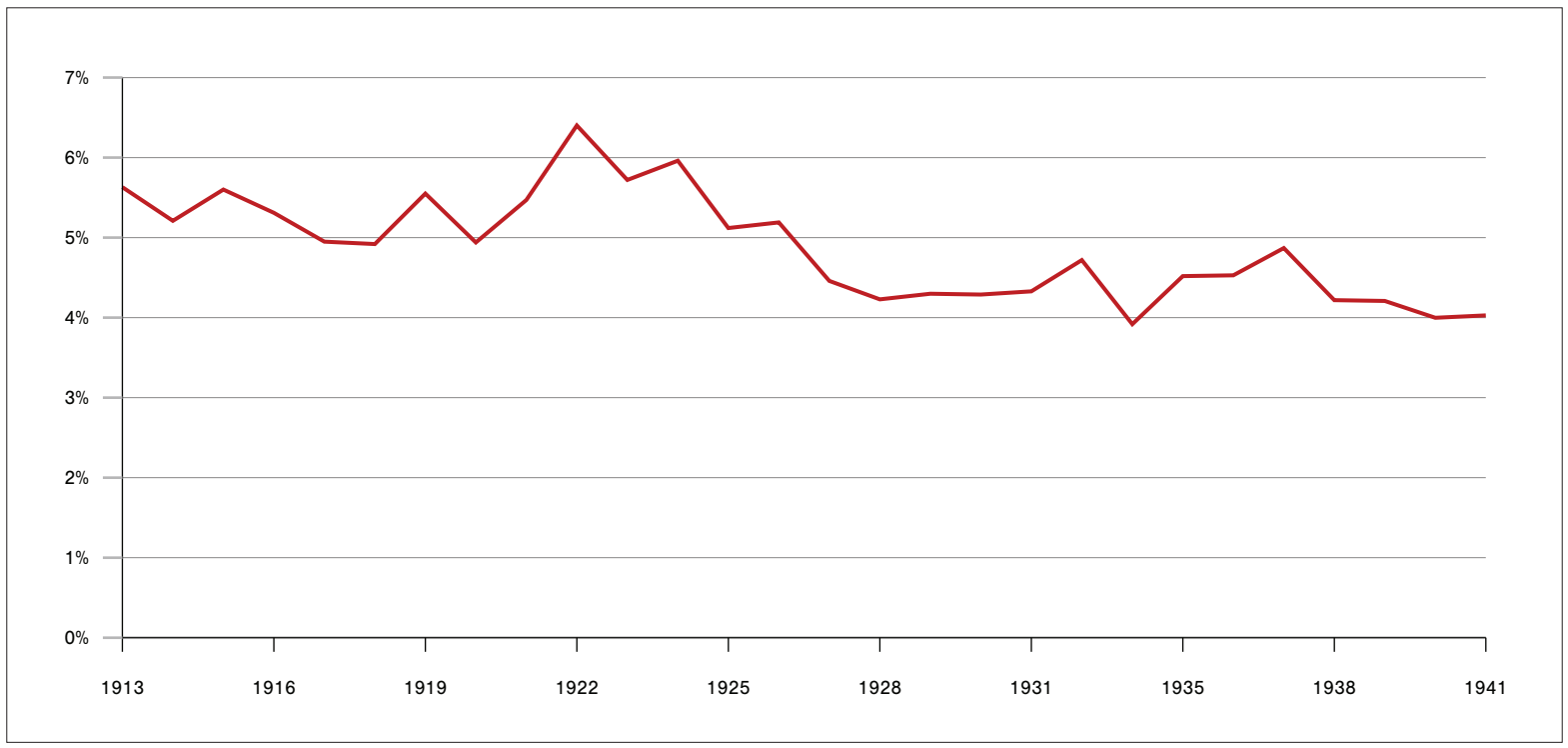
Data for 1932 are not available (NA).
Sources: DC Commissioners' annual reports to Congress, 1913–1941

Figure 1.3: Total Personal Taxes Share of Utility Companies' Earnings, 1913–1941



Data for 1932 are not available (NA).
Sources: DC Commissioners' annual reports to Congress, 1913–1941

Figure 1.4: Utility Companies' DC Taxes as a Share of DC Revenue, 1913–1941



Data for 1932 are not available (NA).
Sources: DC Commissioners' annual reports to Congress, 1913–1941

CHAPTER 2

The Context: A Brief Profile of Washington, DC, 1913–2013

A. Washington, DC in 1913

In 1913, Washington, DC was considered one of 20 great cities in the world.[23] In architecture and commercialism, it was likened to the European capitals of London, Paris, Berlin, Rome, and Vienna and the more contemporary US cities of New York, Los Angeles, and Detroit. The British ambassador at the time, James Bryce, provided a fitting description of the role of the city as the nation's capital:

> *… to be the embodiment of the majesty and stateliness of the whole nation; to be… a capital of capitals … representing all that is finest in American conception, all that is largest and most luminous in American thought, embodying the nation's ideal of what the capital of such a nation should be.*[24]

But Washington was not just the nation's capital. It was also home to 353,297 residents. By 1913, its population had quadrupled from 75,000 after the Civil War.[25] Bryce continued:

> *The big, sprawling girl, all legs and arms with awkward feet and hair uncombed, is now a finished woman of the world, proud of her beauty and conscious of her power. Washington, the mud-hole, is now only a memory – memory that no one cares to revive. The mud and slush have gone with the old customs and the old ideas. Broad and well-paved streets; stately tree-lined avenues; public buildings that have not sacrificed use to beauty but, in remembering use, have not forgotten art; hotels and restaurants of the first class, theaters and shops and many fine residences – make Washington one of the most attractive capitals in the world.*[26]

Although in 1913 the White population of 255,000 accounted for over 70 percent of the DC population, the city had a relatively large Black population.[27] Black people (referred to as "Coloreds" at the time) totaled 98,144, or 28.7 percent of the citizenry.[28] DC's Black population outnumbered that of all other American cities of comparable size and

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23 Charles Emmerson, *1913: In Search of the World Before the Great War* (Public Affairs, 2013).

24 Ibid., 145.

25 See Table 2.1 for the history of DC's population, 1916 through 2013.

26 Emmerson, *1913,*149, and Francine Cary, *Washington Odyssey: A Multicultural History of the Nation's Capital* (Washington, DC: Smithsonian Press, 2003), 3–46.

27 According to the Annual Report of the Commissioners of the District of Columbia Year Ended June 30, 1913, Volume III, p. 14, only five cities, all in the South and much smaller than DC, had larger shares of Black populations. They were: Memphis, Tennessee (40.1 percent); Birmingham, Alabama (39.4 percent); Richmond, Virginia (36.6 percent); Atlanta (33.6 percent); and Nashville, Tennessee (33.1 percent). See also Eric S. Yellin, *Racism in the Nation's Service* (University of North Carolina Press, 2013), 212, endnote 22.

28 See Table 2.2 for DC population by race 1910 through 2010 according to the US Census Bureau.

the number of Black residents surpassed most major cities as a proportion of total population. Moreover, Black residents lived in every quadrant of the city.[29]

Washington had always had a relatively large Black population.[30] Dating back to the 1600s, before it was carved out of Maryland and Virginia, the 10-mile square area was home to free and enslaved Black people. Free Black people owed their status to manumission and to "peculiar descent,"[31] which was often enabled by the side-by-side living and working conditions of White female indentured servants and Black enslaved men.[32] At the time of the District's founding on July 16, 1790, half of the enslaved people in the 13-state Union lived in Maryland and Virginia. When Washington was established as the official seat of the US government in 1800, 23 percent of its population was Black and 16 percent of the Black population was free because the District was a destination for newly freed people from Maryland and Virginia and escaped and newly freed people from the South.[33] By 1830, decades prior to President Lincoln signing the Compensated Emancipation Act, which freed the District's enslaved in 1862,[34] there were more free Black citizens than enslaved Black persons in the nation's capital.[35]

Many free Black citizens were formerly enslaved persons who had used their marketable skills to buy their own freedom in both the North and the South.[36] Contrary to the stereotypical picture of large plantations with illiterate and unskilled enslaved workers picking cotton, most Southerners did not own enslaved workers and most of the enslaved persons lived in small groups rather than on large plantations.[37] Specifically, one-quarter of White Southerners owned enslaved people and half of the owners had fewer than five. Thus, many of the enslaved persons carried out skilled duties for their masters and earned money from service to non-slaveholders, which may have enabled them to buy their freedom despite the fact that some had to turn over much of their money to their owners.[38]

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29 Patsy Mose Fletcher, *Historically African American Leisure Destinations Around Washington, DC* (Charleston, S.C.: The History Press), 11–13, and Yellin, *Racism in the Nation's Service,* 16.

30 Nationally, Negroes accounted for 10.7 percent of the population in 1913.

31 The term "peculiar descent" refers to Black people who were descended from White women.

32 Letitia Woods Brown, *Free Negroes in the District of Columbia 1790–1846* (New York: Oxford University Press, 1972), 24–40, 64–65, and Preface to the Atheneum Edition and Introduction, Luther Porter Jackson, *Free Negro Property Holding in Virginia, 1830-1860* (American Historical Association: 1942 and Atheneum New York: 1967).

33 Ibid., 9, and Kathleen Lesko, Carroll Gibbs, and Valerie Babb, *Black Georgetown Remembered: A History of its Black Community from the Founding of "The Town of George in 1751 to the Present Day"* (Washington, DC: Georgetown University Press), 2–43, and Constance McLaughlin Green, *The Secret City, A History of Race Relations in the Nation's Capital* (Princeton University Press, 1967), 63.

34 Ironically, in the 1860s, the secession of the slave states meant the removal of support for slavery in Congress and thereby provided an opening for congressmen from New England and other Northern jurisdictions, many of them abolitionists, to pass legislation abolishing slavery. President Lincoln then signed the bill into law.

35 Constance McLaughlin Green, *Washington, A History of the Capital, 1800–1950* (Princeton University Press, 1962), 21.

36 Green, *The Secret City, 16.*

37 Eugene D. Genovese, *The Political Economy of Slavery, Studies in the Economy and Society of the Slave South* (Random House: New York, 1967), www.pbs.org, People and Events: "Conditions of Antebellum Slavery, 1830–1960," and www.civilwarcauses.org, "Selected Statistics on Slavery in the United States."

38 Kate Masur, *An Example of All the Land: Emancipation and the Struggle over Equality in Washington, DC* (Chapel Hill: The University of North Carolina Press, 2012), 13–51, and www.civilwarcauses.org and eh.net, *Slavery in the United States.*

> *With the possible exception of New Orleans, no other American city in which the proportion of colored people was high offered them wider opportunities than they had in antebellum Washington and Georgetown.*[39]

By 1860, "[c]ompared to most colored people elsewhere in America, Negroes in the capital had prospered."[40] After the civil war ended, "[e]ducated Negroes attuned to city life, on the other hand, made out well. Some of them obtained government clerkships or teaching posts in the public schools; a few were doctors, lawyers, or ministers, others had businesses with two or three colored employees and some White customers, and, as in the antebellum period, a good many were hack drivers, barbers, or dressmakers."[41]

By 1913, Washington was, as it still is more than a century later, a white-collar government town.[42] Government was its major industry and much of the private sector existed to provide services and support to it. In 1900, for example, the federal government accounted directly for nearly one-fourth of all jobs in the District and Black people held 10 percent of those jobs at all levels.[43] By 1912, there were more than 1,800 Black citizens employed in Washington's federal offices.[44]

The federal government was also the largest single employer in the District and its jobs tended to be service-oriented and office-related. In fact, the city lacked a blue-collar industrial base. There were roughly 10,000 male and female clerks in the federal government, earning between $1,000 and $1,600 a year. They were the mainstay of the government and they supported new real estate and retail markets thanks to their well-paying jobs.[45] About 350 Black men and women held positions as clerks, meaning they were an important component of the middle class, as well as "a part of the city's elite backbone."[46] The term "clerk" included "copyists, stenographers, typewriters, transcribers, indexers, cataloguers, assistant librarians, attendants, translators, statisticians, section chiefs, abstractors, assistant chiefs of divisions, and a large number of miscellaneous duties of a clerical nature."[47]

Although in 1913 the District government operated as part of the federal government, its record in hiring Black employees was worse, even though they were qualified to perform many government functions. Patronage rather than civil service rules often dictated who filled a job. This meant Black representation was *de minimis,* although decades earlier, between 1868 and 1874, Black employees had held senior positions in the District's municipal government and they were respected as a linchpin in the larger national struggles for freedom. The DC territorial government's House of Delegates

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39 Green, *The Secret City,* 53.
40 Ibid., 54.
41 Ibid., 93–94.
42 Ibid., 83.
43 Yellin, *Racism in the Nation's Service,* 13, 16.
44 Ibid., 210, endnote 12.
45 Ibid., 13.
46 Ibid., 16.
47 Ibid., 13.

(ca. 1871–1874) had Black members, and Black members of Congress were elected from several southern states during the same period, although thereafter Black representation began to fall.[48]

> *In the District government, civil service rules did not apply at all. The wishes of members of the House or Senate District committees might determine who was hired or promoted, and, when congressional patronage did not interfere, the preferences of individual commissioners or their immediate subordinates were the deciding factor. The "Bee"[49] insisted that the engineer commissioners never approved of Negroes in any but menial jobs, and of the civilian commissioners only Henry West, a Roosevelt appointee, displayed no "colorphobia." In 1908, out of a clerical force of 450 in the District Building, only 9 were Negroes; among 731 policemen and 498 firemen 39 and 9 respectively were colored; 79 clerks and 55 mail carriers were colored out of 881 city post office employees; 460 colored school teachers selected chiefly by the assistant superintendent completed the list of the District's Negro employees in white-collar jobs. The pay scale put the yearly income of all but a very few at less than $1,000. Four years later, a city containing 94,000 colored inhabitants and 20,000 colored taxpayers had about 900 Negroes on the payroll, nearly half of them rated as unskilled laborers at wages of $500 or less a year.*[50]

In 1913, racial segregation in housing, schools, restaurants, stores, parks, theaters, and recreation centers, including swimming pools, was the norm. The one major exception was the streetcar system, which had been desegregated in 1865 after protests by prominent Black DC citizens Dr. Alexander T. Augusta, a former Union Army surgeon, and abolitionist Sojourner Truth. Republican senators Charles Sumner of Massachusetts and Thaddeus Stevens of Pennsylvania took up the fight in Congress and got the antidiscrimination bill passed.[51]

Despite the victory of streetcar desegregation, it was because of the city's overall practice of segregation that Washington was described as "a Southern City at heart." This nickname became even more fitting almost immediately after the newly inaugurated President Woodrow Wilson—born and raised in the South—and his administration implemented what has been called "the purge" of Black people from the federal government.

> *Washington is essentially a Southern City; the great majority of White people here hold the Southern view of the negro, and as for the Northerners here, it takes but a little while for them to become infinitely more anti-negro than any Southerner.*[52]

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48 David Taft Terry, "*A Brief Moment in the Sun: The Aftermath of Emancipation in Washington, DC*" in Elizabeth Clark-Lewis, *First Freed: Washington, DC in the Emancipation Era* (Washington, DC: Howard University Press, 2002), 71–97. See also Green, *The Secret City*, 91–113.

49 *The Bee,* founded in 1882, was a DC-based weekly newspaper whose editor, William Calvin Chase, was Black. The newspaper was read primarily by the city's Black community.

50 Green, *The Secret City*, 159–160.

51 John DeFerrari, *Capital Streetcars: Early Mass Transit in Washington, DC* (History Press, 2015), 53–60.

52 Emmerson, *1913*, 150.

Despite support from Black leaders who helped Wilson win the 1912 election,[53] his arrival in Washington in 1913 only worsened the picture for the majority of Black residents, many of whom depended on the government for employment. One of Wilson's first orders of business was to introduce segregation within the government and thereby reverse "a half-century of integration."[54] Black employees were demoted, moved, and often fired, without regard to merit or cause. Separate cafeterias, restrooms, and drinking fountains were created.[55] The impact was devastating in the Black community from the top down because the few Black employees who held senior positions in government were instrumental in getting jobs for other Black people in the lower echelons. Thus, their lost jobs caused a chain reaction down the career ladder for many other Black people.[56]

> *Wilson's high-mindedness, his passion for the "New Freedom" and his willingness to take on vested interests – so evident in his championing of tariff reduction – did not apply within the corridors and office buildings of Washington. He prevaricated, he ignored, and he pointed to the prejudices of his Democratic colleagues in the Senate. Here, in its capital city, an older America reasserted itself.*[57]

For all the progress made by most Black residents in DC, a sizable minority (at least 16 percent) of the Black population was poor and many of them lived in alleys not far from the Capitol.

> *While a number of the black population of Washington were clerks in the federal government, with some hope of advancement as a result, a significant minority of the City's black population was desperately poor. About one in five, at least 16,000, lived in the unsanitary back alleys of the city, often within sight of the gleaming white dome of the Capitol. These were the "neglected neighbors"… who "have no connection whatever with those of the streets and avenues, the larger tree-lined thoroughfares down which Washington's wealthier, mostly White denizens – and foreign visitors – could cast their imperial gaze.*[58]

Specifically, in 1913, there were 10,029 "Colored" (10.2 percent of the Black population) and 994 White (0.4 percent of the White population) alley dwellers in the city.[59] There also were 4,777 Whites who received free admission to District hospitals compared with 7,623 free admissions of "Coloreds."[60] The DC Commissioners' 1913 annual report to Congress describes how government services provided for both segments of the population, albeit often through separate facilities.

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53 Black leaders such as W.E.B. DuBois were dissatisfied by Republicans' record on civil rights. They believed President Wilson would be supportive of Black citizens' rights after Wilson welcomed and met with them during the campaign; they broke away from their traditional allegiance to the Republican Party by helping Wilson win the 1912 election.

54 Green, *Washington,* 158.

55 Ibid., 101–129, 207–233.

56 For more details, see Yellin, *Racism in the Nation's Service.*

57 Green, *Washington,* 160.

58 Emmerson, *1913,* 151.

59 Annual Report of the Commissioners of the District of Columbia Year Ended June 30, 1913, Volume I Report of Commissioners Miscellaneous Report, 817.

60 Ibid., 245.

The differential representation of Black and White citizens among the poor can be explained by the differences in their migratory patterns and the impact of racial discrimination and segregation. Between 1860 and 1870, as the Civil War ended, an influx of emancipated Black people from the South, many illiterate, flocked to the city and tripled its Black population. Meanwhile, poor Whites, many of whom were recent immigrants to the country, did not consider DC a destination due to the lack of industrial and blue-collar opportunities.

These factors, coupled with racism, ensured that Black residents would account for a disproportionately large share of the poor.[61] Despite enforced racial segregation and discrimination, however, the majority of Black residents were an integral part of the middle and upper classes, although their incomes likely were lower than the majority of White residents because of constraints on their employment opportunities. At the upper end of the spectrum were Black college graduates from Howard, Harvard, Dartmouth, Princeton, Columbia, and Oberlin. In between was a middle class of Black people, some of whom held federal government jobs as clerks and above, while most were messengers or common laborers.[62] Still, many of these residents were able to buy homes and lead successful lives.[63]

> *… scrupulous fairness in grading examinations enabled more Negroes than ever before to enter government service. In 1891, out of 23,144 federal employees in Washington, nearly 2,400 were colored; they held 337 of the 6,120 jobs in the Interior Department, and 127 ranked as copyists, transcribers and clerks.*[64]

> *Besides more than four hundred colored teachers, Washington in 1900 had fifty qualified physicians, ten professionally trained dentists, over ninety ministers and some thirty lawyers.*[65]

Despite numerous barriers institutionalized by law, starting well before the Civil War, "first freed"[66] Black men and women constructed churches, established schools, and operated businesses while fighting slavery, racial segregation, and discrimination. Washington became home to many of the Black intelligentsia, including the "talented-tenth."[67] What is most notable is that a sizable "secret city"[68] developed, composed of literate and educated middle- and upper-middle-

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61 Green, *The Secret City,* 120.

62 Ibid., 159. Data are for 1908.

63 See Marietta Stevens Crichlow and Linda Crichlow White, *Back There, Then* (Blackwell Press, 2014).

64 Green, *The Secret City*, 129.

65 Ibid., 131.

66 The 2002 book *First Freed,* by Dr. Elizabeth Lewis-Clark, coined the term to refer to Black enslaved people in the city who were freed by President Lincoln on April 16, 1862, months before the Emancipation Proclamation. However, the majority of Black citizens in the District were already free; the term is used here to represent free Black citizens dating to the founding of Washington in 1790.

67 Harvard-educated W.E.B. DuBois used the term in 1906 to describe how one in ten Black men would become leaders of the Negro race through a classical education, writing books, and being directly involved in social change.

68 Green, *The Secret City*.

class Black residents, many of whom graduated from the Preparatory High School for Colored Youth[69], founded in 1870, and renamed the M Street School in 1892[70] and Paul Laurence Dunbar High School in 1916;[71],[72] the vocational and academic-oriented Armstrong High School, founded in 1902; Miner Teachers College, first created in 1851 as a teacher training school for Black girls;[73] and Howard University, founded in 1867. The presence of these schools was a magnet for Black college graduate faculty who had limited professional job opportunities elsewhere at the time. They attracted Black students from around the country and particularly those from the South. Together they produced graduates who were able to find federal and public school employment, albeit not always commensurate with their education because of racial discrimination.[74] Howard University's medical and law schools also produced a professional class of Black doctors and lawyers, who often remained in DC after graduation. Since Whites could obtain jobs, including in the federal and DC governments, by using patronage and without a college degree, they often were less educated than their Black counterparts.[75]

Much of the Black majority's "success" can be attributed to the high priority they placed on education, going back to slavery, when Black people overcame barriers to learning to read and write.[76] If they did not become literate during enslavement, once freed, literacy became a priority, often provided by churches established by free Black people. An 1867 District census showed "a larger percentage of Colored children than of White were attending public schools."[77] That was still the case in 1913. The 1913 report of the DC Commissioners to Congress indicated that the percentage of Black students enrolled in public schools was higher (19 percent) than for White students (15 percent).[78] Although the gap narrowed over time, Black students enrolled in both public and private schools remained a higher percentage of the Black population (19 percent) than for White people (16.7 percent).[79] There were 559 Black teachers in the public

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69 The Preparatory High School for Colored Youth originated in the basement of the Fifteenth Street Presbyterian Church. It was the first public high school for Negroes in the United States and the first public high school in DC, meaning it preceded establishment of a public high school for Whites in the city.

70 In 1899, test scores of M Street students exceeded the scores of students at the two White DC high schools.

71 The name of the M Street School changed to Dunbar High School in 1916.

72 "Lower standards obtained in the colored grade schools than in the White, but in examinations given to all high school students in 1899 the colored high school scored higher than either the White Eastern or the Western high schools." Green, *The Secret City,* 137.

73 The original names of the school were Miner's School, named after its founder, Myrtilla Miner, who was White, and the Normal School for Colored Girls. It closed during the Civil War and reopened in 1865 as the Institution for the Education of Colored Youth. In 1879, as Miner Normal School, it became part of the DC public school system. In 1929, the school was renamed Miner Teachers College.

74 Joan Quigley, *Just Another Southern Town: Mary Church Terrell and the Struggle for Racial Justice in the Nation's Capital* (New York: Oxford University Press, 2016), 20–44. See also Green, *The Secret City.*

75 Represented by Howard University Law School professors James Nabrit Jr. and George E.C. Hayes, the plaintiffs in the US Supreme Court case *Bolling v. Sharpe,* which desegregated DC public schools, did not argue that Black schools were inferior and therefore unconstitutional. Rather, they argued successfully that segregation itself was unconstitutional. George E.C. Hayes subsequently became the first Black commissioner and chairman of the DC Public Service Commission.

76 Green, *The Secret City,* 17, 23–24. Outside of the New England states, literacy rates for Whites were relatively low and even lower for White women than White men.

77 Ibid., 87.

78 Annual Report of the Commissioners of the District of Columbia Year Ended June 30, 1913, Volume I Report of Commissioners Miscellaneous Report, calculated from data on pages 7 and 16.

79 Ibid., 7, 16, and 817.

The busy intersection of 11th and F streets, NW, ca. 1913.
Library of Congress

schools compared to 1,172 White teachers, and the student-teacher ratio was virtually the same in the Black and White schools—33 to 1. The percentage of Black students enrolled in night school (1.9 percent) was also higher than for White students (1.0 percent).[80,81]

While DC-specific data are lacking, in 1913, the average US household income was about $800 per year. Average household income in the District is likely to have been somewhat higher, perhaps closer to $1,000, given the pay scale for its largest employer, the federal government. A loaf of bread cost 5 cents, a gallon of milk cost 33 cents, a dozen eggs cost 37 cents, a pound of butter cost 41 cents, and a pound of sugar cost nearly 6 cents. A car cost just over $500. A row house, the predominant type of single-family housing in DC, cost about $1,500, an affordable amount even for a Black person on a messenger's salary.[82]

Also according to the DC Commissioners' 1913 report, most electric and gas use was for street lighting. There were 16,673 streetlamps in the city, of which 10,500 were gas lamps and about 6,100 were electric lamps. More modern incandescent-lit electric lamps outnumbered "arc" electrified lamps 5 to 1.[83] "The total number of poles connected with steam and street railroads, telephone, telegraph, electric-light and District of Columbia telegraph and telephone service was 15,711 line poles and 791 guide poles, a total of 16,502."[84]

As the photograph opposite shows, streetcars, taxis, automobiles, and pedestrians shared the streets of the District in 1913. Horse-drawn vehicles were still in use, while the number of automobiles was growing.[85] Although autos were still a luxury, 2,944 motor-vehicle permits were issued that year, yielding $3,936 in license-tag fees.[86]

B. Major Demographic Changes Between 1913 and 2013

The history of the District between 1913 and 2013 is unlike that of its neighboring jurisdictions also served by PEPCO, Washington Gas Light (WGL), and the telephone company now known as Verizon. The World Wars propelled population growth. Many who came to work for the government during the wars stayed as the federal bureaucracy grew, creating permanent jobs. As a result of World War II and President Franklin D Roosevelt's New Deal programs, population growth

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80 Ibid., 17.

81 For a more complete picture of DC in this era, see Tom Lewis, *Washington: A History of Our National City* (New York: Basic Books, 2016), 209–270.

82 Marietta Stevens Crichlow and Linda Crichlow White's *Back There, Then,* a historical genealogical memoir, includes the story of John J. Stevens, a messenger in the Photoduplication Service at the Library of Congress, who, with his wife Florence, bought a single-family row house located at 2024 Fourth Street, Northwest, in the LeDroit Park area of the city for $1,500 in 1912. The deed was transferred to the Stevenses in June 1913.

83 Annual Report of the Commissioners of the District of Columbia Year Ended June 30, 1913, Volume I Report of Commissioners Miscellaneous Report, p. 50. Also see a description of the "arc" and incandescent electric lighting technology at the beginning of Chapter 5.

84 Ibid.

85 Ibid., 827.

86 Ibid., 141.

in the city peaked in the mid-1940s at about 900,000. After the war ended, suburbanization by Whites into Maryland and Virginia began, thanks to GI mortgages, new highways, and accessible public transportation, which enabled suburbanites to get to and from work in the District. Racial discrimination prohibited Black residents from migrating to the suburbs like their White counterparts, so Black residents' share of the District's population, which had declined since the 1880s, began to rise.[87]

Population decline in the District and growth in the suburbs accelerated in the mid-1950s after the desegregation of DC public schools in 1954 contributed to "White Flight." By 1957, the city was majority Black. During the 1980s and 1990s, after passage of the 1968 Fair Housing Act, middle-class Black people moved to the suburbs for lower housing costs, better schools, and less crime. This decline in population continued until the 2000s. By 2005, the population dropped to 567,000. By 2013, the DC population stood at 649,000, and for the first time since 1957, the city's Black population (excluding Black Hispanics) was just short of a majority.

The decline in the city's population had a significant impact on the utility companies and their provision of services. The number of PEPCO residential customers in DC declined through the 1970s, while the number of its commercial customers in the city continued to fall until the late 1980s (see Table 2.3). The number of WGL residential customers continued to fall into the early 2000s (see Table 2.4). Meanwhile, the number of customers in PEPCO's and WGL's Maryland and Virginia service areas rose.

White flight presented housing opportunities for Black residents in DC neighborhoods where they had previously been unable to buy homes despite having the income to do so. At the same time, and not coincidentally, the Public Service Commission was taking a leadership role in promoting employment opportunities for women, Black people, and others at the District utilities that dominated the private sector. Homeownership helped to heighten Black participation in the utility regulatory process and made the Commission's role in providing employment opportunities even more meaningful in serving the public interest. (In 1964, the former Public Utilities Commission of the District of Columbia was renamed the Public Service Commission of the District of Columbia.)

This progress is evident in data on homeownership rates in the city by race (see Table 2.5). Between 1950 and 1960, the number of households in DC rose from 224,000 to 252,000. All of the growth was among Black residents. The number of White households fell from 161,000 to 140,000, while the number of Black households rose from 61,000 to 111,000. Moreover, by 1960, the homeownership rate for Black people was higher than for White people—32 percent for Black households compared with 28 percent for White households.

87 Green, *The Secret City,* 200, 235.

C. A Forward Look—A Socioeconomic Profile of the District in 2013

By 2013, the District was far more diverse than it had been 100 years earlier. Black citizens accounted for 36 percent of the population and Whites for 41 percent. Hispanics, particularly from Central America, began coming to the city in the 1970s. In 2013, they accounted for over 10 percent of its population. Asians represented nearly 4 percent of the population in 2013 (see Table 2.6).

The city was unique in other ways compared with US averages, as Table 2.7 shows. District education levels for high school, and to a greater extent college, exceeded national averages.[88] As a result, incomes were higher than the national average across all racial groups.

But income inequality was greater in DC than at the national level (see Table 2.7). At the upper end, nearly 36 percent of households had incomes of $100,000 or greater, compared with 22 percent nationally. At the lower end, the District had a higher percentage of poor households (between 16 percent and 19 percent, depending on the measure), compared with 14 percent to 16 percent nationally. Income inequality in DC was also higher than in all 50 states, as measured by the Gini coefficient.[89] (The higher the Gini coefficient, the greater the income inequality.) Based on US Census Bureau data for 2013, the Gini coefficient for the District of Columbia was .532. Only New York, at .510, had a score higher than .500. The national average was .481.

Given its small geographic size and relatively high incomes, housing costs in the city were also relatively high such that homeownership rates were well below the national average in 2013 (see Table 2.7). The mean value of owner-occupied housing in DC was $470,500, compared with a national average of $173,900. Median monthly housing costs of owner-occupied units with a mortgage was $2,236 in DC versus $1,436 nationally. Not surprisingly, the homeownership rate in the District was 40.7 percent compared with 63.5 percent in the US; the rental rate was the converse—62 percent in the District compared with 26 percent nationally.

The cost of electric, natural gas, and telephone services was a primary contributing factor in the affordability of housing in DC. The city had been thriving and growing since 2005,[90] as evidenced by a number of revitalized neighborhoods—including Columbia Heights, the downtown 7th Street area, called Penn Quarter, and the 13th and U Street corridor in Northwest; NoMa in Northeast; and around the new baseball stadium in the Navy Yard section of Southeast[91]—that attracted young college graduates ("Millennials"), who flocked to the city during the Great Recession (2007–2009)

88 In 2013, 55 percent of District residents age 25 years and older had a college degree or higher, compared with a national average of 30 percent. The rates for all racial groups in DC were higher than the national averages (see Table 2.6).

89 A score of 0 represents complete equality and a score of 1 represents complete inequality. See Household Income: 2013 in *American Community Survey Briefs* by Amanda Noss, issued September 2014.

90 See Table 2.1.

91 See photographs at the end of this chapter.

for federal government job opportunities.[92] However, housing costs were a key factor in whether newcomers could afford to stay in the city. Thus, the middle class continued to be squeezed out, more often than not migrating to the suburbs because they couldn't afford to buy or rent in the District and the suburbs offered more options at lower cost.

On the surface, the picture of DC looked bright in 2013. However, when data are disaggregated by race, a more sobering view appears, showing that a large number of households, particularly Black households, were not benefiting from the city's gains. There is no doubt that conditions of life were substantially better in 2013 than in 1913, but there is evidence that some of the same challenges persisted. Despite racial progress, including the election of all Black mayors since Home Rule began in the mid-`70s, the median income of Black residents was only a third of the median income of White residents[93] in the District ($38,124 compared with $111,886) (see Table 2.6 and Table 2.8). While the median income for Black people was slightly higher than the national average ($35,902), the median income of White people in DC was nearly twice the national average ($57,674). Hispanics comprised a third ethnic group—which did not exist in DC in 1913—and their median income of $50,861 exceeded that of Black people.

Black poverty has remained stubbornly intractable. In 2013, more than a quarter (26 percent) of Black residents in the city were living in poverty compared with 22 percent of Hispanic residents and 7 percent of White residents. Moreover, Black residents accounted for 73 percent of the poor. Most startling is that a higher percentage of Black people were below the poverty line in 2013 (26 percent) than in 1913 (16 percent). The income gap may have been wider in 2013 than in 1913 because relatively few poor White people lived in the District in 2013.

Income distribution data for 2013 tell the same story. As shown in Table 2.8, a little more than half of the city's Black households had median incomes less than $40,000 (51 percent), a third (33 percent) had incomes between $40,000 and $100,000, and 16 percent had median incomes of $100,000 or greater. In comparison, 14 percent of White households had median incomes below $40,000, nearly 30 percent had incomes in the middle, and well over half (57 percent) had incomes of $100,000 or greater. The profile for Hispanic residents shows a large concentration in the below-$40,000 category (50 percent) and a larger percentage distribution than Black residents (26 percent) in the $100,000-and-above category.

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92 Between 2000 and 2010, the percentage of all residents 25 years and older with a college degree or higher rose from 39.1 percent to 50 percent; for Black people in the same cohort, it rose from 17.5 percent to 22.3 percent. Source: State Data Monthly Brief, February 2012, by Joy Phillips, "District of Columbia Black Population Characteristics." The report is available on the website of the DC Office of Planning.

93 The gap between Black and White residents may be even wider if White residents are defined as "White only," rather than "White including Hispanic." The US Census Bureau uses both categories, and it is not clear which definition is used for the data in Table 2.4.

The number of households in each of the categories indicates the pervasiveness of the inequality.[94] According to Table 2.8, about 63,000 Black households were in the below-$40,000 category, 41,000 were in the middle, and slightly less than 20,000 Black households had median incomes of $100,000 or greater. For Whites, 17,000 households had median incomes less than $40,000, 38,000 were in the middle, and nearly 67,000 had median incomes of $100,000 or greater. As an article in the *Washington Post* noted, housing was also the chief concern for the poor.[95] In conclusion, housing affordability appears to be a major factor for the exodus of the middle class.[96]

94 In 2013, income inequality in the District was greater than in the nation as a whole, as shown in Tables 2.8, 2.9, 2.10, and 2.11.

95 See "Housing Is Main Worry for DC's Poor," *Washington Post,* Tuesday, April 5, 2016, B1.

96 The squeeze on the city's middle class caused at least partly by high housing costs is reflected in the residency of the Commission's employees. In 2013, less than half of Commission employees (44 percent) lived in the District while 56 percent lived in Maryland (38 percent) or Virginia (18 percent).

Views of the recently developed areas of the District in 2013

Nationals Park, Southeast

NoMa, Northeast

Columbia Heights, Northwest

13th and U St. Street Corridor, Northwest

Verizon Center, Northwest

Tables

Table 2.1: DC Population and Income, 1916–2013

Year	DC Population (Estimate from the US Census Bureau)	Gross Income	No. of Returns	Gross Income/ Population	Gross Income/No. of Returns
1913	N/A	N/A	N/A	N/A	N/A
1914	N/A	N/A	N/A	N/A	N/A
1915	N/A	N/A	N/A	N/A	N/A
1916	360,000	$67,334,621	6,808	$187	$9,890
1917	385,000	$82,375,392	29,737	$213	$2,770
1918	418,000	$138,966,315	43,776	$332	$3,174
1919	445,000	$166,399,104	58,616	$373	$2,838
1920	440,000	$208,388,174	69,730	$473	$2,988
1921	446,000	$248,345,804	89,966	$556	$2,760
1922	450,000	$231,328,739	77,923	$514	$2,968
1923	453,000	$221,950,528	75,796	$489	$2,928
1924	456,000	$253,312,253	77,836	$555	$3,254
1925	461,000	$200,353,699	43,293	$434	$4,627
1926	469,000	$198,055,768	40,024	$422	$4,948
1927	476,000	$198,938,042	39,560	$417	$5,028
1928	479,000	$227,620,606	44,183	$475	$5,151
1929	483,000	$242,282,698	48,087	$501	$5,038
1930	488,000	$217,558,448	51,044	$445	$4,262
1931	504,000	$200,628,347	51,920	$398	$3,864
1932	513,000	$213,475,879	73,501	$416	$2,904
1933	529,000	$192,795,000	69,967	$364	$2,755
1934	568,000	$234,925,000	82,871	$413	$2,834
1935	608,000	$268,667,000	95,271	$441	$2,820
1936	629,000	$327,468,000	106,863	$520	$3,064
1937	616,000	$329,915,913	110,658	$535	$2,981
1938	638,000	$321,128,000	113,869	$503	$2,820
1939	658,000	$346,905,000	115,081	$527	$3,014
1940	690,000	$428,901,000	162,095	$621	$2,645
1941	764,000	$597,870,000	250,954	$782	$2,382

Table 2.1: DC Population and Income, 1916–2013 (continued)

Year	DC Population (Estimate from the US Census Bureau)	Gross Income	No. of Returns	Gross Income/ Population	Gross Income/No. of Returns
1942	851,000	$805,240,950	363,637	$946	$2,214
1943	900,000	$838,869,000	354,247	$932	$2,368
1944	881,000	$956,456,000	373,654	$1,085	$2,559
1945	876,000	$993,047,000	386,412	$1,133	$2,569
1946	899,000	$1,153,335,000	418,468	$1,282	$2,756
1947	888,000	$1,276,150,000	431,551	$1,437	$2,957
1948	840,000	$1,128,555,000	339,450	$1,343	$3,324
1949	807,000	$1,376,898,000	396,604	$1,706	$3,471
1950	806,000	$1,418,048,000	373,762	$1,759	$3,793
1951	808,000	$1,465,478,000	371,578	$1,813	$3,943
1952	805,000	$1,666,677,000	397,855	$2,070	$4,189
1953	810,000	$1,488,832,000	358,314	$1,838	$4,155
1954	791,000	$1,474,718,000	346,729	$1,864	$4,253
1955	785,000	$1,555,827,000	342,596	$1,981	$4,541
1956	759,000	$1,523,972,000	332,361	$2,007	$4,585
1957	763,000	$1,556,075,000	337,129	$2,039	$4,615
1958	757,000	$1,655,251,000	331,081	$2,186	$4,999
1959	761,000	$1,844,804,000	352,402	$2,424	$5,234
1960	765,000	$1,850,743,000	342,310	$2,419	$5,406
1961*	778,000	N/A	N/A	N/A	N/A
1962*	788,000	N/A	N/A	N/A	N/A
1963	798,000	$1,903,086,000	330,591	$2,384	$5,756
1964	798,000	$1,936,725,000	307,921	$2,426	$6,289
1965	797,000	$1,968,280,000	302,734	$2,469	$6,501
1966	791,000	$2,100,123,000	308,937	$2,655	$6,797
1967	791,000	$2,194,882,000	325,048	$2,774	$6,752
1968	778,000	$2,175,848,000	323,055	$2,796	$6,735
1969	762,000	$2,302,925,000	291,010	$3,022	$7,913
1970	756,668	$2,462,033,000	319,616	$3,253	$7,703
1971	749,781	$2,721,259,000	311,838	$3,629	$8,726
1972	742,241	$2,768,813,000	283,100	$3,730	$9,780

Table 2.1: DC Population and Income, 1916–2013 (continued)

Year	DC Population (Estimate from the US Census Bureau)	Gross Income	No. of Returns	Gross Income/ Population	Gross Income/No. of Returns
1973	731,488	$3,068,366,000	297,714	$4,194	$10,306
1974	717,947	$3,101,014,000	271,147	$4,319	$11,436
1975	706,871	$3,690,624,000	309,551	$5,221	$11,922
1976	692,295	$4,133,847,000	307,160	$5,971	$13,458
1977	677,228	$4,250,770,000	332,733	$6,276	$12,775
1978	665,052	$4,541,250,000	320,987	$6,828	$14,147
1979	650,016	$5,151,089,000	315,668	$7,924	$16,318
1980	638,432	$5,583,948,000	307,630	$8,746	$18,151
1981	636,893	$5,965,429,000	318,944	$9,366	$18,703
1982	634,174	$6,278,122,000	310,429	$9,899	$20,224
1983	632,433	$5,893,600,000	319,079	$9,318	$18,470
1984	633,382	$6,200,000,000	320,321	$9,788	$19,355
1985	634,549	$6,700,000,000	333,347	$10,558	$20,099
1986	638,269	N/A	334,000	N/A	N/A
1987	636,930	N/A	336,000	N/A	N/A
1988	630,432	N/A	319,716	N/A	N/A
1989	624,168	N/A	323,743	N/A	N/A
1990	605,321	N/A	325,884	N/A	N/A
1991	600,870	N/A	324,639	N/A	N/A
1992	597,565	N/A	N/A	N/A	N/A
1993	595,301	N/A	N/A	N/A	N/A
1994	589,239	N/A	N/A	N/A	N/A
1995	580,517	N/A	N/A	N/A	N/A
1996	572,377	N/A	N/A	N/A	N/A
1997	567,736	N/A	N/A	N/A	N/A
1998	565,230	N/A	N/A	N/A	N/A
1999	570,213	N/A	N/A	N/A	N/A
2000	572,046	N/A	N/A	N/A	N/A
2001	574,504	N/A	N/A	N/A	N/A
2002	573,158	N/A	N/A	N/A	N/A
2003	568,502	N/A	N/A	N/A	N/A

Table 2.1: DC Population and Income, 1916–2013 (continued)

Year	DC Population (Estimate from the US Census Bureau)	Gross Income	No. of Returns	Gross Income/ Population	Gross Income/No. of Returns
2004	567,754	N/A	N/A	N/A	N/A
2005	567,136	N/A	N/A	N/A	N/A
2006	570,681	N/A	N/A	N/A	N/A
2007	574,404	N/A	N/A	N/A	N/A
2008	580,236	N/A	N/A	N/A	N/A
2009	592,228	N/A	N/A	N/A	N/A
2010	605,125	N/A	N/A	N/A	N/A
2011	619,624	N/A	N/A	N/A	N/A
2012	633,427	N/A	N/A	N/A	N/A
2013	646,449	N/A	N/A	N/A	N/A

N/A – Not Available

*For these years, the DC data were lumped into Maryland statistics.

Sources: IRS Statistics of Income (1916–2000) and DC Office of Planning (2001–2013)

Table 2.2: DC Population Demographics, 1910–2010

Year	Total		White		Black		Hispanic		Other	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1910	331,069	100.00%	236,128	71.32%	94,446	28.53%	N/A	N/A	495	0.15%
1920	437,571	100.00%	326,860	74.70%	109,966	25.13%	N/A	N/A	745	0.17%
1930	486,869	100.00%	353,981	72.71%	132,068	27.13%	N/A	N/A	820	0.17%
1940	663,091	100.00%	474,326	71.53%	187,266	28.24%	720	0.11%	1,499	0.23%
1950	802,178	100.00%	517,865	64.56%	280,803	35.01%	N/A	N/A	3,510	0.44%
1960	763,956	100.00%	345,263	45.19%	411,737	53.90%	N/A	N/A	6,956	0.91%
1970	756,510	100.00%	209,272	27.66%	537,712	71.08%	N/A	N/A	9,526	1.26%
1980	638,333	100.00%	171,768	26.91%	448,906	70.32%	17,679	2.77%	17,659	2.77%
1990	606,900	100.00%	179,667	29.60%	399,604	65.84%	32,710	5.39%	27,629	4.55%
2000	572,059	100.00%	176,101	30.78%	343,312	60.01%	44,953	7.86%	52,646	9.20%
2010	601,723	100.00%	231,471	38.47%	305,125	50.71%	54,749	9.10%	65,127	10.82%

N/A – Not Available

Source: US Census Bureau data for Washington, DC

Table 2.3: No. of PEPCO's Customers in DC, 1956–2013

Year	Average Monthly Residential Customers	Average Monthly Commercial Customers	Average Monthly Other Customers	Average Monthly Total
1956	163,252	32,725	11	195,988
1957	162,874	32,265	11	195,150
1958	161,857	31,783	11	193,651
1959	161,258	31,384	10	192,652
1960	161,365	31,021	10	192,396
1961	161,784	30,899	10	192,693
1962	161,857	30,461	10	192,328
1963	161,728	29,962	9	191,699
1964	162,905	29,704	10	192,619
1965	163,596	29,536	10	193,142
1966	164,291	29,161	10	193,462
1967	165,162	28,731	10	193,903
1968	164,613	28,155	10	192,778
1969	163,701	27,680	10	191,391
1970	163,213	27,279	9	190,501
1971	163,337	26,838	10	190,185
1972	163,088	26,498	11	189,597
1973	161,565	26,749	13	188,327
1974	160,966	26,402	12	187,380
1975	160,410	25,925	11	186,346
1976	160,862	25,621	19	186,502
1977	160,313	25,164	26	185,503
1978	162,522	24,676	26	187,224
1979	165,442	24,278	26	189,746
1980	169,767	24,291	26	194,084
1981	172,747	24,308	29	197,084
1982	175,727	24,329	31	200,087
1983	177,411	24,627	33	202,071
1984	178,606	24,754	36	203,396
1985	180,585	25,004	36	205,625
1986	182,940	25,294	37	208,271

Table 2.3: No. of PEPCO's Customers in DC, 1956–2013 (continued)

Year	Average Monthly Residential Customers	Average Monthly Commercial Customers	Average Monthly Other Customers	Average Monthly Total
1987	185,176	25,792	37	211,005
1988	187,428	26,187	37	213,652
1989	189,229	26,509	36	215,774
1990	191,969	26,701	36	218,706
1991	193,057	26,878	36	219,971
1992	193,238	27,008	36	220,282
1993	193,430	27,076	36	220,542
1994	192,914	27,142	36	220,092
1995	192,350	27,090	35	219,475
1996	192,017	26,931	31	218,979
1997	192,944	26,681	32	219,657
1998	193,736	26,401	32	220,169
1999	193,822	26,070	31	219,923
2000	195,543	26,693	31	222,267
2001	195,648	26,121	33	221,802
2002	198,667	26,157	33	224,857
2003	200,226	25,866	32	226,124
2004	203,536	26,391	32	229,959
2005	208,324	26,689	31	235,044
2006	211,220	26,737	31	237,988
2007	215,170	26,630	33	241,833
2008	220,113	26,679	32	246,824
2009	226,030	26,399	32	252,461
2010	229,242	26,434	33	255,709
2011	230,384	26,486	32	256,902
2012	233,642	26,282	34	259,958
2013	237,973	26,378	33	264,384

Sources: Numbers from 1956–1980 are from PEPCO'S Annual Reports to the Federal Power Commission. Numbers from 1982–2013 are from PEPCO. 1981 data are estimated by interpolating the difference between the 1980 and 1982 data.

Table 2.4: No. of WGL's Residential Customers in DC, 1956–2013

Year	No. of Residential Customers
1956	164,462
1957	163,692
1958	161,862
1959	N/A
1960	N/A
1961	156,937
1962	155,680
1963	154,918
1964	153,761
1965	152,186
1966	149,965
1967	147,778
1968	145,930
1969	144,390
1970	143,475
1971	143,138
1972	142,135
1973	140,656
1974	139,446
1975	137,288

Year	No. of Residential Customers
1976	135,578
1977	N/A
1978	133,754
1979	N/A
1980	N/A
1981	N/A
1982	N/A
1983	N/A
1984	N/A
1985	N/A
1986	N/A
1987	N/A
1988	N/A
1989	102,224
1990	N/A
1991	N/A
1992	109,217
1993	108,262
1994	N/A
1995	N/A

Year	No. of Residential Customers
1996	N/A
1997	129,778
1998	127,616
1999	132,040
2000	129,875
2001	131,648
2002	135,820
2003	135,820
2004	133,700
2005	135,907
2006	136.009
2007	137.277
2008	137,580
2009	138.396
2010	138,863
2011	139,843
2012	140,628
2013	141,790

N/A - Not Available
Sources:
1956-1978 - FPC Form 1
1989, 1992, and 1993 - Rate Cases - FC Nos. 890, 922, and 934
1997-2013 - as of December of each year from PSC website, Status of Natural Gas Competition

Table 2.5: Homeownership Rates in DC by Race, 1900–2012

Year	Total				White				Black			
	Total Homes		Ownership		Total Homes		Ownership		Total Homes		Ownership	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1900	55,465	100%	12,998	23.43%	38,015	68.54%	11,033	29.02%	17,269	31.13%	1,964	11.37%
1910	71,339	100%	17,375	24.36%	51,906	72.76%	15,297	29.47%	19,433	27.24%	1,964	11.37%
1920	96,194	100%	28,503	29.63%	71,044	73.85%	25,059	35.27%	24,929	25.92%	3,485	13.98%
1930	125,554	100%	47,220	37.61%	95,286	75.89%	39,874	41.85%	29,995	23.89%	7,316	24.39%
1940	173,445	100%	51,944	29.95%	133,528	76.99%	44,274	33.16%	39,917	23.01%	7,670	19.21%
1950	224,142	100%	72,362	32.28%	161,611	72.10%	53,434	33.06%	61,629	27.50%	18,696	30.34%
1960	252,066	100%	75,574	29.98%	140,764	55.84%	39,532	28.08%	111,302	44.16%	36,042	32.38%
1970	262,538	100%	73,980	28.18%	98,498	37.52%	29,222	29.67%	164,040	62.48%	44,758	27.28%
1980	253,143	100%	N/A	N/A	84,521	33.39%	N/A	N/A	161,961	63.98%	NA	NA
1990	249,634	100%	97,108	38.90%	88,295	35.37%	40,805	46.21%	152,356	61.03%	54,332	35.66%
2000	248,338	100%	101,214	40.76%	90,008	36.24%	N/A	47.20%	139,468	56.16%	NA	38.80%
2005	248,213	100%	105,518	42.51%	93,997	37.87%	49,449	52.61%	131,970	53.17%	49,057	37.17%
2006	250,456	100%	114,586	45.75%	99,845	39.87%	54,121	54.21%	128,356	51.25%	52,567	40.95%
2007	251,039	100%	111,813	44.54%	102,308	40.75%	55,274	54.03%	127,074	50.62%	48,782	38.39%
2008	249,996	100%	108,571	43.43%	102,601	41.04%	53,725	52.36%	126,831	50.73%	47,578	37.51%
2009	249,280	100%	111,618	44.78%	108,414	43.49%	58,271	53.75%	123,326	49.47%	47,087	38.18%
2010	252,388	100%	107,193	42.47%	111,490	44.17%	53,831	48.28%	121,175	48.01%	46,038	37.99%
2011	268,670	100%	110,625	41.18%	119,021	44.30%	56,131	47.16%	126,754	47.18%	48,134	37.97%
2012	266,662	100%	110,681	41.51%	119,050	44.64%	56,218	47.22%	124,481	46.68%	46,717	37.53%

Table 2.5: Homeownership Rates in DC by Race, 1900–2012 (continued)

Year	Asian				Hispanic			
	Total Homes		Ownership		Total Homes		Ownership	
	No.	%	No.	%	No.	%	No.	%
1980	2,303	0.91%	N/A	N/A	6,260	2.47%	N/A	N/A
1990	4,070	1.63%	1,162	28.55%	10,455	4.19%	2,141	20.48%
2000	6,407	2.58%	NA	24.50%	14,165	5.70%	NA	24.20%
2005	8,239	3.32%	2,708	32.87%	15,540	6.26%	4,471	28.77%
2006	9,418	3.76%	3,356	35.63%	16,152	6.45%	4,697	29.08%
2007	8,113	3.23%	3,667	45.20%	17,920	7.14%	5,349	29.85%
2008	8,479	3.39%	2,932	34.58%	18,671	7.47%	5,071	27.16%
2009	7,374	2.96%	3,161	42.87%	17,123	6.87%	5,069	29.60%
2010	10,137	4.02%	3,926	38.73%	17,109	6.78%	5,020	29.34%
2011	8,731	3.25%	2,385	27.32%	20,576	7.66%	5,969	29.01%
2012	9,195	3.45%	4,384	47.68%	20,748	7.78%	6,518	31.42%

N/A – Not Available

Source: US Census Bureau; American Community Survey data began in 2005.

Table 2.6: Socioeconomic Profile of DC and US, by Race, in 2013

Category	DC	US
RACIAL DISTRIBUTION OF POPULATION		
White only	40.9%	73.7%
Black	48.9%	12.6%
Hispanic (also included in other categories)	10.4%	17.4%
Asian	3.6%	5.1%
EDUCATIONAL ATTAINMENT – 2012 % of Residents 25 Years of Age and Older Who Have High School Degree or Greater		
White	99.4%	91.5%
Black	83.6%	83.5%
Hispanic	72.2%	64.1%
Asian	93.8%	85.8%
Total	89.2%	86.4%
% of Residents 25 Years of Age and Older Who Have Bachelor Degree or Greater		
White	89.5%	32.6%
Black	25.4%	18.8%
Hispanic	35.5%	13.9%
Asian	81.2%	50.9%
Total	53.7%	29.2%
MEDIAN HOUSEHOLD INCOME BY RACE		
White (excludes Hispanics)	$118,402	$57,674
Black	$38,124	$35,902
Hispanic	$50,861	$40,337
Asian	$63,218	$73,568
UNEMPLOYMENT RATES (DC ANNUAL ECONOMIC REPORT 2013–2014, DC DEPARTMENT OF EMPLOYMENT SERVICES)		
White	3.9	6.5
Black	15.2	13.1
Hispanic	6.8	9.1

Category	DC	US
POVERTY RATES BY RACE (DC DATA FROM FISCAL POLICY INSTITUTE)		
White	7.0%	12.9%
Black	26%	25.2%
Hispanic (Also included in other categories)	22%	24.7%
Asian	N/A	13.1%
DISTRIBUTION OF PERSONS BELOW THE POVERTY LINE BY RACE		
White	16.1% (Includes Hispanics)	53.9% (Includes Hispanics) 42.4% (Excludes Hispanics)
Black	73.0%	24.9%
Hispanic	9.2%	28.7%
Asian	1.8%	4.0%
Total	100.0%	100.0%
HOMEOWNERSHIP RATES BY RACE (DC DATA 2012)		
White (all)	47.2%	73.4%
Black	37.5%	43.2%
Hispanic	31.4%	45.5%
Asian	47.7%	56.0%
BUSINESS OWNERSHIP BY RACE, ETHNICITY, AND GENDER		
Black-Owned Businesses (2007)	28.2%	7.1%
Hispanic-Owned Businesses (2007)	6.1%	8.3%
Women-Owned Businesses (2007)	34.5%	29%

Red: Figure is lower than the national average
Blue: Figure is higher than the national average
Source: US Bureau of the Census

Table 2.7: Socioeconomic Profile of DC and US in 2013

Category	DC	US
EDUCATION		
Bachelor's Degree and Above	55.10%	29.60%
Graduate/Professional Degree	32.10%	11.20%
INCOME		
Per Capita Income	$45,477	$28,184
Median Household Income	$67,572	$52,250
Average Household Income	$101,486	$59,939
Married Couple Households	24.20%	48.00%
Persons Below the Poverty Line	18.90%	15.80%
Households Receiving Food Stamps	15.70%	11.60%
Unemployment Rate	8.60%	7.40%

Category	DC	US
AGE		
Median	34	38
GENDER		
Female	52.60%	50.80%
Male	47.40%	49.20%
HOUSING		
Household Size	2.23	2.65
Rental Rate	62%	26%
Homeownership Rate	40.70%	63.50%
Mean Value of Owner- Occupied Housing	$470,500	$173,900
Median Monthly Housing Costs of Owner-Occupied Units with Mortgage	$2,236	$1,436
Housing Units Built Before 1939	35.70%	13.10%

Red: Figure is lower than the national average.
Blue: Figure is higher than the national average.
Source: US Census Bureau

Table 2.8: 2013 Household Income Distribution, by Race, in DC

Income Range	Numbers					Percentages				
(000s)	Total	White	Black	Hispanic	Asian	Total	White	Black	Hispanic	Asian
<$10	29,610	4,263	22,008	1,986	1,353	11.11%	3.87%	17.81%	8.68%	13.60%
$10-$15	11,524	1,405	9,061	992	66	4.32%	1.28%	7.33%	4.34%	0.66%
$15-$20	10,814	1,520	8,282	783	229	4.06%	1.38%	6.70%	3.42%	2.30%
$20-$25	9,137	1,601	6,194	1,294	48	3.43%	1.45%	5.01%	5.65%	0.48%
$25-$30	7,937	1,151	5,009	1,344	433	2.98%	1.05%	4.05%	5.87%	4.35%
$30-$35	10,697	1,437	6,955	1,765	540	4.01%	1.31%	5.63%	7.71%	5.43%
$35-$40	8,050	1,525	5,628	700	197	3.02%	1.39%	4.55%	3.06%	1.98%
$40-$45	8,895	2,272	4,649	1,258	716	3.34%	2.06%	3.76%	5.50%	7.20%
$45-$50	8,022	1,877	4,332	1,035	778	3.01%	1.70%	3.51%	4.52%	7.82%
$50-$60	18,458	5,371	10,945	1,789	353	6.93%	4.88%	8.86%	7.82%	3.55%
$60-$75	20,477	8,595	9,133	1,725	1,024	7.68%	7.81%	7.39%	7.54%	10.29%
$75-$100	28,146	13,134	11,878	2,282	852	10.56%	11.93%	9.61%	9.97%	8.56%
$100-$125	23,920	13,717	7,556	1,567	1,080	8.98%	12.46%	6.12%	6.85%	10.85%
$125-$150	17,515	11,318	4,528	1,173	496	6.57%	10.28%	3.66%	5.13%	4.98%
$150-$200	21,539	15,254	4,126	1,201	958	8.08%	13.85%	3.34%	5.25%	9.63%
>$200	31,754	25,661	3,276	1,989	828	11.92%	23.31%	2.65%	8.69%	8.32%
Total	**266,495**	**110,101**	**123,560**	**22,883**	**9,951**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**
Median Income	**$67,572**	**$118,402**	**$38,124**	**$50,861**	**$63,218**					

Blue: Highest numbers
Source: DC Data – www.city-data.com/income/income-Washington-District-of-Columbia.html

Table 2.8a: 2013 Distribution of Household Income by Race/Ethnicity, in DC

Income Categories	White Non-Hispanic Households	Black Households	Hispanic or Latino Households	Asian Households	All Households
No. of Households with Incomes <$40,000	12,902	63,137	8,864	2,866	87,769
Share of Households with Incomes <$40,000	14.70%	71.94%	10.10%	3.27%	100.00%
No. of Households with Incomes between $40,000 and $99,999	31,249	40,937	8089	3723	83,998
Share of Households with Incomes between $40,000 and $99,999	37.20%	48.74%	9.63%	4.43%	100.00%
No. of Households with Incomes $100,000+	65,950	19,486	5930	3362	94,728
Share of Households with Incomes $100,000+	69.62%	20.57%	6.26%	3.55%	100.00%
Total Number of Households	**110,102**	**123,561**	**22,883**	**9,951**	**266,497**
Share of All Households	**41.31%**	**46.36%**	**8.59%**	**3.73%**	**100.00%**

Calculated from Census data contained in Table 2.8

Table 2.9: 2013 Household Income Distribution, by Race, in US (Numbers in Thousands)

Income Classes	TOTAL		WHITE-ALL		WHITE NON-HISPANIC		BLACK-ALL	
	No.	Share of Total	No.	Share of Total	No.	Share of Total	No.	Share of Total
<$10,000	8,940	7.3%	6,030	6.1%	4,569	5.5%	2,385	14.2%
$10,000-$19,999	14,014	11.4%	10,631	10.7%	8,578	10.3%	2,830	16.8%
$20,000-$29,999	12,879	10.5%	10,143	10.2%	7,996	9.6%	2,164	12.8%
$30,000-$39,999	12,281	10.0%	9,764	9.8%	7,871	9.4%	2,006	11.9%
$40,000-$49,999	10,851	8.8%	8,723	8.8%	7,070	8.5%	1,578	9.4%
$50,000-$59,999	9,547	7.8%	7,860	7.9%	6,593	7.9%	1,218	7.2%
$60,000-$74,999	12,112	9.9%	10,156	10.2%	8,717	10.4%	1,273	7.6%
$75,000-$99,999	14,687	11.9%	12,558	12.6%	10,875	13.0%	1,382	8.2%
$100,000-$124,999	9,460	7.7%	7,943	8.0%	7,032	8.4%	870	5.2%
$125,000-$149,999	5,806	4.7%	4,996	5.0%	4,508	5.4%	444	2.6%
$150,000-$199,999	6,463	5.3%	5,515	5.5%	5,048	6.0%	413	2.5%
$200,000+	5,913	4.8%	5,116	5.1%	4,784	5.7%	291	1.7%
Total	**122,952**	**100.0**	**99,434**	**100.0**	**83,641**	**100.0**	**16,855**	**100.0**

Income Classes	BLACK ONLY		ASIAN-ALL		ASIAN ONLY		HISPANIC	
	No.	Share of Total	No.	Share of Total	No.	Share of Total	No.	Share of Total
<$10,000	2,288	14.2%	459	7.5%	432	7.5%	1,467	9.3%
$10,000-$19,999	2,720	16.9%	418	6.8%	403	7.0%	2,126	13.4%
$20,000-$29,999	2,066	12.8%	479	7.8%	459	8.0%	2,142	13.5%
$30,000-$39,999	1,912	11.9%	448	7.3%	424	7.4%	1,968	12.4%
$40,000-$49,999	1,494	9.3%	503	8.2%	469	8.1%	1,664	10.5%
$50,000-$59,999	1,170	7.3%	404	6.6%	378	6.6%	1,288	8.1%
$60,000-$74,999	1,221	7.6%	627	10.3%	596	10.3%	1,418	9.0%
$75,000-$99,999	1,321	8.2%	702	11.5%	654	11.4%	1,659	10.5%
$100,000-$124,999	830	5.2%	647	10.6%	596	10.3%	895	5.7%
$125,000-$149,999	413	2.6%	366	6.0%	350	6.1%	461	2.9%
$150,000-$199,999	387	2.4%	537	8.8%	513	8.9%	436	2.8%
$200,000+	283	1.8%	521	8.5%	484	8.4%	287	1.8%
Total	**16,108**	**100.0**	**6,111**	**100.0**	**5,759**	**100.0**	**15,811**	**100.0**

Source: Calculated from data contained in Table HIN-06. Income Distribution to $250,000 or More for Households, 2013, US Census Bureau

Table 2.10: Summary of 2013 US Income Distribution, by Race (Numbers in Thousands)

Income Classes	Total	% of Total	White-All	% of Total	White Non-Hispanic	% of Total	Black-All	% of Total
<$40,000	48,114	39.1	36,568	36.8	29,014	34.7	9,385	55.7
$40,000-$99,999	47,196	38.4	39,297	39.5	33,255	39.8	5,451	32.3
$100,000+	27,642	22.5	23,570	23.7	21,372	25.6	2,018	12
Total	**122,952**	**100.0**	**99,435**	**100.0**	**83,641**	**100.0**	**16,854**	**100.0**
	Black-Only	% of Total	Asian-All	% of Total	Asian Only	% of Total	Hispanic	% of Total
<$40,000	8,986	55.8	1,804	29.5	1,718	29.8	7,703	48.7
$40,000-$99,999	5,206	32.3	2,236	36.6	2,097	36.4	6,029	38.1
$100,000+	1,913	11.9	2,071	33.9	1,943	33.8	2,079	13.2
Total	**16,105**	**100.0**	**6,111**	**100.0**	**5,758**	**100.0**	**15,811**	**100.0**

Source: Calculated from data contained in Table HIN-06. Income Distribution to $250,000 or More for Households, 2013, US Census Bureau

Table 2.11: Comparison of 2013 Income Distribution Percentages, by Race, in DC and US

Income Classes	DC	US
WHITE NON-HISPANIC		
<$40,000	14.1	34.6
$40,000-$99,999	29.2	39.8
$100,000+	56.7	25.6
Total	**100.0**	**100.0**
BLACK-ALL		
<$40,000	51.1	55.7
$40,000-$99,999	33.1	32.3
$100,000+	15.8	12.0
Total	**100.0**	**100.0**
ASIAN-ALL		
<$40,000	26.2	29.5
$40,000-$99,999	40.0	36.6
$100,000+	33.8	33.9
Total	**100.0**	**100.0**
HISPANIC-ALL		
<$40,000	38.7	48.7
$40,000-$99,999	35.4	38.1
$100,000+	25.9	13.2
Total	**100.0**	**100.0**

Blue: Figure is higher than the national average.

Source: Calculated from data contained in Table HIN-06. Income Distribution to $250,000 or More for Households, 2013, US Census Bureau

CHAPTER 3

The Mission: To Serve the Public Interest

The mission of the Commission is contained in the title of this book: *The First Century Serving the Public Interest, 1913-2013: A Socio-Economic History of Electric, Gas, and Telephone Regulation in the District of Columbia*. This chapter describes how the PSC has interpreted the phrase "serving the public interest" over its first 101 years.

A. Genesis of the Phrase "Serving the Public Interest"

The primary purpose of public officials is to serve the public interest. Serving the public interest is a fundamental public administration concept in a representative democratic system of government. As such, serving the public interest applies both to objectives and outcomes as well as decision-making practices.[97]

B. The Public Interest in the Original Act

Section 8 of the DC appropriations act that created the Commission contains over 100 paragraphs that describe in detail the duties and responsibilities of the Commission and the companies under its regulatory jurisdiction. The Commission, by design, is a quasi-judicial body whose decisions, rendered in orders, may be appealed through the court system (today, the District of Columbia Court of Appeals). Buried in the original act are references to "the public interest" that provide some insight into the purpose and mission of the Commission:

> *… and have power to order such reasonable improvements as will reasonably promote the public interest, preserve the public health, and protect those using such gas or electricity … and those employed in the manufacture and distribution thereof … .*[98]

and

> *That every public utility shall, whenever an accident attended with loss of human life or personal injury … occurs within the District of Columbia … give immediate notice thereof to the commission. In the event of any such accident, the commission, if it deems the public interest requires it, shall cause an investigation to be made forthwith.*[99]

The appropriations act also specifically requires that the Commission determine if proposed stock and bond issuances are in the public interest.

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97 AIAL Forum No. 48, *The Public Interest: We Know Its Importance But Do We Know What It Means?,* Chris Wheeler, 2006, 1–13, www5.austlii.edu.au.

98 See paragraph 55 of the act, which is reproduced in the appendix.

99 See paragraph 89 of the act.

> *That no public utility shall declare any stocks, certificates of stock, bonds, or other evidences of indebtedness secured on its property in the District of Columbia for the purpose of any reorganization or consolidation in excess of the total amount of the stocks, certificates of stock, bonds, or other evidence of indebtedness then outstanding against the public utilities so reorganizing or consolidating, and no such public utility shall purchase the property of any other public utility for the purpose of effecting a consolidation until the commission shall have determined and set forth in writing that said consolidation will be in the public interest, nor until the commission shall have approved in writing the terms upon which said consolidation shall be made.*[100]

The Commission's first bond sale approval was for the Potomac Electric Power Company (PEPCO) in 1914 in PUC No. 830/FC No. 4. The practice of asserting the public interest has continued in cases where the Commission has been asked to approve the sale of company stocks and bonds. Table 3.1 (PEPCO), Table 3.2 (WGL), and Table 3.3 (C&P/Bell Atlantic/Verizon) summarize the more than $11.7 billion in approved stock and bond issuances through 2013.

The same paragraph in the act requires the Commission to determine if proposed mergers are in the public interest. Table 3.4 lists merger cases in which the public interest was asserted.

The first reference to approval of rates as being in the public interest appeared in Order No. 2041, issued May 24, 1941, in FC No. 292, a WGL rate case. Prior to then, the Commission concluded merely that the rate designs it approved were "just and reasonable," also as required by the original act.

C. Interpretations of "Serving the Public Interest"

Gregory Hankin, the 27th commissioner and the tenth chairperson of the Commission, expanded on the concept of serving the public interest in the impromptu speech he gave just after taking the oath of office on November 8, 1941:

> *In entering this office of public trust, I intend to do my work with no other consideration than to service the public cause. To work in the public interest, however, does not, in my judgment, spell opposition to the public utilities. These individuals and corporations have dedicated their property and efforts to the public service, and it must be assumed that they are honest and sincere in the tasks they have undertaken. We are thus working for a common cause, which is to give the best possible service at just and reasonable rates to the people of the nation's capital.*
>
> *Of course, there may be honest differences of opinion as to what is best for the public; at times, some of the utilities or their representatives may prefer their own interest to that of the public; and there may even be some among them who may willfully seek advantages forbidden by law. In all such instances, it becomes the task of the Public Utilities Commission to act in accordance with the norms laid down by Congress in the Public Utility Law. But generally, the task of the Commission is not to detect and prosecute violations of law, but to cooperate with the utilities for the public good.*
>
> *I am, therefore, embarking upon my service to the public, not with the intention of doing anything inimical to the utilities, but to effectuate the will of Congress. This consists largely in ascertaining the facts and applying the law. If, upon ascertainment of the facts, the law requires that a decision be*

100 See paragraph 76 of the act.

rendered against the utilities, I shall do so; conversely, if upon ascertainment of the facts, the law requires that a decision be rendered in their favor, I shall with equal zeal make such decision; in either case, always bearing in mind that the public interest is paramount.

I have characterized my task as being – to ascertain the facts and to apply the law. I should like to emphasize, in this connection, that the law must be lawfully applied. In a government of laws, duties and limitations are imposed on those who govern, as well as those who are governed. To my way of thinking, the duties and limitations on the former are of a more serious character. For when the government acts without authority of law, it becomes itself the lawbreaker, it sets an example and invites lawlessness on the part of others.

I have one more thought I should like to express at this time. In these days of rapid change, one must not be wiser than the experience of mankind. It behooves us, therefore, to seek the advice of others and take advantage of their experience. In pursuing my work, I intend to call upon the advice of the representatives of the utilities, and the chairmen of the public utility committees of the various citizens' associations and of other organizations, to the end that I may be able to keep in constant touch with the public needs in all of the utility services. It may not always be possible or desirable to follow their advice, but I can give assurance that their advice will always be gratefully received and carefully considered.[101]

Agnes Alexander Yates

In late 1992, Agnes A. Alexander, the 62nd commissioner, who later became the 25th chairperson, made the phrase "to serve the public interest" the centerpiece of her confirmation hearing speech before the DC Council.

In the 50 years between Hankin and Alexander, "serving the public interest" was defined more broadly as the Commission became more proactive in addressing a wider range of public policy issues. Starting in the 1950s, such issues as equal employment, environmental impacts, protection of low-income residents, and educating consumers and informing the public played major roles. After the institution of Home Rule in 1975, the Commission began to assert the public interest in its cases with settlement agreements. Table 3.5 lists cases in which such agreements, both unanimous and nonunanimous, were filed and the Commission determined whether they were in the public interest.

101 Minutes of Commission meeting (pp. 2088–89).

D. A Public Interest Standard

While the original act specified the role of the Commission in serving the public interest, it did not provide the standards by which the Commission should determine whether the public interest was or would be served. In its early days, the Commission asserted the public interest had been served based on the record of the proceeding, without specifying any criteria or standard for judging it. For example, in the case of the merger of Capital Traction and the Washington Railway and Electric Company in 1933, the Commission, after reviewing merger-related documents and holding a hearing where the companies and People's Counsel supported the merger, asserted in Order No. 1193:

> *The Commission is of the opinion that a merger or unification of the street railway system is in accordance with the terms and conditions of said documents and will be in the interest of the public.*

This continued to be the Commission's practice through the 1980s, with respect to both mergers and settlement agreements in rate cases.

The first mention of a public interest standard focused on "doing no harm" appeared in the minutes of Commission meetings in 1953:

> *The Capital Transit Company is directed that, prior to the promulgation of any policy or practice which might affect reasonable service, or the maintenance of schedules and standards of service which have been approved, it notify the Commission of such intention in ample time before they are put into effect, so that an investigation may be made as to whether the public interest would be adversely affected. (PUC No. 2075/29)*[102]

In the early 1980s, the DC Court of Appeals defined a public interest standard in its decisions in two rate cases. In *Metro Washington Bd. of Trade v. Pub. Service Comm'n,* the court said:

> *Statutory authority of the Public Service Commission to establish rate design and to set specific utility rates is deliberately broad and gives the Commission the authority to formulate its own standards and to exercise its ratemaking function free from judicial interference, provided the rates fall within a zone of reasonableness which assures that the Commission is safeguarding the public interest, that is, the interests of both investors and consumers. From the investor standpoint, courts have defined the lower boundary of the zone of reasonableness for a rate set by the Public Service Commission as one which is not confiscatory in the constitutional sense, and from the consumer standpoint, the upper boundary cannot be so high that the rate would be classified as exorbitant.*[103]

In *Washington Gas Light Co. v. Public Service Commission*, the Court determined that "A rate design is in the public interest when the revenue produced falls within the zone of reasonableness."[104]

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102 Minutes of Commission meetings (p. 3628).

103 *Metropolitan Washington Bd. of Trade v. Public Service Comm'n,* 432 A.2d 343 (DC 1981).

104 *Washington Gas Light Co. v. Pub. Service Comm'n*, 450 A.2d 1187, 1210 (DC 1982).

In 1990, instead of holding formal evidentiary hearings with each party cross-examining the other's witnesses who had filed written testimony, the Commission began holding judicial-style public-interest hearings in which each party sponsors a witness and the Commissioners ascertain from them how the merger or settlement agreement is in the public interest.[105] Prior to a hearing, parties may file written comments. Public-interest hearings often are waived if an issue does not have broad impact on the public.[106]

In 1996, when the Commission was considering the proposed merger of Baltimore Gas and Electric and PEPCO in FC No. 951, the Commission specified a higher standard for determining whether mergers were in the public interest:

> *The Applicants urge the Commission to consider only one factor in determining whether the merger is in the public interest – that the proposed transaction does not harm the public. They argue that the Commission need not enunciate "detailed standards," pointing to three prior Commission cases that did not enumerate criteria but nonetheless approved the acquisition of property by one utility from another. From these cases, the Applicants reason that so long as a merger has no detrimental effect on the public, the Commission may conclude that the transaction is in the public interest. Similarly, WGL argues that the Commission should approve the merger if there is no "adverse impact" on the public. According to WGL, "[a]doption of a no adverse impact standard permits the Commission to review the specific issues (i.e., costs, rates, benefits, competition) comprising the broad public interest and — if the effect of the merger is neutral — permits the Commission to find the merger in the public interest. The Commission, however, finds that the "no adverse impact" test recommended by the Applicants and WGL is overly simplistic, and believes that, to be in the public interest, this merger must benefit the public rather than merely leave it unharmed.*[107]

After concluding that a proposed merger must produce benefits, in the same order the Commission identified six considerations for evaluating the proposed merger in the case. They are:

1. *Ratepayers, shareholders, the financial health of the utilities standing alone and as merged, and the local economy*
2. *Utility management and administrative operations*
3. *Safety and reliability of services*
4. *Risks associated with nuclear operations*
5. *The Commission's ability to regulate the new utility effectively*
6. *Competition in the local utility market*[108]

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105 See Order No. 9482 issued March 31, 1990, in FC No. 890, a WGL rate case.

106 See Order No. 11979 issued April 20, 2001, in FC No. 962 with respect to collocation issues; Order No. 12434 issued August 6, 2002, in FC No. 922 with respect to WGL's operation of a steam plant at the Watergate complex; and Order No. 16790 issued May 25, 2012, in FC No. 1087 with respect to street lighting rates.

107 Order No. 11075, pp. 16–17 in FC No. 951.

108 Ibid., 20.

E. Mission Statement

Since the Commission's mission is to serve the public interest, and it has established standards for determining whether the public interest has been met, by the 2000s, the Commission had also developed its own mission statement that describes how it serves the public interest. The version contained in the Commission's 2013 annual report follows:

The mission of the Public Service Commission of the District of Columbia is to serve the public interest by ensuring that financially healthy electric, natural gas, and telecommunications companies provide safe, reliable, and quality services at reasonable rates for District of Columbia residential, business, and government customers. The Commission does this by:

- *Motivating customer- and results-oriented employees* [see Chapters 5 and 6]
- *Protecting consumers and public safety by ensuring safe, reliable, and quality utilities services* [see Chapters 8–10]
- *Regulating monopoly utility services to ensure their rates are just and reasonable* [see Chapters 8–11]
- *Fostering fair and open competition among utility service providers* [see Chapters 8–10]
- *Conserving natural resources and preserving environmental quality* [see Chapters 8–10]
- *Resolving disputes among consumers and utility service providers* [see Chapter 7]
- *Educating utility consumers and informing the public* [see Chapter 7]
- *Supporting the economy of the District of Columbia*[109] [see Chapters 2 and 8–10]

The remaining chapters of this book describe how the Commission has carried out its mission to serve the public interest in the regulation of electric, gas, and telephone service as it has determined just and reasonable rates; ensured quality, safe, and reliable services; preserved the environment and promoted renewable resources; and fostered competition, energy conservation, and efficiency.

We are proud that these accomplishments were made possible by the Commission's eventual leadership role, which began at least two decades before Home Rule, in furthering the causes of equal opportunity and the protection of low-income residents so that all segments of the public—by race, income level, housing type such as renters and owners, and customer class—have benefited from the increased standard of living these public utility services have enabled over its first century.

109 2013 PSC annual report, p. 8.

Tables

Table 3.1: History of PEPCO's Bond and Stock Sales, 1914–2016

No.	Date Case Opened	PUC/Formal Case No.	Order Number	Date Order Issued	Bond Sales Approved	Stock Sales Approved
1	10/13/1918	830/4	116	10/13/1918	$271,000	-
2	4/15/1919	1392/1	146	4/15/1919	$79,500	-
3	5/4/1921	2016	212	5/4/1921	$1,047,500	-
4	12/2/1921	2016	235	12/2/1921	$127,000	-
5	1/6/1922	2016/1	241	1/6/1922	$1,592,000	-
6	7/24/1922	2016/1	280, 285	8/3/1922	$2,100,000	-
7	4/17/1923	2445	322	5/11/1923	$1,750,000	-
8	3/4/1924	2445/1	376	5/23/1924	$1,150,000	-
9	7/30/1924	2445/2	384	8/10/1924	$1,400,000	-
10	6/16/1925	2445/3	437, 448	8/17/1925	$2,235,115	-
11	10/21/1925	2016/1	449	10/25/1925	$1,400,000	-
12	4/10/1927	2445/4	512, 663	5/1/1927	$5,760,166	-
13	8/24/1929	2445/7	569	9/25/1929	$5,881,236	-
14	3/3/1931	2445/8	664	3/11/1931	$5,760,699	-
15	2/10/1933	2445/9	745	2/19/1933	$1,700,000	-
16	5/26/1940	2445/15	1517	6/23/1940	$15,000,000	-
17	11/10/1941	2445/16	1645	11/25/1941	$5,000,000	-
18	11/18/1943	2445/17	1840	12/10/1943	$5,000,000	-
19	6/29/1944	294	1898, 1924	8/7/1944	$10,000,000	-
20	1/30/1946	313	2167, 2226, 2281	6/4/1946	$3,000,000	-
21	2/25/1951	365	5158	3/11/1951	$12,000,000	-
22	12/20/1951	375	3302, 3307, 3328	1/7/1952	$15,000,000	-
23	4/15/1953	386	3529, 3532	5/10/1953	$10,000,000	$7,403,125
24	4/22/1954	398	3666, 3669	5/9/1954	$30,000,000	$10,305,150
25	2/15/1956	415	3869, 3871	3/12/1956	$15,000,000	-
26	5/1/1957	426	3995, 4000	5/26/1957	$10,000,000	$13,645,440
27	5/3/1959	443	4193, 4195	5/26/1959	$10,000,000	$9,977,370
28	5/15/1960	449	4277	5/26/1960	$10,000,000	$5,487,983
29	1/19/1961	451	4352	1/31/1961	$30,000,000	$15,000,000
30	2/6/1962	457	4436	2/15/1962	-	$15,000,000
31	4/5/1962	459	4448, 4449	4/19/1962	$19,700,000	-

Table 3.1: History of PEPCO's Bond and Stock Sales, 1914–2016 (continued)

No.	Date Case Opened	PUC/Formal Case No.	Order Number	Date Order Issued	Bond Sales Approved	Stock Sales Approved
32	11/11/1962	462	4496	11/25/1962	$25,000,000	-
33	4/24/1963	467	4533	5/7/1963	-	$12,608,520
34	11/3/1963	470	4588	11/17/1963	$15,000,000	-
35	11/11/1964	475	4717	11/29/1964	$40,000,000	-
36	12/1/1965	479	4783	12/9/1965	-	$1,577,130
37	2/16/1966	481	4789	2/28/1966	-	$5,362,210
38	1/26/1967	485	4819	2/12/1967	$50,000,000	-
39	1/30/1967	486	4820	2/20/1967	-	\1
40	12/20/1967	498	4855	12/31/1967	-	$11,439,390
41	4/25/1968	499	4866	5/7/1968	$45,000,000	-
42	2/2/1969	507	4897	2/16/1969	-	$20,000,000
43	3/17/1970	518	5048, 5052	4/7/1970	$15,000,000	-
44	3/30/1970	519	5056	4/30/1970	-	$26,147,000
45	4/14/1971	525	5128, 5129	4/26/1971	$35,000,000	-
46	1/26/1972	530	5161	2/6/1972	$40,000,000	-
47	1/26/1972	531	5162	2/6/1972	-	\2
48	3/1/1973	542	5208	3/15/1973	$45,000,000	$25,000,000
49	8/6/1973	546	5396	8/22/1973	-	$6,011,000
50	1/28/1974	550	5421	2/11/1974	$35,000,000	$30,000,000
51	7/28/1974	555	5440, 5441	8/7/1974	$70,000,000	-
52	2/10/1975	561	5458	2/20/1975	-	\2
53	11/13/1975	572	5484	11/25/1975	-	$30,000,000
54	9/2/1976	579	5533	9/23/1976	$50,000,000	-
55	9/23/1976	580	5535	10/5/1976	-	$25,000,000
56	3/1/1977	592	5570	3/15/1977	$25,000,000	-
57	3/28/1977	593	5573	4/12/1977	-	$2,500,000
58	5/2/1977	598	5580, 5582	5/16/1977	-	$40,000,000
59	12/6/1977	607	5619, 5621	12/27/1977	$100,000,000	-
60	3/9/1978	617	5638	4/18/1978	-	$6,600,000
61	6/20/1978	621	5657	7/13/1978	$40,000,000	-
62	8/3/1978	623	5661	8/20/1978	$100,000,000	$25,000,000
63	3/13/1979	635	5705, 5710	4/10/1979	-	$45,000,000
64	5/6/1980	656	5795	6/3/1980	-	$10,000,000

Table 3.1: History of PEPCO's Bond and Stock Sales, 1914–2016 (continued)

No.	Date Case Opened	PUC/Formal Case No.	Order Number	Date Order Issued	Bond Sales Approved	Stock Sales Approved
65	6/17/1980	659	5810	7/14/1980	-	$1,400,000
66	1/29/1981	666	5866, 5868	3/2/1981	-	$40,000,000
67	5/5/1981	676	5881	5/28/1981	$40,000,000	-
68	4/20/1982	700	6004	7/6/1982	-	$10,000,000
69	7/22/1982	701	6021	9/23/1982	-	$30,000,000
70	7/27/1982	702	6022	11/14/1982	-	$3,000,000
71	4/27/1983	720	6089	6/1/1983	$42,500,000	-
72	6/26/1983	723	7012	7/27/1983	-	$35,000,000
73	10/27/1983	730	7070	12/22/1983	-	$10,000,000
74	3/1/1984	739	7129	4/26/1984	-	$3,500,000
75	6/27/1984	744	7171, 7231, 7329, 7620	8/1/1984	$70,000,000	-
76	8/1/1984	745	7177	8/28/1984	-	$17,500,000
77	10/8/1984	752	7232	12/18/1984	-	$20,000,000
78	3/6/1985	764	7305	5/8/1985	-	$2,500,000
79	4/22/1985	767	7330, 7446, 7447, 7513	6/6/1985	$100,000,000	-
80	11/10/1985	778	7454	12/23/1985	-	$6,000,000
81	5/14/1986	788	7619	7/17/1986	$125,000,000	-
82	7/30/1986	791	7667	10/5/1986	-	$10,000,000
83	6/20/1989	836	8313, 8384, 8481	8/14/1989	$150,000,000	-
84	1/29/1991	857	8735, 8744	4/11/1991	-	\3
85	2/26/1991	858	8768, 8782	5/7/1991	$150,000,000	-
86	2/10/1997	925	10195, 10266	4/21/1997	$300,000,000	-
87	12/23/1999	948	10782	4/11/2000	$300,000,000	-
88	3/4/2007	1018	12713	4/24/2007	$1,100,000,000	-
89	4/1/2010	1046	13977	6/17/2010	$700,000,000	-
90	10/18/2012	1066	15118	11/19/2012	$250,000,000	-
91	5/13/2013	1075	15318	6/30/2013	$750,000,000	-
92	6/9/2016	1099	16851, 16898	9/8/2016	$850,000,000	-
			Total Sold:		**$5,889,454,216**	**$587,964,318**

\1 two-for-one split of 8,579,547 shares

\2 unspecified amount of Common Stock, valued $10 each, sold

\3 two-for-one split of 47,282,656 shares

Sources: PSC orders as listed above

Table 3.2: History of WGL's Bond and Stock Sales, 1917–2015

Date Case Opened	PUC/Formal Case No.	Order Number	Date Order Issued	Bond Sales Approved	Stock Sales Approved
NA	1176	216	5/22/1921	$478,000	-
10/30/1922	2424	296	11/14/1922	$662,000	-
12/14/1920, 11/13/1922	2424/6, /7, /8	446, 495, 500	10/20/1921, 12/1/1922	$800,000	-
4/27/1927	2424/9	511	4/28/1927	$4,000,000	-
9/28/1930	2424/10	651	10/9/1930	$3,000,000	-
11/20/1934	2424/11	883	11/22/1934	$3,000,000	-
1/6/1937	2445/10	1106	1/7/1937	$8,500,000	-
3/26/1940	2424/12	1492	4/5/1940	$3,000,000	-
3/11/1941	3204	1611	6/17/1941	-	$1,900,000
5/10/1942	3204	1692	6/1/1942	-	$1,521,000
10/7/1942	2424/13	1729	10/22/1942	$8,500,000	-
3/29/1944	3204/2	1873	4/2/1944	-	$2,513,200
3/26/1946	317	2246	4/22/1946	-	$4,000,000
1/5/1947	332	2498	2/6/1947	$4,750,000	-
6/28/1949	347	2933, 2963	7/13/1949	$13,855,000	-
11/14/1949	350	2977	11/29/1949	-	$4,160,000
11/8/1951	372	3287	12/13/1951	-	$1,700,000
9/2/1952	382	3421	9/30/1952	-	$2,193,000
6/18/1953	388	3554	7/1/1953	$2,000,000	-
5/9/1954	400	3676	5/26/1954	-	$3,151,800
3/9/1955	407	3775	3/29/1955	-	$2,949,840
6/9/1955	411	3810, 3814	6/30/1955	$9,000,000	-
6/13/1956	418	3899	7/3/1956	-	$3,045,957
4/9/1957	425	3990, 3999	4/29/1957	$7,000,000	$2,400,317.75
11/14/1957	431	4035	11/25/1957	$7,000,000	-
5/27/1958	435	4084	6/10/1958	$5,000,000	-
2/18/1959	441	4173	3/9/1959	-	$4,941,558
5/6/1959	444	4194, 4196	5/18/1959	$8,000,000	-
2/16/1960	448	4263	3/6/1960	-	$5,533,498
4/26/1961	454	4371, 4377	5/8/1961	$8,000,000	-
6/26/1962	461	4470	7/12/1962	-	$6,000,000
4/8/1963	466	4530	4/22/1963	-	$10,038,600
5/14/1964	473	4652	5/27/1964	$12,000,000	-
4/1/1965	477	4749	4/22/1965	$15,000,000	-
9/15/1965	478	4773	10/7/1965	-	-
3/20/1966	482	4797	4/21/1966	-	$15,000,000

Table 3.2: History of WGL's Bond and Stock Sales, 1917–2015 (continued)

Date Case Opened	PUC/Formal Case No.	Order Number	Date Order Issued	Bond Sales Approved	Stock Sales Approved
5/15/1966	483	4799	5/29/1966	$19,200,000	-
10/15/1967	495	4846	10/26/1967	$20,000,000	-
4/30/1969	509	4928	5/12/1969	-	$15,606,900
1/15/1970	516	5040	2/26/1970	$20,000,000	-
5/6/1971	526	5134	5/17/1971	$20,000,000	-
4/5/1972	535	5172	4/17/1972	-	$10,310,066
5/29/1973	544	5391	6/17/1973	$20,000,000	-
5/28/1974	554	5437	6/27/1974	$20,000,000	-
4/17/1975	565	5462	5/6/1975	-	$10,189,825
6/4/1975	566	5468	6/25/1975	$15,000,000	-
3/7/1978	615	5632	3/27/1978	$20,000,000	-
5/15/1979	640	5723	6/25/1979	-	$15,000,000
5/15/1979	641	5722	6/25/1979	$40,000,000	-
8/12/1979	644	5732	9/16/1979	-	$5,000,000
10/3/1984	751	7221	12/4/1984	-	-
3/5/1985	761	7290	4/9/1985	-	-
3/5/1985	762	7298, 7418, 7551	11/10/1985	$50,000,000	-
8/10/1986	792	7672	10/5/1986	-	-
8/3/1987	809	7898	10/15/1987	$30,000,000	-
5/7/1990	848	8536	7/24/1990	$100,000,000	-
6/11/1991	861	8870	6/11/1991	$100,000,000	-
2/4/1992	871	9014	6/29/1992	-	-
3/7/1996	916	10035	6/19/1996	$150,000,000	-
7/2/1998	938	10501	8/30/1998	$275,000,000	-
11/16/1998	942	N/A	N/A	N/A	N/A
8/22/2000	961	10882	8/22/2000	$255,900,000	-
9/1/2002	975	11109	11/21/2002	$305,000,000	-
9/9/2004	996	11873	12/29/2004	$250,500,000	-
7/16/2006	1012	12391	9/12/2006	$476,200,000	-
7/30/2009	1042	13770	9/29/2009	$377,600,000	-
6/14/2012	1061	15119	11/25/2012	$356,500,000	-
7/19/2015	1088	16538	9/10/2015	$490,000,000	-
		Total Bonds	**$3,534,445,000.00**		
		Total Stock	**$127,155,561.75**		
		Grand Total	**$3,661,600,561.75**		

N/A - Not Available

Sources: PSC orders as listed above

Table 3.3: History of Telephone Bond and Stock Sales, 1913–2012

No.	Date Case Opened	PUC/Formal Case No.	Order Number	Date Order Issued	Bond Sales Approved	Stock Sales Approved
1		2614/10	928	6/24/1935	-	$7,000,000
2	8/28/1946	329	2403	10/21/1946	-	$30,000,000
3	9/9/1952	381	3419	9/24/1952	-	$15,000,000
4	5/2/1954	399	3675	5/20/1954	-	$15,000,000
5	3/22/1959	442	4178	5/19/1959	-	$10,000,000
6	3/5/1961	453	4363	3/23/1961	-	$10,000,000
7	6/5/1967	489	4835	6/28/1967	-	$20,000,000
8	3/9/1969	508	4906	4/1/1969	-	$40,000,000
9	9/4/1969	512	4995	9/22/1969	-	$40,000,000
10	11/26/1973	549	5412	12/19/1973	-	$15,000,000
11	2/24/1975	562	5459	3/25/1975	-	$25,000,000
12	2/10/1976	574	5504	3/15/1976	-	$35,000,000
13	8/23/1977	601	5603	9/22/1977	$60,000,000.00	-
14	2/15/1979	633	5706	4/4/1979	-	$11,750,000
15	1/31/1984	736	7099	3/8/1984	$75,000,000	-
16	3/22/1990	846	8476	3/24/1990	$100,000,000	-
17	7/8/1996	918	10098	9/30/1996	$150,000,000	-
18	3/7/2005	1000	11982	4/26/2005	$350,000,000	-
19	12/9/2008	1034	13502	2/10/2009	$250,000,000	-
20	1/26/2012	1059	14754	3/6/2012	$250,000,000	-
				Total Sold	**$1,235,000,000**	**$262,000,000**

Sources: PSC orders as listed above

Table 3.4: History of PSC Mergers and Acquisitions Cases, 1913–2015

History of PSC Mergers and Acquisitions Cases, 1913-2014					
Case No.	**Year Case Opened**	**Order No.**	**Date Order Issued**	**Subject**	**Comments**
Not Available	1913	Not Available	Not Available	Merger between Washington-Virginia Railroad Co. and Washington Utilities Co.	The Commission prevented the merger.
P.U.C. No. 2331	5/4/1917	214	5/4/1917	WGL request to acquire the stock of Georgetown Gas Light	After holding a hearing, the PUC approved the request on the grounds it would be in the public interest because it would equalize the price of gas to all consumers and this would be accomplished because of economies in the production and distribution of gas through a single management structure
F. C No. 200	9/11/1933	1193	9/28/1933	Unification of Capital Traction and Washington Railway Electric Co. (WRECO)	After holding a hearing, the PUC approved the merger on the grounds it would be in the public interest after reviewing the relevant merger documents.
F.C. No. 253	9/17/1934	Not Available	Not Available	Capital Transit request to acquire outstanding capital stock of Washington Rapid Transit Co.	
F.C. No. 262	9/10/1934	Not Available	Not Available	Capital Transit acquisition of Washington Coach Co. and Washington Suburban Coach Co., Washington Maryland Railway Co., and Washington Interurban Railroad Co.	PUC approved the merger in Order Nos. 1459 and 1460 issued on 12/23/1935.
F.C. No. 264	2/1/1936	Not Available	Not Available	Investigation of Capital Transit's accounting for the merger of and Capital Traction and WRECO	
F.C. No. 268	9/17/1936	1536	10/1/1936	WGL acquisition of Alexandria Gas and Washington Suburban Gas	PUC denied the request on the grounds it was not in the public interest. No further details or rationale were given.
PUC No. 3195	Not Available	1550	12/3/1936	Merger of WGL and Georgetown Gas Light Co.	Congress passed a special act on 5/11/1936 authorizing the merger of WGL and Georgetown Gas Light Co. PUC approved issuance of additional stock, which gave the company financial relief since it had not been permitted to increase its stock capitalization since 1896 – See *Growing with Washington,* p. 62. According to Order No. 1550, the PUC "approved an application from the two companies for certificate of authority permitting The Georgetown Gaslight Co. to effect a plan of liquidation and to merge with and into the Washington Gas Light Co. 1936 PUC Annual Report," p. 23.
Not Available	1941	Not Available	Not Available	Merger of WGL with Rosslyn and Alexandria Gas Cos.	
	12/22/1947			Divestment of PEPCO and WRECO per Public Utilities Holding Co. Act of 1935, which required utility company holding companies to divest themselves of noncontiguous operating utilities. PEPCO and WRECO were 500 miles from the nearest North American Company utility, the Cleveland Electric Illuminating Co. – delayed due to World War II. North American had gained control over WRECO in 1920s.	See PEPCO's book entitled, *100 Years of Matchless Service*, p. 28.

Table 3.4: History of PSC Mergers and Acquisitions Cases, 1913–2015 (continued)

History of PSC Mergers and Acquisitions Cases, 1913-2014					
Case No.	**Year Case Opened**	**Order No.**	**Date Order Issued**	**Subject**	**Comments**
F.C. No. 392	8/5/1949	3576	8/26/1949	Merger of PEPCO and its wholly-owned subsidiary, Braddock Light and Power Company.	The PUC approved the merger
F.C. No. 428	9/4/1953	4028	10/27/1953	WGL request for authority to acquire properties of two Virginia subsidiaries – Rosslyn Gas and Potomac Gas	After holding a formal public hearing, the PUC determined the merger was in the public interest because some economies would be realized from beneficial simplification of the corporate structure
F.C. No. 951	4/8/1996	11075	10/20/1997	Merger of Baltimore Gas and Electric and PEPCO	The PSC articulated a new public interest standard – that it must benefit the public rather than merely leave it unharmed (p. 17). The PSC established 6 criteria for determining whether the merger was in the public interest. (p. 20) After receiving testimony and holding community and formal evidentiary hearings, the PSC approved the merger with conditions. The merger was never consummated.
F.C. No. 960	7/3/1996	Not Available	Not Available	Merger of Bell Atlantic – DC and Nynex	
F.C. No. 968	1/30/1998	11532	11/5/1999	Merger of AT&T and Teleport	
F.C. No. 970	3/4/1998	Not Available	Not Available	Merger of LCI International Telecommunications Corp. and LCI International Management Services	
F.C. No. 971	3/20/1998	Not Available	Not Available	Merger of Qwest, LCI, and USLD Communications	
F.C. No. 987	1/18/2000	Not Available	Not Available	Merger of MCI Worldcom and Sprint	
F.C. No. 995	9/1/2000	Not Available	Not Available	Merger of One Point and Verizon	
F.C. No. 1002	5/11/2001	12395	8/1/2002	Merger of PEPCO and Conectiv to form New RC	The PSC approved a unanimous settlement agreement after receiving testimony but without holding a public interest hearing after the parties to the settlement agreement successfully argued that no hearing was necessary.
F.C. No. 1035	2/28/2005	13615	6/16/2005	Merger of SBC and AT&T	
F.C. No. 1036	3/7/2005	13792	10/20/2005	Merger of Verizon and MCI	
F.C. No. 1119	5/14/2014	17947	8/27/2015	Merger of PEPCO and Exelon	After receiving testimony and holding formal evidentiary hearings and community hearings, the PSC denied the merger request in Order No. 17947 issued 8/27/2015. A new proposal was submitted and the PSC held a public interest hearing and rejected the proposal in Order No. 18109 issued on 2/26/2016. However, the PSC added several conditions for approval and on 3/23/2016, the PSC approved the merger in Order No. 18148.

Source: PSC list of cases on Edocket

Table 3.5: History of Settlement Agreements in PSC Formal Cases, 1913–2019

Formal Case No.	Topic	Signatories	Order No.	Date Order Issued	Type of Agreement	Hearing	Public Interest Standard
47 & 61	Valuation of PEPCO – Approval of sliding scale method for setting rates	PEPCO and PUC	Not Available	Not Available	Unanimous	Not Available	None. The PSC does not have a copy of the settlement agreement, but it was submitted to the DC Supreme Court, which approved it in 1924.
722	Phase II – rate design	WGL, OPC, AOBA, and Commission staff	7249	1/21/1981	Unanimous – not all parties signed but no party opposed the settlement.	None	PSC concluded the settlement rates are just and reasonable and that the settlement will serve the public interest. No public interest standard used. p. 4
777	Rate case	C&P, OPC, and Commission staff	7546	4/16/1982	Non-unanimous; GSA opposed.	Evidentiary hearing – each signatory sponsored a witness and GSA was allowed to cross examine the witnesses	PSC concluded the settlement was in the public interest after addressing each of GSA's objections on the record p. 13
852	Impact of Tax Reform Act of 1986 on rates in 1987	PEPCO and OPC	8696	3/6/1987	Non-unanimous; GSA opposed.	Evidentiary hearing	PSC concluded its "adoption of the settlement terms as a resolution on the merits is in the public interest." p. 25
853	Impact of Tax Reform Act of 1986 on rates in 1987	WGL (DCNG) and OPC	8726	4/1/1987	Unanimous	Evidentiary hearing	PSC concluded its "adoption of the settlement terms as a resolution on the merits is in the public interest." p. 11
854	Impact of Tax Reform Act of 1986 on rates in 1987	C&P and OPC	8811 (1987 rates))	7/2/1987	Unanimous, GSA intervened after the settlement agreement was filed.	Evidentiary hearing	"...adoption of the settlement terms as a resolution on the merits is in the public interest." p. 12
888	Power Purchase Agreement (PPA) between PEPCO and Georgetown University for Cogeneration Plant	PEPCO and Georgetown University	9507	7/18/1990	Power Purchase Agreement	Evidentiary Hearing	PPA deemed to be in the public interest because the rates would be based on PEPCO's avoided costs as determined in F.C. No. 813.
890	Rate case	WGL (DCNG). OPC, DC government, AOBA, and Commission staff	9482	3/31/1990	Unanimous	Public Interest hearing – each party sponsored a witness who was questioned by the Commissioners and 3 community hearings were held	"The DC Court of Appeals has indicated that a rate design is in the public interest when the revenue produced falls within the zone of reasonableness. Washington Gas Light Co. v. Pub. Service Comm'n, 450 A.2d 1187, 1210 (D.C. 1982) "The Court of Appeals also has cautioned that rates are not in the public interest when they are so high that they may be called "exorbitant" or when they are so low that they may be called "confiscatory." Metro Washington Bd. of Trade v. Pub. Service Comm'n, 432 A.2d 343, 350 (D.C. 1981). p. 5

Table 3.5: History of Settlement Agreements in PSC Formal Cases, 1913–2019 (continued)

Formal Case No.	Topic	Signatories	Order No.	Date Order Issued	Type of Agreement	Hearing	Public Interest Standard
TT 91-3	Procedures for approving C&P's tariffs (in this case special assembly tariff)	C&P and Commission staff	9893 (rejected agreement) & 10081 (approved agreement)	11/15/1991 & 8/25/1992	Non-unanimous – OPC opposed.	Evidentiary hearing after rejection of settlement agreement	
917	PEPCO's 2nd Least Cost Plan	PEPCO, GSA, DC government, WGL, UMW, and Commission staff	10155	2/1/1993	Non-unanimous – OPC and WMATA opposed.	None but OPC filed comments	The PSC rejected the settlement agreement as not being in the public interest. pp. 2-3
921	WGL's 1992 (2nd) Least Cost Plan	WGL, OPC, DC government, and Commission staff	10252	6/29/1993	Unanimous	Public Interest hearing	Cited Order 9482
934	Rate case	WGL, OPC, AOBA, the DC government, IUGW, and Commission staff	10464	8/1/1994	Non-unanimous, not Manna and Community Family Life Services	Public Interest Hearing and 4 community hearings	The increase in the settlement, based on the record in the proceeding, is in the public interest because it "is fair and reasonable and not exorbitant" and it "cannot be deemed to be confiscatory in nature." p. 16
921	WGL's 1994 (3rd) Least Cost Plan	WGL, OPC, DC government, PEPCO and Commission staff	10584	3/9/1995	Unanimous; CUB, GSA, & WMATA supported the plan as being in the public interest. AOBA did not oppose adoption of the agreement.	None	"The Settlement Agreement represents a complete and uncontested resolution of this proceeding. "... having considered the stipulations, representations of the parties, and the testimony submitted in support of the Settlement Agreement, we agree that the settlement of this proceeding pursuant to the terms and conditions of the Settlement Agreement is in the public interest." "... the stipulations contained in the Settlement Agreement also promote the public interest." p. 6

Table 3.5: History of Settlement Agreements in PSC Formal Cases, 1913–2019 (continued)

Formal Case No.	Topic	Signatories	Order No.	Date Order Issued	Type of Agreement	Hearing	Public Interest Standard
814, Phase IV	1st Price Cap Plan to replace incentive regulation of F.C. No. 814, Ph. III.	1st agreement - BA-DC, OPC, AARP, GSA, and CUB	10877	11/12/1996	1st agreement - Non-unanimous AT&T, Center for Media Education, CWA, D.C. Government, ICC, MCI, and Sprint did not sign.	4 community hearings held before 1st settlement agreement filed. Public Interest hearing held after 3rd agreement was filed.	Based on the record, the Commission found the 2nd agreement, including a 2nd revised plan, to be in the public interest. p. 24
		2nd agreement – BA-DC, OPC, GSA, and CUB			2nd agreement - AT&T and DC Government objected.		
		3rd agreement filed by the same parties as the 2nd agreement					
922	6th phase in of OPEB costs	WGL and OPC	11246	9/30/1998	Non-unanimous – DC government and GSA did not oppose; AOBA & Watergate Complex Council took no position.	None	"Because the terms and conditions of the Settlement Agreement: (i) reduce the OPEB cost recovery request...; (ii) contains express provisions to foster 'intergenerational equity"; (iii) continue to utilize a 'tracker' to reconcile any under-or-over collection of OPEB costs and (iv) produce real cost savings to District of Columbia ratepayers, the Commission finds the Settlement Agreement reasonable and in the public interest." pp. 7-8
921	WGL's 1996 (4th) Least Cost Plan – Termination of least cost planning and recovery of costs	WGL, OPC, DC government, and Commission staff	11268	12/21/1998	Filed as Unanimous and PSC recast it as Non-unanimous although AOBA's original opposition to recovery of LCP costs was withdrawn. GSA & WMATA supported the agreement. PEPCO did not oppose it.	None	"... the Commission finds that it would be in the public interest to waive Commission Rule 130.10(g) and approve the Settlement Agreement as a resolution of this case." p. 6

Table 3.5: History of Settlement Agreements in PSC Formal Cases, 1913–2019 (continued)

Formal Case No.	Topic	Signatories	Order No.	Date Order Issued	Type of Agreement	Hearing	Public Interest Standard
814, Phase IV	2nd Price Cap Plan (also called Amended Price Cap Plan)	BA-DC and OPC	11545	11/17/1999	Unanimous	Public Interest hearing	In light of the evidence, the Commission found the plan and settlement agreement are in the public interest. p. 5
945	PEPCO's request to sell its generation assets & electric industry restructuring, including rate reductions	PEPCO, WMATA, GSA, AOBA, IBEW, and WGL	11576	12/3/1999	Non-unanimous- OPC, DC government, and CUB opposed. After adding two conditions, the DC government became a party to the Settlement.	Public Interest hearing	"The Commission finds, after balancing the interests of all of the parties in this case, approval of the Settlement, as clarified, is in the best interest of the ratepayers in the District of Columbia, and, as such, is in the public interest." p. 1 "The Commission's decision to approve the Settlement is based on an evaluation of the benefits to the District ratepayers... and upon the Commission's determination that these benefits outweigh the potential detriment that may come about as a result of divestiture." p. 14 "The benefits presented by the Settlement would be difficult, and in some cases perhaps impossible, to achieve absent the instant Settlement." p. 16
945		PEPCO, OPC, WGL, AOBA, CUB, GSA, IBEW, and WMATA	11845	12/5/2000	Non-unanimous; DC government and WASA opposed.	Evidentiary hearing	"Upon review of the entire record of the proceeding, and after balancing the interests of all parties in this case, the Commission finds that the Non-Unanimous Settlement, as clarified herein, is fair, reasonable, and promotes the public interest." p. 1
962	Collocation issues	Verizon	11979	4/20/2001	Unanimous – not all parties signed but no party opposed the settlement.	None	"..since the Joint Settlement Agreement is a partial, not full settlement, "the Commission has determined that a public interest hearing is not necessary to make a decision on the Joint Settlement Agreement." ... In prior decisions involving the consideration of settlement agreements, the Commission has defined the 'public interest,' to mean that approval would benefit District ratepayers, and that the benefits contained in the settlement agreement would be difficult (if not impossible) to obtain, absent approval of the settlement agreement. The Commission must also determine that the Joint Settlement Agreement complies with Section 251(c)(6) of the Telecommunications Act of 1996, which requires Verizon DC to provide collocation to competitive local exchange carriers at rates, terms, and conditions that are just, reasonable and nondiscriminatory." p. 3
1005	3rd Price Cap Plan – Price Cap Plan 2002	Verizon and OPC	12338 & 12368	2/28/2002	Unanimous but one private citizen opposed the plan at the public interest hearing.	Public Interest hearing	Public interest basis is the same as in Order 11545. "The Commission finds approving this settlement agreement is in the public interest and that District ratepayers will benefit from the alternative regulatory regime proposed by the Parties." Page 1 of Order No. 12338

Table 3.5: History of Settlement Agreements in PSC Formal Cases, 1913–2019 (continued)

Formal Case No.	Topic	Signatories	Order No.	Date Order Issued	Type of Agreement	Hearing	Public Interest Standard
1002	Merger of PEPCO and Conectiv to form new RC	PEPCO/Conectiv, OPC, AOBA, GSA, WMATA, IBEW, and AES New Energy	12395	5/1/2002	Unanimous; DC government and WGL did not oppose.	Public Interest hearing waived, but the Commission obtained written comments from the parties	“For the reasons discussed in greater detail below, the Commission finds that the proposed Settlement Agreement is in the public interest in accordance with the terms, conditions, and understandings set forth therein." p. 5
922	WGL’s operation of steam plant for Watergate complex	WGL and Watergate Complex Council	12434	8/6/2002	Unanimous	None	The Joint Settlement Agreement is in the public interest because the outstanding issues in this case were specific issues that related only to the Parties to the agreement and not to the general body of ratepayers and thus were ultimately matters best resolved by mutual consent between the parties.” p. 8 Also cited in footnote 35 the standard in Order No. 11576 in F.C. No. 945 issued 12/3/1999.
1005	4th Price Cap Plan - Amended Price Cap Plan 2002 called Price Cap Plan 2004.	Verizon and OPC	13263 & 13370	8/4/2004	Unanimous; The DC government did not take a position.	Public Interest hearing	Same language as on p. 1 quoted above in Order No. 12338.
1032	Rate case	PEPCO, OPC, AOBA, GSA, WMATA, WASA, IBEW, and CUB	13554	4/7/2005	Unanimous	None	“We have examined the agreement and find that it simply maintains the status quo and does not alter PEPCO’s current or future distribution rates, and, consequently, does not affect PEPCO’s customers, competitors, or the public.” p. 2 Therefore, the Commission made no determination that the settlement was in the public interest.
1054	Rate case	WGL, AOBA, FEA, and DC government	14694	12/28/2007	Non-unanimous; OPC & OPEIU did not sign but they also did not object or take issue with any part of the agreement.	Public Interest hearing & 3 community hearings	Cited "Office of People's Counsel PC v. Public Service Commission 797 A.2d. 719" (D.C. 2002) "(rates must fall within zone of reasonableness safeguarding interests of both investors and consumers.” Footnote 36 on p. 9. Also cited Order Nos. 11576, 10464, and 9482 – see above. Also “In order for the settlement to be in the public interest, the rates cannot be so high as to be considered exorbitant or so low to be considered ‘confiscatory." p. 9.
1087	Street lighting rates	PEPCO and DC government	16790	5/25/2012	Unanimous	None	The agreement affected only the District Government and PEPCO. “We have examined the substance of the Settlement Agreement and find it to be fair, just, reasonable and in the public interest. p. 5

Table 3.5: History of Settlement Agreements in PSC Formal Cases, 1913–2019 (continued)

Formal Case No.	Topic	Signatories	Order No.	Date Order Issued	Type of Agreement	Hearing	Public Interest Standard
1057	5th Price Cap Plan – Price Cap Plan 2008	Verizon and OPC	15056 & 15071	9/8/2008 & 9/26/2008	Unanimous; Not all parties signed but no party opposed the settlement. CWA intervened after the settlement agreement was filed.	Public Interest hearing	In Order No. 15056, the Commission approved the settlement agreement and found it to be in the public interest with modifications. The 2nd order approves the revised plan with its modifications.
1027, GT 97-3, GT 06-1	Cost recovery for fixing mechanical coupling leak problems	WGL and OPC	15627	12/16/2009	Unanimous	Public Interest Standard was the same as in F.C No. 1115.G37	"Taken as a whole, the Settlement Agreement can be considered in the public interest because it proposes to resolve the mechanical coupling leak problem by both posing a means of resolving the problem and provides for continued monitoring of couplings and pipe to address any increase in the number of leaks." The Settlement Agreement provides for cost recovery in a balanced way, spread out in time. All customers must contribute to cost recovery. Thus, the Commission determines that the Settlement Agreement is in the public interest." p. 7 The Commission made one minor modification (change in cut-off date) to the Agreement.
1105	Investigation of Starion's business practices	Starion Energy and OPC	17369	2/6/2014	Unanimous; PEPCO did not oppose.	Public Interest hearing	The Commission found the provisions of the Settlement Agreement to be in the public interest since they provide a fair and reasonalbe restitution mecchanism for consumers... p.24
1115	Financing mechanism for Accelerated Pipeline Replacement Program (APRP)	WGL, OPC, and AOBA	17789	1/29/2015	Unanimous	Public Interest hearing	The Commission defined the public interest in this proceeding "in relation to meeting the objective of funding the accelerated replacement of high risk pipe through an accelerated funding mechanism as opposed to funding through base rates where the prudent costs have already been expended and reviewed. pp. 26-27 The Commission found thee Settlement Agreement to be fair, adequate, reasonable, and free of collusion. p. 27
1119	Merger of PEPCO and Exelon	PEPCO/Exelon, OPC, DC government, and AOBA	Not yet issued	8/25/2015	Non-Unanimous; DC government, SUN, GRID 2.0, MAREC, MDV-SEIA, and GSA opposed.	Public Interest and 2 days of community hearings	Merger was consummated on March 2, 2016.

Sources: PSC orders as listed above

CHAPTER 4

Mission Accomplished: Summary Conclusion

This book's theme is straightforward:

Between 1913 and 2013, the Commission served the public interest through its ratemaking responsibilities by approving declines in the real prices of electric, gas, and telephone services that spurred a dramatic rise in the standard of living to the benefit of all segments of the residential, commercial, and governmental sectors. At the same time, it kept financially healthy utility companies operating in the District so they could provide safe and reliable service. In so doing, the Commission has operated cost-effectively to the benefit of ratepayers and all other segments of society.

DECLINING REAL RATES HAVE CONTRIBUTED TO A RISE IN THE STANDARD OF LIVING WHILE UTILITY COMPANIES HAVE PROSPERED AND THE COST OF REGULATION HAS BEEN MINIMAL

A. Declining Real Rates...

Before establishment of the PUC, Congress set gas and electricity rates in DC. In 1913, electricity cost nearly 17 cents a kilowatt hour (Kwh) and gas cost 8.5 cents per therm. Streetcar fares were a nickel. Single-line telephones cost $4 a month, making them too expensive for most residential consumers except the White House.

Converting these amounts to 2013 dollars shows why there was very little residential use of electric, gas, and telephone service in 1913. The 1913 electricity rate is equivalent to nearly $4 per Kwh in 2013 dollars; the 1913 gas rate is equivalent to $2 per therm in 2013; and the 1913 telephone rate is equivalent to $94 a month in 2013. These rates are extremely high even by today's standards: In 2013, the average residential rate for electricity in the District was 13.44 cents per Kwh; for natural gas it was $1.16 per therm; and for monthly single-line, local telephone service it was $13.78.[110]

The declines in real prices have benefited residential customers at all income levels and in all housing types. Renters, who traditionally have made up the largest share of households in the District, are advantaged whether utility rates are included in their rents or paid each month in a separate bill.[111] Utility rates traditionally are also one of the largest components of housing costs, after mortgages, and directly impact whether someone can afford to own a house.

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110 These rates exclude taxes and surcharges.

111 As far back as the 1930s, Congress recognized the significance of utility rates for renters by requiring the Commission to conduct an independent survey of rents. Upon completion of the survey in 1934, the Commission provided a report of recommendations to the DC Commissioners to be used in drafting a bill to provide a housing law for the District.

Figure 8.3: PSC-Calculated Real Average Residential Electricity Rates per Kwh, 1913–2013

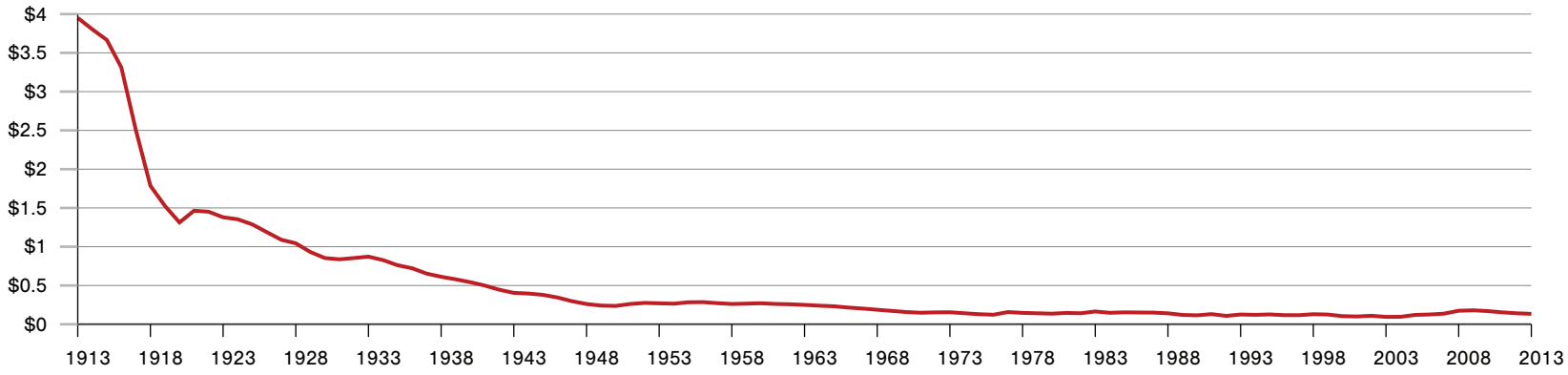


Figure 9.3: PSC-Calculated Real Residential Natural Gas Rates per Therm, 1913–2013

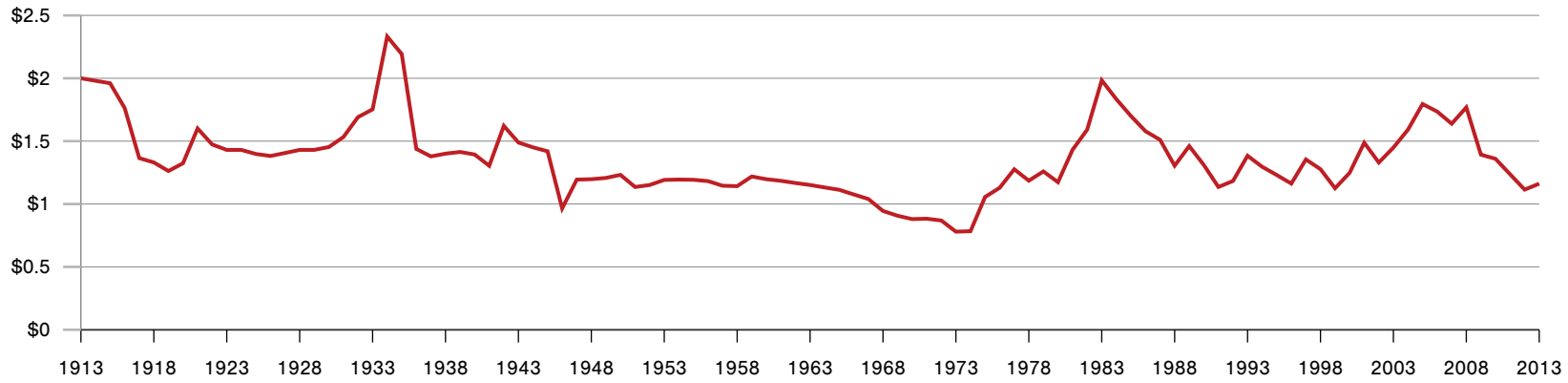
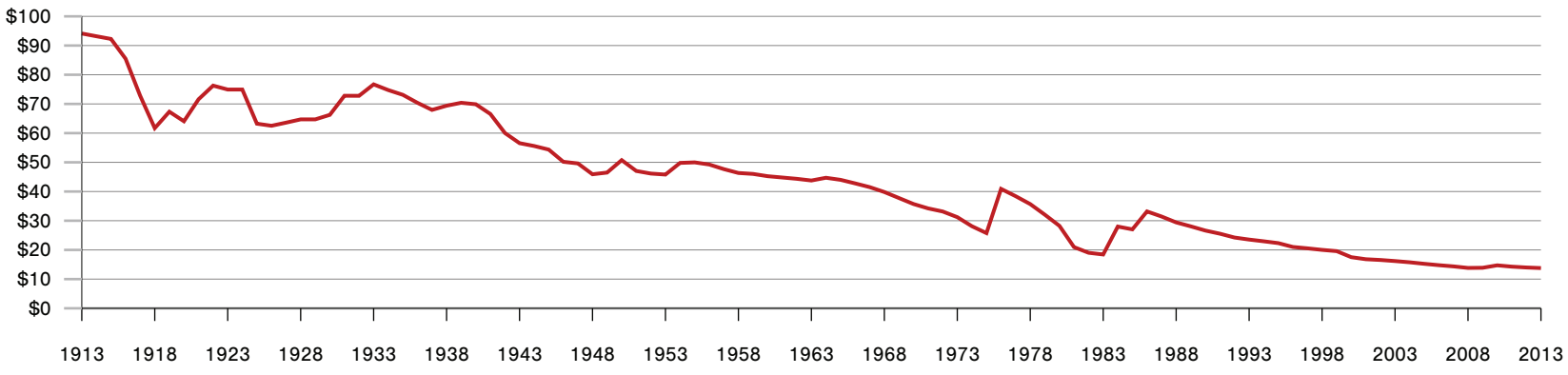


Figure 10.2: Real Monthly Residential Rates for Single-Line Telephone Service,1913–2013



Griffith-Consumers' advertisements for coal in the 1940s. The company also sold heating oil.

Throughout this book, average monthly residential rates are used to describe the trend in rates over the Commission's first century. Residential rates are used for several reasons: First, the residential class is the largest customer class in terms of number. Second, residential customers account for a much larger percentage of the number of customers in DC than in many other jurisdictions because DC has a very small industrial base. Third, the residential class is far more homogeneous than the nonresidential class, making its averages more meaningful. Fourth, average residential rates have usually been higher than nonresidential rates, so they serve as an upper limit for gauging rate trends. Because of this, consumer advocates often argue for allocating a smaller share of the utility revenue requirement to the residential class in rate cases. On the other hand, intervenors such as the Apartment and Office Building Association, argue that the residential class's rates of return are below returns for the commercial classes such that costs should be shifted toward the residential class rather than away from it.

The decline in real electric, gas, and local telephone rates has made utility services affordable to residents, businesses, and the government. In fact, what started out as luxuries for a few in 1913 have become necessities for almost everyone in 2013. For example, as real residential electricity rates declined, residential electricity use increased from minimal levels for a few and virtually zero for most people to 100 percent of households, thanks to the introduction of a number of small household appliances in the 1920s, air conditioning in the 1940s and 1950s, the computer in the 1970s and 1980s, and the proliferation of other electrical devices that now are essential for daily life among all residential, business, and government customers. In 2013, about 38 percent of DC residential customers heated their houses with electricity; electric heat accounted for less than one percent in 1960 (see Table 4.1).

Similarly, the ratemaking policies and decisions of the Commission propelled the local residential telephone penetration rate in the District to over 90 percent by the 1980s. To ensure that everyone had access to this vital service, the Commission established a $1 per month rate for low-income customers in the early 1990s that is still in effect today. In 1913, most homes were heated with coal or oil. Residential use of gas for heating began in the 1930s. Gas for cooking and heating water also started to be popular as rates declined.[112] By 1970, 52 percent of DC homes were heated by gas. In 2013, nearly 60 percent of occupied residential units relied on gas for heating (see Table 4.1).

The downward trend in residential electric, gas, and local telephone service rates has not been confined to the District—it has been a national trend.[113] Table 4.2 compares 2013 residential rates in DC with national averages. Both residential electric and gas rates in DC were higher than national averages, while DC local telephone rates were lower than the national average.

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112 Census of Housing, US Census Bureau, and Selected Housing Characteristics for the US and DC, 2009–2013, American Community Survey 5-Year Estimate.

113 See Steve Mitnick, editor-in-chief of *Public Utility Fortnightly*, in his January 14, 2016, email, "Electric Rates Are Historically Low."

Table 4.1: Percentages of Households by Heating Fuel – DC and US, 1940–2013

Year	DC					US				
	Coal	Oil	Gas	Electricity	Solar	Coal	Oil	Gas	Electricity	Solar
1940	65.5	20.0	10.8	0.0	0	54.7	10.0	11.3	0	0
1950	40.4	28.4	27.8	0.1	0	34.6	22.6	26.6	0.7	0
1960	19.1	42.0	35.9	0.4	0	12.2	32.4	43.1	1.8	0
1970	3.8	34.9	52.3	5.8	0	2.9	26.0	55.2	7.7	0
1980	0.2	30.0	57.4	10.2	0	0.6	18.2	53.1	18.4	0
1990	0	12.5	63.5	20.5	0	0.4	12.2	51.0	25.8	0
2000	0	6.9	65.4	24.2	0	0.1	9.0	51.2	30.3	0
2013	0	2.2	57.2	38.5	0.1	0	5.5	53.2	37.4	0.3

Blue: Shows largest percentages for DC and the US each year.
Source: US Bureau of the Census, Census of Housing

Table 4.2: 2013 Average Residential Rates, DC and US

Jurisdiction	Electricity (Cents per Kwh)	Gas($ per Therm)	Telephone (2015 $)
DC	11.90 (EIA)	$1.43 (EIA)	$18.28 (PSC)
DC	13.44 (PSC)	$1.62 (PSC)	$18.28 (PSC)
US	9.80 (EIA)	$1.22 (EIA)	$21.22 (FCC) [1]

[1] Telephone data are for 2015 and the rates include the Subscriber Line Charge and Universal Service Fee.

Source: EIA – Energy Information Administration, US Department of Energy

B. ...Have Contributed to a Rise in the Standard of Living...

No one is likely to dispute that there has been a dramatic increase in the standard of living in the District between 1913 and 2013. As the Commission approves the rates that companies under its jurisdiction can charge retail customers for utility services, it shares responsibility and credit for the socioeconomic development of the District as measured by the rise in the standard of living for all, including the poor, over its first century.

Use of electrical and natural gas appliances and equipment is an indicator of standard of living. Table 4.3 below summarizes the penetration of selected appliances in 2000 and 2015 according to PEPCO's Appliance Saturation Survey for those years. The 2000 survey contained the most recent data available as of 2013; the table also shows results of the saturation survey (conducted in February 2015) that the company filed in FC No. 1139 on June 30, 2016, in compliance with paragraphs 404 and 405 on page 158 of Order No. 17424 issued March 26, 2014, in FC No. 1103.

Table 4.3: Summary of Results from PEPCO's 2000 and 2015 Appliance Saturation Surveys

Appliance/ Equipment	2000 Residential Penetration Rate	2000 Penetration Rate for Low-Income Customers (< $40,000 income)	2015 Residential Penetration Rate	2015 Penetration Rate for Low-Income Discount (RAD) Customers
Air Conditioning (Central and Window Units)	97.1%	94.6%	97%	96%
Refrigerator	89.5%	81.1%	98%	95%
Gas Range	50.1%	48.0%	N/A	N/A
Electric Range	28.1%	20.3%	N/A	N/A
Electric Cooktop and Oven	15.4%	11.4%	57% cooktop; 67% oven/stove	54% cooktop; 71% oven/stove
Gas Cooktop and Oven	26.5%	20.3%	33% cooktop; 31% oven	N/A
Microwave Oven	88.0%	67.2%	91%	87%
Dishwasher	48.8%	19.7%	68%	41%
Clothes Washer	68.1%	43.1%	63%	40%
Electric Dryer	50.5%	29.1%	59%	37%
Gas Dryer	13.1%	6.0%	4%	N/A
TV	88.1%	79.1%	23% conventional TV; 85% flat screen; 15% plasma/projection	41% conventional TV; 64% flat screen; 14% plasma/projection
Stereo	72.8%	57.1%	N/A	N/A
Computer/Laptop	43.4%	17.5%	36% desktop; 83% laptop	36% desktop; 65% laptop
Internet	37.3%	11.0%	84%	65%
Cell Phone	43.1%	25.0%	87% smartphone	70% smartphone

The table shows near-universal use of most of the appliances and technical devices among all residential customers, including low-income customers, represented by a sample of households with incomes below $40,000 in 2000 and participants in PEPCO's Residential Aid Discount program in 2015. A survey of broadband service providers in the District revealed that by the end of 2013, 76 percent of District residents had internet access in their home, a somewhat higher rate than the national average of 72 percent.[114]

114 According to the US Census Bureau's American Community Survey, in 2013, the percentage of households with broadband internet access was 73.4 percent in both DC and the US.

C. ...While Utility Companies Have Prospered...

Utility service customers have not been the only beneficiaries of regulation; the public utility companies also have prospered. In 1913, revenues of the electric, gas, telephone, and transportation companies in DC were about $11 million, equivalent to $258 million in 2013 dollars. By 2013, the Commission no longer regulated transportation services, but the revenues of the incumbent and competitive electric, gas, and telecommunications companies subject to the Commission's jurisdiction totaled over $1.8 billion, more than a sevenfold increase over the $258 million equivalent value in 1913.

In addition to a growth in revenues, the companies have maintained strong credit ratings, capital structures, and balance sheets. WGL, for example, had an impressive company-wide Standard and Poor's (S & P) credit rating of AA- from 1985 through 2010. It dropped a notch in 2011 to A+, where it continued to stand throughout 2013. WGL's common equity ratio was 57.94 percent on September 30, 2013, while total assets were $3.5 billion and total liabilities were $12.3 billion.[115] PEPCO had an S&P credit rating of BBB+ from 2010 through 2013; a common equity ratio of 47.56 percent; and total assets of $6.2 billion and total liabilities of $2.7 billion as of December 31, 2013.[116,117]

D. ...And the Cost of Regulation Has Been Minimal...

These benefits have come at little cost to ratepayers. The cost of regulation to ratepayers can be measured by how the Commission's 2013 operating budget of $10.8 million, the largest in its history, impacted rates, because those costs were ultimately folded into rates and borne by all ratepayers. Data show that the PSC's operating budget accounted for a little more than half of one percent of residential consumers' monthly electric, natural gas, and local telephone bills in the aggregate.[118]

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115 SNL Financial (fiscal years ending September 30, 2012, and September 30, 2013).Washington Gas profile retrieved January 22, 2019, from S&P Global Market Intelligence subscriber database.

116 SNL Financial (calendar years ending December 31, 2012, and December 31, 2013). Potomac Electric Power Company profile retrieved January 22, 2019, from S&P Global Market Intelligence subscriber database.

117 The original C&P company provided principally local telephone service in DC, Maryland, Virginia, and West Virginia. In 2013, Verizon-DC's local telephone service accounted for a small share of Verizon's service territory and lines of business, so that its S&P data are not representative of Verizon-DC's financial performance. WGL served DC and parts of Northern Virginia and suburban Maryland; PEPCO served DC and parts of suburban Montgomery and Prince George's counties in Maryland.

118 See Calculation of the 2013 Cost of PSC Regulation to Residential Customers.

Table 4.4a Calculation of the 2013 Cost of PSC Regulation

DC PSC 2013 Budget:	$10,359,612								Impact on Residential Bill			
	2013 Revenue	% of Total Revenue	Budget Based on % of Revenue	No. of Lines/ Kwh/Therms in 2013	Asmt. Per Annual Line	Asmt. Per Annual Kwh	Asmt. Per Annual Therm	Avg. monthly Kwh/ Therm	Annual	Monthly	Avg. Monthly Bill	% of Monthly Bill
Competitive Local Exchange Carriers (CLECs)	$56,998,804	3.04%	$315,292	280,442	$1.12				$1.12	$0.093689		
Verizon-DC	$141,773,978	7.57%	$784,230	471,300	$1.66				$1.66	$0.138664	$23.93	0.579%
	$198,772,782	10.61%	$1,099,521	751,742								
Competitive Electricity Suppliers	$643,416,909	34.36%	$3,559,092	8,687,745,000		$0.000410		698	$0.29	$0.023829		
PEPCO-DC	$688,831,174	36.78%	$3,810,303	11,085,519,000		$0.000344		698	$0.24	$0.019993	$92.95	0.022%
	$1,332,248,083	71.14%	$7,369,395	19,773,264,000								
Competitive Natural Gas Suppliers	$110,482,320	5.90%	$611,138	190,357,595			$0.0032	59.60	$0.19	$0.015945		
WGL-DC	$231,319,963	12.35%	$1,279,558	303,338,956			$0.0042	59.60	$0.25	$0.020951	$72.00	0.029%
	$341,802,283	18.25%	$1,890,696	493,696,551								
Total	$1,872,823,148	100.00%	$10,359,612	20,267,712,293								0.630%
	-		-	19,753,490,736								

Table 4.4b Final Summary Review of 2014 Annual Assessment Surveys

(Based on survey responses received as of July 21, 2014)

CLECs and Competitive Suppliers	2013 Revenue	Residential Lines/ Therms/MWH	Non-Residential Lines/Therms/MWH	Total Lines/Therms/ MWH	Residential Customers	Non-Residential Customers	Total Customers
Total CLEC	$ 56,998,803.67	20,452	259,990	280,442	18,944	13,730	32,674
Total Natural Gas	$ 110,482,320.00	12,823,475	177,534,120	190,357,595	12,332	4,446	16,778
Total Electric	$ 643,416,909.00	483,454	8,204,291	8,687,745	18,550	10,030	28,580
Incumbent Utilities:	2013 Revenue	Residential Lines/ Therms/MWH	Non-Residential Lines/Therms/MWH	Total Lines/Therms/ MWH	Residential Customers	Non-Residential Customers	Total Customers
Verizon-DC	$ 141,773,978.00	100,354	360,946	471,300	93,603	38,679	132,282
Washington Gas (WGL)-DC	$ 231,319,963.00	101,411,457	201,927,499	303,338,956	114,134	13,128	157,262
PEPCO-DC	$ 688,831,174.00	2,033,618	9,051,901	11,085,519	235,322	26,532	261,854

CLEC Revenues		Natural Gas Revenues		Electric Revenues	
CLEC's Share of Revenues	28.68%	Competitive Gas Share of Revenues	32.32%	Competitive Electric Share of Revenues	48.30%
Lines		Therms		Mwh	
Share of Residential Lines	16.83%	Share of Residential Therms	7.88%	Share of Residential Mwh	7.31%
Share of Non-Residential Lines	26.20%	Share of Non-Residential Therms	25.30%	Share of Non-Residential Mwh	27.43%
Share of Total Lines	19.81%	Comp Gas share of Total Therms	9.64%	Comp Electric share of Total Mwh	9.48%
Customers		Customers		Customers	
Share of Residential Customers	16.93%	Share of Residential Customers	11.23%	Share of Residential Customers	19.21%
Share of Non-Residential Customers	41.21%	Share of Non-Residential Customers	46.79%	Share of Non-Residential Customers	47.54%
Total Customers	37.31%	Share of Total Customers	38.56%	Share of Total Customers	43.94%

Aggregate Revenues 2013	
CLEC + Verizon-DC	$ 198,772,781.67
Natural Gas + WGL-DC	$ 341,802,283.00
Electric + PEPCO-DC	$ 1,332,248,083.00
Total	**$ 1,872,823,147.67**

CHAPTER 5

... In the Life of the Commission

The Public Service Commission of the District of Columbia is one of the longest serving, continuously operating District government agencies. It began with less than ten employees (excluding commissioners, who also were members of the DC Board of Commissioners). Over the years, the Commission has had no more than 100 employee positions at any one time.

Throughout its first century, the Commission has operated, for the most part, like a court, with the Commissioners serving as judges who render decisions through orders after they adjudicate public policy issues through formal cases and proceedings related to the public utilities in the District of Columbia. The utility companies, the consumer advocate called the People's Counsel, and other intervenors are parties in these cases.

This chapter describes the internal operations of the Commission before presenting its record on numerous public policy issues in DC's electric, gas, and local telephone industries in subsequent chapters. It profiles the Commissioners and discusses how the Commission's jurisdiction has evolved, how it has been funded, and other administrative topics.

A. The Commission's Changing Jurisdiction

The appropriations act that created the Public Utilities Commission of the District of Columbia (PUC) defined "public utility" to "mean and embrace every street railroad, street railroad corporation, common carrier, gas plant, gas corporation, electric plant, electrical corporation, water power company,[119] telephone corporation, telephone line, telegraph corporation, telegraph line, and pipeline company."[120] It also defined each of the terms in that sentence. Since the act did not list the specific companies to be regulated, that task was left to the first general counsel of the Commission, Edward H. Thomas, who was also the DC corporation counsel. In his legal opinion, he identified 12 street railway and coach companies, two gas plants/corporations, one electric plant/corporation, four telephone, telegraph, and telephone line corporations, one pipeline company, seven express and storage companies, and three taxicab companies. Several companies, mostly taxicab and storage companies, challenged their designation. The Commission addressed the dispute in FC No. 7, finding in its 1914 decision that it had jurisdiction over the taxicab companies but not the storage companies. The taxicab companies appealed to the DC Court of Appeals, which ruled in the Commission's favor.

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119 Although some state public utility commissions regulate water companies, the Commission in DC has never done so. From time to time, this topic has been discussed by the DC Council, but no action has been taken.

120 Sec. 8, Par. 1 of the act.

Of the companies originally under the jurisdiction of the Commission, only three remained in existence in 2013. They are PEPCO, which was controlled by Washington Railway and Electric Co. (WRECO) in 1913; WGL; and the successor to C&P, now called Verizon-DC.[121] Regulatory responsibility for the streetcar and subsequent bus line companies was transferred to a newly created regional Washington Metropolitan Area Transit Commission (WMATC) in 1961. Jurisdiction over taxicab regulation was transferred to a newly created Taxicab Commission in 1986. On August 30, 1964, Public Law 88-303, the DC Securities Act, gave the Commission responsibility for regulating the business of selling securities in the District of Columbia, including the licensing of broker/dealers. The added responsibility brought about the name change to Public Service Commission of the District of Columbia (PSC). Later, in 1997, the responsibility for securities regulation was transferred to a newly created DC Department of Insurance and Securities.

B. Profile of the Commissioners

There have been 69 Commissioners between 1913 and 2013.[122] The first 16 commissioners were also members of the DC Board of Commissioners, with jurisdiction over all District government matters. On March 10, 1913, President Wilson swore in Chester Harding, the DC engineer commissioner, and Cuno H. Rudolph, also a DC Commissioner, as the first PUC Commissioners. The third DC Commissioner, John Alexander Johnston, was not eligible to serve on the PUC because his service as a trustee of several utility companies was deemed a conflict of interest by the DC corporation counsel, Edward Thomas, as his first official duty as the Commission's general counsel.[123]

Not surprisingly, the DC Commissioners found it difficult to wear two hats. In 1926, with support from the DC Commissioners, citizen associations, and the utility companies themselves, Congress restructured the PUC by allowing only one DC Commissioner, the engineer commissioner, to serve on the PUC.[124] The other two PUC commissioners were to be appointed by the US President with the advice and consent of the US Senate. Their terms were set at three years. President Coolidge signed the new act into law and appointed John W. Childress to be a PUC commissioner on March 7, 1927.

The 1926 act also created a people's counsel position within the Commission. The first people's counsel was Ralph B. Fleharty. The position remained filled, by Richmond Keech (1930–1934) and William Roberts (1934–1936), until 1936. After a vacant period, James Lauderdale became people's counsel in 1944 until President Truman appointed him a commissioner two years later. The people's counsel position was abolished in federal Reorganization Plan No. 5, approved in 1952, then was resurrected as part of the Home Rule Act in 1975. Although technically still part of the Commission,

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121 C&P's name changed to Bell Atlantic-DC in 1993. In 2000, Bell Atlantic-DC merged with GTE to form Verizon-DC.

122 Their portraits are shown at the end of this chapter.

123 Woodrow Wilson appointed more commissioners (11) than any other President; Dwight Eisenhower appointed eight, the next largest number. Mayor Marion Barry, a three-term mayor, appointed more commissioners (six) than any other mayor.

124 Public Law No. 529, Par. 97 (a).

the Office of the People's Counsel (OPC) has operated independently by representing primarily residential ratepayers in all Commission proceedings to date. Mayor Walter Washington appointed Annice M. Wagner as the people's counsel in 1975. Five people have held the position since: Brian Lederer (1977–1983), Frederick Dorsey (1984–1990), Elizabeth Noel (1991–2010), Brenda Pennington (2010–2011), and Sandra Mattavous-Frye (2011–present).

The President appointed commissioners until 1967, when Congress reorganized the District government as a precursor to Home Rule, after which the presidentially appointed mayor chooses a PSC commissioner. Mayor Walter Washington appointed his deputy mayors, Thomas Fletcher in 1968 and Graham Watt in 1970, to the PSC; President Nixon made the other appointments. The Home Rule Act of 1973, implemented in 1975, designated the Public Service Commission as a charter independent body under Title IV—The District Charter, Part F, Independent Agencies and Authorities.[125] The Act also called for the elected DC Mayor to nominate and appoint all three commissioners with the approval of the DC Council. It also extended commissioners' term of service from three years to four.

There have been 28 Commission chairpersons between 1913 and 2013. Three of the 28 (McCoach, Neely, and Meyers) served on an acting basis only. Until 1984, the commissioners selected the chairperson every other year. That year, the DC Council passed legislation, which allowed the mayor to appoint the chairperson. Patricia M. Worthy was the first chairperson appointed by the DC mayor, who at the time was Marion Barry. The longest serving commissioner is Agnes Alexander Yates, an attorney (16 years), and the longest serving chairperson is James Flanagan, an accountant (more than ten years).

Lawyers account for the largest number of commissioners (33). The second predominant profession is military officer (18), most of whom were engineers, which is consistent with the Commission's regulatory jurisdiction over companies responsible for the city's transportation, electric, gas, and local telecommunications infrastructure. More commissioners have graduated from West Point (15) than any other university. This reflects the fact that at least one commissioner was also the DC engineer commissioner until 1967, when the DC government was reorganized. There have been an additional four engineers who were not affiliated with the military. The remaining principal professions are public servant (six), economist (three), businessman (three), reporter (two), accountant (two), banker (two), and philanthropist (one). [126]

C. Commissioners' Grades and Salaries

The act that created the Commission did not prescribe salaries for the commissioners since they were also the DC Commissioners. Nor did the act provide compensation for the increase in their workload. According to the DC Commissioners' 1913 Annual Report to Congress, the District budget designated $10,000 for the salaries of the three

125 See page 62 of the Act.

126 The number of professions total 72, three more than the number of commissioners because three commissioners fit two professions.

DC Commissioners. Most likely, two commissioners were each paid half that amount and the engineer commissioner was paid based on the military pay scale for his rank.[127]

When separate DC and public utilities commissioner positions were created, the 1926 Act also specified the salary for the non-engineer PUC commissioner. Each appointee would be paid $7,500 annually, equivalent to about $99,000 in 2013 dollars. No funds were specified for the engineer commissioner, but the bill did provide a salary of $7,500 for the people's counsel position.

In 1949, when the Classification Act of that year introduced the federal government's general service (GS) compensation system, the commissioners' salaries were set at $10,000 on the GS-15 pay scale. Commissioner Robert McLaughlin was paid an annual salary of $10,800 in 1953.[128] When Chairman George E.C. Hayes joined the Commission in 1954, commissioners' salaries increased to the GS-16 level, $12,800 per year.[129] In 2005, the salaries were upgraded to Grade 17. The chairperson's salary was set at the top of Grade 17 (step 10), and each commissioner's salary was set at step 8. As of the end of 2013, the chairperson's salary was $161,007 and each commissioner's salary was $153,340.

In 1997, the District government's adoption of an open-band system in which the 10 steps for all grade levels 15 and above were eliminated posed a problem for the chairperson's and commissioners' salaries that were tied to steps by statute. That statute was finally changed in 2014 and the commissioners' and chairperson's salaries were maintained at Grade 17. Compensation for the commissioners was set at the midpoint of the E5 level and the chairperson's salary was set five percent higher than the midpoint.

There have been times when the salaries of some senior PSC employees have been higher than the salaries of the commissioners and chairperson. This occurred, for example, when the commissioners' salaries, set by statute, did not change when the District Service (DS) and Management Supervisory Service (MSS) pay scales changed. More recently, when the attorneys unionized, their contracts provided larger percentage increases than were granted to other District government employees, including the commissioners. Thus, in 2003, two attorneys had salaries higher than the salary for the chairperson, general counsel, and executive director. Additionally, seven employees (six of whom were attorneys) were paid more than the commissioners.

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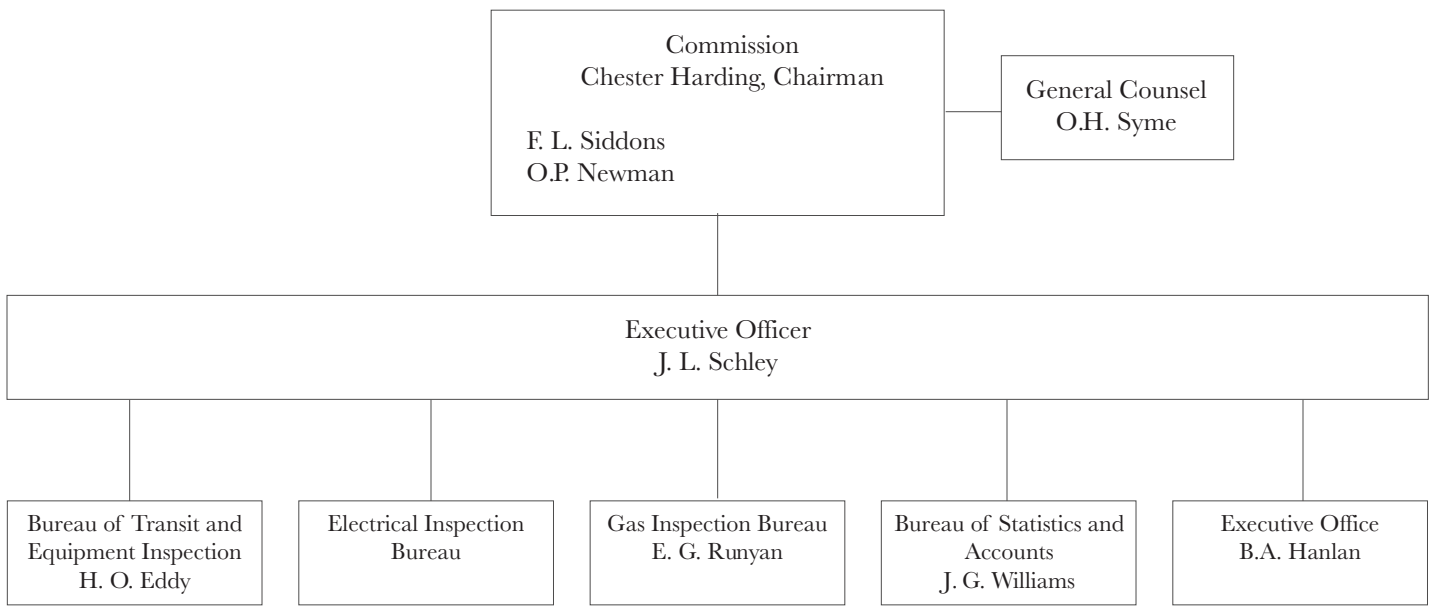
127 Annual Report of the Commissioners of the District of Columbia Year Ended June 30, 1913, Volume I Report of Commissioners Miscellaneous Report, p. 105.

128 Minutes of Commission meetings, p. 3653.

129 Minutes of Commission meetings, pp.3349, 3957–3958.

D. The First Organizational Structure



The above chart shows the Commission's first organizational structure: the chairman and two commissioners at the top, a general counsel and executive officer who reported to the chairman, and four bureaus—Transit and Equipment Inspection, Electrical Inspection, Gas Inspection, and Statistics and Accounts—whose chiefs reported to the executive officer. In 1914, a fifth bureau, Valuation, was added to the organizational structure.

Although Chester Harding and Cuno Rudolph were sworn in as PUC commissioners on March 10, 1913, Commissioner Rudolph left soon after; Frederick Siddons and Oliver Newman became DC Commissioners—and PUC commissioners—on July 19, 1913. The first executive officer, J.L. Schley, was a captain in the Army Corps of Engineers and was assistant to the engineer commissioner before being appointed executive officer. His salary was paid by the US Army.

At the outset, the Commission assumed responsibility for at least two departments that already existed in the District government: Harry C. Eddy, chief of the Bureau of Transit and Equipment Inspection and most of the staff in the office had previously worked for a similar office within the District government. The Gas Inspection Bureau, including its chief, E.G. Runyan, also had provided similar services within the local government.

E. Commission Funding and Assessments on the Utility Companies

Assessing utility companies for the operating budgets of state public service commissions is a common practice, but the methods and formulas vary widely. Thirty state commissions are funded by some sort of assessment on the companies they regulate.[130]

The Commission has two principal sources of funds to cover its cost of operations: assessments for its annual operating budget and assessments for formal proceedings.

1. Assessments for Annual Operating Budgets

Initially, the Commission's annual operating budget was approved by Congress as part of its approval of the District government budget. After Home Rule in 1975, the Commission's budget had to be approved by the DC Council and Mayor as part of the District government's budget before ultimately being approved by Congress within the District government budget. Once approved by Congress, the Commission assesses the companies under its jurisdiction for its operating budget. This means it does not have to rely on local taxpayers' funds.

Section 8, paragraph 98, of the 1913 appropriations act ("the act") authorized $40,000 for the fiscal year ending June 30, 1914. Half that amount was to be covered out of "the revenues of the District of Columbia and one-half out of any monies in the Treasury not otherwise appropriated." All funds collected by the Commission from fines, forfeitures, and penalties were to be paid into the US Treasury and half of that amount would be credited to the District of Columbia.

Paragraph 95 of the act gave the PUC power to employ and prescribe the duties of its "officers, clerks, stenographers, typewriters, inspectors, experts and employees" who are deemed necessary for it to carry out its duties and responsibilities and to set their compensation within the appropriations provided by Congress. According to the same section of the act, the Commission is authorized to procure "postage, printing, blanks, books, law books, books of reference, and periodicals, stationery, binding, rebinding, repairing and preservation of records, desks, office furniture and supplies, traveling expenses of the Commission, the commissioners, and every officer, agent, and employee thereof, and all other general expenses." All payments and disbursements were to be made by the disbursing office of the District of Columbia upon proper documentation.

The issue of operating budget assessments arose again in 1980 with the creation of the Office of the People's Counsel (OPC). The act added OPC's operating budget to the assessments. It also prescribed the method for calculating what each company would pay; that is, to obtain each company's jurisdictional revenue, aggregate them, and apply each company's

130 See Institute of Public Utilities (IPU) "Commission Structure" database on the IPU website, released November 2013.

percentage share of the total to the Commission's and OPC's operating budgets. If one company had 50 percent of the revenues, for example, it was assessed 50 percent of the Commission's budget and 50 percent of OPC's budget.

This approach worked well until competition was introduced into the electric, natural gas, and local telephone markets. How were these new competitors to be assessed? The matter was complicated: Assessment language differed in the electric and telecommunications competition legislation and there was no statutory authority for the assessment of the competitive gas suppliers because there was no statute or legislation requiring them to contribute to the Commission's costs incurred when formal proceedings were held on issues related to them. In addition, it would be unfair to assess the incumbent utility companies for all of the costs.

The issue came to a head when Washington Gas Energy Services (WGES), a subsidiary of WGL, and PEPCO Energy Services (PES), a subsidiary of PEPCO, protested the Commission's assessments of its and OPC's operating budgets for FY 2003 and FY 2004. In calculating each company's share, the Commission used its traditional method after surveying all suppliers and providers for their jurisdictional revenue. WGES and PES paid under protest while also filing petitions with the DC Court of Appeals. On March 9, 2006, the court ruled against the PSC on procedural grounds that the PSC assessments were not based on "validly promulgated" rules and thus it remanded the assessment orders to the PSC "for proceedings consistent with this opinion."

Meanwhile, on January 21, 2005, the Commission had already issued a notice of emergency and proposed rulemaking (NOEPR) in FC No. 712 and published it in the DC Register, announcing its intent to adopt rules governing these assessments. The proposed rules followed the same method the PSC had been using for the public utilities. Moreover, the DC Council had passed legislation, at the behest of the Commission, that permitted the Commission to assess the competitive natural gas suppliers. The Commission amended its NOEPR to clarify that the competitive gas companies could also be assessed. On May 10, 2006, after reviewing the comments that were filed, the Commission finalized the rulemaking. In Order No. 13940, issued on the same date, the PSC presented its rationale for the decisions reflected in the notice of final rulemaking (NOFR). The PSC also established an assessment working group to address several issues and to prepare recommendations for any future changes in the procedures. PES and WGES filed applications for reconsideration of Order No. 13904 on June 9 and June 12, respectively. The Commission granted the requests in part in Order No. 14019 on August 9, 2006, and a clarifying NOPR was issued at about the same time. WGES filed an application for reconsideration of Order No. 14019 arguing that the Commission should "re-notice a new assessment rule … ." After the Commission rejected WGES's application on October 10, 2006, it finalized the clarified rulemaking in a NOFR on October 20, 2006. WGES appealed to the DC Court of Appeals on October 25, 2006.

While awaiting the court's decision, the working group had filed its report on August 29, 2006, although no consensus could be reached on a single method for assessing the companies. The Commission sought and obtained comments on

the report but suspended action until the court ruled. On May 3, 2007, the court ruled in favor of the Commission. The assessment methodology established in the October 2006 rulemaking remains essentially the same to date.

2. Assessments for Proceedings

The second source of funds comes from the Commission's ability to assess the utilities it regulates for costs associated with proceedings opened to address their matters. Paragraph 42 of the 1913 act gives the Commission the right to charge the public utility it is investigating with expenses incurred by the Commission if it finds "any rate, toll, charge, schedule, or joint rate or rates is unjust, unreasonable, insufficient, or unjustly discriminatory or preferential, or otherwise in violation of any of these provisions if it is found that reasonable service is not supplied."

After the Commission conducted a survey of state commissions on assessments for valuations and investigations in 1927,[131] it convinced Congress to replace Paragraph 42 with a broader Paragraph 42a that authorized the Commission to "assess the public utility that is the subject of an investigation, valuation, revaluation, or proceeding for the expenses of such investigation, valuation, revaluation, or proceeding. … Such expenses, with a 6 percent interest, may be charged to operating expenses and amortized over a period to be determined by the Commission." At the beginning of such proceedings, the Commission may require the public utility to deposit in a miscellaneous trust fund (MTF) an amount the Commission deems reasonable until the proceeding is completed. Any unexpended amount must be returned to the public utility. The ceiling amount to be assessed for rate or valuation cases is half of one percent of the existing valuation of the public utility being investigated. For other proceedings, the ceiling is not to exceed one-tenth of one percent of the existing valuation of the company for one year. Those ceilings remain the law in 2013, although the amounts of valuations have grown considerably. The Commission issued its first MTF deposit order, for $1,000, to C&P effective April 25, 1927.[132]

One of the principal uses of the funds for proceedings involving investigations, rate cases, and other matters is hiring consultants. The first consultant, called an agent at the time, was E.W. Bemis of Chicago, who oversaw the Commission's valuation work. Given the complexity of the task, he was hired at the rate of $100 a day (about $2,000 a day in 2013 dollars).[133] In 1954, the Commission hired its first economic consultant, Dr. E.W. Clemons, who was on the faculty of the University of Maryland. He was hired for a C&P rate case.[134] In 1957, David Kosh was hired to testify on rate of return issues in a WGL rate case.[135] In the last few years, legal and technical staff have started drafting orders in large cases such as rate cases, which has lessened the need to hire outside consultants, except for special studies. Other costs chargeable to formal cases include court reporters, advertisements of hearings, and site rental for community hearings.

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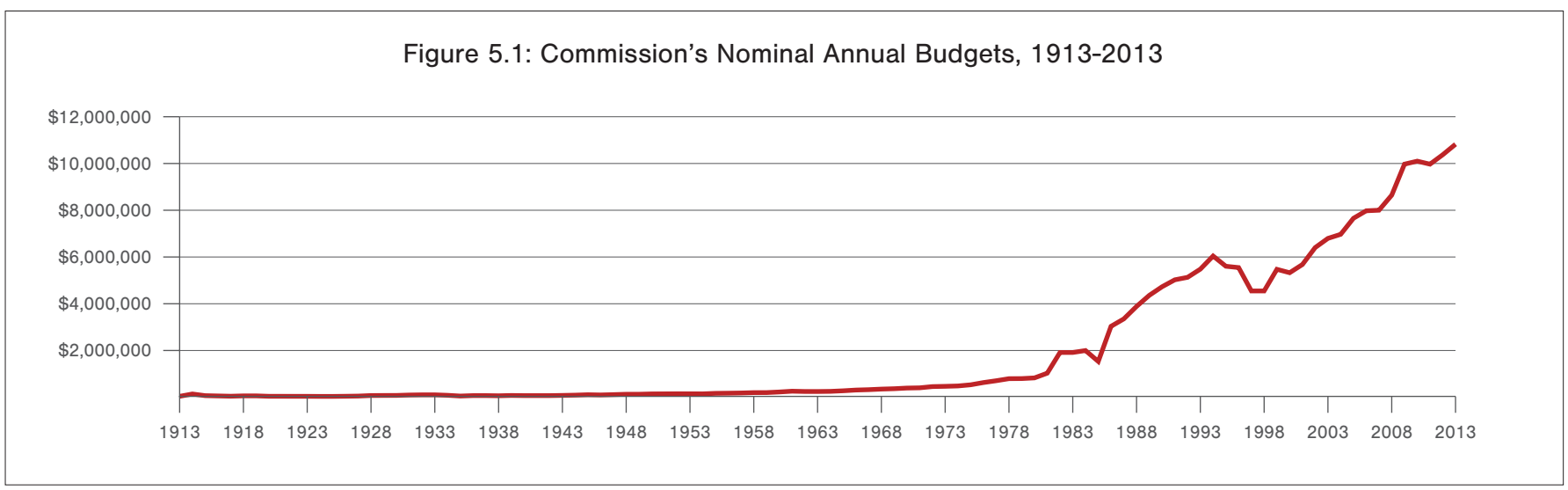
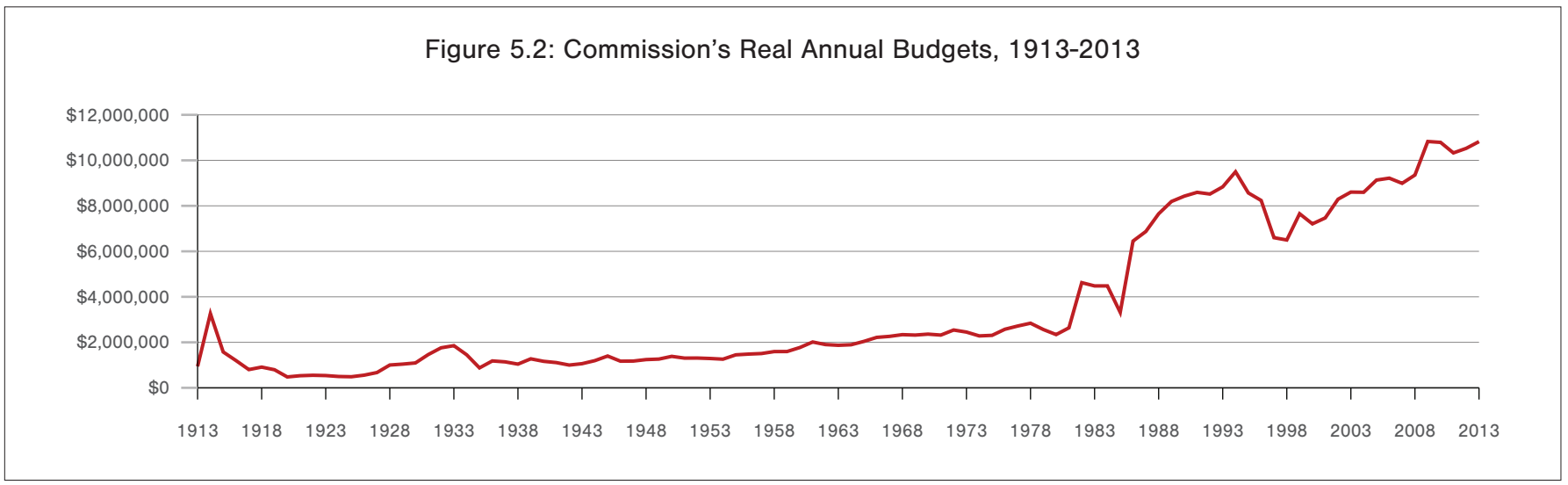
131 Minutes of Commission meetings, Volume 1925–27, p. 138, and PUC No. 2716.
132 Ibid., p. 143.
133 Minutes of Commission meetings, Volume 1913–1915, p. 107.
134 Minutes of Commission meetings, p. 1005.
135 Minutes of Commission meetings, p. 4181.

F. The Commission's Operating Budget and Staffing[136]

The history of the Commission's operating budget back to 1913 (with a few missing years) is shown in Table 5.2 and Table 5.3. The trend is depicted in nominal and real (2013) dollars in Figure 5.1 and Figure 5.2.[137]





The first Commission budget of $40,000 is equivalent in 2013 dollars to about $950,000. It did not include salaries of the commissioners and their staff and a few other employees who had previously worked in similar capacities in the District government. It also did not include the salaries of any military officers, such as the executive officer, who was a

136 Data on the number of full-time-equivalent (FTE) positions before 1976 are unavailable. Employee personnel records before then did not always note departure dates, so staff size could not be determined.

137 See Table 5.2.

US Army captain. It likely did include the additional $1,000 specified in paragraph 91 of the appropriations act for the general counsel, who also was the DC corporation counsel. Since most of the fiscal year had elapsed by the time the PUC was created, it spent only $14,000 of the authorized $40,000.

From the outset, Commission staff salaries were above average salaries in the District, reflecting specialized knowledge and expertise and the importance of the work. In 1923, for example, the messenger's and clerk's salaries (at the low end of the pay scale) were $600 a year. At the other end of the scale, the director of the Bureau of Statistics and Accounts earned $3,000 a year. Inspectors earned between $720 and $1,320 annually.

The next year, the Commission obtained an additional $100,000 to cover the cost of adding temporary staff for valuation studies. As those were completed over the first few years, the budget declined through the mid-1920s. With the addition of two separate Commissioners in 1927, the budget began to rise, peaking at $103,390 in 1932–1933. By then, the Great Depression was underway and these were lean times for the PUC. For example, when the PUC had a shortage of car tokens, the commissioners and 14 staff covered the shortage themselves. In 1932, the Commission had to ask the DC Commissioners for funds to add a telephone; the purchase was charged to the MTF, the financial vehicle where assessment funds were deposited.

During the Depression, the Commission implemented furloughs for 32 regular employees including the two budgeted commissioners and the people's counsel. PUC salaries were cut by five percent. The Commission also terminated 13 employees and moved other positions to funding through the MTF. (The Commission sought permission to pay all regular employee salaries from the MTF but was told the funds could be used only for special investigations.) Other belt-tightening initiatives included discontinuing purchase of newspapers and suspending many subscriptions. The budget fell by more than half, to $51,500, in 1935, and then gradually increased until the end of World War II. It wasn't until after the war, in 1947, that the budget returned to the $100,000 level in 1932–1933.

By 1960, the operating budget had more than doubled. Nevertheless, a reduction-in-force occurred that year, perhaps in anticipation of the restructuring of the Commission with the impending transfer of its streetcar/bus responsibilities to the newly created WMATC. When Home Rule began in 1975, the Commission's budget was over $500,000. It doubled, crossing the million-dollar level in 1981, after restructuring that added the offices of Consumer Services and Economics and split the Office of the Executive Secretary into an Office of the Executive Director and an Office of the Commission Secretary. The Commission also hired its own general counsel.

The PSC doubled in size in the late 1980s after Chairman Worthy convinced the DC Council that it would be cost effective to increase the PSC's staff—particularly the legal and technical staff—rather than continue to hire consultants. The budgetary impact was an increase from nearly $1 million to $3 million over several years. Growth continued into the mid-1990s, when a congressionally mandated District government downsize hit the Commission relatively hard. The

budget declined by over $1 million, from $5.6 million to $4.5 million, when the Commission lost about 40 percent of its staff. Vacancies were eliminated and the largest reduction-in-force in the Commission's history occurred. The Commission also lost six positions when the securities staff transferred to a new DC government agency.

A few years later, the DC Council recognized the hardship the downsize had on the Commission and its ability to restructure the electric, natural gas, and local telephone industries. When Angel Cartagena became chairman, he was successful in adding back 10 positions to the Commission's budget, which grew from $5.7 million in 2001 to $6.8 million in 2003.

The budget reached $10 million in 2010. As of 2013, the Commission had added seven positions to a budget of $10.8 million and full-time-equivalent level of 74.6 budgeted positions. Five of those positions were originally funded for three years by the federal American Recovery and Reinvestment Act, an economic stimulus program implemented after the Great Recession that was designed to assist state public service commissions with processing their electricity case load and to facilitate the implementation of smart meters as part of an advanced metering infrastructure initiative.

Table 5.3 and Figure 5.3 show the trend in the Commission's budget in comparison with DC appropriations. The Commission's budget has not risen as fast as DC appropriations: In its first full year of operation (fiscal year 1914), the PUC's budget was a little over one percent of DC appropriations; in 2013, it was just under 0.10 percent of the appropriation.

G. Commission Locations and Hearing Rooms

The Commission had six homes between 1913 and 2013 (see page 117). It was originally located in the District Building, where the DC Commissioners were housed. Because the Commission is a quasi-judicial agency, a courtroom is essential for conducting formal hearings per the original act. For many years, the Commission had access to Room 500 in the District Building. In 1928, consideration was given to relocating the Commission to the Southern Railroad Building because it needed more space, particularly for temporary employees working on valuation cases. In 1930, still needing space, the people's counsel moved to the second floor of the District Building in space vacated by the Bureau of Weights and Measures.[138] The PUC remained at the District Building until 1963, when Chairman James Washington Jr. was forced to relocate the Commission. Some people thought the Commission, often referred to as the "transit commission," had lost much of its responsibilities with the transfer of jurisdiction over the streetcar and bus system to the newly established WMATC in 1961. However, the Commission had retained a role because one of the commissioners was required to serve on the WMATC board.

138 Minutes of Commission meetings, Volume 1928–1932, p. 400.

CORE pickets the Cafritz Building.

Relocating the Commission has often been difficult. The act creating the PUC did not grant it funds or the right to furnish its own offices and quarters, primarily because the DC Commissioners were also the public utilities commissioners. The 1926 act that restructured the Commission specifically stated that "the Commissioners of the District of Columbia shall furnish the Public Utilities Commission with suitable offices and quarters."[139] Over the years, this has been interpreted to mean that the District government controls the leasing of space because it is the lessee and the Commission is the tenant.

In 1963, the Commission moved to the Cafritz Building at 1625 I Street, Northwest. It sought an additional $7,000 for furniture in the new building.[140] The Congress of Racial Equality (CORE) picketed the Cafritz Building during the move because of the Cafritz company's history of discriminatory practices in its rental and leasing agreements. A representative of CORE indicated that Commission staff, who were obliged to work by civil service regulations, would be allowed to enter the building but that CORE would object if any of the commissioners tried to cross the picket line.[141]

The Cafritz Building lacked space for a hearing room, so formal hearings continued to be held in the District Building or, when that was not possible, in rented space at the Knights of Columbus or in a local hotel. Even after the move, Chairman Washington tried to relocate the Commission to the newly built Paramount Building at 1775 I Street, Northwest, another commercial office building. The Republican National Committee had occupied the space and was willing to pay any additional cost, including installation of a new telephone system and printing of stationery. However, the deal was never consummated because the space was located in the rear of the building, which was unsatisfactory to the commissioners. Chairman Washington also sought office space in the District Building for registering taxicabs and sightseeing vehicles. Gen. Charles Duke, the engineer commissioner, said he would seek space elsewhere, such as the Municipal Center, but there is no evidence that happened.

The next move came in 1980, when the PSC relocated to the Old City Hall building at 451 Indiana Avenue, Northwest, where the Commission had access to one of the courtrooms in the building. The PSC needed additional space to accommodate four new offices—Executive Director, Commission Secretary, Consumer Services, and Economics—as the number of budgeted positions rose from 27 to about 45. The Commission shared hearing-room space with several other agencies. Space became tight again when Chairman Worthy convinced the DC Council that the Commission should have its own legal and technical staff rather than hire consultants.[142] So, in 1987, the growing Commission moved across the street, to the Securities and Exchange Commission (SEC) building at 450 Fifth Street, Northwest, where it would have its own formal hearing room.

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139 Public Law No. 529, Par. 97 (a), 69 Cong., 1st sess.

140 Minutes of Commission meetings, p. 4664.

141 Minutes of Commission meetings, p. 4700.

142 See cost/benefit study conducted by economist and commissioner Dr. Wesley H. Long, "PSC Expenditures – Assessments vs. Full Staffing," June 23, 1983, and Grant Thornton, "Organization and Management Review of the District of Columbia Public Service Commission," May 1986.

It took nearly ten years to relocate the Commission in the 1990s. Early in the decade, the SEC was considering leaving the District because it needed more space. The building owner, wishing to keep the SEC as a tenant, was willing to pay the cost to relocate the Commission. Led by Chairman Howard Davenport, a native Washingtonian who grew up in the U Street area, and working with the lessee, and the DC Department of Administrative Services (DAS), several locations were considered, including a vacant building on U Street, Northwest, and a former Wonder Bread factory on Seventh Street, Northwest. The Recorder of Deeds building next to the SEC building was also an option. The Commission needed to occupy a building with columns more than 20 feet apart that could accommodate a hearing room without obstructed views, and very few buildings in the city met that criterion. At one point, it appeared that the Commission would move to One Judiciary Square, where the mayor and other executive offices were relocating during renovation of the District Building, but at the last minute, DAS took the space intended for the Commission.

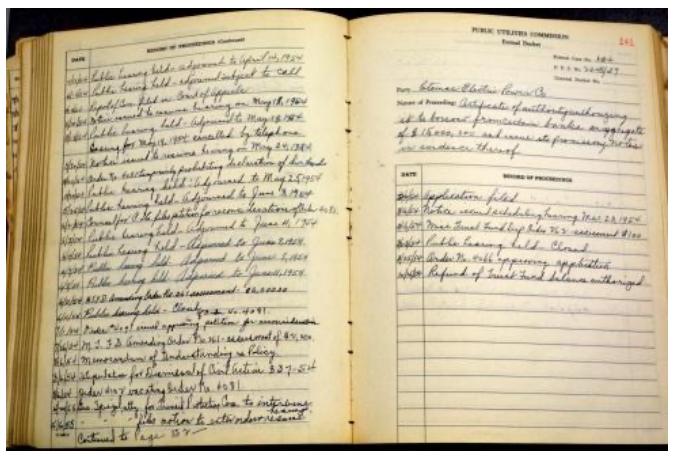
As the Commission's lease on Fifth Street came to an end in 1996, Congress mandated a sharp reduction in the District's budget. The Commission was one of the few DC government agencies with rent money in its budget, so Mayor Barry, over the objections of Chairman Marlene Johnson, forced the Commission to move to a Cafritz-owned building at 717 14th Street, Northwest, where rents were $42 per square foot, an amount no other DC government agency could afford. Meanwhile, the PSC negotiated space at 1333 H Street, Northwest, at $24 per square foot. A month after the Commission's lease expired, on October 1, 1996, DAS refused to pay the Commission's next month's rent. At a Superior Court hearing, attorneys from the Office of the Corporation Counsel deliberately arrived late, after the case had been called. The Commission was threatened with eviction if it did not move by the end of the month.

In mid-December, with one day's notice, the Commission moved into 717 14th Street, Northwest, occupying three noncontiguous floors with no hearing room. The US Postal Rate Commission, located just around the corner, allowed the PSC to use its hearing room when it was not otherwise in use. Within a year, the District government renegotiated the rent at 717 14th Street to an amount other DC government agencies could pay. It then allowed the Commission to relocate to 1333 H Street, which still had available space.

That move happened in two stages. Commissioners and their staff and the offices of the Executive Director, General Counsel, and Technical Staff moved at the end of September 1998, while build-out was completed in the front of the office space. When that was complete, they moved to the front of the building so the hearing room and other offices could be completed. When remaining employees moved in 2000, the PSC gained a larger hearing room but staff were still spread among three noncontiguous floors. Most offices were on the seventh floor, but the Office of the Commission Secretary had to be located on the first floor to support the heavy docketing retrieval system. The PSCs lease was renewed for five years in 2008, and the Commission remained at 1333 H Street through the end of the lease in November 2013. After 15 years on H Street, the Commission was seeking a new home to accommodate an even larger hearing room and to fit all employees on one floor. Staff numbers had increased from 54 in 1998 to 72 in 2013.

Office of Commission Secretary, Formal Case docket books

Office of Commission Secretary retrieval filing system



Handwritten docket book (until 1971)

The Commission moved to the eighth floor at 1325 G Street, Northwest, in June 2015 where it remains today. Until 2022, all employees were on one floor and the hearing room is larger than at 1333 H Street. There is a large kitchen, a popular gathering place for employees from all offices at lunchtime. Most employees have their own office, with built-in furniture, a perk the Commission had to fight for because DC government policy was to house most employees in "open space." The Commission had tried to jumpstart the process in 2012 by engaging an architectural firm to determine how much space it needed. Nonetheless, the process took nearly four years; lease negotiation, led by DC's Office of Property Management, took a year after site selection.

H. The Commission's Docketing System

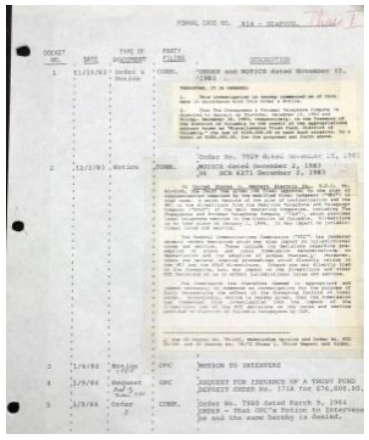
It is likely that the Commission's first docketing system was based on the ones in use at the utilities commissions in Maryland, New Jersey, and New York. According to the Commission's 1913 annual report, the PUC's first executive officer, Capt. Julian L. Schley, was directed to visit the Maryland and New York public service commissions and the Board of Public Utility Commissioners for the State of New Jersey so the Commission could "take advantage of the experience of other public service commissions and to study their organizations and methods of transacting business."[143] Upon his return, he made a report to the commissioners.

The PUC established a dual docketing system—one with Public Utilities Commission numbers (PUC numbers) and one with Formal Case numbers (FC numbers). Initially, only cases that had hearings were given an FC number, so there were many more PUC number cases than FC number cases. Some cases were dual captioned: When they were opened, they were assigned a PUC number; later, if the decision was made to hold a hearing, an FC number was added. It appears that in 1939 the PUC revised the distinction between PUC numbers and FC numbers—it began to docket cases not involving a hearing as formal cases. Financing cases are an example: Before 1939, they were given a PUC number; thereafter, they were given an FC number.

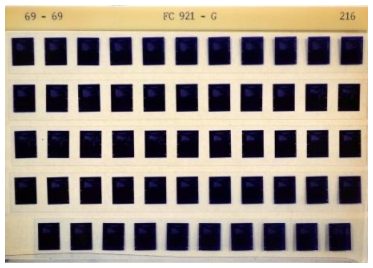
143 1913 PUC annual report, p. 8.

In 1942, the Commission established a committee to suggest plans for the installation of a docketing system. The committee made its recommendations to the Commission, which it approved in September 1942.[144] The Formal Docket was called Formal Case, and the numbers would be a continuation of existing Formal Case numbers. Nearly a year later, on September 21, 1943, the Commission began preparing Formal Case docket books, beginning with active cases.[145] Also in 1942, as part of the creation of the docketing system, the Commission established a general docket (GD). The GD was abolished on January 1, 1946,[146] but resurrected in the 1990s during the chairmanship of Marlene Johnson.

In 1964, the Commission discontinued use of the PUC numbering system when its name changed to Public Service Commission. The last PUC number was 3737 in FC No. 501. Also in 1964, to accommodate the Commission's new responsibilities to regulate the licensing and sale of securities, the Commission began using acronyms to distinguish securities cases from utility company cases. The acronym S was used for securities cases; CO for communications cases; EL for electric cases; GA for gas cases; and TR for transportation cases.



Typed docket book (after 1971)



Use of microfiche began in the 1980s.

While the FC numbering system remains in place, the Commission has greatly expanded its use of acronyms to distinguish not only the types of cases to be docketed but also to differentiate among the different steps and timelines for each type of case. In 1975, the Commission added TT for telephone tariffs, which were to be processed more quickly than most other proceedings. This became a convenient vehicle for approving and tracking new telephone services. In 1986, the Commission added industry labels to the Formal Case docket numbers: E for electricity, T for telecommunications, G for gas, and M for multi-utility.

The introduction of competition in the electric, natural gas, and local telephone industries triggered other changes in the docketing system. In 1999, the Commission added TIA for telecommunications interconnection agreements. In 2000, an EA prefix was introduced for docketing electric supplier applications, and in 2001, TA was added for telecommunications applications from competitive local exchange carriers. In 2003, GA was introduced as a prefix for applications from competitive gas suppliers.

Probably the biggest innovation in the Commission's docketing system occurred in 2002, when the Commission initiated the e-Docket electronic filing system. The Commission was one of the first federal and state regulatory commissions to have such a system. (The Federal Energy Regulatory Commission (FERC) implemented its system the same year.) The Commission also established rules for voluntary electronic filing in FC No. 712. A few years later, e-filing was made mandatory for most stakeholders.

144 Minutes of Commission meetings, September 29, 1942, pp. 2312–2313, and PUC No. 3337.
145 Ibid., p. 2497.
146 Ibid., p 2787, and PUC No. 3337.

As the Commission implemented renewable-energy legislation in 2004, it added a prefix for renewable portfolio standards (RPS) applications that had previously been placed in the Commission's burgeoning electric restructuring docket, FC No. 945. In 2009, several more acronyms were created, including FERC, DCC for DC Court of Appeals cases, ETC for eligible telecommunications carriers, and NC for numbering conservation.

In 2011, the Commission's docketing system became the subject of some controversy during confirmation hearings for Elizabeth Noel, a former people's counsel whom Mayor Vincent Gray had nominated as a PSC commissioner. PEPCO argued that her appointment would present a conflict of interest because she had participated, as people's counsel, in many formal cases that were still open in the Commission's docket. Although the Commission had closed cases in most years, it reviewed the docketing systems at other commissions, including the Federal Communications Commission and FERC, and found that it was not unusual to have some cases open for many years since it facilitated the search for documents on issues that are tracked over long periods of time. The Commission also decided to conduct an analysis of its own system.

A restructured system was ready to be implemented at the beginning of 2014. Under the new system, the Commission closes many current formal cases in which final decisional orders have been issued. These cases have remained open in the past because the Commission ordered subsequent monitoring, compliance, and enforcement filings. Under the new system, all monitoring, compliance, and enforcement filings and orders will be issued under a case docket with an acronym rather than in a numerical formal case. Existing monitoring, compliance, and enforcement filings are being converted to acronyms that make it easier to identify the filing party and subject matter.

Thus, the new system expands the number of acronyms for each type of report or filing. For example, it uses the acronym RM for all future rulemakings rather than keeping them in each formal case. Three utility companies have their own acronym—PEP for PEPCO, WG for WGL, and V for Verizon—so their filings can be distinguished from those of competing suppliers and providers.

I. Evolution of Technology at the Commission

The Commission's record of its activities that is contained in annual reports and minutes of Commission meetings is impressive, given evolving technological innovations over time. At the PUC's inception, typewriters[147] and computers[148] were occupations, not machines. The Commission hired its first human computer for work in the Valuation Bureau in 1914. There were other occupations that no longer exist today, such as a comptometer operator. A comptometer is a key-driven mechanical calculator.

147 See paragraph 95 of the act creating the Commission.
148 Minutes of Commission meetings, Volume 1916–1917, p. 199.

Marchant calculating machine

Comptometer

Manual typewriter

Electric typewriter

Minutes of Commission meetings are a key source of information about other technological innovations at the Commission that contributed to greater efficiency and timeliness. In 1928, the Commission procured an electric Marchand calculating machine.[149]

In 1932, the Commission bought its first postage meter as it expanded outreach through mailings to stakeholders and citizen and civic associations. In the 1940s, staff added hand-drawn graphs to the Commission's annual reports.

Chairman Washington was a leader in updating the PSC's technology. In 1965, the Commission purchased its first tape recording system for investigations carried out by the Securities Bureau. Washington oversaw other technological changes: The Commission purchased a long-carriage electric typewriter. Job descriptions for secretaries were rewritten to require use of dictating-machine transcription rather than shorthand. And the PSC procured its first Xerox machine. Because it was expensive, staff needed permission from the executive secretary to use it. A mimeograph machine was used for copying prior to then, but it was hard not to get ink on one's hands.

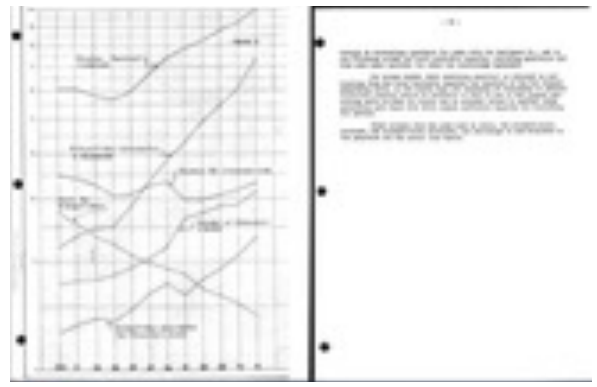
In 1984, at the beginning of her chairmanship, Patricia Worthy approved the purchase of the Commission's first mechanical computer—an IBM personal computer that used Disk Operating System (DOS). Storage capacity of computers were limited, so many documents were saved on floppy disks. Chairman Worthy gave the computer to the Office of Economics with a promise the director would not ask for another one. The machine revolutionized the preparation of testimony and reports, so it was not long before the promise was broken. It took a decade, however, before all staff had computers. A few of the men resisted the technology because they viewed it as being the purview of traditionally female secretarial staff.

At first, computers were used primarily for word processing. They proved even more useful for tables and spreadsheets, of which there were many to be prepared by the technical staff of accountants, engineers, financial analysts, and economists. As the number of these staff grew and better software became available, the Commission became more reliant on them.

149 Ibid., Volume 1928–1932, p. 24.

Mimeograph

IBM personal computer



1942 PUC Annual Report, pages 53 and 54. See 1942 Annual Report.

Internet access was introduced in the Commission at the end of Chairman Worthy's tenure. The executive director engaged a consultant who recommended an ARCNet system, and it was designed for use by fewer than half of employees (primarily commissioners and their staff and technical and legal staff). By the time it was installed, a new system, called Ethernet, was necessary. When Chairman Davenport began his term, he transitioned the system to Ethernet and had it installed throughout the Commission.

However, the system enabled email communications only within the PSC. The first stage of technology to communicate beyond office walls, dial-up communications, became available in the mid-1990s, just as the Commission was relocating. While at least some employees were at 717 14th Street, Northwest, the Commission procured dial-up internet licenses for the commissioners and selected staff because it was too expensive to install a system serving everyone in the temporary space. With everyone housed together again at 1333 H Street in 2000, the Commission had a T-1 line installed to provide internet access for all employees. By that time, "always on" broadband internet service was available.

There also has been a revolution in the Commission's telephone communications. In 1984, Chairman Worthy arranged for the general counsel to have a pager so she could keep in touch with him. By the end of the decade, clunky car phones were in vogue, but they were expensive ($500 or more), large, and visible, making them easy targets for thieves. By the mid-1990s, hand-held cell phones were in wide use. The commissioners, senior staff, and field inspectors used them regularly. As the District government downsized in the mid-1990s, it placed a ban on cell phones in all agencies to reduce costs. The ban was lifted a few years later. Smartphones that allowed internet access and surfing as well as the receipt and delivery of email became the next generation of communications. The Commission initially purchased Blackberry phones for many employees; smartphones replaced Blackberry phones at the PSC in 2011.

The pace of technological change at the Commission accelerated in the 21st century. In 2000, the Commission purchased all new computers and updated software when all employees were located at 1333 H Street. In the process, the PSC converted from Corel computer software (e.g., WordPerfect word processing and Quattro Pro spreadsheets) to Microsoft software (Word and Excel). A new hearing room in the building had state-of-the art audiovisual equipment, and a card was placed in each computer so that employees could view hearings from their offices. The PSC also launched a website.

1980s car phone

Flip phone

Blackberries were useful for email communications.

Smartphones became popular for internet access and texting.

Over the decade, the Commission installed a new telephone system with automatic calling distribution, began installing e-fax, initiated unified messaging (where employees see missed calls to their landline phones on their cell phones), and installed a new consumer complaint database. The PSC also replaced computers with portable laptops and docking stations. In 2011, the Commission began streaming its hearings and meetings so the public could view proceedings remotely. Administratively, e-procurement, e-invoice, and e-travel systems were implemented between 2011 and 2013.

These innovations over its first century have contributed to greater productivity for the PSC. The Commission's rate of producing orders over the period provides the evidence: In the first 50 years of the Commission's history, it produced 1,000 orders every nine years. Since 2000, 1,000 orders were issued every two to two-and-a-half years. The length of orders has also increased over the period.

J. Organizational Assessments, Strategic Planning, and Performance-Based Management

The first operational review or assessment of the Commission is the report that executive officer Schley prepared after his visit to utilities commissions in 1913. No copy of that assessment has been located. The minutes of Commission meetings made reference to an office reorganization in 1930, but no details were given.

During Chairman Washington's tenure in the early-to-mid 1960s, a myriad of organizational and administrative changes were made as he reassessed virtually every aspect of the Commission's operations.[150] He conducted informal hearings on consumer complaint matters, established an in-house advisory policy committee, tightened comp time policy, and realigned commissioner responsibilities so that each was responsible for overseeing staff work on one of the industries being regulated. Chairman Washington was responsible for taxicab and telephone matters and Commissioner Edgar Bernstein for WGL and PEPCO. A year later, Chairman Washington eliminated the realignment. He held monthly

150 p. 360.

meetings with the commissioners and bureau chiefs to discuss the previous month's activities and required bureau chiefs to submit weekly progress reports and to conduct technical briefings with the commissioners.

In anticipation of passage of the Home Rule Act and the formation of a City Council that might abolish all DC agencies and reconstitute them, he required the creation of a manual of functional procedures that identified the responsibilities of all employees and required that all position descriptions be updated. He also initiated the practice of holding all meetings that were open to the public and press on Mondays. There were two sessions—one for the public at 10 a.m., followed by an executive session. The agenda was sent to the press the Thursday before the meetings, after which no changes could be made. He eliminated the title vice chairman because any time the chairman was absent, the other civil commissioner automatically became acting chairman. He initiated the practice of recognizing employee performance and giving length-of-service awards.

Chairman Washington also composed a committee of bureau heads to make recommendations on internal practices. He formed a committee to act as a liaison between the Commission and other DC agencies, the utilities, and federal government agencies. He formed a third committee on utility development procedures to report quarterly on significant projects. A fourth committee was charged with advising on clerks' grievances. He also directed the executive secretary to engage a management analyst from DC's Office of Management to review the Commission's responsibilities and to evaluate programs and procedures.[151]

Under Home Rule, the Commission engaged consultants to undertake a comprehensive review of its structure and operations. In 1979, using US Department of Energy funding, the Commission engaged management consultants, Temple, Barker, and Sloane (TBS) to conduct "a detailed organization and management analysis."[152] The PSC restructuring emanated from that study.

While the TBS study was underway, the DC city administrator conducted a reorganization study of the Commission. Proposals included to transfer the PSC to a new regulatory agency, transferring certain functions of the Commission to a new regulatory agency, or transferfing OPC to a new regulatory agency. The DC corporation counsel, as the PSC's general counsel, rendered a legal opinion on the matter asserting that the independence of the Commission prohibited such a transfer.[153]

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151 Minutes of Commission meetings, pp. 4782–5473.

152 Grant Thornton, "Organization and Management Review of the District of Columbia Public Service Commission," May 1986, p. 1.

153 Memorandum from James E. Lemert, acting deputy corporation counsel, DC Legal Counsel Division, to Carroll B. Harvey, assistant city administrator for program operations, November 8, 1979.

In 1986, Chairman Worthy contracted with accounting and management consulting firm, Grant Thornton, for an organization and management review of the Commission.[154] One of the key assessments was the role of staff. Traditionally, technical staff presented expert testimony in formal proceedings. With the addition of legal staff in the Office of the General Counsel, one of the in-house legal staff represented the technical staff in a case. To avoid ex parte communications, this meant the assigned legal and technical staff could not have contact with the commissioners on the matter and the staff was "bifurcated." That is, some staff, in conjunction with legal and technical consultants, served as advisors to the commissioners and separate legal and technical staff, assisted in some instances by other legal and technical consultants, presented the case. The need to bifurcate staff is common at other state commissions.

The Utility Regulatory Assessment Clarification Act of 1984 altered staff's role in formal case proceedings. The law directed that a staff member could only participate as a Commission-sponsored witness; previously, a testifying staff member was not directly aligned with the commissioners and could be an objective third-party witness. (The Commission found this a desirable arrangement since it established a foundation in the record of the proceeding for decisions somewhere between the often polar opposites of the positions of the companies and the OPC.) With the new law, staff could file testimony and participate in discovery but could no longer file briefs or advocate a position. The Grant Thornton consultants were critical of the 1984 act, arguing that its burdensome requirements would create the need for additional legal and technical staff. The consultants recommended amendments to the law, but they were never made.

K. The Changing Role of Commission Staff

Staff's role in formal proceedings changed dramatically a decade later, when the Commission was downsized. Staff no longer testified in formal proceedings, and were treated as advisors.

During the 1990s, it was customary for newly elected mayors to have their transition teams conduct a review of each agency before the mayor took office. Dr. Jerome Paige chaired transition teams for the PSC and OPC on behalf of mayor-elect Marion Barry and mayor-elect Anthony Williams. The reports provided an overview of the PSC's mission and organizational structure and identified problems or barriers the Commission encountered in carrying out its operations. The 1998 report highlighted the adverse impact the downsizing of the Commission was having on its ability to fulfill its mission.[155]

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154 Grant Thornton, "Organization and Management Review."

155 Report to the Transition Action Team of Mayor-Elect Anthony Williams, "Profile of the District of Columbia Public Service Commission," 1998.

PSC staff attorney, Josephine Scarlett Simmons, cross-examining a witness.

PSC staff accountant, Dwayne Boyd, testifying at a hearing.

PSC technical and legal staff participating in a hearing.

PSC staff behind dais as legal and technical advisors.

One of Mayor Williams' initiatives was to introduce strategic planning in the District government through his chief management officer, Dr. Camille Cates Barnett. Although she did not stay in the position long, she established a strategic planning framework through a network of representatives from all agencies. Trainers also went to all agencies to ensure consistency in developing and formatting strategic plans. For the Commission, the timing of the project was ideal because it coincided with the its own efforts to streamline operations and reduce multiple backlogs. The Commission used the methodology, for example, to eliminate a backlog of TTs nearly two decades old.

In 2000 and 2001, the PSC undertook a comprehensive strategic planning project. It engaged Headstrong Inc. to undertake five assessments—an overall strategic plan, including development of a mission statement; a performance plan; an organizational assessment; an information technology plan; and a performance management analysis. All employees were engaged in the process. Five volumes were prepared. The project included surveys and interviews with staff and outside stakeholders, reviews of other commissions, and the rewriting of all position descriptions. Given the breadth of the review, the consultants' findings and recommendations are too numerous to describe. A copy is maintained at the Commission for further information.

Since 2001, there have been several other reviews. After an attempt by the Commission chairman to fire the attorneys in 2002, the city administrator's office conducted a review in 2003, after the chairman left. A brief report was issued on September 15, 2003, that asked the Commission to pursue several "best practices" initiatives, some of which had been identified in the Commission's comprehensive strategic planning project.[156]

While the review by the city administrator was underway, the District government's Office of the Chief Financial Officer, Office of Integrity and Oversight (OIO) conducted an "operational review" for fiscal years 2002 and 2003. This study reviewed and evaluated the formal case assessment process, refund and case disposition process, operational assessment process, the budget process and formulation, compliance with financial reporting

156 "Public Service Commission Key Findings and Next Steps," September 15, 2003.

requirements, and the procurement process. No exceptions were found in its analysis: "… we found that the processes identified above were operating efficiently and effectively, and in accordance with District regulations. As such, we noted no material deficiencies in our review."[157]

In March 2004, the District government's Office of the Inspector General (OIG) conducted an "Inspection and Evaluation of the Public Service Commission" and the Commission provided requested information. On June 4, 2004, OIG sent a letter informing the Commission that the inspection and evaluation was canceled until further notice. In December 2005, OIG returned to continue its inspection. It conducted a survey of all employees and the Commission supplied additional requested information. OIG did not submit a report and findings. In the summer of 2008, OIG returned for a third time. The office requested updated information and issued a "Report of Inspection" on February 2, 2010. OIG also required the Commission to provide follow-up reports on several issues related to the operation of the Pipeline Safety Program and Miss Utility/One Call inspections, steps the Commission was undertaking to increase participation in the utility discount programs, tracking of consumer complaints, and electric reliability concerns.

One of Betty Ann Kane's initiatives when she became chairman was to hold a retreat to identify ways for the Commission to streamline its processes and improve the timeliness of its decisions. In April 2009, Chairman Kane attended a workshop conducted by the Center for Radical Improvement. The Commission engaged the company to facilitate a two-day retreat at the Kellogg Conference Center at Gallaudet University in December 2009. Using the results of an in-house timeliness study, six process areas were identified for improvement, to which the facilitators applied their process improvement techniques. The six areas were procurement, consumer complaint handling, filling vacancies, the Gas Pipeline Safety Program, maintaining the Commission's docket and website, and processing formal cases. In 2010, the PSC took steps to implement the findings and recommendations identified during the retreat.

L. The Commission's Appeals Record

Between March 11, 1913 and December 31, 2013, the Commission issued 16,046 orders. Its orders are appealable to the DC and US court systems,[158] which have changed over the period.

In 1913, Commission decisions were first appealable to the Supreme Court of the District of Columbia, which, in 1863, replaced circuit and district courts that had been established in 1801. If a party was unsatisfied with the Supreme Court of DC's ruling, it could appeal to the US Court of Appeals for the District of Columbia. From there, appeals went to the US Supreme Court. In 1937, the Supreme Court of the District of Columbia became the District Court for the District of Columbia. From there, appeals went to the US Court of Appeals for the District of Columbia and then the

157 Letter from Ben Lorigo, OIO executive director, to Chairperson Agnes Yates, August 11, 2004, and "Final Report on Operational Review of the District of Columbia Public Service Commission for FY02 and FY03."

158 Not all orders are appealable. Orders that may be appealed have exhausted all administrative remedies.

US Supreme Court. In 1948, the name of the District Court for the District of Columbia changed to US District Court for the District of Columbia. In 1970, the number of courts through which appeals flowed changed from three to two: Petitions appealing Commission orders ripe for appeal went to the District of Columbia Court of Appeals and then to the US Supreme Court.

Table 5.4 contains detailed information on the 113 cases that were appealed between 1913 and 2013. The courts affirmed the PSC's decision 83 times, reversed the PSC's decision 17 times, and remanded PSC decisions 26 times. The majority (58) of the cases were appealed by companies regulated by the Commission, followed by other intervenors (26), people's counsel (24), and citizen groups (24). The Commission appealed two decisions.

M. Team-Building Initiatives

The PSC has implemented multiple team-building initiatives. During Chairman Worthy's tenure, the Commission had a men's basketball team and a coed softball team. In the early 1990s, Chairman Davenport began his term by hosting a Commission-wide retreat at a local hotel. Staff took the Myers-Briggs personality test and discussed the results and their impacts on the Commission during the retreat. In 2005, the Commission planned and conducted a second retreat at the Kellogg Conference Center at Gallaudet University. The DC Office of Personnel, at its expense, engaged BottomLine Solutions consultants to facilitate. Part of the retreat was devoted to discussing the results of a Myers-Briggs survey. In 2006, the executive director began holding annual managers' retreats to prepare performance plans in a collaborative manner.

Team Softball Uniform

Other ways the PSC has encouraged cooperation and coordination among employees and offices include Mother's Day and Father's Day celebrations and employee appreciation days, when service and other types of recognition awards are presented. The Commission also periodically holds Commission-wide meetings.

Celebrating Secretaries Day, 1994

Project Excellence Retreat, 2009

Employee Appreciation Ceremony, 2010

Employee Appreciation Ceremony, 1991

N. NARUC/NRRI and Regional Participation

The PSC has always participated in activities sponsored by the national association of utility commissioners. Founded in 1889, the name of the organization changed from National Association of Railroad and Utilities Commissioners to National Association of Regulatory Utility Commissioners (NARUC) in 1969.[159]

Since the Commission's inception, DC's PUC and PSC commissioners have routinely attended NARUC conventions and meetings, and commissioners and staff respectively have been active members of NARUC committees and subcommittees. As early as 1927, Commissioner Harrison Brand Jr. was a member of the NARUC Committee on Generation and Distribution of Electric Power.[160] In the mid-1980s, Chairman Worthy became the first DC commissioner to chair a NARUC committee. As chair of the Telecommunications Committee, she had a direct impact on national policy during a critical period in the industry, after the divestiture of AT&T.

In 1961, chief accountant E. Edward McLean worked on the NARUC-FCC Telephone Staff Subcommittee on Western Electric Company.[161] In 1963, NARUC conducted a "regulatory course for Commissioners and staff in Wisconsin during the last two weeks in August." The corporation counsel attorney who worked with the Commission was asked to attend if funds could be made available.[162] In 1966, Mr. McLean attended a meeting in Madison, Wisconsin, held by the NARUC Committee on Training of Commission Personnel. Mr. McLean helped plan the one-week summer course that was held at the University of Colorado in 1967. He also was asked to be an instructor.[163] Since 1973, the program has been held at the Institute of Public Utilities (IPU) at Michigan State University. Dr. Phylicia Fauntleroy, director of the Commission's Office of Economics, was an instructor at Camp NARUC and the Advanced Regulatory Studies program in Williamsburg, Virginia, in the late 1980s. Her successor at the Commission was director of economics Dr. Robert Loube,

159 Minutes of Commission meetings, p. 5949.
160 Minutes of Commission meetings, Vol. 1928–1932, p. 137.
161 Minutes of Commission meetings, p. 4505, and PUC No. 3228.
162 Ibid., p. 4717.
163 Ibid., p. 5411.

Employee Appreciation Ceremony, 2010

Chairman Davenport presenting Employee of the Year awards, 1992

Camp NARUC

NARUC Lifeline Awareness Conference

who received his PhD at Michigan State University and has taught the telecommunications course at Camp NARUC in East Lansing for many years. The Commission has been supportive of all IPU programs, including its annual regulatory and advanced regulatory courses, and has sent staff at all levels to them each year.

The National Regulatory Research Institute (NRRI), the research arm of NARUC until 2022 when its activities were folded into NARUC, conducts research and prepares studies and analyses of interest to regulatory commissions. As of 2013, it had sponsored monthly webinars that commissioners and staff can attend online. DC commissioners have been on the board of NRRI and Commission staff have served on and chaired the research advisory committee to NRRI. As directors of the Commission's Office of Economics, Dr. Fauntleroy and Dr. Grace Hu served in both capacities. Commissioner Edward Meyers and Chairman Kane have each chaired the NRRI Board. In the late 1980s and early 1990s, NRRI sponsored a Biennial Regulatory Information Conference, where state commission staff shared their experiences and research. It was a convenient way to learn what other commissions were doing. Staff economists at the PSC who participated as presenters were Dr. Fauntleroy, Dr. Hu, and Dr. Das Purkayasta.

In the last few years, NARUC established an intern program for undergraduate and graduate students. The Commission has hosted several interns who have gained experience while working at the PSC during their summer break.

O. Training

For a long time, the Commission has placed an emphasis on many types of training, over and above what has been provided by NARUC. For subject-matter training, in 1964, Chairman Washington arranged for all staff to tour PEPCO's Chalk Point plant so they could better understand how electricity was being generated.[164] When Chairman Worthy chaired the NARUC Telecommunications Committee and PSC staff were providing her with technical and legal support, she arranged for several workshops at the Commission on separations and cost-allocation issues. As recently as 2010, Chairman Betty Ann Kane arranged a tour of the regional Pennsylvania-Jersey-Maryland (PJM) control center in Valley Forge, Pennsylvania.

164 Minutes of Commission meetings, 4716.

Ethics Officer conducting ethics training to PSC staff, 2008

Summer Interns, 2008

Summer Interns, 2012

With the advent of computers and frequent upgrades to hardware and software, the Commission has provided ongoing technology training for staff. In 2000, when the PSC switched from Corel software to Microsoft, all employees attended training at Knowlogy so the transition would be smooth.

Ethics training for employees has also been part of the PSC's agenda. Before leaving office in 1960, Chairman Hayes developed an outside-employment policy after questions were raised about whether he and other commissioners could hold jobs outside the Commission.[165] In 1966, Chairman Washington stressed the importance of ethical conduct after distributing a new policy for District employees, Standard Form Nos. 35–36.[166] In the last decade, the PSC has arranged for the District's ethics officer to conduct ethics training for all employees at least twice, in 2008 and in 2012.

The PSC has expanded training on personnel related matters over the years. The Office of Human Resources (OHR) coordinates most of the Commission's training programs. This entails informing and assisting staff with numerous training courses offered by the District government. It also includes educating employees on such topics such as employee benefits, retirement planning, and District personnel policies, including teleworking, performance management, and evaluation processes. The most recent training options are seminars on such wellness issues, such as CPR training, Tai Chi, and stress and life balance.

OHR also is responsible for managing the Commission's participation in the Mayor's Summer Youth Employment Program. Mayor Barry created the program during his first term that began in 1979. However, the Commission's commitment to District youth predates the mayor's formal program. In the 1960s, Chairman Washington made a point of hiring summer interns and students through the United Planning Organization, a nonprofit community-based program.

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165 Minutes of Commission meetings, p. 4486 and PUC No. 3601.

166 Minutes of Commission meetings, p. 5516.

PSC staff attorney, Chris Lipscomb, in Nigeria.

Commissioner Rick Morgan in China.

Chinese delegation meets with PSC staff.

P. Foreign Delegations and Exchange Programs

In assisting other countries to privatize their public utility sectors, the US State Department and US Agency for International Development (USAID) often fund and sponsor delegations to visit the nation's capital and other major US cities. The Commission has been asked to host many of these delegations. The first mention of such a visit in the minutes of Commission meetings was in 1943, when a delegation came from China.[167] In 1952, a delegation from Spain visited the PUC, and in 1963, a Korean delegation visited.[168] In the mid-1980s, a number of embassies, such as Japan, regularly asked the Commission to meet with their visiting delegations. In the mid-1990s, NARUC established an international committee that has encouraged increasing the numbers of visiting delegations and the opportunity for Commission employees to visit their countries in return.

Since then, there have been many visitors from Asia (Japan, China, Korea, Bhutan, Nepal, India, and Fiji); all parts of the African continent (Morocco, Nigeria, Lesotho, Malawi, South Africa, Zambia, Tanzania, and Kenya,); the Caribbean (Dominican Republic and Jamaica); and Europe (Finland, Romania, Latvia, Albania, Georgia, Russia, and Ukraine). PSC employees have visited and served as advisors to regulatory agencies in Nigeria, Ukraine, India, Bhutan, Nepal, and China. Because of the diverse composition of its staff, the Commission has also provided or shared interpreting responsibilities with the nongovernmental organizations that accompany the delegations while in the US.

167 Minutes of Commission meetings, p. 2401.
168 Minutes of Commission meetings, pp. 4632, 4670.

Q. The Commission As a Good Citizen

As a public servant, the Commission has found ways to contribute to District youth and those needing assistance outside the realm of its decisions on public utility matters. In the mid-to-late 1980s, it adopted Roosevelt High School and developed a consumer-economics course that was integrated into a social studies class. PSC staff taught classes on banking; budgeting and managing personal finances; buying stocks and bonds and reading the stock market pages; preparing resumes and interviewing for jobs; negotiating the purchase of a car, and so on. Commission staff also tutored students and participated in a mentoring program. In the 1990s, the PSC held a similar mentoring program at Powell Elementary School, which had a large Hispanic population. Consumer services manager Patricia Walker, born in Costa Rica and fluent in Spanish, worked there with the Teaching English as a Second Language teacher. Over the years, many PSC employees have participated in career days at various schools.

PSC employees are also enthusiastic supporters of programs to feed the hungry and provide toys and clothing for children during the holidays. Each year, employees bring nonperishable food and make monetary donations to the citywide Food2Feed program and Central Union Mission. They also help churches prepare baskets for families at Thanksgiving and Christmas.

PSC staff with food collected for Food2Feed organization.

PSC staff, Aaron Aylor, delivering food collected for Food2Feed.

OAFO for the PSC, Irvin Logan and PSC staff LaWanda Hale, Ellen Brown, Aaron Aylor, and Pat Walker gather items collected for a clothing drive.

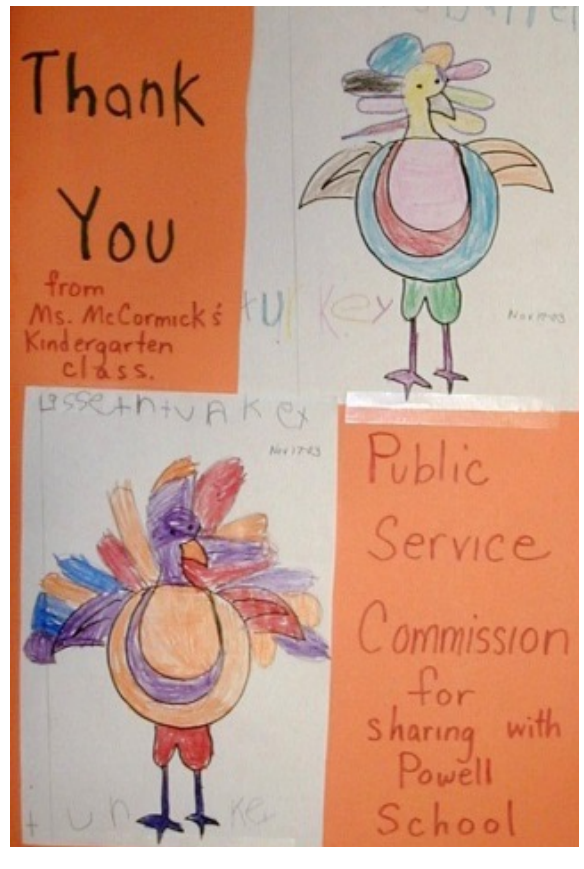
PSC Economist, Dr. Dona Burney, teaching consumer economics class at Roosevelt High School.

PSC Director of Consumer Services, Linda Jordan and OCMS staff, Agnes Addison deliver donation to Central Union Mission.

PSC staff mentors, Pat Walker and Linda Jordan, with Powell school teachers and staff.

Above and below: PSC engineering staff, Robert Hanson and the Office Director, Richard Huriaux, meeting with pre-engineering students from Dunbar High School.

Roosevelt High School award for the PSC's mentoring and tutoring program given to Dr. Phylicia Fauntleroy, Director, Office of Economics and Leon Hurd from the accounting office.



Thank you card from the Powell School Kindergarten class.

Photos: Commission Locations

District Building, 1913–1963

Cafritz Building, 1625 I Street, Northwest, 1963–1980

Old City Hall, 1980–1987

SEC Building, 450 Fifth Street, Northwest, 1987–1996

717 14th Street, Northwest, 1996–2000

1333 H Street, NW, 1998–2015

1325 G Street, Northwest, 2015–Present

Photos: Commission Hearing Rooms

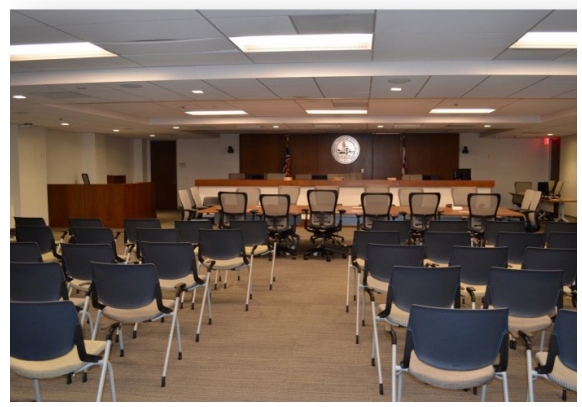
District Building

Old City Hall

Securities and Exchange Commission Building,
450 5th Street, NW

People's Counsel, Brian Lederer at PSC Hearing,
1625 I Street, Northwest

Securities and Exchange Commission Building,
1333 H Street, NW



1325 G Street, NW

Photos: Chairpersons

CHESTER HARDING
*3/10/1913-10/31/1914
W.H. Taft/W. Wilson

CHARLES W. KUTZ
10/31/1914-7/16/1917
W. Wilson

LOUIS BROWNLOW
1/26/1915-9/15/1920
**7/16/1917-12/31/1918
W. Wilson

CHARLES W. KUTZ
12/16/1918-10/5/1921
1/19/1919-10/5/1921
W. Wilson

CHARLES KELLER
10/6/1921-4/11/1923
W. Harding

JAMES FRANKLIN BELL
6/25/1923-6/23/1927
W. Harding

JOHN D. CHILDRESS
3/7/1927-5/31/1929
6/24/1927-5/31/1929
C. Coolidge

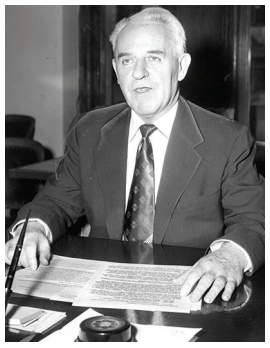
MASON M. PATRICK
6/1/1929-9/30/1933
H. Hoover

RILEY E. ELGEN
1/20/1932-2/28/1941
5/4/1934-2/28/1941
H. Hoover - F.D. Roosevelt

DAVID McCOACH, JR.
9/7/1938-5/15/1941
3/11/1941-5/21/1941
F. D. Roosevelt

CHARLES W. KUTZ
5/20/1941-9/24/1945
5/22/1941-11/8/1941
F. D. Roosevelt

GREGORY HANKIN
11/8/1941-6/30/1944
11/8/1941-8/31/1942
F. D. Roosevelt

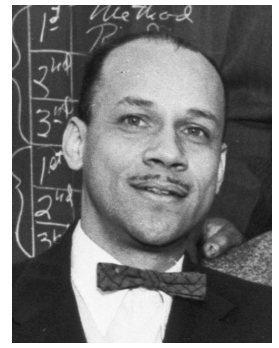


JAMES FLANAGAN
2/21/1942-2/28/1953
8/31/1942-2/1/1953
F. D. Roosevelt/H. S. Truman

KENNETH W. SPENCER
3/25/1950-5/31/1953
2/1/1953-5/31/1953
H. S. Truman

ROBERT E. MCLAUGHLIN
5/19/1953-6//1/1955
5/23/1953-6/1/1955
D. D. Eisenhower

GEORGE E. C. HAYES
6/2/1955-6/30/1961
D. D. Eisenhower



JAMES A. WASHINGTON, JR.
10/2/1961-10/7/1966
J. F. Kennedy

GEORGE A. AVERY
3/16/1966-6/12/1971
10/8/1966-6/12/1971
L. B. Johnson

* Full tenure as Commissioner and Chairperson
** Tenure as Chairperson if different from Commissioner

Chairpersons (continued)

JEREMIAH C. WATERMAN
1/5/71971-6/30/1973
6/13/1971-6/30/1973
R. M. Nixon

H. MASON NEELY
12/22/1971-6/30/1977
7/1/1973-12/31/1973
R. M. Nixon

WILLIAM R. STRATTON
12/4/1973-6/30/1979
1/1/1974-3/4/1975
R. M. Nixon

RUTH HANKINS-NESBITT
3/5/1975-9/29/1989
3/5/1975-12/31/1977
W. E. Washington

ELIZABETH PATTERSON
11/30/1977-6/30/1980
1/1/1978-12/31/1979
W. E. Washington

RUTH HANKINS-NESBITT
3/5/1975-9/29/1989
1/1/1980-6/30/1984
M. Barry

PATRICIA CLEMENT WORTHY
8/8/1980–4/1/1991
7/1/1984–12/31/1990
M. Barry

HOWARD C. DAVENPORT
5/1/1991–2/28/1995
1/1/1991–2/28/1995
S. Kelly

EDWARD M. MEYERS
7/27/1990-2/3/2002
3/1/1995-12/3/1995
M. Barry/S. Kelly / M. Barry

MARLENE L. JOHNSON
12/4/1995-9/30/1999
M. Barry

EDWARD M. MEYERS
7/27/1990-2/3/2002
10/1/1999-6/30/2000
M. Barry/S. Kelly / M. Barry

ANGEL M. CARTAGENA
7/1/2000-5/30/2003
A. Williams

AGNES M. ALEXANDER YATES
1/10/1993-12/31/2008
6/1/2003-12/31/2008
S. Kelly/M. Barry/A. Williams

BETTY ANN KANE
3/6/2007-12/17/2018
3/1/2009-12/17/2018
A. Fenty/ V. Gray/M. Bowser

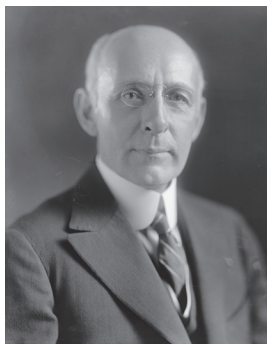
WILLIE L. PHILLIPS
8/1/2014-12/17/2018
12/18/2018-12/1/2021
V. Gray / M. Bowser

EMILE C. THOMPSON
4/7/21-6/30/2026
M. Bowser

Photos: Commissioners

CUNO H. RUDOLPH
3/10/1913–7/19/1913
W. H. Taft/W. Wilson

OLIVER P. NEWMAN
7/19/1913-8/31/1917
W. Wilson



FREDERICK L. SIDDONS
7/19/1913-1/20/1915
W. Wilson

JOHN G. D. KNIGHT
7/16/1917-12/16/1918
W. Wilson

WILLIAM G. GARDINER
10/9/1917-11/22/1919
W. Wilson

JOHN T. HENDRICK
9/17/1920-3/4/1921
W. Wilson

MABLE T. BOARDMAN
9/25/1920-3/4/1921
W. Wilson

CUNO H. RUDOLPH
3/15/1921-12/3/1927
W. Harding

JAMES F. OYSTER SR.
3/15/1921-5/19/1925
W. Harding

FREDERICK A. FENNING
6/6/1925-8/2/1926
C. Coolidge

SIDNEY F. TALIAFERRO
12/11/1925-3/7/1927
C. Coolidge

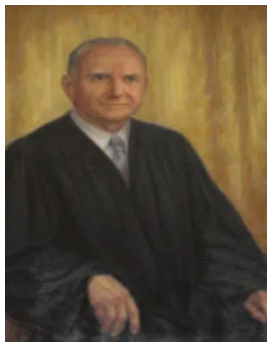
PROCTOR L. DOUGHERTY
8/4/1926-3/7/1927
C. Coolidge

HARRISON BRAND, JR.
3/7/1927-7/21/1930
C. Coolidge

WILLIAM B. LADUE
6/23/1927-7/21/1930
C. Coolidge

HARLEIGH H. HARTMAN
5/31/1929-12/15/1931
H. Hoover

JOHN C. GOTWALS
7/21/1930-8/22/1934



RICHMOND B. KEECH
5/2/1934-10/31/1940
F. D. Roosevelt

DANIEL I. SULTAN
8/22/1934-9/5/1938
F. D. Roosevelt

Commissioners (continued)

JAMES F. REILLY
7/24/1944-9/30/1945
F. D. Roosevelt

GORDON R. YOUNG
9/25/1945-5/31/1951
H. S. Truman

JAMES W. LAUDERDALE
10/25/1946-11/30/1949
H. S. Truman

BERNARD L. ROBINSON
6/1/1951-12/31/1952
H.S. Truman

LOUIS W. PRENTISS
1/2/1953-12/9/1954
H. S. Truman

ROBERT M. WESTON
8/6/1953-6/30/1956
D.D. Eisenhower

THOMAS A. LANE
12/10/1954-7/31/1957
D. D. Eisenhower

JOHN L. SMITH, JR.
7/19/1956-9/5/1957
D. D. Eisenhower

A.C WELLING
8/1/1957-7/1/1960
D. D. Eisenhower

HAROLD A. KERTZ
10/16/1957-6/30/1962
D. D. Eisenhower

FREDERICK J. CLARKE
8/1/1960-7/8/1963
D. D. Eisenhower

EDGAR BERNSTEIN
8/6/1962-6/30/1965
J. F. Kennedy

CHARLES M. DUKE
7/8/1963-12/1/1966
J. F. Kennedy

WILLIAM L. PORTER
11/7/1966-6/30/1970
L. B. Johnson

ROBERT E. MATHE
12/14/1966-11/2/1967
L. B. Johnson

THOMAS W. FLETCHER
1/11/1968-12/15/1969
W. E. Washington

GRAHAM W. WATT
1/15/1970-1/31/1973
W. E. Washington

DOUGLAS N. SCHNEIDER JR.
5/2/1973-7/22/1975
R. M. Nixon

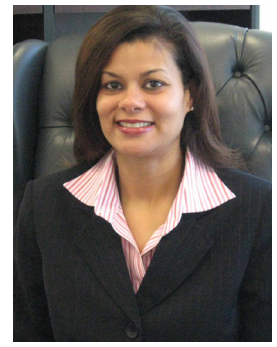
Commissioners (continued)

DR. WESLEY H. LONG
3/28/1980-8/31/1990
M. Barry

BELVA D. NEWSOME
12/1/1989-12/31/1992
M. Barry

ANTHONY M. RACHAL, III
7/14/2002-12/31/2006
A. Williams

RICHARD (RICK) E. MORGAN
7/22/2003-12/31/2011
A. Williams/A. Fenty



LORI MURPHY LEE
3/17/2009-10/2/2012
A. Fenty

JOANNE DODDY FORT
10/3/2012-12/20/2016
V. Gray

RICHARD A. BEVERLY
12/21/2016-6/30/28
M. Bowser

GREER J. GILLIS
12/18/2018-3/31/2020
M. Bowser

TED TRABUE
12/20/2022-6/30/2026
M. Bowser

Tables

Table 5.1: List of Commissioners, Chairpersons, and their Terms, 1913–2024

No. of Commissioners	Name	Begin Date	End Date	Number of Years in the Position	Professions	Tenure as Chairpersons	No. of Chairpersons
1	Cuno H. Rudolph	3/10/1913	7/19/1913	4 months	Banker	-	
2	Chester Harding	3/10/1913	10/31/1914	7 months	Lt. Colonel, US Army*	3/10/1913 -10/31/1914	1
3	Oliver P. Newman	7/19/1913	8/31/1917	4 years, 1month	Newspaperman	-	
4	Frederick L. Siddons	7/19/1913	1/20/1915	1 year, 6 months	Lawyer	-	
5	Charles W. Kutz	10/31/1914	7/16/1917	2 years, 9 months	Lt. Colonel, US Army	10/31/1914 - 7/16/1917	2
6	Louis Brownlow	1/26/1915	9/15/1920	5 years, 8 months	Newspaper Editor, Lawyer	7/16/1917 - 12/31/1918	3
7	J.G.D. Knight	7/16/1917	12/16/1918	1 year, 5 months	Brigadier Gen., US Army	-	
8	W. Gwynn Gardiner	10/9/1917	11/22/1919	2 years, 1 month	Lawyer	-	
	Charles W. Kutz (2)	12/16/1918	10/5/1921	2 years, 10 months	Colonel, US Army	1/19/1919 - 10/5/1921	
9	J. Thilman Hendrick	9/17/1920	3/4/1921	6 months	Banker	-	
10	Mable T. Boardman	9/25/1920	3/4/1921	6 months	Philanthropist	-	
	Cuno H. Rudolph (2)	3/15/1921	12/3/1927	6 years, 9 months	Banker	-	
11	Charles Keller	10/6/1921	4/11/1923	1 year, 6 months	Colonel, US Army	10/6/1921 - 4/11/1923	4
12	James F. Oyster	3/15/1921	5/19/1925	4 years, 2 months	Merchant	-	
13	J. Franklin Bell	6/25/1923	6/23/1927	4 years	Colonel, US Army	6/25/1923- 6/23/1927	5
14	Frederick A. Fenning	6/5/1925	8/2/1926	1 year, 2 months	Lawyer	-	
15	Sidney A. Taliaferro	12/11/1925	3/7/1927	1 year, 3 months	Lawyer	-	
16	Proctor L. Daugherty	8/4/1926	3/7/1927	7 months	Engineer	-	
17	John W. Childress	3/7/1927	5/31/1929	2 years, 2 months	Manufacturer	6/24/1927 - 5/31/1929	6
18	Harrison Brand Jr.	3/7/1927	7/21/1930	3 years, 4 months	Lawyer-Engineer	-	
19	William B. Ladue	6/23/1927	7/21/1930	3 years, 1 month	Colonel, US Army	-	
20	Harleigh H. Hartman	5/31/1929	12/15/1931	2 years, 7 months	Lawyer	-	
21	Mason M. Patrick	6/1/1929	9/30/1933	4 years, 3 months	Major Gen., US Army Retired	6/1/1929 - 9/30/1933	7
22	John C. Gotwals	7/21/1930	8/22/1934	4 years, 1 month	Major, US Army	-	
23	Riley E. Elgen	1/20/1932	2/28/1941	9 years, 1 month	Engineer	5/4/1934 - 2/28/1941	8
24	Richmond B. Keech	5/2/1934	10/31/1940	6 years, 5 months	Lawyer	-	

Table 5.1: List of Commissioners, Chairpersons, and their Terms, 1913–2024 (continued)

No. of Commissioners	Name	Begin Date	End Date	Number of Years in the Position	Professions	Tenure as Chairpersons	No. of Chairpersons
25	Dan I. Sultan	8/22/1934	9/5/1938	4 years, 1 month	Colonel, US Army	-	
26	David McCoach Jr.	9/7/1938	5/15/1941	2 years, 8 months	Colonel, US Army	Acting 3/11/1941-5/21/1941	9
	Charles W. Kutz (3)	5/20/1941	9/24/1945	4 years, 4 months	Colonel, US Army	Acting 5/22/1941 - 11/8/1941	
27	Gregory Hankin	11/8/1941	6/30/1944	2 years, 7 months	Lawyer	11/8/1941 - 8/31/1942	10
28	James H. Flanagan	2/21/1942	2/28/1953	11 years	Accountant	8/31/1942 - 2/1/1953	11
29	James Francis Reilly	7/24/1944	9/30/1945	1 year, 2 months	Lawyer	-	
30	Gordon R. Young	9/25/1945	5/31/1951	5 years, 8 months	Brigadier Gen., US Army	-	
31	James W. Lauderdale	10/25/1946	11/30/1949	3 years, 1 month	Lawyer	-	
32	Kenneth W. Spencer	3/25/1950	5/31/1953	3 years, 2 months	Engineer	2/1/1953 - 5/31/1953	12
33	Bernard L. Robinson	6/1/1951	12/31/1952	1 year, 6 months	Brigadier Gen., US Army	-	
34	Louis W. Prentiss	1/2/1953	12/9/1954	1 year, 11 months	Brigadier Gen., US Army	-	
35	Robert E. McLaughlin	5/19/1953	6/1/1955	2 years, 1 month	Lawyer	5/23/1953 - 6/1/1955	13
36	Robert M. Weston	8/6/1953	6/30/1956	2 years, 10 months	Lawyer	-	
37	Thomas A. Lane	12/10/1954	7/31/1957	2 years, 7 months	Brigadier Gen., US Army	-	
38	George E.C. Hayes	6/2/1955	6/30/1961	6 years	Lawyer	6/2/1955 - 6/30/1961	14
39	John Louis Smith Jr.	7/19/1956	9/5/1957	1 year, 2 months	Lawyer	-	
40	A.C. Welling	8/1/1957	7/1/1960	1 years, 11 months	Brigadier Gen., US Army	-	
41	Harold A. Kertz	10/16/1957	6/30/1962	4 years, 8 months	Lawyer	-	
42	Frederick .J. Clarke	8/1/1960	7/8/1963	2 years, 11 months	Brigadier Gen., US Army	-	
43	James A. Washington Jr.	10/2/1961	10/7/1966	5 years	Lawyer	10/2/1961 - 10/7/1966	15
44	Edgar H. Bernstein	8/6/1962	6/30/1965	2 years, 10 months	Economist	-	
45	Charles .M. Duke	7/8/1963	12/1/1966	3 years, 5 months	Brigadier Gen., US Army	-	
46	George A. Avery	3/16/1966	6/12/1971	5 years, 3 months	Lawyer	10/8/1966 - 6/12/1971	16
47	William L. Porter	11/7/1966	6/30/1970	3 years, 7 months	CPA-Lawyer	-	
48	Robert E. Mathe	12/14/1966	11/2/1967	11 months	Brigadier Gen., US Army	-	

Table 5.1: List of Commissioners, Chairpersons, and their Terms, 1913–2024 (continued)

No. of Commissioners	Name	Begin Date	End Date	Number of Years in the Position	Professions	Tenure as Chairpersons	No. of Chairpersons
49	Thomas W. Fletcher	1/11/1968	12/15/1969	1 year, 1 month	Deputy Mayor	-	
50	Graham W. Watt	1/15/1970	1/31/1973	3 years	Deputy Mayor	-	
51	Jeremiah C. Waterman	1/5/1971	6/30/1973	2 years, 5 months	Lawyer	6/13/1971 - 6/30/1973	17
52	H. Mason Neely	12/22/1971	6/30/1977	5 years, 6 months	Lawyer	Acting - 7/1/1973 - 12/31/1973	18
53	Douglas N. Schneider	5/2/1973	7/22/1975	2 years, 2 months	Public Servant	-	
54	William R. Stratton	12/4/1973	6/30/1979	5 years, 6 months	Lawyer	1/1/1974 - 3/4/1975	19
55	Ruth Hankins-Nesbitt	3/5/1975	9/29/1989	14 years, 6 months	Lawyer	3/5/1975 - 12/31/1977	20
56	Elizabeth H. Patterson	11/30/1977	6/30/1980	2 years, 7 months	Lawyer	1/1/1978 - 12/31/1979	21
	Ruth Hankins-Nesbitt (2)	3/5/1975	9/29/1989	14 years, 6 months	Lawyer	1/1/1980 - 6/30/1984	
57	Wesley H. Long	3/28/1980	8/31/1990	10 years, 3 months	Ph.D. Economist	-	
58	Patricia Worthy Clement Worthy	8/8/1980	4/1/1991	10 years, 8 months	Lawyer	7/1/1984 - 12/31/1990	22
59	Belva D. Newsome	12/1/1989	12/31/1992	3 years, 1 months	Lawyer	-	
60	Edward M. Meyers	7/27/1990	2/3/2002	12 years	Economist-Planner	-	
61	Howard C. Davenport	5/1/1991	2/28/1995	3 years, 9 months	Lawyer	1/1/1991 - 2/28/1995	23
	Edward M. Meyers	7/27/1990	2/3/2002	12 years	Economist-Planner	Acting - 3/1/1995 - 12/3/1995	24
62	Agnes M. Alexander Yates	1/10/1993	12/31/2008	16 years	Lawyer	6/1/2003 - 12/31/2008	25
63	Marlene L. Johnson	12/4/1995	9/30/1999	3 years, 9 months	Lawyer	12/4/1995 - 9/30/1999	26
	Edward M. Meyers	7/27/1990	2/3/2002	12 years	Economist-Planner	Acting - 10/1/1999 - 6/30/2000	
64	Angel Cartagena	7/1/2000	5/30/2003	2 years, 10 months	Lawyer	7/1/2000 - 5/30/2003	27
65	Anthony M. Rachal III	7/14/2002	12/31/2006	4 years, 5 months	Lawyer	-	
66	Richard E. Morgan	7/22/2003	12/31/2011	8 years, 5 months	Economist	-	
67	Betty Ann Kane	3/1/2007	12/17/2018	10 years, 10 months	Public Servant - Former Member of the D.C. Board of Education and D.C. Council	3/1/2009 - 12/17/2018	28
68	Lori Murphy Lee	3/17/2009	10/2/2012	3 years, 6 months	Lawyer		
69	Joanne Doddy Fort	10/3/2012	12/20/2016	4 years, 2 months	Lawyer		

Table 5.1: List of Commissioners, Chairpersons, and their Terms, 1913–2024 (continued)

No. of Commissioners	Name	Begin Date	End Date	Number of Years in the Position	Professions	Tenure as Chairpersons	No. of Chairpersons
70	Willie L. Phillips	8/1/2014	12/1/2021	6 years, 4 months	Lawyer	12/18/2018 to 12/1/2021	29
71	Richard A. Beverly	12/21/2016	6/30/2028 unless reappointed		Lawyer		
72	Greer J. Gillis	12/18/2018	3/31/2020	1 year, 3.5 months	Engineer		
73	Emile C. Thompson	4/7/2021	6/30/2026 unless reappointed		Lawyer	4/7/2021 to 6/30/2026 unless reappointed	30
74	Ted Trabue	12/20/2022	6/30/2026 unless reappointed		Lawyer		

* Most military positions were in the US Army Corps of Engineers.
Source: PSC

Table 5.2: PSC's Annual Budgets in Nominal and Real Dollars, 1913–2013

Year	Nominal $ Budgets	CPI	Real $ Budgets
1913	$40,000	4.250	$941,240.400
1914	$140,000	4.293	$3,261,398.000
1915	$68,279	4.336	$1,574,857.593
1916	$56,000	4.679	$1,196,843.303
1917	$44,000	5.495	$800,789.688
1918	$59,000	6.482	$910,229.338
1919	$59,000	7.426	$794,477.630
1920	$41,040	8.585	$478,027.764
1921	$40,840	7.684	$531,506.362
1922	$39,740	7.212	$551,054.237
1923	$39,520	7.340	$538,389.511
1924	$36,520	7.340	$497,519.862
1925	$36,520	7.512	$486,147.979
1926	$42,240	7.598	$555,938.061
1927	$50,120	7.469	$671,023.267
1928	$73,540	7.340	$1,001,851.332
1929	$76,430	7.340	$1,041,222.427
1930	$78,320	7.169	$1,092,526.481
1931	$95,320	6.525	$1,460,885.608
1932	$103,390	5.881	$1,758,060.163
1933	$103,390	5.580	$1,852,724.941
1934	$83,500	5.752	$1,451,635.037
1935	$51,500	5.881	$875,714.270
1936	$70,500	5.967	$1,181,544.496
1937	$70,500	6.181	$1,140,518.646
1938	$63,000	6.053	$1,040,871.702
1939	$76,000	5.967	$1,273,721.727
1940	$70,000	6.010	$1,164,785.000
1941	$69,920	6.310	$1,108,051.254
1942	$69,920	6.997	$999,285.487
1943	$78,715	7.426	$1,059,954.350
1944	$90,200	7.555	$1,193,904.625

Year	Nominal $ Budgets	CPI	Real $ Budgets
1945	$107,959	7.727	$1,397,211.376
1946	$98,000	8.371	$1,170,758.256
1947	$112,500	9.573	$1,175,231.502
1948	$128,377	10.345	$1,240,926.174
1949	$129,000	10.216	$1,262,666.092
1950	$143,000	10.345	$1,382,275.975
1951	$145,700	11.161	$1,305,455.188
1952	$148,800	11.375	$1,308,075.532
1953	$147,700	11.461	$1,288,679.734
1954	$145,357	11.547	$1,258,807.831
1955	$166,752	11.504	$1,449,479.316
1956	$173,077	11.676	$1,482,334.511
1957	$181,679	12.062	$1,506,170.634
1958	$197,600	12.406	$1,592,813.260
1959	$199,200	12.492	$1,594,674.722
1960	$225,000	12.706	$1,770,788.007
1961	$258,500	12.835	$2,014,026.237
1962	$246,400	12.964	$1,900,682.278
1963	$245,530	13.135	$1,869,213.471
1964	$251,868	13.307	$1,892,723.022
1965	$276,000	13.522	$2,041,147.048
1966	$308,300	13.908	$2,216,686.515
1967	$324,200	14.337	$2,261,217.347
1968	$349,100	14.938	$2,336,933.583
1969	$365,200	15.754	$2,318,144.316
1970	$393,000	16.655	$2,359,590.232
1971	$403,000	17.385	$2,318,065.951
1972	$456,000	17.943	$2,541,349.091
1973	$467,000	19.059	$2,450,245.923
1974	$482,800	21.163	$2,281,372.000
1975	$532,600	23.094	$2,306,187.699
1976	$628,600	24.425	$2,573,581.199

Table 5.2: PSC's Annual Budgets in Nominal and Real Dollars, 1913–2013 (continued)

Year	Nominal $ Budgets	CPI	Real $ Budgets
1977	$706,500	26.013	$2,715,909.579
1978	$794,700	27.988	$2,839,431.410
1979	$798,600	31.165	$2,562,527.000
1980	$827,600	35.371	$2,339,747.733
1981	$1,029,000	39.020	$2,637,103.993
1982	$1,915,000	41.424	$4,622,929.067
1983	$1,915,000	42.755	$4,479,042.721
1984	$1,998,000	44.601	$4,479,769.836
1985	$1,532,000	46.189	$3,316,822.714
1986	$3,035,000	47.047	$6,450,953.422
1987	$3,351,000	48.764	$6,871,821.364
1988	$3,885,000	50.782	$7,650,363.018
1989	$4,360,000	53.229	$8,191,068.710
1990	$4,727,000	56.105	$8,425,307.873
1991	$5,024,000	58.466	$8,593,068.781
1992	$5,130,000	60.226	$8,517,957.306
1993	$5,480,000	62.029	$8,834,632.249
1994	$6,042,000	63.617	$9,497,477.692
1995	$5,604,000	65.420	$8,566,214.094
1996	$5,547,000	67.351	$8,235,898.528
1997	$4,547,000	68.897	$6,599,722.611
1998	$4,547,000	69.970	$6,498,499.871
1999	$5,473,000	71.515	$7,652,903.127
2000	$5,327,000	73.919	$7,206,515.325
2001	$5,678,000	76.023	$7,468,830.299
2002	$6,403,000	77.225	$8,291,404.508
2003	$6,796,000	78.985	$8,604,216.152
2004	$6,970,000	81.088	$8,595,607.676
2005	$7,656,000	83.835	$9,132,200.676
2006	$7,976,000	86.540	$9,216,592.421
2007	$8,001,000	89.004	$8,989,442.356
2008	$8,645,000	92.422	$9,353,856.031
2009	$9,972,000	92.093	$10,828,189.096
2010	$10,100,000	93.604	$10,790,190.135
2011	$9,971,000	96.558	$10,326,418.482
2012	$10,375,000	98.556	$10,526,968.801
2013	$10,823,000	100	$10,823,000.000

Red numbers are estimates

Sources: DC appropriation bills passed by Congress and annual reports of the DC Commissioners to Congress

Table 5.3: DC Appropriations and PSC's Annual Budgets, 1913–2013

Year	DC Total Appropriations (Nominal)	Federal Payment*	Federal Payment/DC Appropriations	PSC Annual Budget (Nominal)	PSC Annual Budget/DC Appropriations
1913	$11,522,040	$5,800,306	50.34%	$40,000	0.347%
1914	$12,033,678	$5,799,012	48.19%	$140,000	1.163%
1915	$13,316,560	$6,118,016	45.94%	$68,279	0.513%
1916	$12,492,687	$6,332,692	50.69%	$56,000	0.448%
1917	$14,544,374	$6,313,903	43.41%	$44,000	0.303%
1918	$16,050,587	$7,032,430	43.81%	$59,000	0.368%
1919	$17,537,794	$8,083,958	46.09%	$59,000	0.336%
1920	$19,709,292	$9,953,256	50.50%	$41,040	0.208%
1921	$21,047,116	$9,218,093	43.80%	$40,840	0.194%
1922	$22,929,020	$9,187,793	40.07%	$39,740	0.173%
1923	$27,231,343	$10,762,099	39.52%	$39,520	0.145%
1924	$20,505,454	$8,081,105	39.41%	$36,520	0.178%
1925	$32,920,151	$9,145,355	27.78%	$36,520	0.111%
1926	$31,564,805	$9,000,000	28.51%	$42,240	0.134%
1927	$33,948,328	$9,000,491	26.51%	$50,120	0.148%
1928	$34,691,175	$9,000,000	25.94%	$73,540	0.212%
1929	$38,065,545	$9,135,403	24.00%	$76,430	0.201%
1930	$39,333,467	$9,207,593	23.41%	$78,320	0.199%
1931	$40,077,589	$9,661,049	24.11%	$95,320	0.238%
1932	$43,840,022	$9,500,111	21.67%	$103,390	0.236%
1933	$46,560,301	$7,967,643	17.11%	$103,390	0.222%
1934	$36,075,568	$5,838,869	16.19%	$83,500	0.231%
1935	$37,981,615	$4,685,481	12.34%	$51,500	0.136%
1936	$38,404,687	$5,859,871	15.26%	$70,500	0.184%
1937	$39,116,513	$5,148,362	13.16%	$70,500	0.180%
1938	$42,840,392	$5,175,775	12.08%	$63,000	0.147%
1939	$38,516,177	$5,266,282	13.67%	$76,000	0.197%
1940	$42,068,437	$6,255,552	14.87%	$70,000	0.166%
1941	$43,452,651	$6,281,329	14.46%	$69,920	0.161%
1942	$42,673,057	$6,000,000	14.06%	$69,920	0.164%
1943	$49,422,932	$6,000,000	12.14%	$78,715	0.159%
1944	$56,047,263	$6,290,597	11.22%	$90,200	0.161%

Table 5.3: DC Appropriations and PSC's Annual Budgets, 1913–2013 (continued)

Year	DC Total Appropriations (Nominal)	Federal Payment*	Federal Payment/DC Appropriations	PSC Annual Budget (Nominal)	PSC Annual Budget/DC Appropriations
1945	$63,171,658	$6,010,473	9.51%	$107,959	0.171%
1946	$69,759,084	$6,000,000	8.60%	$98,000	0.140%
1947	$72,630,997	$8,000,000	11.01%	$112,500	0.155%
1948	$81,744,091	$11,000,000	13.46%	$128,377	0.157%
1949	$86,017,985	$11,000,000	12.79%	$129,000	0.150%
1950	$98,331,275	$11,000,000	11.19%	$143,000	0.145%
1951	$103,924,822	$9,800,000	9.43%	$145,700	0.140%
1952	$121,265,977	$10,400,000	8.58%	$148,800	0.123%
1953	$136,442,100	$10,000,000	7.33%	$147,700	0.108%
1954	$153,467,270	$11,000,000	7.17%	$145,357	0.095%
1955	$170,359,816	$20,000,000	11.74%	$166,752	0.098%
1956	$178,418,787	$18,000,000	10.09%	$173,077	0.097%
1957	$198,253,379	$20,000,000	10.09%	$181,679	0.092%
1958	$196,582,720	$20,000,000	10.17%	$197,600	0.101%
1959	$215,153,500	$25,000,000	11.62%	$199,200	0.093%
1960	$241,705,678	$25,000,000	10.34%	$225,000	0.093%
1961	$264,504,207	$30,233,000	11.43%	$258,500	0.098%
1962	$279,438,360	$32,753,000	11.72%	$246,400	0.088%
1963	$290,059,000	$34,899,000	12.03%	$245,530	0.085%
1964	$313,115,662	$40,368,000	12.89%	$251,868	0.080%
1965	$341,473,328	$40,720,000	11.92%	$276,000	0.081%
1966	$365,351,386	$47,372,000	12.97%	$308,300	0.084%
1967	$404,598,200	$53,394,000	13.20%	$324,200	0.080%
1968	$526,057,000	$70,000,000	13.31%	$349,100	0.066%
1969	$551,915,000	$79,000,000	14.31%	$365,200	0.066%
1970	$650,249,600	$108,097,000	16.62%	$393,000	0.060%
1971	$825,157,000	$126,000,000	15.27%	$403,000	0.049%
1972	$885,000,000	$153,000,000	17.29%	$456,000	0.052%
1973	$834,756,800	$185,574,000	22.23%	$467,000	0.056%
1974	$841,400,000	$187,500,000	22.28%	$482,800	0.057%
1975	$919,900,000	$226,200,000	24.59%	$532,600	0.058%
1976	$1,046,300,000	$248,900,000	23.79%	$628,600	0.060%

Table 5.3: DC Appropriations and PSC's Annual Budgets, 1913–2013 (continued)

Year	DC Total Appropriations (Nominal)	Federal Payment*	Federal Payment/DC Appropriations	PSC Annual Budget (Nominal)	PSC Annual Budget/DC Appropriations
1977	$1,091,000,000	$276,000,000	25.30%	$706,500	0.065%
1978	$1,260,800,000	$276,000,000	21.89%	$794,700	0.063%
1979	$1,285,400,000	$250,000,000	19.45%	$798,600	0.062%
1980	$1,426,000,000	$276,500,000	19.39%	$827,600	0.058%
1981	$1,520,400,000	$295,400,000	19.43%	$1,029,000	0.068%
1982	$1,626,983,000	$336,600,000	20.69%	$1,915,000	0.118%
1983	$1,798,642,000	$361,000,000	20.07%	$1,915,000	0.106%
1984	$1,958,029,000	$386,000,000	19.71%	$1,998,000	0.102%
1985	$2,411,549,000	$425,000,000	17.62%	$1,532,000	0.064%
1986	$2,689,077,000	$425,000,000	15.80%	$3,035,000	0.113%
1987	$3,060,407,000	$444,500,000	14.52%	$3,351,000	0.109%
1988	$3,077,347,000	$430,500,000	13.99%	$3,885,000	0.126%
1989	$3,206,916,000	$430,500,000	13.42%	$4,360,000	0.136%
1990	$3,481,765,000	$430,500,000	12.36%	$4,727,000	0.136%
1991	$3,860,574,000	$530,500,000	13.74%	$5,024,000	0.130%
1992	$3,879,866,946	$630,500,000	16.25%	$5,130,000	0.132%
1993	$3,988,421,000	$624,854,000	15.67%	$5,480,000	0.137%
1994	$3,740,382,000	$630,603,000	16.86%	$6,042,000	0.162%
1995	$5,069,253,000	$660,000,000	13.02%	$5,604,000	0.111%
1996	$5,250,386,000	$660,000,000	12.57%	$5,547,000	0.106%
1997	$5,160,000,000	$665,702,000	12.90%	$4,547,000	0.088%
1998	$4,200,000,000	$198,000,000	4.71%	$4,547,000	0.108%
1999	$4,418,030,000	N/A	N/A	$5,473,000	0.124%
2000	$4,686,836,000	N/A	N/A	$5,327,000	0.114%
2001	$5,017,000,000	N/A	N/A	$5,678,000	0.113%
2002	$5,312,044,000	N/A	N/A	$6,403,000	0.121%
2003	$5,570,000,000	$94,043,000	1.69%	$6,796,000	0.122%
2004	$5,690,000,000	$116,207,000	2.04%	$6,970,000	0.122%
2005	$6,290,000,000	$89,166,000	1.42%	$7,656,000	0.122%
2006	$7,350,000,000	$91,774,000	1.25%	$7,976,000	0.109%
2007	$9,174,425,000	$106,001,000	1.16%	$8,001,000	0.087%
2008	$9,840,019,000	$81,029,000	0.82%	$8,645,000	0.088%

Table 5.3: DC Appropriations and PSC's Annual Budgets, 1913–2013 (continued)

Year	DC Total Appropriations (Nominal)	Federal Payment*	Federal Payment/DC Appropriations	PSC Annual Budget (Nominal)	PSC Annual Budget/DC Appropriations
2009	$9,970,602,000	$146,748,000	1.47%	$9,972,000	0.100%
2010	$10,151,265,000	$135,839,000	1.34%	$10,100,000	0.099%
2011	$10,494,001,000	$126,155,000	1.20%	$9,971,000	0.095%
2012	$10,938,692,000	$73,809,000	0.67%	$10,375,000	0.095%
2013	$11,322,170,000	$67,391,000	0.60%	$10,823,000	0.096%
2014	$12,182,919,000	$93,475,000	0.77%	N/A	N/A

N/A - Not Available
* Federal payment figures from 1998-2014 do not include the various federal grants or stimulus package funds given to different DC agencies.
Sources: Figures from 1913-1999 are taken from the DC appropriations bills passed by Congress. All other figures are taken from the DC Office of the Chief Financial Officer, Comprehensive Annual Financial Reports.
Red highlights are estimates from the DC appropriations bills.

Table 5.4: PSC's Appeals Record, 1914–2016

FC No.	Industry	Topic	Order No.	Dates Orders Issued	Appellant	DC Supreme Court/1937 - District Court of U.S. for DC /1948 - US District Court for DC	US Court of Appeals for the District of Columbia/ 1970 - District of Columbia Court of Appeals	US Supreme Court	Comments
7	Transportation	PUC Jurisdiction over The Terminal Taxicab Company, The Merchant Transfer and Storage Co., and the Blue Line Transfer Co.	44	1/5/1914	Terminal Taxicab Co and Federal Taxicab Co.; Terminal Taxicab Co. appealed to the Court of Appeals; Terminal Cab appealed to the US Supreme Court.	Affirmed and Dismissed.	Affirmed on 2/1/1915.	Affirmed in part - PUC had jurisdiction only over taxicab service from public stands on 5/22/1916.	
9	Transportation	Valuation of Terminal Taxicab Co.	144	4/2/1915	Terminal Taxicab Co. filed 7/21/1915				
PUC No. 830/4 and PUC No. 1392/1	Electric	PEPCO application to issue bonds	116 and 146	10/12/1914 and 4/14/1915	WRECO and PEPCO				According to the 1915 Annual Report, p. 9, the PUC withheld its consent to the issuance of the bonds.
13	Gas	WGL and Georgetown Gas rate case	254 and 314	3/15/1918 and 3/5/1919	Two private citizens objected to PUC approval of increase in residential rates while no increase was approved for the District and Federal Governments; plaintiffs alleged discriminatory treatment.	Dismissed	Affirmed	Affirmed 3/21/1921, Case No. 397	Case is known as Hollis vs.. Kutz; US Supreme Court allowed WGL to charge lower rates to the District and Federal Governments than to other customer classes.
22	Gas and Electric	PUC allowed utility companies to require a deposit from customers before furnishing service.	741 and 743	1/28/1929 and 2/9/1929	E.C. Riegal and the Washington Consumers Guild (Law 76293); plaintiffs appealed.	Dismissed			The plaintiffs sought a writ of mandamus to require the PUC to render a decision by 12/19/1928. The Court granted the PUC's motion to dismiss.
				1/28/1929 and 2/9/1929	E.C. Riegal and the Washington Consumers Guild (Equity No. 49725); plaintiffs appealed.	Dismissed			The Court granted the PUC's motion to dismiss.

Case numbers highlighted in red are from Westlaw.

Table 5.4: PSC's Appeals Record, 1914–2016 (continued)

FC No.	Industry	Topic	Order No.	Dates Orders Issued	Appellant	DC Supreme Court/1937 - District Court of U.S. for DC /1948 - US District Court for DC	US Court of Appeals for the District of Columbia/ 1970 - District of Columbia Court of Appeals	US Supreme Court	Comments
47 and 61	Electric	PEPCO valuation and rate case	208 and 223	5/2/1917 and 7/13/1917	PEPCO and WRECO to DC Supreme Court (Equity No. 35336 and 35341) and Court of Appeals (No. 3485); PUC appealed to the US Supreme Court (Case No. 260).	Affirmed and Dismissed on 3/13/1920. Settled - The Court approved the settlement agreement. (See PUC's 1924 Annual Report, pp. 46-49.)	Reversed and Remanded Case on 11/7/1921.	Dismissed and Remanded on 4/9/1923 on the grounds the US Supreme Court did not have jurisdiction; Chief Justice William Howard Taft wrote the decision.	PEPCO secured a temporary injunction prohibiting the implementation of the rate case. PEPCO and PUC agreed upon a sliding scale adjustment for setting rates each year.
51	Transportation	Capital Traction valuation	338	9/4/1919	Capital Traction Co (Equity No. 37446) and PUC to the Court of Appeals (Case No. 4412)	On 6/25/1925, the Court Vacated Order No. 338 ($14.0 million as of 6/30/1919) and modified PUC's findings by increasing the valuation to $30.9 million as of 1/1/1925.	In 1927, the Court reduced the valuation to $25 million as of 1/1/1925.		Capital Traction considered appealing to the US Supreme Court, but abandoned the appeal.
56	Gas	WGL valuation	209	5/2/1917	WGL	Affirmed	Reversed		
153	Telephone	2nd C&P valuation	549 and 551	4/15/1925 and 5/13/1925	C&P (Equity No. 44189)	In 1927, the Court Vacated Order No. 549 and Affirmed Order No. 551.	Affirmed Order No. 551 rates.		

Case numbers highlighted in red are from Westlaw.

Table 5.4: PSC's Appeals Record, 1914–2016 (continued)

FC No.	Industry	Topic	Order No.	Dates Orders Issued	Appellant	DC Supreme Court/1937 - District Court of U.S. for DC /1948 - US District Court for DC	US Court of Appeals for the District of Columbia/ 1970 - District of Columbia Court of Appeals	US Supreme Court	Comments
168	Transportation	Liability and indemnity insurance requirement for public hackers	579 and 581	12/4/1925 (both)	Public Hackers - Harlan v. Bell (Equity No. 45752); PUC appealed to DC Court of Appeals.	Reversed on the grounds only Congress had the power to make regulations.			Plaintiffs received an injunction by DC Supreme Court.
					Smith v. Patrick (Equity No. 50746); PUC appealed Court decision (Case No. 5168).	Court approved an injunction.	Affirmed decision of the Supreme Court.		Plaintiff wanted a temporary injunction and restraining order re effective date of liability insurance requirement.
					Bell Cab Co. v. Patrick (Equity No. 50784)				Plaintiff wanted an injunction; PUC filed a motion to dismiss; await decision in Smith v. Patrick.
203	Electric	PEPCO case in which the PUC prohibited submetering	748	2/28/1929	Myron P. Lewis (Equity No. 49753); James L. Karrick (Equity No. 49755; Washington Convention Hall Co. (Equity No. 49756); and Crandall Realty Co. (Equity No. 49757)	Dismissed			The Court granted the PUC's motion to dismiss.
					Myron P. Lewis (Equity No. 50417); James L. Karrick (Equity No. 50421; Washington Convention Hall Co. (Equity No. 50419); and Crandall Realty Co. (Equity No.50422); Joseph Moebs (50423); plaintiffs appeared in January 1932.	Dismissed on 12/31/1931.	Affirmed on 3/27/1933.		Plaintiffs wanted an injunction against PEPCO for cutting off their service because they refused to cease submetering.

Case numbers highlighted in red are from Westlaw.

Table 5.4: PSC's Appeals Record, 1914–2016 (continued)

FC No.	Industry	Topic	Order No.	Dates Orders Issued	Appellant	DC Supreme Court/1937 - District Court of U.S. for DC /1948 - US District Court for DC	US Court of Appeals for the District of Columbia/ 1970 - District of Columbia Court of Appeals	US Supreme Court	Comments
205	Transportation	Capital Transit rate case Plaintiffs wanted the PUC to direct the street railway companies to use each other's tracks.	807	6/13/1929	Capital Traction (Equity No. 50618) and WRECO (Equity No. 50619); plaintiffs appealed to Court of Appeals (5316). E.C. Riegel et al. v. Patrick et. al (Equity No. 51505) Washington Consumers Guild (Law No. 76991)	Court denied PUC motion to dismiss and plaintiff's request for injunction. Affirmed Dismissed with prejudice for failure of plaintiff to prosecute on 6/27/1932. On 2/28/1930, an order was entered Dismissing the petition and discharging the rule.			The Court denied the PUC's motion to dismiss and the plaintiff's application for an injunction. The Court granted the PUC's motion to dismiss.
221	Transportation	Reduced fares for school children	898	3/3/1931	Capital Traction (Equity No. 53035); WRT (Equity No. 53036); and WRECO (Equity No. 53037)	Dismissed on 1/14/1933.			Plaintiffs asked the Court to vacate the order. PUC filed motions to dismiss.
225	Electric	PEPCO's rates under sliding scale arrangement	919	6/8/1931	PEPCO (Equity No. 53475); PEPCO appealed (Case No. 5819).	Affirmed on 7/29/1932, with slight modification	PUC slightly modified its order and the Court, the appellants accepted, and the Court Affirmed.		The Court denied a motion to dismiss by the PUC.
226	Transportation	Motor bus routes and terminals	936	7/25/1931	Capital Greyhound Lines (Equity No. 54655)	Affirmed on 8/8/1932.			
228	Gas	Investigation of ownership and control of WGL and Georgetown Gas—PUC found violations of the LaFollette Anti-Merger Act	1031	5/7/1932	Washington and Suburban Co. (Equity No. 54777); Chase Farris Forbes Corp. (Equity No. 54778); Public Utility Holding Corp. of America (Equity No. 54779); James G. Linn (Equity No. 54785); and Central Public Service Corp. (Equity No. 54782)	Court Dismissed Equity No. 54782 on 12/23/1932. Court required progress reports from the remaining parties.			The appeal challenged the validity of the statute, the jurisdiction of the PUC, and the findings of fact. PUC issued Order No. 1103 indicating compliance with part of Order No. 1031.

Case numbers highlighted in red are from Westlaw.

Table 5.4: PSC's Appeals Record, 1914–2016 (continued)

FC No.	Industry	Topic	Order No.	Dates Orders Issued	Appellant	DC Supreme Court/1937 - District Court of U.S. for DC /1948 - US District Court for DC	US Court of Appeals for the District of Columbia/ 1970 - District of Columbia Court of Appeals	US Supreme Court	Comments
230	Transportation	Taxicab rules requiring meters	956	11/6/1931	George T. McWhorter (Equity No. 53678); Bell Cab Co.; City Cab Co. (Equity Nos. 53732 and 53736); City Cab and Bell Cab appealed (Case No. 5814).	Affirmed on 3/28/1932 and Dismissed.	Affirmed decision of the DC Supreme Court.		Restriction in the DC Appropriations Act prohibited implementation.
		Taxicab rules - movement of empty cabs	956		Harry C. Davis (Equity No. 54824). Plaintiff appealed.	Court vacated the rule to show cause and Dismissed the petition of the plaintiffs on 9/25/1932.	Plaintiff withdrew his appeal and acquiesced in compliance with the PUC orders.		Plaintiff argued the rule was unconstitutional.
238	Telephone	C&P rate case - PUC had approved a 10 percent reduction in rates.	1072 and 1073	9/15/1932 and 9/17/1932	C&P (Equity No. 54859)	Affirmed	Withdrawn		On 10/8/1932, the Court granted a temporary injunction on condition the plaintiffs secured an $100,000 bond for damages pending outcome of the case.
253	Transportation	Capital Transit acquisition of stock of Washington Rapid Transit (WRT)	1289	10/15/1934	Capital Transit (Equity No. 58303)	Dismissed at the request of the PUC and People's Counsel on 6/27/1935.			
242	Gas	Valuation of WGL and Georgetown Gas	1341 and 1342	3/19/1935 - both	WGL (Equity No. 59024) and Georgetown Gas (Equity No. 59025) William Roberts - People's Counsel (Equity No. 59028)	Dismissed on 5/12/1936 and 5/19/1936 respectively.			The PUC merged the matters into Order No. 1458 that approved a sliding scale arrangement.
259	Transportation	Taxicab rates and zones	1401	7/22/1935		Affirmed and Dismissed on 11/21/1935.			
267	Transportation	Capital Transit request to operate 40 additional one-man streetcars	1535 and 1541	9/23/1936 and 10/19/1936	Federation of Citizens Association (Equity No. 63215)				

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Table 5.4: PSC's Appeals Record, 1914–2016 (continued)

FC No.	Industry	Topic	Order No.	Dates Orders Issued	Appellant	DC Supreme Court/1937 - District Court of U.S. for DC /1948 - US District Court for DC	US Court of Appeals for the District of Columbia/ 1970 - District of Columbia Court of Appeals	US Supreme Court	Comments
273	Electric	PEPCO rate case	1627	9/8/1937	PEPCO (Equity No. 65771)	Dismissed without prejudice on 2/18/1938 upon motion of the appellant.			
PUC No, 3178	Transportation	U.S. of America Ex Rel Arlington and Fairfax Auto Railroad Co. application to operate its cars in the District; the PUC declined to designate a route in the District.	1635	11/5/1937	US of America Ex Rel Arlington and Fairfax Auto Railroad Co. (Equity No. 89549); Plaintiff appealed (Case No. 7093).	Affirmed and Dismissed on 12/20/1937.	Affirmed on 5/2/1938.		
277	Transportation	Capital Transit request to discontinue service between Union Station and 8th and F Streets NE - PUC approved the request.	1703	6/27/1938	Nellie Emerson (Equity No. 67785)	On 1/16/1939, Affirmed and Dismissed on the grounds the appellant had no right of appeal since she had not filed a motion for reconsideration previously to the PUC.			
PUC No. 2942/29	Transportation	Taxicab rules and regulations - PUC limited the number of taxicab associations	1705 and 1709 1705	6/30/1938 6/30/1938	Independent Taxi Owners' Association (Equity No. 67811); Plaintiffs appealed (Case No. 7310). Willard E. Lloyd (Civil Action No. 1044)	Dismissed on 11/22/1938. Stipulation filed and case Dismissed.	Dismissed on 5/19/1939 after PUC issued Order No. 1779.		The PUC subsequently rescinded Order No. 1705 in Order No. 1779 issued on 5/1/1939.

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Table 5.4: PSC's Appeals Record, 1914–2016 (continued)

FC No.	Industry	Topic	Order No.	Dates Orders Issued	Appellant	DC Supreme Court/1937 - District Court of U.S. for DC /1948 - US District Court for DC	US Court of Appeals for the District of Columbia/ 1970 - District of Columbia Court of Appeals	US Supreme Court	Comments
282	Transportation	U.S. of America Ex Rel Arlington and Fairfax Auto Railroad Co. application to operate its cars in the District; the PUC designated a route in the District if company agreed to comply with existing law.	1737	11/20/1938	Capital Transit (Civil Action No. 971); US of America Ex Rel Arlington and Fairfax Auto Railroad Co. appealed (Case No. 7357).		Dismissed at the request of Appellant.		The Court gave Capital Transit a permanent injunction.
295	Transportation	PUC denied Capital Transit's request to convert 15 streetcars to one-man operation.	1955	10/17/1940	Capital Transit (Civil Action No. 9933)	Dismissed by stipulation after Capital Transit filed a new application requesting approval to convert 80 streetcars to one-man operation.			
PUC No. 3269	Transportation	Capital Transit bus routes	2124 and 2187	12/9/1941 and 2/24/1942	Washington Marlboro and Annapolis Motor Lines, Inc. (Civil Action 157893)	Dismissed without trial.			
307	Transportation	Taxicab rates and zone case	2282	5/15/1942	United Taxicab Drivers, Inc. (Civil Action No. 16086)	Affirmed and Dismissed on 6/22/1942 on the grounds appellants had not filed motions for reconsideration with the PUC previously.			
311	Telephone	PUC jurisdiction over and special telephone charges in hotels, apartment buildings, and clubs	2696	12/10/1943	Hotel Association of DC (CA 23092)	Dismissed on 9/9/1944 under rule for failure to prosecute.			
			2730	2/15/1944	Ambassador, Inc. (CA 24006)				Awaited decision by the US Supreme Court in a similar case involving the FCC.

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Table 5.4: PSC's Appeals Record, 1914–2016 (continued)

FC No.	Industry	Topic	Order No.	Dates Orders Issued	Appellant	DC Supreme Court/1937 - District Court of U.S. for DC /1948 - US District Court for DC	US Court of Appeals for the District of Columbia/ 1970 - District of Columbia Court of Appeals	US Supreme Court	Comments
316	Gas	WGL rate case - PUC approved a rate increase using the sliding scale method; Office of Economic Stabilization objected.	2401	10/13/1942	WGL v. Byrnes James F. Byrnes, Director of Economic Stabilization (Civil Action No. 17805); Price Administrator (Civil Action No. 17806); Fort Davis Citizens Assoc. (CA 17813); Washington League of Women Shoppers (CA 17814) Fred Vinson, Dir. of Economic Stabilization v. WGL and PUC; PUC and WGL appealed (8501-8504).	Reversed and remanded with instructions. Dismissed CA Nos. 17813 and 17814, but Vacated Order No. 2401 in CA 17805 and 17806). District Court denied plaintiff's motion to dismiss the appeals. The Court Vacated Order No. 2401.	137 F.2d 547 - On 7/26/1943, the Court reversed the District Court and remanded the case with instructions to dismiss the appeals from the PUC order.	Case No. 396 - On 3/27/44, the Court affirmed the decision of the Court of Appeals.	
326	Electric	PEPCO's sliding scale arrangement	2564, 2588, and 2596	4/26/1943, 5/25/1943, and 5/28/1943	Treasury Dept. (No. 20310); Chester Bowles, Administrator (Case No. 20311) and US Commissioner of Public Buildings; Federal Works Agency (Case No. 20450); PEPCO (Case No. 20575)	Appellants withdrew the case on 5/8/1944 after the Supreme Court ruled on the WGL case.			
334	Gas	WGL rate case	2682	11/8/1943	WGL	On 6/27/19944, the Court Reversed the PUC decision and vacated the order.			The Court suspended the effective date until ruling on the case.

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Table 5.4: PSC's Appeals Record, 1914–2016 (continued)

FC No.	Industry	Topic	Order No.	Dates Orders Issued	Appellant	DC Supreme Court/1937 - District Court of U.S. for DC /1948 - US District Court for DC	US Court of Appeals for the District of Columbia/ 1970 - District of Columbia Court of Appeals	US Supreme Court	Comments
335 and 338	Electric	PEPCO sliding scale arrangement - PUC modified the sliding scale plan and reduced rates.	2796	7/22/1944	PEPCO (CA 25477) and US government (26401); Appellants appealed to Court of Appeals and then to the US Supreme Court.	Affirmed and Dismissed both appeals on 1/29/1945.	On 9/24/1945, the Court held the US government's appeal should be considered without ruling on its merits. Affirmed the lower Court's decision.	On 5/5/1947, the Court denied the petitions for certiorari.	Judgment was stayed until after US Court of Appeals ruling.
349	Transportation	PUC ordered a reduction in fares over certain lines owned by the Washington Marlboro Annapolis Motor Lines, Inc.	3088	9/19/1946	Washington, Marlboro, and Annapolis Motor Lines, Inc. (CA 37906)	Dismissed without prejudice on 7/28/1948.			
363	Transportation	Capital Transit rate case	3199	5/8/1947	Washington Industrial Union Council, CIO (CA 2018-47)	Dismissed			
383	Transportation	Capital Transit Co. bus service and routes in southeast DC	3530, 3546, and 3715 (after remand)	5/4/1949, 6/9/1949 and 9/14/1950 after remand	Washington Marlboro and Annapolis Motor Lines, Inc.; M.A Motor Line, Inc. (CA 2831-49); After remand, the appellant appealed to Court of Appeals (No. 11,595); Appellant appealed to US Supreme Court.	On 4/8/1950, the Court Remanded with instructions for the Commission to provide the company to be heard on the effect of the route extension on its revenue.	Affirmed PUC's orders on 7/23/1953.		On remand, the Commission amended its decision in Order No. 3715.
389	Gas	WGL rate case	3600 4240	11/9/1949 12/14/1955	Federation of Citizens Association (CA 673-50) and George Webster (CA 333-50); The case was appealed to the US Supreme Court. Baker (CA 875-50)	The Court reversed and vacated the Commission order because of the method used to determine the rate base. The Court granted PUC motion to dismiss Webster's appeal.	The Court agreed to Vacate the PUC order, but for different reasons - it based its decision on the inadequacy of the record re ROR, abandoned property, and standby plant. Remanded case to PUC.		WGL had to refund $1.271 million to 175,000 customers.

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Table 5.4: PSC's Appeals Record, 1914–2016 (continued)

FC No.	Industry	Topic	Order No.	Dates Orders Issued	Appellant	DC Supreme Court/1937 - District Court of U.S. for DC /1948 - US District Court for DC	US Court of Appeals for the District of Columbia/ 1970 - District of Columbia Court of Appeals	US Supreme Court	Comments
390	Transportation	Radio reception in Capital Transit's streetcars and busses	3612 and 3631	12/19/1949 and 2/15/1950	Transit Riders' Association (CA 1694-50); Paul Temple (CA 1716-50); Franklin Pollak and Guy Martin (CA 1655-50); Pollak and Martin appealed; PUC, Capital Transit, and Washington Transit Radio appealed to the US Supreme Court. (Nos. 295 and 224).	Affirmed on 6/15/1950 and Dismissed the appeal.	Reversed and remanded to the Commission.	On 5/26/1952, the Court Reversed the Court of Appeals and Affirmed the PUC.	
PUC Nos. 3244/28 and 3470	Transportation	Capital Transit bus stop at 14th and I	3670 and 3683	5/8/1950	Charles McDonald (CA 2812-50) and Charles McDonald and Albert Fitzpatrick (CA 4263-50	Initially, the Court denied the appellant a temporary injunction. Later, the Court reversed and vacated the PUC order. The parties reached a settlement.			Appellant complained the location of the bus stop interfered with parking vehicles on his parking lot adjacent to the bus stop. On 6/16/1950, the Commission vacated Order No. 3570.
402	Electric	PEPCO rate case	3762 and 3774	2/12/1951 and 3/20/1951	Leeman (CA 2385-51); Capital Transit (CA 2400-51); and US government (CA 2495-51); Capital Transit appealed (No. 11,501) but later agreed to dismiss the appeal.	Affirmed on 5/1/1952.	On 12/10/1953, affirmed PUC in part and reversed it in part so it reversed the District Court decision and remanded the case to the PUC.		
416	Transportation	Extension of a route from Georgia and Alaska Avenue to downtown terminal	3916	9/4/1952	Oriole Motor Coach Lines, Inc (CA No. 5450-52)	On 4/29/1953 dismissed the appeal and affirmed the PUC's order.			
424	Transportation	Capital Transit Co. rate case	4052	1/20/1954	Allied Civic Group (CA 2157-54); George Spiegel for Citizens Transit Improvement Assoc. appealed (No. 12,523).	Affirmed and dismissed	Reversed on 7/3/ 1955 and remanded to the PUC.		

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Table 5.4: PSC's Appeals Record, 1914–2016 (continued)

FC No.	Industry	Topic	Order No.	Dates Orders Issued	Appellant	DC Supreme Court/1937 - District Court of U.S. for DC /1948 - US District Court for DC	US Court of Appeals for the District of Columbia/ 1970 - District of Columbia Court of Appeals	US Supreme Court	Comments
433	Transportation	Investigation of Capital Transit's financial practices; PUC sought injunction prohibiting the company from issuing a dividend.	4060	2/26/1954	PUC (CA 837-54); 12,145 in Court of Appeals)	Dismissed the case after stipulation on 8/6/1954.			On 3/29/1954, the Court granted the PUC a temporary injunction.
PUC No. 3419/24	Transportation	PUC limited the number of taxicabs to be licensed in the District.	4235	11/29/1955	Associated Taxicab Operators, Inc. (CA 868-56) and No. 13509	Granted PUC summary judgment and Dismissed the appeal.			
458	Telephone	Petition of Sports News Service, Inc for telephone service	4475 and 4485	8/13/1958 and 9/19/1958	Sports News Service, Inc. (CA No. 2864-58)	Affirmed on 3/25/1959			Appellant sought telephone service from C&P and C&P agreed to provide the service as long as it would not be used to disseminate flash horse racing results.
460	Transportation	DC Transit System, Inc. rate case	4480 and 4489	8/28/1958 and 10/23/1958	DC Transit System, Inc. (CA 3233-58)	Dismissed by stipulation of the parties.			
471	Transportation	DC Transit System, Inc. rate case	4631 and 4645	3/2/1960 and 3/31/1960	DC Transit System, Inc. (CA-1439-60) and five individuals				
474	Transportation	Change in schedule of rates	4735 and 4741	1/18/1961 and 3/7/1961	DC Transit System, Inc. (CA 825-1961); Leonard Bebelick and Richard Williams; DC Transit (CA 979-1961)				
488	Transportation	Taxicab rate case	4864, 4870, and 4872	4/14/1964, 6/18/1964 and 6/22/1964	Irving Schlaifer (CA 2068-64) and No. 19273)	Affirmed	Affirmed		
494	Telephone	C&P rate case	4899, 4939, 4976, and 5408	4/26/1969	Telephone Users Association, Inc. (CA 909-65) and CA 2916-65)	Dismissed	Affirmed		
503	Gas	Agreement for WGL to provide heating and cooling services to Watergate Improvements, Inc. Complex	4902 and 4929	3/18/1965	Association for Fair Competitive Practices in Air Conditioning, Inc. (CA 1658-65)	Dismissed on 11/15/1965.			

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Table 5.4: PSC's Appeals Record, 1914–2016 (continued)

FC No.	Industry	Topic	Order No.	Dates Orders Issued	Appellant	DC Supreme Court/1937 - District Court of U.S. for DC /1948 - US District Court for DC	US Court of Appeals for the District of Columbia/ 1970 - District of Columbia Court of Appeals	US Supreme Court	Comments
506	Telephone	Classified Directory Subscribers Association complaint re C&P's Yellow Pages	5038 and 5053	2/18/1966 and 4/12/1966	Classified Directory Subscribers (CA 1506-66)		On 9/14/1967 decision rendered in US Court of Appeals.		Don't have information on the decisions
533	Gas	Investigation of WGL's deposit policies and practices, PSC required WGL to base security deposits on customers' actual payment records so as to be non-discriminatory.	5420	2/6/1970	WGL (CA 1262-70); WGL filed a motion for modification or reconsideration of the Court's opinion and order.	Affirmed and dismissed on 12/7/1971. on 2/4/1972, the Court adopted the requested modification.			
538	Telephone	C&P rate case	5465 and 5469	6/7/1971 and 3/29/1971	Telephone Users Association; also appealed to the US Supreme Court to issue a writ of certiorari.		Dismissed in Order No. 6098 issued 11/8/1971.	The Court denied the petition on 5/15/1972.	
541	Electric	PEPCO rate case	5429	4/15/1970	Leonard S. Goodman (CA 1770-70) and PEPCO (CA 2382-70 and 2384-70)		Dismissed Leonard Goodman petition and reversed in PEPCO decision on 2/23/1971.		PEPCO objected to the Affirmative Action Plan the PSC developed on procedural grounds - that the company had not had any opportunity to comment beforehand. The Court agreed with PEPCO.
548	Telephone	American Radio Telephone Service, Inc. tariff	5423	2/27/1970	Leonard S. Goodman		Dismissed		
567	Gas	WGL rate case	5494	1/10/1972	Washington Urban League (No. 6461)		295 A.2d 906 - Granted PSC motion to dismiss on 10/13/1972 because order was not an appealable order.		PSC's order restricted appellants' submission of evidence.
		The determination of a reasonable rate for WGL steam and chilled water service to Watergate.	5571 and 5581	3/28/1973 and 5/29/1973	Watergate Improvement Associates, Inc (No. 7549)		326 A.2d 778 - Affirmed on 9/23/1974.		

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Table 5.4: PSC's Appeals Record, 1914–2016 (continued)

FC No.	Industry	Topic	Order No.	Dates Orders Issued	Appellant	DC Supreme Court/1937 - District Court of U.S. for DC /1948 - US District Court for DC	US Court of Appeals for the District of Columbia/ 1970 - District of Columbia Court of Appeals	US Supreme Court	Comments
568	Electric	PEPCO rate case	5477 5509, 5521, and 5530	10/12/1971 5/9/1972, 7/28/1972, and 9/8/1972	Washington Urban League Leonard S. Goodman (No. 6854)		309 A.2d 97 - Affirmed PSC decision and appeal. Dismissed on 9/4/1973.		
570	Telephone	C&P rate case	5483	11/22/1971	Telephone Users Association, Inc. (No. 6819) and C&P (No. 6846)		304 A.2d 293 - Dismissed No. 6819 and remanded No. 6846 on 4/6/1973.		Issues on appeal were attrition and hospitalization and wage increase adjustments.
595	Telephone	Petitions for review of orders of PSC denying telephone company's motions regarding interim rate relief pending prescription of new permanent rates.	5636 and 5644	4/5/1974 and 5/10/1974	C&P (No. 8424)		330 A.2d 236 - Affirmed and dismissed on 11/22/1974.		
		C&P rate case - PSC required C&P to cover the cost of the PSC furnishing transcripts to intervenors.	5643 and 5650	5/10/1974 and 6/11/1974	C&P (No. 8718)		339 A.2d 710 - Reversed on 6/10/1975.		
596	Electric	PEPCO rate case - PSC granted a rate increase.	5614 and 5620	11/16/1973 and 12/28/1973	Apartment House Council of Metropolitan Washington, Inc. (No. 8164)		332 A.2d 53 - Affirmed PSC decision and dismissed the appeal on 1/6/1975.		Appellant argued share of increase borne by residential class was too low and share borne by GS class, in which apartments were classified, was too high.
610	Electric	PEPCO rate case	5739 and 5759	11/2/1975 and 1/12/1976	PEPCO (No. 10490)		380 A.2d 126 - Vacated and remanded on 3/2/1978.		
651	Electric	PEPCO rate case	5831, 5849, and 5856	10/20/1976, 12/16/1976, and 2/14/1977	OPC (No. 12023)		399 A.2d 43 - Affirmed 2/27/1979.		

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Table 5.4: PSC's Appeals Record, 1914–2016 (continued)

FC No.	Industry	Topic	Order No.	Dates Orders Issued	Appellant	DC Supreme Court/1937 - District Court of U.S. for DC /1948 - US District Court for DC	US Court of Appeals for the District of Columbia/ 1970 - District of Columbia Court of Appeals	US Supreme Court	Comments
647 and 651	Electric and Gas	PEPCO and WGL rate cases - PSC granted rate increases.	5831, 5849, and 5856 - PEPCO; 5833-WGL	10/20/1976, 12/16/1976, and 2/14/1977	Washington Public Interest Organization (No. 11780 is WGL case and No. 12017 is PEPCO case) and OPC (No. 11786 - WGL case)		393 A.2d 71 - Remanded on 9/12/1978.		
			7422 (after remand)	12/7/1981	Washington Public Interest Organization (No. 11780 -WGL case; No. 12017-PEPCO case) and OPC (No. 11786 is WGL case)		446 A.2d 28 - Affirmed on 6/3/1982).		
TT76-18	Telephone	C&P's proposed new business service called DIMENSION PBX	5870 and 5889	3/30/1977 and 6/22/1977	C&P (No. 11027)		378 A.2d 1085 - Affirmed on 9/29/1977.		
					Atlantic Telephone Company (No. 12379)		390 A.2d 439 - Affirmed on 8/1/1978.		
680	Electric	PEPCO's Time-of-Day rates for large commercial customers	7002 and 7034	6/28/1979 and 9/7/1979	Metropolitan Washington Board of Trade (Nos 79-1195) and AOBA (79-1254)		432 A.2d 343 - Affirmed on 5/20/1981.		
685	Electric	PEPCO rate case - PSC granted a rate increase	7000	7/18/1979	OPC (No. 79-1037) and PEPCO (No. 79-1073)		455 A.2d 391 - Affirmed in part and remanded in part on 11/30/1982).		414 A.2d 520 - The Court rejected PEPCO's motion to dismiss on 4/3/1980.
686	Gas	WGL rate case - PSC granted a rate increase	6060, 6069, and 6082	3/16/1979, 4/26/1979, and 5/11/1979	WGL (No. 79-587); AOBA (79-740 and 79-745); and OPC (No. 79-746)		450 A.2d 1187 - Affirmed on 9/10/1982.		

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Table 5.4: PSC's Appeals Record, 1914–2016 (continued)

FC No.	Industry	Topic	Order No.	Dates Orders Issued	Appellant	DC Supreme Court/1937 - District Court of U.S. for DC /1948 - US District Court for DC	US Court of Appeals for the District of Columbia/ 1970 - District of Columbia Court of Appeals	US Supreme Court	Comments
715	Electric	PEPCO rate case			OPC (Nos. 80-107 and 80-108 - petition for appeal and motion for stay)		414 A.2d 516 - On 3/21/1980, Denied petitions for appeal and writ of mandamus because no final order had been issued.		
			7135	5/15/1980	OPC (No. 80-957)		455 A.2d 402 - Affirmed on 11/30/1982.		
			7020	8/17/1979	PEPCO (Nos. 79-1159 and 79-1106)		457 A.2d 776 - Affirmed on 2/16/1983.		PEPCO's two applications for emergency relief.
718	Electric	This consolidated case involves appeals of 21 assessment orders of the PSC. Each of these orders directed PEPCO, petitioner herein, to pay expenses of OPC.	7211	11/13/1980	PEPCO (Nos. 81-801 and 81-821)		455 A.2d 374 - Remanded on 10/4/1982.		
					OPC (No. 83-947)		477 A.2d 1079 - On 4/12/1984, motion to dismiss denied and PSC directed to revise its proposed rules because the PSC does not have authority to assess for OPC's expenses in proceedings.		OPC petitioned for review, seeking reversal of refusal of the PSC to hold a status conference in proceeding to promulgate rules to govern assessment requests by the People's Counsel, and seeking to direct the Commission to proceed with formal rule making.

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Table 5.4: PSC's Appeals Record, 1914–2016 (continued)

FC No.	Industry	Topic	Order No.	Dates Orders Issued	Appellant	DC Supreme Court/1937 - District Court of U.S. for DC /1948 - US District Court for DC	US Court of Appeals for the District of Columbia/ 1970 - District of Columbia Court of Appeals	US Supreme Court	Comments
722	Gas	WGL rate case - PSC granted rate increase.	7193 and 7209	10/3/1980 and 11/10/1980	WGL (No. 81-229) and OPC (81-232)		452 A.2d 375 - On 10/29/1982, Affirmed in part and reversed in part and remanded Massachusetts formula for administrative and general expenses.		WGL appealed disallowances for Gas Research Institute expenses, and market pressure and flotation cost adjustments. OPC appealed cash working capital allowance and market re-entry adjustment. Both appealed Massachusetts formula for administrative and general expenses.
725	Electric	OPC appealed PSC's denial of its application for reconsideration of order approving PEPCO's use of automatic fuel adjustment clauses.	7428 and 7503	12/23/1981 and 3/3/1982	OPC (No. 82-424)		472 A.2d 860 - Affirmed on 1/31/1984.		
729	Telephone	C&P rate case - PSC granted a rate increase but not on basic services rates.	7345	6/19/1981	GSA (No. 81-1261)		469 A.2d 1238 - Affirmed on 12/6/1983.		GSA opposed reduction in basic service rates.
733	Electric	Petition of PEPCO for a declaratory ruling.	7364	7/10/1981	OPC (No. 81-1309)		474 A.2d 1274 - Granted motion to dismiss, but on petitions for rehearing, the dismissal was vacated and held PSC's ruling denying motion for declaratory ruling was not subject to review. Appeal dismissed on 3/28/1984.		The issue was shielding PEPCO's ratepayers from utility cost increases arising from a settlement agreement among PJM members that could impact wholesale rates that are passed on to state ratepayers including those in DC.

Case numbers highlighted in red are from Westlaw.

Table 5.4: PSC's Appeals Record, 1914–2016 (continued)

FC No.	Industry	Topic	Order No.	Dates Orders Issued	Appellant	DC Supreme Court/1937 - District Court of U.S. for DC /1948 - US District Court for DC	US Court of Appeals for the District of Columbia/ 1970 - District of Columbia Court of Appeals	US Supreme Court	Comments
737	Electric	Investigation of PEPCO's construction program	7795	4/29/1983	OPC (No. 83-710)		474 A.2d 835 - Affirmed on 4/16/1984.		Petition was brought for review of an order of the PSC not to require utility to convert its recently completed power-generating plant from an oil-burning to a coal-burning facility.
748	Electric	PEPCO rate case - PSC granted a rate increase.	7457 and 7505	12/30/1981 and 3/8/1982	OPC (82-483)		462 A.2d 1105 - Affirmed on 4/4/1983.		OPC appealed cash working capital allowance and tax normalization treatment.
768	Gas	WGL rate case - PSC granted a rate increase.	7469	2/9/1982	WGL (Nos. 82-667 and 83-1248)		483 A.2d 1164 - Affirmed on 11/2/1984.		WGL appealed method for calculating its administrative and general expenses.
774	Multi-utility	Investigation into the Interpretation of DC Code 43-412 (A) for Purposes of Determining Assessment Limitations.	7430	11/13/1981	WGL (No. 82-111); PEPCO (No. 82-113); and C&P (82-126)		455 A.2d 384 - On 10/4/1982, Vacated orders with respect to the definition of the terms valuation and rate case.		
777	Telephone	C&P rate case - PSC granted a rate increase.	7459, 7546 and 7603 7616	12/24/1981, 4/16/1982, and 7/16/1982 7/20/1982	United States [GSA] (No. 82-988) Telephone Users Administration (No. 82-1452) and C&P (No. 82-1455)		465 A.2d 829 - Affirmed on 8/18/1983. 476 A.2d 1113 - On 4/24/1984, Affirmed in part and remanded in part for clarification of residual rate-making.		GSA challenged issues that increase the cost of services it purchases from C&P. TUS challenges cost of operating telephone answering services.
785	Electric	PEPCO rate case - The PSC granted a rate increase.	7716 and 7751	12/29/1982 and 2/28/1983	WMATA (No. 83-447) and OPC (No. 83-449)		486 A.2d 682 - Affirmed on 12/28/1984.		WMATA challenges test year revenues, the method for allocating demand costs, and the requirement that WMATA pay a rate which factors in PEPCO's payment of GRT. OPC challenged the CWIP decision.

Case numbers highlighted in red are from Westlaw.

Table 5.4: PSC's Appeals Record, 1914–2016 (continued)

FC No.	Industry	Topic	Order No.	Dates Orders Issued	Appellant	DC Supreme Court/1937 - District Court of U.S. for DC /1948 - US District Court for DC	US Court of Appeals for the District of Columbia/ 1970 - District of Columbia Court of Appeals	US Supreme Court	Comments
806	Telephone	C&P application to implement a surcharge to reflect imposition of GRT	7952	12/30/1983	C&P (No. 203)		498 A.2d 1167 - Affirmed on 9/27/1985.		C&P challenged allocation of cost of double tax payment between utility and its customers.
827	Telephone	C&P rate case - PSC granted a rate increase.	8329	10/10/1985	C&P (No. 85-1662)		514 A.2d 1159 - On 9/10/1986, Affirmed in part; reversed and remanded in part.		
TT87-4	Telephone	C&P's proposed Individual Case Basis (ICB) for the World Bank - The PSC approved the tariff.	9092 and 9215	8/22/1988 and 2/17/1989	OPC (No. 89-361)		572 A.2d 410 - Affirmed on 3/14/1990.		OPC challenged PSC's determination that assessments for OPC's costs in the proceeding would be based on the formula for "other investigations," not rate cases.
828	Telephone	C&P's Individual Case Basis (ICB) tariffs	8756, 8871, 9167, and 9267	5/8/1987, 10/8/1987, 12/13/1988 and 4/11/1989	OPC (No. 89-598)		571 A.2d 206 - Affirmed on 3/8/1990.		
834	Electric	PEPCO's 2nd Least Cost Plan	10077 and 10107	8/14/1992 and 10/16/1992	Patowmack Power Partners, Inc. (PPP) (No. 92-AA-1405)		On 2/1/1993, the PSC granted appellant's motion to dismiss.		PPP objected to the PSC's decision not to include a PPP generation unit in the Least Cost Plan.
874	Gas	WGL's gas acquisition strategies	9793	8/27/1991	OPC		Affirmed in part and remanded in part.		WGL's business operations and revenues in regards to asset management fees and the Maritime Plaza development project
894	Electric	Absalom Jordan complaint that PEPCO had failed to comply with federal Small Business Act in its subcontracting practices and policies	9540 and 9646	8/24/1990 and 2/4/1991	Absalom I. Jordan (No. 91-AA-387)		622 A.2d 1106 - On 3/16/1993, Vacated PSC order dismissing the complaint and remanded for further proceedings.		Appellant complained the PSC dismissed his complaint without evidentiary hearing.

Case numbers highlighted in red are from Westlaw.

Table 5.4: PSC's Appeals Record, 1914–2016 (continued)

FC No.	Industry	Topic	Order No.	Dates Orders Issued	Appellant	DC Supreme Court/1937 - District Court of U.S. for DC /1948 - US District Court for DC	US Court of Appeals for the District of Columbia/ 1970 - District of Columbia Court of Appeals	US Supreme Court	Comments
905	Electric	PEPCO rate case - PSC granted a rate increase.	9868 and 9938	10/23/1991 and 1/2/1992	OPC (No. 92-AA-79)		610 A.2d 240 - Affirmed on 6/2/1992.		
911	Multi-utility	Investigation of application of Gross Receipts Tax on utility services.	10050 and 10087	6/30/1992 and 8/25/1992	Robert Stiehler and Leonard Hackman (No. 92-AA-1162)		629 A.2d 1211 - Affirmed on 8/12/1993.		PSC accepted a settlement agreement in Order No. 10050; Appellants opposed.
922	Gas	WGL rate case - PSC granted a rate increase.	10307 and 10339	10/8/1993 and 12/13/1993	Watergate East, Inc. (No. 94-AA-147)		665 A.2d 943 - Affirmed on 9/25/1995.		Appellant objected to its rate increase.
926	Telephone	Bell-Atlantic, DC rate case - PSC granted a rate increase.	10353 and 10383	12/21/1993 and 2/2/1994	Bell-Atlantic Washington, DC Inc. (No. 94-AA-456)		655 A.2d 1231 - Affirmed on 3/20/1995.		Appellant opposed amount of the rate increase; thought it should be higher.
929	Electric	PEPCO rate case - PSC granted a rate increase.	10387 and 10423	3/4/1994 and 5/4/1994	PEPCO (No. 94-AA-1994)		661 A.2d 131 - On 6/19/1995 Affirmed in part and remanded in part.		PEPCO petitioned for judicial review of PSC rate orders disallowing 25% of utility's actual and projected demand-side management (DSM) program costs and disallowing projected increase in employee benefit costs.
932	Gas	Watergate Complex complaint against WGL	10419 and 10457	4/29/1994 and 7/15/1994	Watergate East, Inc. (No. 94-AA-1187)		662 A.2d 881 - Affirmed on 7/17/1995.		Wategate petitioned for judicial review of PSC decision rejecting customers' claim that WGL had overcharged it for the its service during a 17-year period.

Case numbers highlighted in red are from Westlaw.

Table 5.4: PSC's Appeals Record, 1914–2016 (continued)

FC No.	Industry	Topic	Order No.	Dates Orders Issued	Appellant	DC Supreme Court/1937 - District Court of U.S. for DC /1948 - US District Court for DC	US Court of Appeals for the District of Columbia/ 1970 - District of Columbia Court of Appeals	US Supreme Court	Comments
945	Electric	Electric industry restructuring.	11576 and 11628	11/30/1999 and 3/9/2000	Moore Energy Resources Inc. (No. 00-AA-429)		785 A.2d 300 - On 11/8/2001, affirmed in part and remanded in part whether SBA Act had to be imposed and how the interests of minority businesses were protected.		Appellant, a small minority energy company, petitioned for review of decision by PSC approving divestiture by electric utility of its power generation assets.
			11845 and 11926	12/5/2000 and 2/20/2001	DC Water and Sewer Authority (Nos. 01-AA-430 and 01-AA-432)		802 A.2d 373 - Affirmed 7/11/2002.		Appellant sought review of PSC orders approving settlement regarding unbundled electricity rate issues.
TT00-4	Telephone	Verizon request for the PSC to approve a tariff amendment that allowed home-based businesses to pay residential rates.	11848 and 11934	12/1/2000 and 2/28/2001	OPC (No. 01-AA-572)		797 A.2d 719 - On 5/2/2002, affirmed in part and vacated and remanded in part.		OPC claimed the PSC order, by approving Verizon's request, discriminated against Verizon's other business customers.
GT00-2 and ET00-2	Electric and Gas	PEPCO's and WGL's Public Occupancy (Rights-of-way) Surcharges that appear on customers' bills.	11737 (PEPCO) and 11742 (WGL)	7/14/2000 and 8/2/2000	OPC (No. 00-AA-1581		799 A.2d 376 - Affirmed 5/30/2002.		OPC filed petition for review of PSC's approval of public utilities' proposals to implement customer surcharges to recover lease payments to the District of Columbia for use of streets and other property.
			11814 (WGL) and 11815 (PEPCO)	10/12/2000 - both	OPC (No. 00-AA-1582)				

Case numbers highlighted in red are from Westlaw.

Table 5.4: PSC's Appeals Record, 1914–2016 (continued)

FC No.	Industry	Topic	Order No.	Dates Orders Issued	Appellant	DC Supreme Court/1937 - District Court of U.S. for DC /1948 - US District Court for DC	US Court of Appeals for the District of Columbia/ 1970 - District of Columbia Court of Appeals	US Supreme Court	Comments
989	Gas	WGL rate case - PSC granted a rate increase.	12589 and 12689	10/29/2002 and 3/28/2003	OPC (No. 03-AA-513)		845 A.2d 1128 - On 3/18/2004, affirmed in part and Vacated and remanded in part.		OPC opposed the PSC's decision to award ratepayers one-half of the ground lease income and developers' fees after ratepayers had paid full cost to remediate pollution.
1005	Telephone	Verizon's 3rd Price Cap Plan (Price Cap Plan 2002).	13149 and 13258	4/1/2004 and 7/30/2004	DC government (No. 04-AA-1177)		905 A.2d 249 - Affirmed on 8/10/2006.		The DC government asked the PSC to reclassify E911 service from a competitive to a basic service after Verizon doubled its rate. The PSC reclassified the service but denied the District retroactive relief.
1014	Gas	WGL's proposed closure of its Anacostia service center.	12756	5/30/2003	WGL (No. 03-AA-788)		856 A.2d 1098 - Affirmed on 8/5/2004.		The PSC denied the close of the service center in Ward 8.
1019	Electric	PEPCO's request to use new solid state smart meter.	12737 and 12989	5/22/2003 and 11/13/2004	OPC (No. 04-AA-07)		889 A.2d 1003 - Affirmed on 1/5/2006.		OPC claimed the PSC was required to provide notice and obtain public comment before rendering its decision.

Case numbers highlighted in red are from Westlaw.

Table 5.4: PSC's Appeals Record, 1914–2016 (continued)

FC No.	Industry	Topic	Order No.	Dates Orders Issued	Appellant	DC Supreme Court/1937 - District Court of U.S. for DC /1948 - US District Court for DC	US Court of Appeals for the District of Columbia/ 1970 - District of Columbia Court of Appeals	US Supreme Court	Comments
712	Multi-utility	Methodology for assessing competitive suppliers for PSC and OPC budgets.	13062	2/6/2004	WGES (No. 045-AA-155) and 05-AA-315); (05-AA-157) and 05-AA-426)		893A.2d 981 - On 3/9/2006, reversed and remanded		Electricity suppliers petitioned for review of the PSC's assessments of its and OPC's operating budgets.
			14019	8/9/2006	WGES (Nos. 06-AA-1145 and 06-AA-1218)		924 A.2d 296 - Remand, rffirmed on 5/3/2007.		WGES challenged the PSC's use of a revenue-based formula for assessing utility companies and competitive suppliers for PSC's and OPC's operating budgets.
			14392 and 14596	7/25/2007 and 10/9/2007	OPC (No. 07-AA-1328)		955 A.2d 169 - Affirmed on 8/28/2008.		The issue was whether local revenue data used to calculate assessments on the utility companies and competitive suppliers for the funding of the PSC's and OPC's annual operating budgets can be treated as confidential.
1040	Telephone	Investigation of E911 rates in the District of Columbia	13790 and 13837	10/18/2005 and 2/13/2006	DC government (Nos. 06-AA-124 and 06-CV-434 - appeal of Superior Court decision)		963 A.2d 1144 - On 1/15/2009, affirmed PSC decision; but case vacated and remanded to Superior Court for further proceedings re the amount the District Government owes Verizon under the agreement.		

Case numbers highlighted in red are from Westlaw.

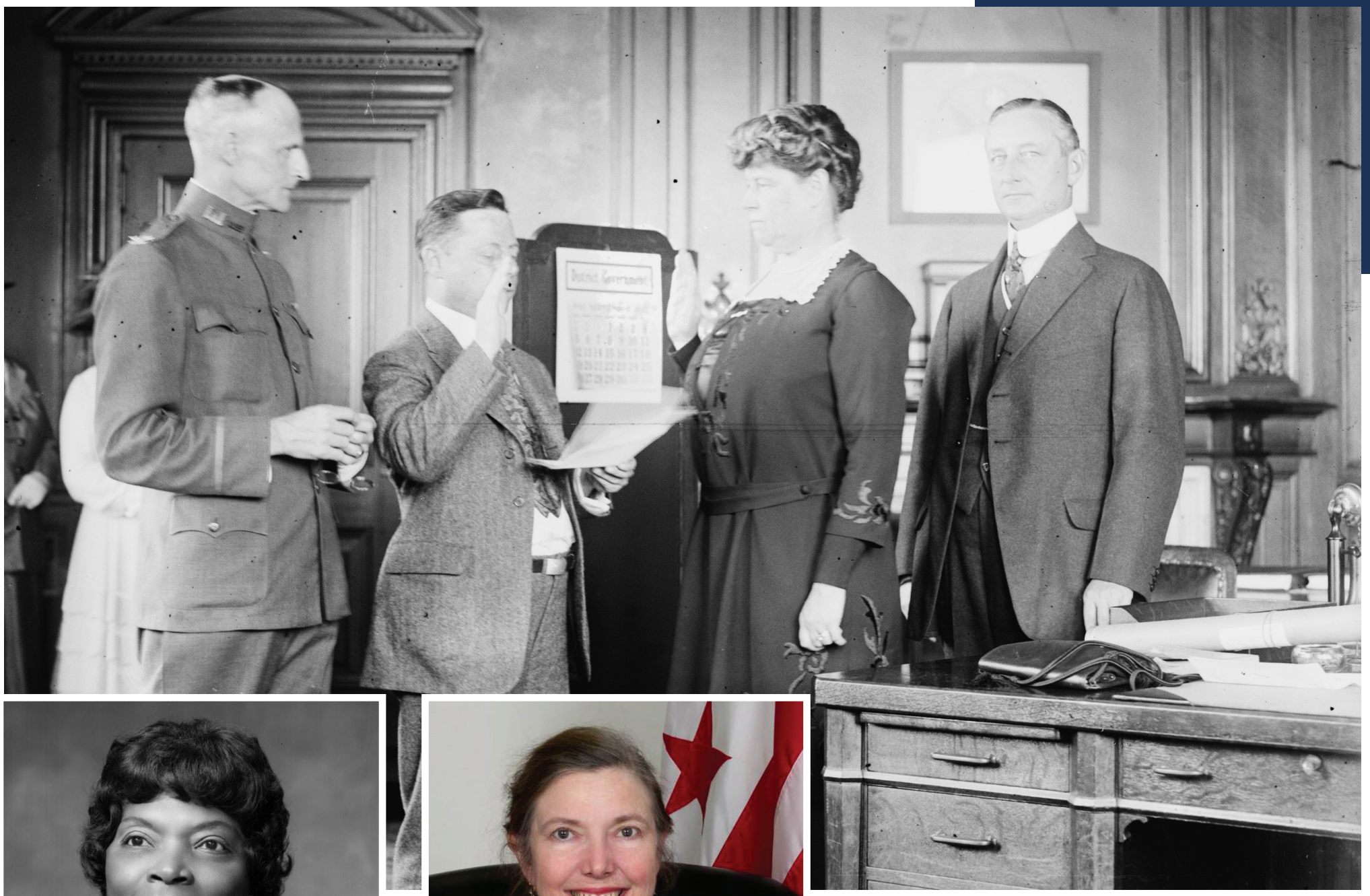
Table 5.4: PSC's Appeals Record, 1914–2016 (continued)

FC No.	Industry	Topic	Order No.	Dates Orders Issued	Appellant	DC Supreme Court/1937 - District Court of U.S. for DC /1948 - US District Court for DC	US Court of Appeals for the District of Columbia/ 1970 - District of Columbia Court of Appeals	US Supreme Court	Comments
1053	Electric	PEPCO rate case - PSC granted a rate increase	14712 and 14832	6/13/2008	OPC (No. 08-AA-947)		989 A.2d 190 - Affirmed 2/18/2010.		OPC challenged PSC ruling on PEPCO's Supplemental Executive Retirement Plan (SERP)and Executive Benefit Protection Plan and inclusion of Northeast Substation in PEPCO's rate base.
1054	Gas	WGL rate case - PSC approved a rate increase	14385 and 14626	7/23/2007 and 11/15/2007	WGL (Nos. 08-AA-148 and 08-AA-17)		982 A.2d 691 - On 10/8/2009, Reversed PSC decision that it had the authority to levy the fine for violation of tis orders; instead the Superior Court had the authority.		PSC levied a $350,000 fine on WGL because it refused to provide a redacted copy of a contract it had with a third-party (Accenture Contract) to serve as the company's call center. The company was located in the Philippines.
			Superior Court orders		WGL (Nos. 12-CV-106 and 12-CV-150)		61 A.2d 662 - On 2/28/2013 affirmed in part and remanded in part.		The Superior Court granted the PSC summary judgment and granted summary judgment to the utility on its counter claim. WGL appealed and PSC cross-appealed to the DC Court of Appeals.

Case numbers highlighted in red are from Westlaw.

FC No.	Industry	Topic	Order No.	Dates Orders Issued	Appellant	DC Supreme Court/1937 - District Court of U.S. for DC /1948 - US District Court for DC	US Court of Appeals for the District of Columbia/ 1970 - District of Columbia Court of Appeals	US Supreme Court	Comments
1062, 991, 982, and 766	Electric	Investigation of 6/13/2008 power outage	15915 and 15989 (1062), and 16066 (others)	8/6/2010, 9/23/2010, and 11/22/2010	OPC (Nos. 10-AA-1223 and 10-AA-2011)		21 A.3d 985 - Remanded with instructions on 6/23/2011.		OPC sought a review of a series of orders of the PSC which rejected OPC's requests that PEPCO be compelled to provide OPC with copies of certain diagrams and maps depicting PEPCO's electrical substations
1116 and 1121	Electricity	Undergrounding selected Pepco overhead lines	17697 (FC 11116) , 17714 (FC 1121), and 17769	8/22/2014, 11/24/2014, and 1/22/2015	AOBA (Nos. 15-AA-301 and 15-AA-302)		2016 WL 187969 - Affirmed on 1/14/2016.		AOBA objected to PSC's allocation of costs among customer classes for undergrounding electrical power lines.
NA	Electricity	Assessment and taxation of PEPCO's poles, wires, conduits, and lamps - are they real property?			PEPCO; DC Commissioners to the Court of Appeals	Items cannot be taxed as real property per Equity No. 41,155 on 12/13/1926.	Affirmed on 3/5/1928 in Case No. 4583.		

Sources: 1913-1940 - PUC annual reports because there are no docket books for this period; 1940-1970 - PUC/PSC Docket Book; 1970 - 2014 - Westlaw search



Mabel Boardman, first White female commissioner, being sworn in, 1920. She was not confirmed.

Ruth Hankins-Nesbitt the first Black female commissioner and chairperson, 1975

Betty Ann Kane, the first confirmed White female commissioner, 2007

CHAPTER 6

From the Purge to the White House: We Stand on the Shoulders of Giants

The Role of the Commission on Gender and Racial Diversity in the Public Utility Industries in the District

At the time of the Commission's centennial anniversary, the PSC was probably the most diverse state public service commission in the country. The Commission is proud of that achievement. In 2013, the PSC had 65 employees. Almost an equal number of men and women were employed—Black staff accounted for 69 percent, White staff were 23 percent, and Asian stafff were 8 percent. A quarter of employees were born outside the US, in countries including Costa Rica, India, Jamaica, Kenya, Mali, Nigeria, Philippines, Russia, Taiwan, and Venezuela. Nearly half of the employees were DC residents.

When the Commission came into being in 1913, nearly all employees were White males, and that remained the case for many years. The one exception in 1913 was 29-year-old Blanche Miller, a White clerk in the executive office, who joined the Commission on November 6, 1913, and left on June 30, 1914. Although, thereafter, White women were hired in clerical positions, they were underrepresented in more senior positions until the 1950s. For example, Naomi Hetzel joined the Commission in 1927 as a stenographer and rose to become acting executive secretary in 1954 after the executive secretary retired. In 1960–1961, Sarah Wilson was assistant executive secretary.

The first White female commissioner was Mabel Boardman (1920). Although President Wilson appointed her—under pressure from the women's movement and a few days after ratification of the 19th Amendment giving women the right to vote—the US Congress did not confirm her, so she served only about six months. The next female commissioner, who was Black, was Ruth Hankins-Nesbitt (1975), the first commissioner and chairperson after implementation of Home Rule. In 2007, Betty Ann Kane became the first confirmed White female commissioner, having been appointed by Mayor Adrian Fenty. She became the PSC chairperson in 2009.

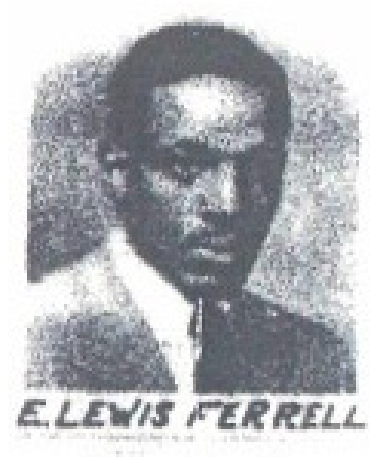
Given the history of Black residents in the District, it is likely that some Black residents were qualified for positions at the PUC from its inception, including jobs above the level of messenger. Through the mid-1950s, however, the racial composition of the Commission and the racial attitudes reflected in its decisions mirrored the times. For example, the first Black Commission employee was W.H.H. Terrell, hired around 1919 as a messenger. His starting salary was $720 a year. In 1928, janitorial service in one of the testing labs was added to his duties for an additional $5 a month. In 1933, with the title laboratory assistant, his position was eliminated and he was laid off with multiple other employees during

a District government downsize. His annual salary at the time was $1,380. Until the 1960s, the Commission continued to hire Black men in the most subservient positions, such as messenger and chauffeur. Edna Brown was the first Black female employee when she joined the PUC as a clerk in September 1932. She was employed for just over a year.[169]

The Commission's position on racial issues in its cases was no different. In 1924, the PUC denied a complaint from the Southwest Civic Association about inadequate streetcar service in the predominantly Black area of the city.[170] On three occasions, Congress considered bills that would racially segregate streetcars.[171] On the first bill, in 1916, the Commission did not take a position. The Commission opposed the bill the second time, in 1921. The third time, in 1927, the Commission was asked whether such a bill was constitutional. The PUC's general counsel issued a legal opinion saying that it was. None of the bills were passed by Congress.

There was some evidence of change during the '40s. In 1942, one of DC's Black attorneys, E. Lewis Ferrell, filed a complaint with the Commission that three drivers for Bell Cab, Town Cab, and Arrow Cab refused to transport him while he was at a public stand in front of Hecht's department store at Seventh and F streets, Northwest. The Commission held an informal hearing. Although minutes of the meeting indicate that the Commission dismissed the case on May 8, 1942,[172] an article in *The Washington Post* noted that Chairman George Hankins fined the men $50 each for discrimination. Over two decades later, when the Commission was chaired by James A. Washington Jr., its second Black chairman, these types of complaints were investigated more broadly, including by assigning Black and White employees to use public transport and report their experiences.[173]

One of the most long-standing and pressing public policy issues was the hiring of Black and female streetcar and bus drivers. Dating back to 1895 and predating the Commission, Capital Traction refused to accept applications for the position from Black and female applicants. When Capital Transit took over in 1933, despite employee shortages since World War I, the company continued the policy while hiring a few Black employees but only in maintenance positions.



Jim Crow By D.C. Cabbies Draws Fines

WASHINGTON, D. C.—Two white taxi drivers who failed to pick up a Negro fare were fined $50 each by the Public Utilities Commission on Friday.

The complaint was lodged with the commission by E. Lewis Ferrell, attorney, who said the two drivers refused to accept him as a passenger while they were standing in the cab zone at Hecht's Department store. He took their license numbers.

George Hankins, chairman of the commission, who fined the men declared: "I am not going to stand for any bi-racial set-up in public transportation. You drivers, when on duty, must pick up any passenger who hails you."

Capital Transit hired White women as bus drivers but not Black drivers.

169 Minutes of Commission meetings, Volume 1928–32, p. 732.

170 Community organizations were segregated. The Federation of Citizens Associations allowed only White members; Black residents were represented by neighborhood civic associations. The Commission sent notices of hearings to both groups.

171 These were not the only times bills were introduced in Congress to re-segregate streetcars. Representative James Thomas Heflin from Alabama introduced a bill in 1906, Representative Seaborn A. Roddenberry from Georgia introduced a bill in 1911, Senator James K. Vardaman of Mississippi introduced legislation in 1913, and Representative Frank Clark of Florida introduced his version in 1915. See John DeFerrari, *Capital Streetcars* (History Press, 2015), 134–137.

172 Minutes of Commission meetings, Volume 1941–44, pp. 2182, 2214.

173 Minutes of Commission meetings, p. 4663.

Chairman Robert McLaughin

The issue came before the Commission in a series of cases in the 1940s and early 1950s. In 1945, the PUC docketed Capital Transit's request to reduce service on streetcar lines because of a manpower shortage. The legislative committee of the National Negro Counsel and the National Association for the Advancement of Colored People (NAACP), represented by William Hastie, a Howard University School of Law professor and the first Black attorney to appear before the Commission, opposed the request on the grounds the company had failed to use all available sources of manpower such as Black people and women. The Commission, led by Chairman James Flanagan, approved the Capital Transit request in Order No. 2912 on April 20, 1945, finding that it had no statutory authority to impose its judgment on management with respect to employment policies under the purview of other governmental agencies. Moreover, "the subject of discrimination because of race, creed, color, or place of origin, is under the jurisdiction of the Committee on Fair Employment Practices."[174] Capital Transit did decide to hire White women, but not Black people, as streetcar and bus drivers.

The issue of hiring Black drivers came before the Commission again in 1948. Charles Hamilton Houston, also on the Howard University School of Law faculty, testified on behalf of the President's Committee on Fair Employment Practices. The Commission, still led by Chairman Flanagan, failed to address the issue in its decisional Order No. 3422, issued on October 1, 1948. In 1953, Capital Transit sought a rate increase, docketed as FC No. 424, and the issue was before the PUC for a third time. Two attorneys with ties to Howard University, James M. Nabrit and Howard Jenkins, and Howard University sociologist Dr. Harry Walker participated in the proceedings. This time, under the leadership of Chairman Robert McLaughlin, the outcome was different. In Order No. 4052, issued January 20, 1954, the Commission ruled:[175]

> *If this Commission took action – even negative action in refusing to disallow Company expenses - tending to abet (even by silent acquiescence) the Company's discrimination practices solely on the basis of race, such action would be subject to the most serious question under the Fifth Amendment to the Constitution, and the "public policy of the United States as manifested in the Constitution, treaties, federal statutes, and applicable legal precedents." Hurd v. Hodge, 334 U.S. 24, 35.*

Robert Pettigrew (second row with glasses), the first Black driver known to be hired by Capital Transit as a bus operator in 1955. Source: Courtesy of Amalgamated Transit Union Local 689

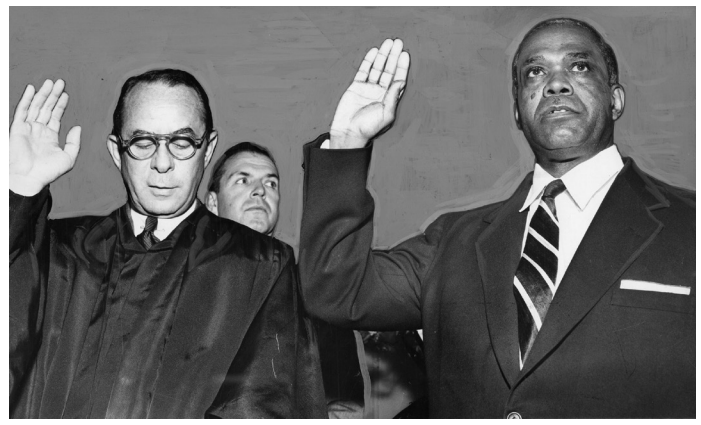
Furthermore, the PUC indicated its willingness to help in the effort to rectify the discrimination by stating, "We will carefully observe, and cooperate with the Company and the Union in action towards integration of colored operators during the coming months."[176] The Commission hosted a series of meetings with Capital Transit, the Urban League, representatives of the President's Commission on Contracts, and the union. On August 6, 1954, Capital Transit and the Commission entered into a memorandum of understanding to facilitate employment of Black streetcar and bus drivers. Accordingly, Capital Transit hired its first Black bus operator in 1955, Robert Pettigrew.

174 See Order No. 2912.
175 Order No. 4052, p. 14.
176 Ibid., p. 16.

It was left to the next two PUC chairmen to hire Black staff at the Commission above the messenger and low-level clerical ranks.

The Commission's 1954 decision in FC No. 424 proved pivotal when considered in combination with another significant event that year—the US Supreme Court's decision a few months later to desegregate the public schools in *Brown v. Board of Education* and the companion case in DC, *Bolling v. Sharpe*. The same Howard University Law School faculty who had fought for Black streetcar and bus drivers to be hired in DC were among the attorneys representing the litigants in the school desegregation cases. In 1955, President Eisenhower appointed one of them, Republican George Edward Chalmers Hayes, as the first Black PUC commissioner. His fellow commissioners immediately selected him chairman.

During Chairman Hayes's tenure, streetcar and bus transportation issues, including conversion of streetcars to buses, dominated the Commission's agenda as Congress preempted a Capital Transit rate case by selecting DC Transit as the new franchise owner to replace Capital Transit. Hayes preferred the formation of a publicly owned regional authority that ultimately became the Washington Metropolitan Area Transit Authority (WMATA). Before leaving the Commission in 1961, Chairman Hayes also had the PUC adopt a resolution establishing a policy of nondiscrimination in employment at the Commission and directing that all personnel actions be based on merit and fitness of the individual without regard to race, religion, color, ancestry, or national origin.[177]



George E.C. Hayes, Howard University Law School professor, appointed PUC commissioner by President Eisenhower and sworn in by Municipal Court of Appeals judge Nathan Clayton, June 1955.

The NAACP Legal Defense Team of George E.C. Hayes, Thurgood Marshall, and James Nabrit celebrating after the US Supreme Court announced its decision in *Brown vs. Board of Education* on May 17, 1954.
Court photo by Josh Blackman.

177 PUC No. Misc. 14 reference on page 4463 of the minutes of Commission meetings. A copy of that document has not been located.

The next chairman, James A. Washington Jr., implemented the policy. A Democrat appointed by President Kennedy, he was the second Black commissioner and chairman. He also was on the law school faculty at Howard and part of the *Brown v. Board of Education* team. He hired Bobby Shaw as a GS-5 engineering aide and two Black women as his secretaries, Joyce Smith and Catherine Purnell. He promoted a Black messenger/chauffeur, James Bell, to GS-3 clerk after all messenger/chauffeur positions were abolished in the District government. In 1964, he hired the Commission's first Black employee at the professional level, Estella Bradley, a GS-11 accountant. She was a Howard University graduate and remained at the Commission until she retired in 1990. Recognizing the educational value of learning about the Commission, Chairman Washington hired students as paid interns through the President's Youth Opportunity Campaign and obtained funds made available under the Economic Opportunity Act to the United Planning Organization to support several clerical aides.

Even before the passage of the 1964 Civil Rights Act that (1) prohibited discrimination in public accommodations, (2) banned discrimination on the basis of sex, race, and national origin in the hiring, promotion, and firing of employees, and (3) created the Equal Employment Opportunity Commission (EEOC), Chairman Washington pressured utility company executives to integrate their companies. He personally held meetings with the chief executives at PEPCO, WGL, and C&P regarding their minority employment records. C&P reported that, in 1962, the company had begun a minority recruitment program at Howard University. Chairman Washington went on to gauge the progress of all three companies every six months.

Chairman Washington also objected to the companies' practice of providing scholarships only to universities not supported by federal funds, which meant that schools such as Howard University and its predominantly Black student body

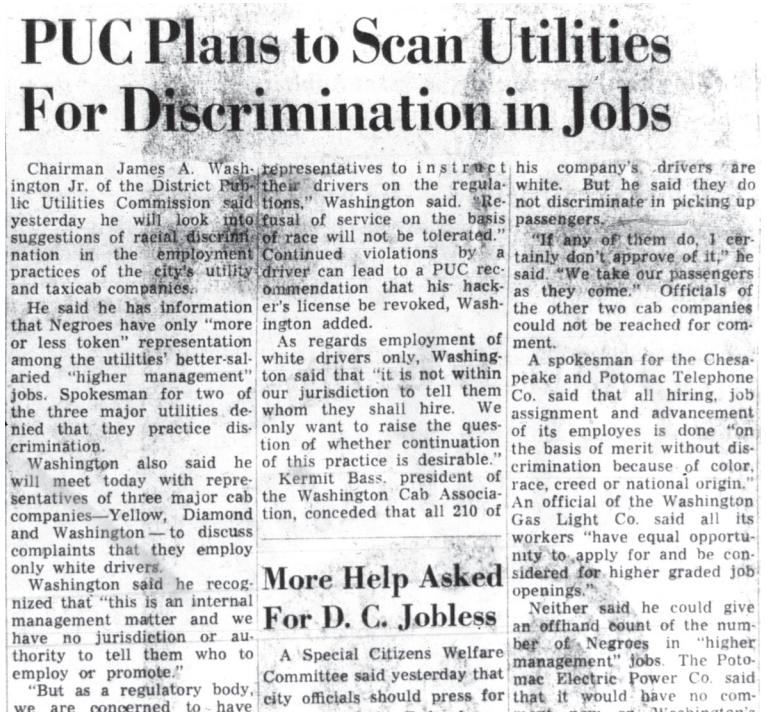
SUCH LOVELY INTEGRATION—Public Utilities Commission Chairman, James A. Washington, Jr., poses with two of his secretaries, Miss Joyce Smith and Mrs Cather Purcell, in his office. The two secretaries represent the first time in history that the PUC has colored employees in the office. Heretofore, the office staff was lilywhite. And we can think of no nicer way to go about the practice of integration. If Jim Washington can find them, what's holding up all the rest of you department heads in the District government? (AFRO photo by Cabell)

The Commission's first Black employee at the professional level, Estella Bradley, a GS-11 accountant.

were excluded from the benefit. The practice was all the more egregious because many of the universities whose students were eligible for the grants admitted very few Black students to begin with.

Minority contracting was another focus for Chairman Washington. At the Commission, in 1964, he hired the first Black legal agents in a Yellow Pages telephone case. He also took on the utility companies' lack of competitive bidding as not only limiting contracting opportunities for minorities but also contributing to higher rates than would otherwise exist. In his concurring statement in the 1966 Order No. 5062 in a PEPCO rate case, he criticized the company's contracting practices as lacking sufficient competitive bidding and public advertisement to ensure minimum cost and that all persons had an equal right to compete. "There is no reason why the policies underlying these statutes should not apply with equal strength to a public utility," he said, "since it is the substitute for the state in the performance of the public service, thus becoming a public servant."[178] These words set the stage for the Commission's leadership in entering into a voluntary memorandum of understanding (MOU) with all three utility companies to promote minority contracting in 1990. Recommitment and updating of the MOU occurred in 2012.

178 Order No. 5062, p. 52.



PUC Plans to Scan Utilities For Discrimination in Jobs

Chairman James A. Washington Jr. of the District Public Utilities Commission said yesterday he will look into suggestions of racial discrimination in the employment practices of the city's utility and taxicab companies.

He said he has information that Negroes have only "more or less token" representation among the utilities' better-salaried "higher management" jobs. Spokesman for two of the three major utilities denied that they practice discrimination.

Washington also said he will meet today with representatives of three major cab companies—Yellow, Diamond and Washington—to discuss complaints that they employ only white drivers.

Washington said he recognized that "this is an internal management matter and we have no jurisdiction or authority to tell them who to employ or promote."

"But as a regulatory body, we are concerned to have representatives to instruct their drivers on the regulations," Washington said. "Refusal of service on the basis of race will not be tolerated." Continued violations by a driver can lead to a PUC recommendation that his hacker's license be revoked, Washington added.

As regards employment of white drivers only, Washington said that "it is not within our jurisdiction to tell them whom they shall hire. We only want to raise the question of whether continuation of this practice is desirable."

Kermit Bass, president of the Washington Cab Association, conceded that all 210 of his company's drivers are white. But he said they do not discriminate in picking up passengers.

"If any of them do, I certainly don't approve of it," he said. "We take our passengers as they come." Officials of the other two cab companies could not be reached for comment.

A spokesman for the Chesapeake and Potomac Telephone Co. said that all hiring, job assignment and advancement of its employes is done "on the basis of merit without discrimination because of color, race, creed or national origin." An official of the Washington Gas Light Co. said all its workers "have equal opportunity to apply for and be considered for higher graded job openings."

Neither said he could give an offhand count of the number of Negroes in "higher management" jobs. The Potomac Electric Power Co. said that it would have no comment now on Washington's remarks.

More Help Asked For D. C. Jobless

A Special Citizens Welfare Committee said yesterday that city officials should press for

PUC, Utility Firms Air Job Equality; Agency Spurs Co
The Washington Post, Times Herald (1959-1973); May 25, 1962;
ProQuest Historical Newspapers: The Washington Post (1877-1997)
pg. B1

PUC, Utility Firms Air Job Equality

Agency Spurs Companies to Hire More Negroes

The District Public Utilities Commission met with representatives of the city's three major utility firms yesterday to discuss merit hiring.

The session was the third in a series of meetings initiated by the PUC more than a year ago to encourage the employment of more Negroes.

PUC chairman James A. Washington Jr. described the meetings as "roundtable discussions" aimed at solving problems in recruiting and employing qualified Negro workers.

Al lof the companies hire Negroes, he said, but the PUC has been urging a more "positive approach" specifically aimed at attracting Negro job applicants, Washington said.

The three companies are Chesapeake & Potomac Telephone, Potomac Electric Power and Washington Gas Light.

They are sending representatives to the sessions without complaint, but spokesmen for the firms say they are doing nothing now that they have not done before in providing equal employment opportunities.

Washington, however, believes the meetings have produced positive results.

He said the firms are now recruiting at Howard University and working with the Washington Urban League on job referrals.

The telephone company also is using pictures of Negroes as well as whites in its advertisements which encourage Negroes to apply for jobs, he said.

A spokesman for the telephone company said yesterday that the firm now has 816 non-whites among its 6704 employes. He said this is more than 12 per cent of the work force, compared with 9.5 per cent at the end of March.

The other two companies do not release racial statistics, but Washington Gas Light informed the U. S. Civil Rights Commission in February that 97 of its 2467 employes are Negroes.

Washington said he does not know how many of Pepco's 3600 workers are Negro, but added, "I'm certain they are going forward."

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PUC Chairman Says He Will Probe Race Discrimination by Utilities: PUC ...
The Washington Post, Times Herald (1959-1973); May 25, 1962;
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Washington said he recognized that "this is an internal management matter and we have no jurisdiction or authority to tell them who to employ or promote."

"But as a regulatory body, we are concerned to have public services follow the present trends of the Federal government," he said, adding that, "Our only tool in this area is persuasion."

Joseph S. Greco, executive secretary of the PUC, said the agency's concern "lies in with the President's goal of fair employment practices."

Washington said another matter he will discuss with officials of the three cab companies is that the agency has received complaints that some white drivers have ignored Negroes who hailed them.

"We are going to ask the representatives to instruct their drivers on the regulations," Washington said. "Refusal of service on the basis of race will not be tolerated." Continued violations by a driver can lead to a PUC recommendation that his hacker's license be revoked, Washington added.

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See PUC, B11, Col. 3

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PUC Eyes Utilities' Job Bias

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To Hear Complaints

Washington also announced yesterday that he had set up a board of PUC officials to hear complaints from the public about cab service.

"We are trying to educate the drivers to their responsibilities," Washington said. "These fellows often have the highly individualistic attitude that they are small businessmen whose only obligation is their own convenience. We intend to let them know they are in the public's service whether they like it or not."

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Chairman Washington resigned effective October 1966 and the new chairman, George A. Avery, appointed by Lyndon Johnson, continued to fight for the hiring of Black people and women at all levels throughout the utility companies.

Chairman George Avery

In 1969, PEPCO filed a rate increase application that the Commission docketed as FC No. 541. PEPCO's employment record was one of the designated issues. There was widespread participation in the case from the United Planning Organization (UPO), DC Consumers' Council, General Services Administration, Washington Urban League, Far East Community Services, Lawyers Committee for Civil Rights under Law, and Change, Inc., among others. The Washington Urban League used PEPCO's EEO-1 report as a basis for its testimony. US Congressman Charles Diggs, chairman of the House District Committee, and Congressman Joel Broyhill sent letters to Mayor Walter Washington, recently appointed by President Johnson. The Commission held a special evening hearing on December 17, 1969, for interested members of the public, including PEPCO employees, to present their views. As part of PEPCO's defense, the company cited the Commission's Order No. 2912 from 1945 when the PUC determined that it was without statutory authority with respect to employment practices.

In Order No. 5419, issued January 30, 1970, the Commission stated:

There is, first, the question of PEPCO's employment practices. Suffice it to say that the testimony of record with respect to those practices is deeply disturbing to the Commission and although we are not persuaded that the evidence of record, considered in the context of a rate case, would support exercise of our authority to deny any rate increase, the issue of employment practices will be the subject of a full treatment and the fullest exercise of the Commission's authority in its final order of this phase of the proceeding.[179]

1969 PEPCO annual report—all White men

179 p. 17.

In the PSC's final opinion in the case, Order No. 5429, issued on April 15, 1970, it said:

Above and Right: PEPCO 1970 Annual Report

> *We have no doubt that we should be vitally concerned with PEPCO's equal employment policies and practices. There can be no doubt that the provision of equal employment opportunity is required by the laws of the United States and of the District of Columbia…. When it is brought to our attention that the requirements of the law are not being met by a utility subject to our jurisdiction, we are clearly expected to act. Thus, in creating this Commission, Congress said: The Commission shall have power, after hearing and notice by order, in writing, to require and compel every public utility to comply with the provisions of Chapters 1-10 of this Title, and with all other laws of the United States applicable, and any municipal ordinance or regulation relating to said public utility…. Further, in defining our general powers, Congress gave us the power to investigate the methods used in manufacturing electricity and to order such improvements as will reasonably promote the public interest. We believe that a concern with equal opportunity employment falls within that language.*[180]

On page 41 of the order, the Commission stated:

> *The holding in re Capital Transit Co., 58 PUR (NS) Order 2912, April 20, 1945, that we should not assume power in the equal employment area can no longer be regarded as having vitality. Since that decision, on page 2, was rendered, the provision of equal employment opportunity has not only become a matter of stated public policy, it is required by law. The "Congressional approval and direction" which the Commission found lacking in 1945 has not been amply provided.*[181]

The PSC also ruled that the statistics in PEPCO's EEO-1 report provided a sufficient basis to require the company to modify its employment practices.

> *The Company employs no Orientals, American Indians, or Spanish surnamed Americans and those Negroes employed are concentrated in the lower income areas. We are particularly struck by the paucity of Negro employees in these categories listed above the "Operatives" classification. In this community, these statistics reveal a situation of serious concern.*[182]

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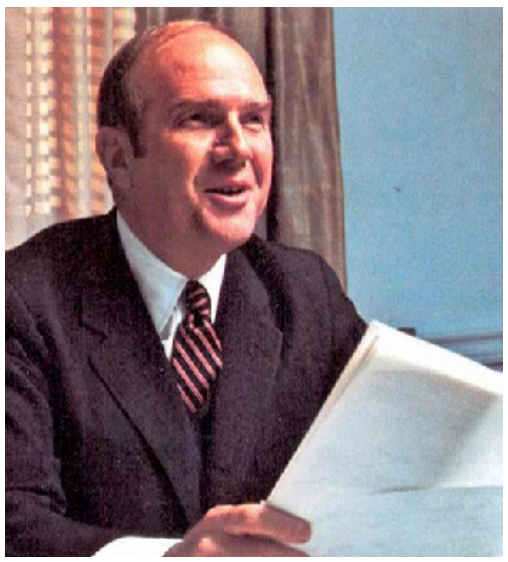
180 p. 41.
181 Footnote 8.
182 p. 42.



W. Reid Thompson became PEPCO president in 1970.

Theodore R. Hagans Jr., the first Black member of PEPCO's Board of Directors

William R. Gee Jr.

Although PEPCO had proposed deferring the matter to the US Equal Employment Opportunity Commission (EEOC), US Department of Labor, or DC Human Relations Commission, the Commission asserted its own jurisdiction and proffered its own PEPCO Affirmative Action Plan that would require the company's top management to provide strong guidance and support. PEPCO was also required to file regular reports so the Commission could monitor its progress and there would be continuing dialogue with PEPCO's top management to ensure they remained committed to the plan. The plan was attached to Order No. 5429.

PEPCO appealed the PSC's proposed plan on the grounds the company had not had an opportunity to review it beforehand. The Court agreed with PEPCO on procedural grounds and reversed the directive. On the substance of the matter, however, the Court concluded that the Commission had authority and power to examine PEPCO's employment practices, either as part of a rate proceeding or as an independent matter.

Coincidentally or not, in the same year that Order No. 5429 was issued, PEPCO hired a new president, W. Reid Thompson. Unlike many electric utility company presidents, he was an attorney, and a former jurist in North Carolina. He moved to PEPCO from Carolina Power and Light, where he was executive vice president and general counsel. During Thompson's tenure, Theodore R. Hagans Jr. became the first Black member of PEPCO's board of directors in 1971.

Although PEPCO had hired a few Black engineers in the late 1960s, in the early 1970s, the company hired William R. Gee Jr. as project leader for a planned nuclear plant at Douglas Point, Maryland. Over the following decade, Mr. Gee rose to the position of vice president. Sharon Pratt Dixon, who later became DC mayor, joined the company as associate counsel in 1976 and was a close advisor to President Thompson on personnel matters. In 1986, she became PEPCO vice president for public policy.

Sharon Pratt Dixon, joined the company as associate counsel in 1976.

Beverley Perry

Thomas Graham
William R. Gee Jr.

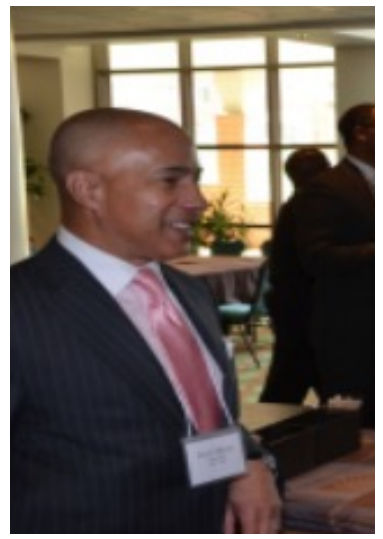
The Commission pursued its investigation of PEPCO's employment practices in the next rate case, FC No. 568. Before issuing its final order on April 20, 1972, the Commission opened a separate proceeding in Order No. 5508 to explore those practices. Similar investigations were underway by GSA, EEOC, and the DC Office of Human Rights. On July 12, 1972, in Order No. 5519, the Commission added women to the scope of inquiry.

The PSC rendered its decision on page 2 in Order No. 5591, issued on June 22, 1973. It determined that PEPCO's employment practices, as revised in connection with a GSA compliance review, were neither unduly nor unlawfully discriminatory. However, the commissioners remained concerned that despite recent changes in both management and employment practices, "the effects of prior practices remain clearly visible in PEPCO's employment picture." They went on: "we will, in addition, order PEPCO to furnish us, simultaneously with submission to GSA, copies of quarterly reports required by GSA, together with the compliance review documents and affirmative action plans developed as a result of each new compliance review. The Commission will meanwhile keep this case open and retain jurisdiction to take such further or additional action as may be warranted or required."

PEPCO's highest ranking female Black employee to date is Beverly Perry. She joined the company in 1990 as a manager and retired in 2013 as senior vice president for PEPCO Holdings, Inc. Reporting to her was Thomas Graham, president of the PEPCO region between 2005 and 2013.

Ruth Hankins-Nesbitt

Mary Brazelton



Lloyd Moore

Patricia M. Worthy, Esq.

The Commission did not confine its equal opportunity concerns to PEPCO. In 1971, the PSC designated WGL's employment practices in its rate case FC No. 567. Little testimony was presented on the issue, however, so the Commission neither decided nor discussed the matter further. Instead, it examined WGL's credit and deposit policies, which disadvantaged low-income customers, most of whom were Black.

The numbers of non-White and female employees at the Commission grew considerably after Home Rule. The first chairperson after Home Rule, attorney Ruth Hankins-Nesbitt, promoted Mary Brazelton to be the first Black office director. Multiple Black attorneys were hired as legal agents in the Commission's formal proceedings. In 1980, the Commission restructured, adding an Office of the Executive Director, Office of Consumer Services, Office of the Commission Secretary, and Office of Economics, which afforded more employment opportunities. In 1980, the DC Council passed legislation that gave the Commission its own general counsel. Lloyd Moore, an adjunct Howard University School of Law professor, became the first general counsel of the PSC. When Patricia M. Worthy became chairperson in 1984, she persuaded the DC Council that it would be cost-effective for the Commission to hire its own legal staff, so the PSC was authorized to nearly double in size. Most of the new positions were attorneys in the Office of the General Counsel and in the technical offices, such as accounting and finance, economics, and engineering.

Delano Lewis with Marion Barry, 1978 (Source: Star)

Lee Satterfield
(Image by Washington Post staff writer, October 20, 2006)

Marie Johns

Angel Cartagena Jr.

Delvonne Nicholson-Meade

Over the Commission's first century, the racial and gender profile of commissioners changed 180 degrees. In the first 55 years, all confirmed commissioners were White men; with elected Black mayors after Home Rule, all but four commissioners were Black. Only three White men have served as commissioners under Home Rule (Long, Meyers, Morgan) and only one of them (Meyers) served as chairman (on an acting basis). Other firsts at the Commission include its first Hispanic chairman, former Commission attorney Angel Cartagena, appointed by Mayor Williams in 2000, and Delvonne Nicholson-Meade, the first female engineer.

The utility companies also began seeking non-White employees in senior technical and management positions. C&P of DC was first. In 1968, the company hired Lee Satterfield, an undergraduate and law school graduate of Howard University. C&P's first Black attorney, Satterfield rose to become vice president, general counsel, and secretary of the board. In 1974, C&P added Dr. Cleveland Dennard, president of Washington Technical Institute (predecessor institution to the University of the District of Columbia) and Belford Lawson to its board of directors.

In 1975, the company hired Delano Lewis as assistant vice president for Revenue Requirements and Public Affairs, and he became its first Black president in 1988. C&P's first female president was Marie Johns, in 1998.

Although WGL started to appoint Black people to its board of directors and upper-level management later than C&P and PEPCO, it quickly caught up. Orlando Darden became the first Black member of the board in 1979 and Dr. Norma Maine Loeser became the first woman board member in 1983.

In 1981, WGL hired its first Black attorneys, Zoe Bush and Howard C. Davenport. After a few years, Bush moved to PEPCO and Davenport became the PSC's general counsel.

James DeGraffenreidt joined WGL in 1986, having served as a legal agent to the Office of the People's Counsel, and rose quickly to become president, in 1994.

Reestablishment of a PSC people's counsel, with staff separate from the Commission, was another employment opportunity for people interested in utility regulation.

Other regulatory intervenors were leaders in hiring Black people and women. Allie Lattimore was the first female attorney handling public utility matters before the Commission at GSA. Frann Francis joined the Apartment and Office Building Association in the early 1970s and is the longest continuously serving attorney practicing before the Commission.

Howard Davenport and his legal staff

Howard Davenport

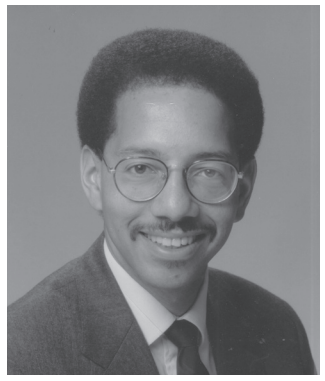
Belford V. Lawson Jr.

Dr. Cleveland Dennard

Orlando Darden 1979, first Black member of WGL board of directors

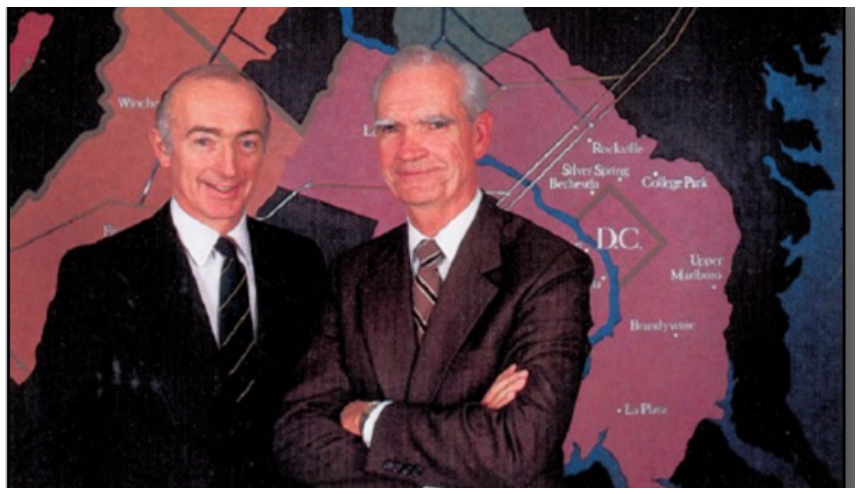
Dr. Norma Maine Loeser 1983, first woman member of WGL board of directors

Zoe Bush



James DeGraffenreidt

Annice Wagner 1976–1977

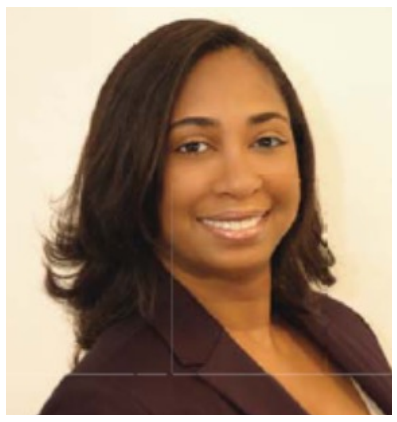


WGL chairmen Donald J. Heim (1979) and Patrick Maher (1987), who mentored James DeGraffenreidt's ascent.

Brian Lederer 1977-1984

Frederick D. Dorsey 1984-1990

Elizabeth 'Betty' A. Noël 1990-2010



Brenda Pennington 2010-2011

Sandra Mattavous-Frye 2011-Present

Allie Lattimore

Future PSC commissioner Joanne Doddy Fort, Annice Wagner, and Betty Noel (from left)

Frann Francis

OPC attorney Sandra Mattavous-Frye cross-examining a witness during a hearing in 1992. People's Counsel Elizabeth Noel and former People's Counsel Brian Lederer are in the front row behind the People's Counsel table.

Nina Dodge, speaking on behalf of the DC Climate Action Committee, at a meeting of the Advanced Metering Infrastructure (AMI) Task Force that was formed in 2010 to facilitate deployment of smart meters throughout the District. Chaired by the PSC, other members represented OPC, the Consumer Utility Board, and PEPCO.

CHAPTER 7

Bringing the Public to the Table: The Role of Public Input at the Commission

The Commission owes its existence in large part to DC citizens, and it was designed to ensure that the public has a significant role in its decision-making. Thus, it is the Commission's responsibility to facilitate public input in every way possible and ensure that utility services provided by privately owned utility companies meet the needs of their residential, business, and governmental customers. Like a court, the Commission serves as an intermediary by balancing the interests of customers (ratepayers) and the companies under its jurisdiction. In doing so, it must interpret and serve "the public interest," which requires that the voices of all parties impacted by its decisions are heard, acknowledged, and considered.

This chapter addresses:

- Citizen organizations that have played a significant role in Commission proceedings
- Citizens and their representatives' participation in Commission activities
- Major consumer issues and concerns
- Commission encouragement of citizen participation

Part 1 of the chapter describes how the Commission has incorporated citizen participation during its first hundred years. Part 2 demonstrates the role and effectiveness of public input through five examples. Because the Commission is known primarily for setting utility rates and the first 50 years of its agenda were dominated by mass transportation, the first example pertains to a streetcar and bus rate case. The remaining examples, one in each of the four major industries regulated by the PSC—transportation, electricity, natural gas, and telephone service—cover the role of citizen groups in non-rate cases.

The narrative in this chapter is principally based on the Commission's annual reports and orders and minutes of its meetings recorded between 1913 and 1973. Some background historical information on community organizations is also included.

Part 1—Citizen Participation

A. Citizen Organizations that have played a Significant Role in Commission Proceedings

1. Federation of Citizens' Associations

William McK. Clayton, President of the Federation of Citizens' Associations

The Commission came into being at the behest of the newly formed Federation of Citizens' Associations (FCA) through the successful lobbying of its first president, William McK. Clayton. The importance of his role is symbolized by President Taft's presentation to Clayton of the pen Taft used to sign the act that created the PUC.

The FCA has represented citizen associations throughout the Commission's history; it is the longest serving public advocate in Commission proceedings. The FCA was organized in 1910 by 20 neighborhood groups and incorporated in 1940. The organization had a Whites-only clause in its constitution that was removed in 1972. Today, there are 44 neighborhood organizations that are members of the FCA. The 2013 president of the group was Anne Renshaw, shown at right in the photograph with PSC director of the Office of Consumer Services, Linda Jordan, opposite.

PSC Centennial Celebration, March 15, 2013

In the beginning, the Commission encouraged public involvement in its formal proceedings by mailing notices of all hearings to the FCA and other civic groups. Clayton, as an attorney, participated in virtually all of the Commission's formal hearings for many years, always advocating on behalf of the FCA's citizen groups. He successfully lobbied for establishment of a people's counsel position, created by Congress in 1926. Although Clayton was interested in serving as people's counsel, he was never appointed.

The FCA and its neighborhood members filed numerous complaints and requests for service, particularly with respect to streetcar and bus routes. Individuals and citizen associations sent letters and resolutions regarding the rerouting of streetcars and buses, changes to track facilities, and suggestions for adding or changing service, car stops, platforms, and safety zones.[183] Each year, the Commission responded to these complaints and requests by letter rather than through published orders. Responses often came directly from the chairman or commissioners; annual reports for 1929 through 1932 indicate that between 4,000 and 5,000 letters were sent annually.[184]

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183 Paraphrased from Order No. 1227, issued March 12, 1934, in FC No. 246 at 3.

184 No data on the number of letters were provided in earlier annual reports.

One of the FCA's most lasting contributions to the District that continues to date is a reduced fare on streetcars and buses for schoolchildren. In October 1923, the FCA petitioned the Commission for a 50 percent discount on streetcars for schoolchildren. The Commission denied the petition on the grounds that the law creating the PUC forbade discrimination in rates among users.[185] In May 1927, the FCA asked the Commission to require Capital Traction to offer a reduced fare for schoolchildren in addition to free universal transfers and a rate of three tokens for 20 cents on streetcars.[186] The Commission rejected the request on the grounds the company was not earning a fair rate of return so it was not economically feasible at the time.

Several years later, Congress passed H.R. 12571, which authorized the PUC to establish a reduced fare. On March 3, 1931, the Commission issued Order No. 898, effective March 10, 1931, allowing schoolchildren under age 18 going to and from school to pay three cents each way. (The comparable adult fare was ten cents.) Both DC public schoolchildren and children attending other schools whose courses of instruction were similar to ones in the public schools were eligible for the reduced fares. Private and parochial schools or other denominational schools, upon approval by the Commission, could sell the tickets to their students. From 1931 until jurisdiction over mass transportation was transferred to the Washington Metropolitan Area Transit Commission in 1961, the PUC received requests from hundreds of schools for their students to receive reduced-fare tickets for mass transit.

2. The First People's Counsel

The first people's counsel was Ralph B. Flaherty. He served from March 7, 1927, to January 13, 1930. He met often with citizen and industry groups and was an ex officio member of the FCA, which meant he participated in their semimonthly meetings and was consulted by its various committees on utility-related matters. He addressed many other civic organizations, including high schools and colleges, and was often consulted on non-utility-related matters by citizens and groups that could not afford to pay for legal help. In 1952, Congress eliminated the people's counsel position in an executive branch reorganization. The position had been vacant since the end of 1950.

3. DC Federation of Civic Associations

Because of the Whites-only composition of the FCA, nine Black civic associations officially formed the DC Federation of Civic Associations (DCFCA) on November 10, 1921. The founding civic associations represented Black residents and businesses in Georgetown, Barry Farms, Benning-Glendale-Oakland, Central Northeast, Howard Park, Northeast

Barbara Morgan (left) with Linda Jordan, Director of the Commission's Office of Consumer Services

185 PUC No. 73, minutes of PUC meetings, 1923–25, at 62 and 64.
186 Minutes of PUC meetings, 1926–28 at 155.

Improvement, Pleasant Plains, Potomac, and Reno. In 2013, there were 40 predominantly but not exclusively Black member organizations and the president was Barbara Morgan.

The first mention of a civic association pleading in the minutes of PUC meetings was in 1924. The Southwest Civic Association filed a complaint of inadequate streetcar service. The Commission denied the complaint.[187] Also in its minutes, in 1940, the Commission reduced its distribution of notices of hearings and orders, but the FCA and DCFCA remained on the mailing list.[188]

4. Advisory Neighborhood Commissions Created by the 1973 Home Rule Act

The 1973 Home Rule Act, which became effective in 1975 after a public referendum,[189] had a significant impact on the role of public input at the Commission as new citizen representatives were established. The act created an elected mayor, an elected District of Columbia Council, and Advisory Neighborhood Commissions (ANCs), and it established a consumer advocate in the form of the Office of the People's Counsel (OPC). The ANCs and OPC became public-interest-oriented parties in the Commission's formal case proceedings.

District residents began to elect advisory neighborhood commissioners to represent each of 209 single-member districts. ANC commissioners serve two-year terms. They are unpaid, but some administrative expenses are funded. ANCs advise the District government on public policy matters, present their positions and recommendations to DC government agencies, and testify before independent agencies, boards, and commissions such as the PSC. The act also requires District government agencies to give "great weight" to recommendations by the ANCs. The Commission has complied with that requirement by citing the testimony of ANCs and other community witnesses in its decisional orders.

The Commission is also required to give an ANC notice of any PSC matter that is occurring within that ANC's geographic area. The ANC is invited to express its opinion, and the Commission must explicitly acknowledge the ANC's view and explain why it agrees with or departs from that view in its orders.

5. Office of the People's Counsel

Office of the People's Counsel
District of Columbia
Advocating, Protecting and Educating DC Consumers

Public outcry over rising electric rates resulted in the establishment of the Office of the People's Counsel (OPC) by Congress through the Home Rule Act. The District law empowers OPC to advocate on behalf of District residential electric, natural gas, and local telecommunications consumers before the Public Service Commission, DC courts, and the DC Council. District of Columbia Court of Appeals chief

187 PUC No. 2233.

188 There is no record of when the Commission began distributing its notices and orders to the DCFCA.

189 Public Law 93-614 effective January 2, 1975.

judge Annice Wagner was the first people's counsel after the Home Rule Act, appointed by Walter Washington, DC's first elected mayor under Home Rule.

Annice Wagner

Former People's Counsel Betty Noel, third from left, with 2013 People's Counsel, Sandra Mattavous-Frye, to her left.

OPC, by statute, is a party in all Commission proceedings. It is authorized to investigate the operation and valuation of utility companies independently of any pending proceeding. Its mandate is to "advocate the provision of quality utility service and equitable treatment at rates that are just, reasonable, and nondiscriminatory to assist individual consumers in disputes with utility companies about billing or services; and to provide technical assistance and consumer education to the Consumer Utility Board and other community groups." The current people's counsel is Sandra Mattavous-Frye, who was selected by Mayor Vincent Gray and sworn into office on July 25, 2011. Between Judge Wagner and Sandra Mattavous-Frye, four other attorneys have filled the role: Brian Lederer (1978–1983), Frederick Dorsey (1984–1989), Elizabeth Noel (1990–2009), and Brenda Pennington (2009–2011). Betty Noel is the longest serving people's counsel to date. Her 20-year tenure is noteworthy for initiating the practice of petitioning the Commission to open investigations in addition to representing residential consumers in rate cases and other proceedings before the PSC.

One of OPC's first acts was to petition the Commission to adopt a Consumer Bill of Rights (CBOR) to govern the standards of conduct and billing practices of the telephone, electric, and natural gas utility companies within the District of Columbia. After investigating the need for such rules, the Commission proposed rules on June 10, 1977. They were similar in format and purpose to those OPC proposed on May 30, 1975.[190] Extensive comments were offered by all parties to the case. The PSC issued its notice of final rulemaking on the CBOR on May 18, 1979, and a draft was presented in August, 1979. A handbook was prepared for DC residential customers to explain the practices of utility companies, such as billing payment standards, security deposits, termination and reconnection rules, and service procedures. This bill of rights expanded consumers' rights and set up a model for the relationship between utility companies and ratepayers. It also promulgated uniform rules, which govern the standards of conduct and billing practices of the natural gas, electric, and telephone companies in the provision of residential utility services in DC.[191]

190 1976–77 PSC annual report, p. 2; FC No. 662, Order No. 5885, June 10, 1977.
191 1979 PSC annual report, p. 4; FC No. 662, Order No. 6084, May 18, 1979.

6. Consumer Utility Board

Founded in 1977, the Consumer Utility Board (CUB) is a nonpartisan and community-based independent group. It is comprised of DC citizens who are not affiliated with any utility company. In addition to individual members, CUB has consisted of DC Council members, community leaders representing civic and citizen associations, advocacy groups, and other community-based organizations throughout the District. CUB views its role as protecting the interests of ratepayers and consumers. Since its inception, CUB has played an important part in shaping public utility policy in the District through community organizing, testifying at public hearings, filing community briefs, demonstrating, and lobbying elected officials. In addition, CUB has a voice in the selection of people's counsels and PSC commissioners and chairpersons.

CUB was the idea of Brian Lederer, a former people's counsel. Dr. Jerome Paige and former OPC staffer Rick Powell were instrumental in CUB's founding. In 2013, Herbert Harris Jr. was the chairman of CUB and Eugene Dewitt Kinlow was first vice-chairman.

Issues on which CUB has advocated before the Commission include the promotion of energy conservation, nearly all rate increase filings by the utility companies, local measured telephone service, and retail competition. One of CUB's seminal accomplishments was the November 1979 publication of "Report to the Community: Sharing the Burden and Benefits of Electricity Conservation in the District of Columbia." Photographs of several CUB representatives who often testified at the Commission's community hearings are at the end of this chapter.

B. Citizens and Their Representatives' Participation in Commission Activities

Consumers and their representatives have participated in Commission activities in three ways: attending hearings; filing complaints and inquiries and requests for changes in service; and requesting refereed meter tests. Each of these is discussed below.

1. Citizen Participation in Hearings

The act that created the Commission required it to hold public hearings on any changes in rates and charges. In its formative years, the Commission divided its docketing system into formal cases that required a public hearing (identified with FC numbers) and informal cases that did not require a public hearing, such as complaints and inquiries and requests for service. Informal cases were given PUC Nos.

The Commission first invited public participation in hearings in formal cases by mailing notices to the FCA and its neighborhood citizen associations as well as to other civic groups. Later, the PUC also posted the notices in the daily press. The FCA and its members participated in virtually all of those hearings, and the same groups initiated proceedings and petitioned for hearings on matters that had not been designated a formal case.

Community Hearings

Early on, the commissioners held informal hearings on matters of concern to citizens and their representatives. In 1942, for example, the Commission held an informal hearing to seek comments on an application by Kenilworth and Benning Citizens Association to place a streetcar and bus platform on Benning Road near 36th Street, Northeast.[192] In 1946, the commissioners held an informal conference with Hecht's, Kann's, and Lansburgh's department stores, the directors of vehicles and traffic, and the utility companies over restoration of service on Chillum Place, NE, Connecticut Avenue, NW, and P Street, NW.[193] By the mid-1970s, after Home Rule, informal hearings became community hearings held as a routine part of rate cases and other major proceedings either at the Commission or throughout the city's eight wards.

2. Consumer Complaints, Inquiries, and Requests for Service

Informal cases were defined to include both complaints and inquiries and requests for changes in service; they excluded meter-test requests by consumers. The Commission's 1913 annual report describes by industry the 212 informal cases and a list of each case, complainant, and issue or concern in that year. Most informal cases related to streetcars, which garnered 172 complaints and inquiries, followed by gas and electric issues with 22 complaints and inquiries, and then C&P with 18.

Both individuals and community groups filed informal cases with the Commission. In addition to specific individuals, East Washington, Rhode Island Suburban, Connecticut Avenue, Brookland, Georgetown, Brightwood, Northeast County, and Chevy Chase citizen associations; the Public Improvement Association of Congress Heights; Minnesota Avenue Improvement Association; Citizens Conference for Public Utilities; and District of Columbia Suffrage League filed complaints and inquiries that were docketed as informal cases.

192 Minutes of Commission meetings, pp. 2178 and 2227, PUC No. 2206/443.
193 Minutes of Commission meetings, p. 2810.

Topics of interest were traffic congestion, locations of stops, noise, insufficient service, refusal to accept transfers, routes, failure of cars to stop, excessive speed, signage, unnecessary delays, smoking in open cars, failure of conductors to supply tickets, disorderly conduct, crowding, poor service, seating arrangements, fares, treatment of passengers, and ventilation and heating problems related to streetcars. Gas and electric complaints and inquiries pertained to meter readings on bills, excessive charges for installing pipe, refusal to extend gas or electric service, nonpayment of interest on deposits, placement of gas meters, insufficient gas pressure, poor quality gas, and overcharging for electric current. Local telephone issues included refusal to install telephone service, service discontinued due to nonpayment, rates, and stringing of overhead telephone cables over property.

Between 1913 and 1937,[194] "complaints and other communications" with respect to transportation drew the most attention from the public. The total number of informal cases received by the Commission fluctuated between 200 and nearly 800 a year. There were nearly 700 complaints and inquiries in 1918, over 500 of which related to streetcars, including extensions of service. The number of complaints and inquiries regarding taxicab service peaked in 1932, at 281. In 1931, another peak year with almost 800 informal cases, over 400 of them pertained to gas service, likely because of the merger of WGL and Georgetown Gas. For most years, the number of complaints and inquiries regarding electric, gas, and local telephone service each ranged below 50 (see Table 7.1).

Table 7.2 shows that the number of consumer complaints and inquiries has grown substantially over time, particularly since the Commission's approval of the Consumer Bill of Rights in 1979. Most complaints and inquiries have related either to billing and payment or quality of service. With the advent of competition in the 2000s, issues related to customer choice of competitive local exchange carriers or commodity gas and electric generation suppliers have contributed to the trend.

3. Electric and Gas Meter Tests Requested by Consumers

The Commission has always been required to provide for the examination and testing of electric and gas meters at the request of consumers. It processes citizens' requests for meter tests and witnesses the tests as they are conducted by WGL and PEPCO. Table 7.3 shows the number of meter tests requested by consumers each year. The Commission's 1913 through 1920 annual reports indicate that between 1,000 and 3,000 gas meters were tested each year at consumers' requests, while the number of electric meters tested at consumers' requests ranged between 5 and 58 each year. Beginning in 1938, the number of electric meter test requests exceeded the number of gas meter test requests, and that has remained the case in most years since then. This trend probably reflects the growth in the number of households with electricity and increased usage per household as the number of electrical appliances has increased. Since 2008, the Commission has provided this service by refereeing on average over 100 natural gas and electric meter tests requested by consumers

194 From 1937 through 1955, the Commission recorded in its annual reports only the number of complaints, so the numbers are not consistent with prior years. The largest number of complaints was 581 in 1945; over half of those complaints related to taxicab service. Bus service accounted for about 20 percent of complaints.

each year. Most requests for meter tests now relate to high utility bills. Originally, citizens had to pay a deposit for gas meter testing, but that is no longer the case.

C. Major Consumer Issues and Concerns

The issues that received the most consumer and community organization requests over the Commission's first hundred years are:

1920s—Undergrounding of overhead lines and changes in streetcar and bus line routes, including additional stops and platforms. Streetcar safety issues were also a frequent complaint by the FCA.

1930s—Placement of a gas holder at East station; poor condition of streetcars, overcrowding, and slow operations; extension of streetcar and bus line service and routes; a bus garage and Tennallytown Car Barn; conversion of two-man streetcars to one-man streetcars; and streetcar and bus rates. Minutes of Commission meetings show that the PUC held an informal meeting with taxicab owners in response to their concerns regarding the establishment of new rules governing taxicab operations per Order No. 823.[195] The Commission also complained to PEPCO about its slow response to informal complaints.[196] In 1934, in a case involving the merger of Capital Transit and the Washington Railway and Electric Company (WRECO), the PUC received a request for ABC to broadcast hearings in FC No. 253 over radio WOL, but the Commission denied the request.[197]

1940s—Capital Transit case; radio reception in buses and streetcars; substitution of bus service for streetcar service; underpass at Dupont Circle; a PEPCO securities authorization case; revised taxi zones; and additional taxi stands.

1950s—Capital Transit strike and reduction in fares; conversion from streetcars to buses; and a taxicab rate case.

1960s—Undergrounding of an overhead power line from Benning Station to accommodate construction of a new high school; conversion from direct to alternate current; reconnection of telephone service when disconnected due to alleged illegal activity; and failure of taxicab drivers to pick up and deliver some customers to their intended destination.

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195 Minutes of Commission meetings, 1928–1932, p.283.

196 Minutes of Commission meetings, 1928–1932, p. 399. Informal cases were addressed by sending a complaint to the appropriate utility company, which had ten days to respond.

197 PUC No. 3122 as cited in the minutes of Commission meetings, p. 1087.

D. Commission Encouragement of Citizen Participation

Until the mid-1950s, with a few exceptions, most citizen representation in formal cases, as opposed to informal cases, was through the FCA and the people's counsel, which participated as witnesses in the proceedings. In 1945, the Commission issued its first press release, which was related to the need to curtail gas deliveries.

As the Commission began to broaden its interpretation of its regulatory responsibilities in response to changing demographics, new issues arose and attracted participation of an expanded set of community organizations and public interest groups. The DCFCA, for example, intervened in a DC Transit rate case (FC No. 471) in 1955; attorney Barrington Parker, president of the DCFCA, represented the organization. He also represented the group in FC No. 511 that addressed PEPCO's minority hiring practices. Among the new participants in Commission proceedings were the Urban League, the United Planning Organization (UPO), DC City Wide Consumer Council, Capitol Group Ministry, Center City Community Corporation, CHANGE, Inc., and Electric Utility Employees Union. As the Commission addressed energy conservation issues in the early 1970s, such groups as the Sierra Club and Students Hot on Conserving Kilowatts (SHOCK) intervened. The issue of electric rates for master-metered apartments attracted the intervention of the Apartment and Office Building Association (AOBA) and the Apartment House Council of the Metropolitan Washington Builders' Association. When establishment of all-electric rates became an issue in a PEPCO rate case, all electric customers engaged legal representation.

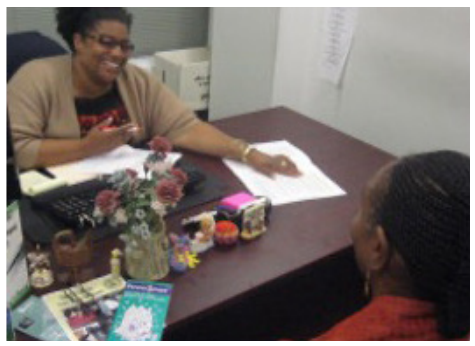
The Commission encouraged this consumer participation. In 1964, the Commission sent notices to all civic and citizens associations asking if they had specific issues for the PSC to address. The Commission issued a press release inviting citizens and their representatives to a public hearing on the matter, but only one person attended. In the PEPCO rate case, in which the company's minority hiring practices were examined, it held an evening hearing so members of the public and PEPCO employees could participate.

In 1975, the PSC established community hearings in rate cases and other major proceedings. Some groups that have testified in those hearings are churches, Center for United Labor Action, Consumers Urging Rate Equity, DC Power, League of Women Voters, Washington Public Interest Organization, Friendship House, Black United Front, American Association of Retired Persons (AARP), AC/DC, DC Coalition of Concerned Citizens Solar Coalition, Minority Business Enterprise Legal Defense Fund, MD/DC/VA Solar Energy Industries, Hands Together Neighborhood Club, Carter Barron Community Task Force, Climate Action Committee of Politics and Prose, DC Office of Aging, and Gray Panthers.

In the 1980s, the Commission established working groups involving PSC staff, OPC, and stakeholders to address technical issues best covered outside of evidentiary proceedings. Currently, some working groups address education and outreach efforts and include the participation of community representatives. For example, representatives of OPC, CUB,

First Office of Consumer Services Director, Vivian Jordan-Webb (at left)

PSC informal consumer mediation led by Margaret Moskowitz.



OCS staff, Margaret Moskowitz, helping a consumer.

OSC Director Linda Jordan helping a consumer in a car.

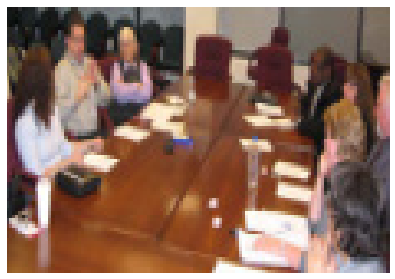
and the Climate Action Committee of Politics and Prose have been active participants in the design and implementation of consumer education programs related to the deployment of smart meters.

1. Creation of the Commission's Office of Consumer Services

After drafting the CBOR in 1979, the Commission established an Office of Consumer Services (OCS) to ensure compliance with the standards through the mediation of consumer complaints and responses to inquiries. Prior to the formation of OCS, complaints and inquiries were addressed by engineering staff or the commissioners directly on the assumption the issues were primarily technical in nature rather than related to billing issues. In the mid-1960s, PSC Chairman James A. Washington Jr. personally investigated a consumer complaint, including making a site visit that he deemed necessary. Also during his tenure, in 1962 the Commission established a complaint section for taxicab matters and in 1965 developed a tracking system for all consumer complaints by identifying them with a CO file number.

The first director of OCS, Vivian Jordan-Webb, was an attorney, and she conducted informal hearings between consumers and the utility companies. Appeals next went to the commissioners. After she left the Commission, the newly staffed Office of the General Counsel (OGC) began conducting formal consumer complaint hearings whenever informal mediation by OCS did not resolve an issue. If a matter still could not be resolved, a different OGC attorney was assigned to work with the commissioners in drafting their order. That process is still followed today. The distinction is important because the Commission's decisional orders are appealable through the District court system.

In the early 1990s, two functions were added to OCS's responsibilities: education and outreach, and managing a community-based payphone program. Discussion of the payphone program is deferred to a case study in Part 2 of this chapter. For education and outreach, the Commission set a goal for OCS to conduct 100 outreach events each year. The office consistently exceeds that goal. Outreach has included preparing and distributing brochures, pamphlets, flyers, and the popular bags with the PSC logo at community events.



From left to right: JUDD Registration

TRS Advisory Board Meetings

2. Expanded Education and Outreach—People Serving the Community (PSC)

The Commission initiated many new education and outreach programs between the mid-1980s and the mid-1990s, some of which continue today. The PSC gave these campaigns a slogan: "PSC, People Serving the Community." One of the first initiatives, the *Utility Bulletin* newsletter, started with quarterly distribution to all Advisory Neighborhood Commissions (ANCs) and civic associations in 1985. Outreach to the Hispanic community began with the assistance of Rene Martinez, a Washington Gas employee, who translated Commission publications into Spanish. The PSC next hired an Hispanic director of OCS, Anna Flores, and other Spanish-speaking staff in the early 1990s. They prepared the *Utility Bulletin* in both English and Spanish. Community outreach through presentations at neighborhood meetings and events extended to the city's growing Hispanic population. Publication of the *Utility Bulletin* stopped in the mid-1990s when the PSC was downsized. Outreach to the Chinese community began in 1990 after the PSC hired Chinese economist Dr. Grace Hu.

Community representatives were engaged to draft new payphone rules after many complaints about the illegal use of payphones by drug dealers and excess loitering around the phones as the Commission instituted a community-based payphone program. After the Commission approved electric, gas, and telephone low-income discount programs in the mid-1980s, a Multi-utility Discount (MUD) Working Group was established in 1991 to educate consumers on possible savings on their bills and increase participation in the low-income programs. Working group members included representatives from the Commission, the three utilities, OPC, and the District of Columbia Energy Office (DCEO). They established a joint application form and held widely publicized Joint Utility Discount Day (JUDD) registrations for thousands of interested residents for the ensuing 20 years.

A "Take It to the Streets" campaign involving Commission staff, OPC, DCEO, and the utility companies educated and informed the public about PEPCO's and Washington Gas's energy conservation programs as well as the low-income discount programs and other ways for consumers to minimize their utility bills. In 1993, the first PSC video aired on the DC government cable television channel.

That same year, 1993, the Commission created a Telecommunications Relay Service Advisory Board to monitor the provision of telecommunications relay services in the city. Telecommunications relay services are telephone transmission

CapTel Service Demonstration

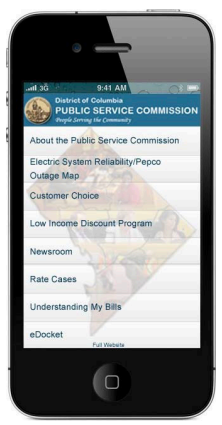
Utility Bulletin newsletter was distributed quarterly to all ANCs and civic associations in 1985.

PSC staff, Manmohan Singh and Damon Patterson, insulating a consumer's water heater.

PSC Chief Economist, Dr. Grace Hu, assisting a Chinese consumer at JUDD.

PSC Website

Streaming PSC Proceedings



'PSC on the Go' Mobile App

services that enable individuals with hearing or speech disabilities to communicate by wire or radio with a hearing individual. This includes services that enable two-way communication between an individual who uses a text telephone or other non-voice terminal device and an individual who does not use such a device; speech-to-speech services; and video relay services. The group comprises community, industry, and governmental representatives.

New technology has helped the Commission expand education and outreach. The Commission launched its website in 2000, and as recently as 2009, it redesigned the site to allow more user interaction. The site includes the Commission's electronic docketing system (e-Docket), which, among other things, lets users search current dockets, access an index of formal cases and order captions, view recent filings, and search archived dockets. The website also lets users stream video and audio of PSC meetings.

Part 2—Case Studies

Part 2 of this chapter demonstrates the effectiveness of public input in PSC proceedings through five illustrative cases. One case study pertains to a streetcar and bus rate case. The remaining four case studies relate to non-rate cases in the mass transportation, electric, natural gas, and local telephone industries in the District.

A. Capital Transit Streetcar and Bus Rate Case, FC No. 309

For at least its first half century, the Commission was best known for regulating streetcar and bus service, including the setting of rates, the extension of routes, and issues related to conditions of service. In all three areas, individual citizens and their representative organizations played important roles in ensuring that the mass transportation system met their needs.

The commission's first act was to require air brakes on all of the larger streetcars, which were too big for the handbrakes used on older cars. The move improved safety and helped to reduce the noise problem. As it gradually became better established, the PUC would go on to arbitrate changes in routes, the number and types of cars in service, how track was maintained, what fares could be charged and many other aspects of operating city streetcars.[198]

On January 14, 1942, the FCA and DCFCA petitioned the Commission to direct Capital Transit Company, the streetcar and bus service company, to sell tokens at a price of three for 25 cents instead of the price of six tokens for 50 cents that had been approved in Order No. 1634 issued on November 3, 1937. The Commission held hearings on January 30, January 31, and February 2, 1942, on the single question of whether the sale of six tokens for 50 cents rather than three for 25 cents "constitutes an unjust and unreasonable discrimination."[199] Petitioners argued that there were many low-income people in the District and that it would be a hardship for them to pay 50 cents for six tokens. By Order No. 2278, issued May 12, 1942, the Commission dismissed the petition without prejudice on the grounds the applicants had failed to show unjust or unreasonable discrimination.

Commissioner Gregory Hankin, however, dissented. He noted that the Commission had received complaints since shortly after issuance of Order No. 1634 that the 50-cent charge for six tokens was burdensome. He argued that the record in the case, in his opinion, did not justify a finding that the sale of six tokens for 50 cents constituted a just or reasonable discrimination and it "was not a finding of basic facts leading to a conclusion that would require denial of the application." He also argued that the sale of six tokens for 50 cents was time-consuming because of the need to provide change.[200]

The Ft. Davis Citizens Association filed an application to reconsider Order No. 2278. The Commission reopened the proceeding by Order No. 2454 and scheduled a hearing for January 12, 1943. On January 22, 1943, the Commission issued Order No. 2484 in which the PUC reversed its previous decision, ruling that the sale of three tokens for 25 cents was "a convenient method of selling tokens and that it may facilitate individual transactions. Therefore, it is the opinion of the Commission that an order putting into effect the sale of 3 tokens for 25 cents for a trial period is reasonable and in the public interest."[201]

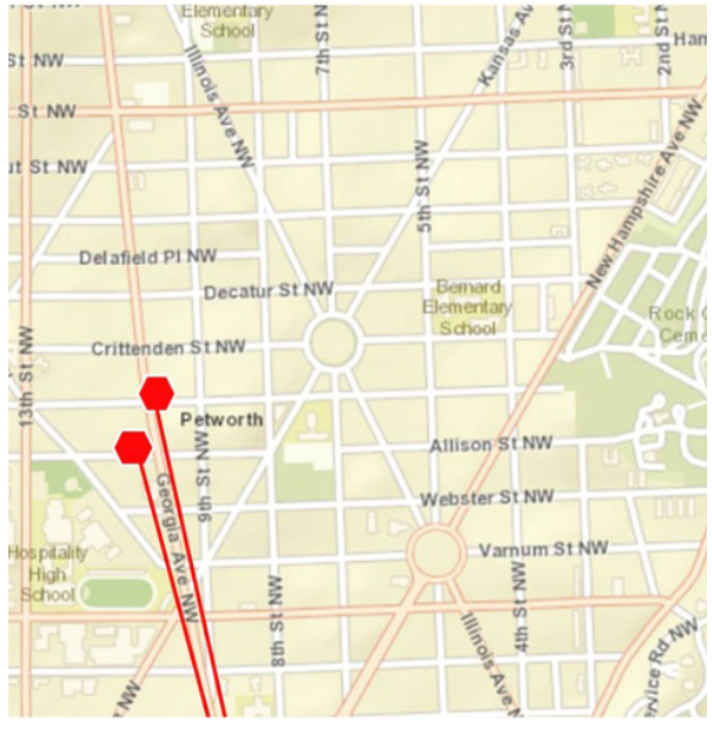
B. Extension of Service on Takoma, Petworth, and Chillum Streetcar and Bus Routes and Service

From the establishment of the Commission in 1913, the Petworth Citizens Association (PCA) played a proactive role in the extension of streetcar and bus service to its neighborhood. In 1914, the PCA complained to the Commission that Washington Railway and Electric Co. (WRECO) was providing insufficient service to the Soldiers Home junction on the Brightwood–Ninth Street, Northwest line. The Commission satisfied the complainants by requiring the company to

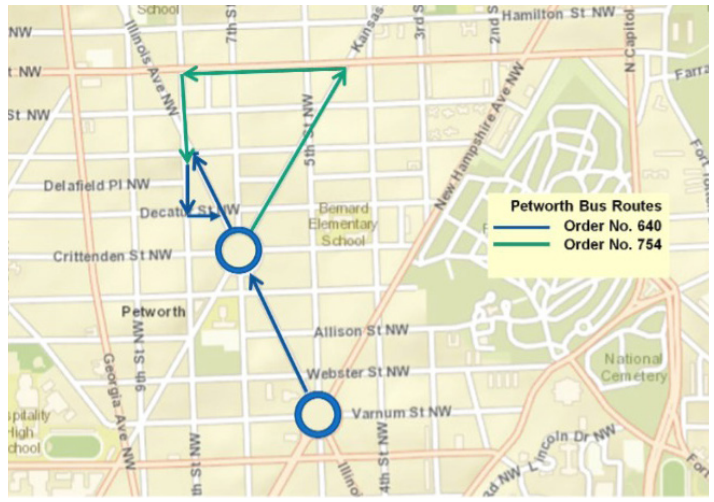
198 John DeFerrari, *Capital Streetcars, Early Mass Transit in Washington, DC* (History Press, 2015), 121.
199 Order No. 2278 issued May 12, 1942.
200 Commissioner Hankins dissent to Order No. 2278 at 1–2.
201 Order No. 2484 at 2.

add cars in service.[202] In 1916, the PCA complained about the irregularity of service on the Brightwood–Ninth Street line. After holding public hearings, the PUC responded by issuing Order No. 188, establishing new standards for rush hour and non rush hour streetcar service, including the number of seats, area for standing room, headway, schedules, reporting requirements, and penalties for noncompliance.[203]

In 1918, the PCA filed a complaint that there was insufficient service to Petworth and vicinity. The Commission satisfied this complaint as part of Order Nos. 248,[204] 257,[205] and 260[206] that mandated improvements in streetcar service in multiple neighborhoods around the city.[207] In 1919, the PCA requested additional stops on the Georgia Avenue line that would continue the route through the Soldiers' Home terminus to extend service to more customers and reduce walking distance to board the cars. The Commission partly satisfied this request by requiring WRECO to establish a stop at Georgia Avenue and Quincy Street, Northwest.[208]

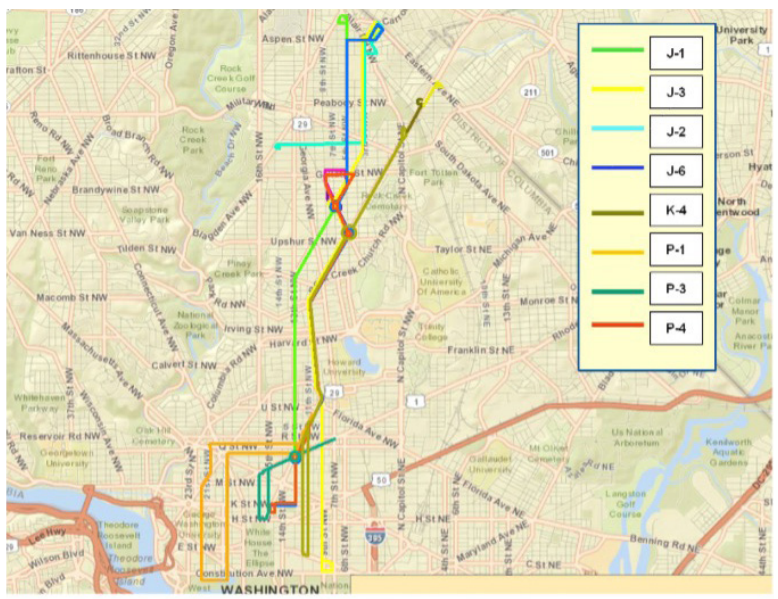


In 1920, the PCA requested two additional bus stops on the Georgia Avenue route (see map). The stops were at Buchanan Street northbound and Allison Street southbound. The Commission granted the request.[209] In 1922, the PCA complained about overcrowding on the Brightwood–Ninth Street line and suggested higher frequency and rerouting of service as possible remedies. The Commission resolved the complaint, among others, in Order No. 487, issued July 29, 1922, in FC No. 121.[210] In 1924, the PUC considered two conflicting petitions regarding an existing route of the Washington Rapid Transit Co. Buchanan Street residents wanted the route modified so that one leg of the



202 PUC No. 1143, 1914 PUC annual report, p. 75.
203 PUC No. 1223/34 and 1916 PUC annual report, p. 48.
204 PUC No. 2371/4.
205 PUC No. 2371/3.
206 PUC No. 2315/36.
207 PUC No. 2233/11, 1918 PUC annual report, p. 82.
208 PUC No. 2315/147, 1919 PUC annual report, p 70.
209 PUC No. 2315/171, 1920 PUC annual report, p. 49.
210 PUC No. 2233/36, 1922 PUC annual report, pp. 84–85.

route was on Buchanan Street and the other was on Allison Street. Allison Street residents opposed the request. The Commission took no action.[211]



On January 14, 1926, the Commission declined a petition signed by 79 residents of the PCA requesting a bus line between Soldiers Home and Takoma Park.[212] On July 28, 1926, the Commission convened a hearing regarding a petition from the PCA to extend service of the Petworth line of Washington Rapid Transit bus line to a point beyond Sherman Circle. On the same date, the PUC approved the request by Order No. 640 issued in FC No. 159. On November 5, 1926, the Commission declined a petition from residents in Chillum Heights to authorize extension of the Washington Rapid Transit Company bus service from Grant Circle to Rittenhouse and Blair Road.[213] Later, in 1929, the PUC approved extension of the line from Sherman Circle to Kansas Avenue, Fifth Street, Gallatin Street, Eighth Street, Illinois Avenue, and Decatur Street at the request of the Hampshire Gardens Development Corporation.[214]

On January 29, 1941, at the request of citizens of Petworth, Takoma, and Chillum, the PUC issued Order No. 2005, which opened an investigation into all phases of Capital Transit Company's routes, fares, and discontinuances in FC No. 303.[215] Capital Transit, formed at the end of 1933, was the monopoly provider of streetcar and bus service in the city. It was also partly owned by WRECO. During World War II, gasoline was rationed and the public was heavily dependent on Capital Transit's services because the company was exempt from rationing.

The Commission set a hearing for February 12, 1942. On February 10, 1942, Capital Transit requested postponement of the proceeding due to changes in underlying circumstances, including "the tremendous and unforeseen increases in the number of government employees and the increased population in Washington, the change from a condition of peace to a condition of war, the shortage of rubber due to the rationing of tires, the discontinuance of the manufacturing of automobiles, and the shortage of materials. Representatives of the citizens' associations in the areas affected concurred with the postponement."[216] On March 3, 1942, the Commission issued Order No. 2192, in which it suspended the proceeding.

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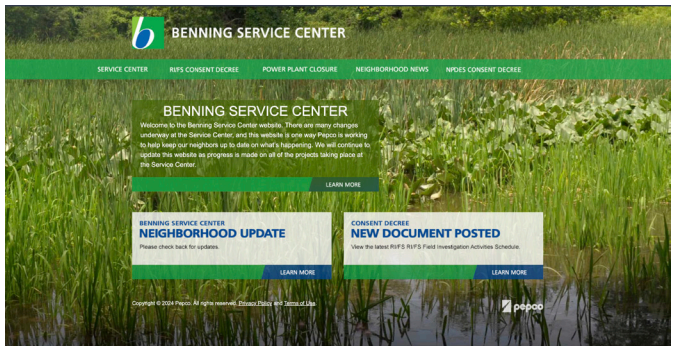
211 PUC No. 2544/2, 1924 minutes of PUC meetings, pp. 130, 220–221.
212 PUC 2097/78, 1926 minutes of PUC meetings, pp. 7, 67, 72–73 and 1926 PUC annual report, FC No. 159, p. 68.
213 PUC No. 2544, 1926 minutes of PUC meetings, p 95.
214 Order No. 754, issued May 9, 1929, in FC No. 159.
215 PUC No. 3192/102 and FC No. 303.
216 PUC No. 3192/102 and FC No. 303, Order No. 2192 at 1.

Less than a year later, on January 26, 1943, the Commission issued Order No. 2491 in FC No. 328, which modified the Petworth, Takoma and Chillum bus routes based on policies of the Office of Defense Transportation in order to conserve bus miles and hence rubber, gasoline, and other critical materials in short supply during the war. On February 24, 1943, the FCA and others filed an application for reconsideration. On March 26, 1943, the PUC issued Order No. 2592, directing the alteration of Capital Transit's routes, stops, and frequency of operations on the Petworth, Takoma, and Chillum lines in response to the public's concerns.

C. PEPCO's Proposed Expansion of its Benning Road Generating Station, FC No. 877

PEPCO's Benning Road Generating Station, at 3400 Benning Road, Northeast, was built in 1906. According to the District's Department of the Environment (DDOE), between 1985 and 2003, the station released PCBs (polychlorinated biphenyls) into the sediment of the adjacent Anacostia River on six different occasions. Once PCBs are released into the environment they do not readily break down and therefore may remain for long periods of time cycling between air, water, and soil. PCBs can also be taken up into the bodies of small organisms and fish. As a result, people who ingest fish may be exposed to PCBs that have accumulated in the fish they are ingesting. PCBs have been demonstrated to cause a variety of adverse health effects, including cancer.

On June 9, 1988, PEPCO filed an application, along with pre-filed direct testimony and exhibits, for permission and approval to construct two combustion turbine units at its Benning Road station. The company argued that the addition of 210 megawatts of combustion peaking capacity was needed to maintain reliable service; that its customers would be subject to unacceptable risks unless construction began by July 1, 1989; and that the first increment of this capacity must be placed in service by the summer of 1990. PEPCO also requested expedited approval of its petition. On July 13, 1988, the Commission initiated FC No. 877 with Order No. 9048 to consider whether granting PEPCO's application was in the public interest.



Benning Service Center website

There was much public opposition to PEPCO's application. In response to an order from the Commission requesting preliminary comments, numerous documents in opposition were filed by ANCs, citizen associations, CUB, community leaders, and individuals. The PSC received petitions to intervene from five entities: District of Columbia River Terrace Community Organization (River Terrace), OPC ANC 7D, OPC ANC 5B, Telesis Corporation, and Washington Metropolitan Area Transit Authority (WMATA).

River Terrace activist, George Gurley, led opposition to PEPCO adding generators to its Benning Road plant, 1987.

River Terrace, whose members lived near the proposed site, expressed concern about the environmental impact of the combustion turbines and the health implications to area residents.[217] The group submitted 251 letters from private citizens and petitions containing 452 signatures regarding their opposition to installation of the units.

ANC 7D, which is located on Benning Road, expressed its opposition and urged that PEPCO's application failed to consider the plant's environmental impact on the community. ANC 5B's Committee on Public Service submitted seven issues relating to site selection, need for capacity, environmental impact, alternative fuels, peak hours, jurisdictional energy allocation, and growth rates for ANC 5B ratepayers.[218] ANC 5B also voiced its sentiment during a hearing, stating that although the Benning Road Station is located in Ward 7, it abuts communities in Ward 5. Consequently, the environmental impact of the facility would have serious implications for Ward 5 residents.

Telesis was project coordinator for development of Parkside, a 26-acre residential and commercial site adjacent to the Benning Road plant. Parkside was owned by the Trust for Public Land, a nonprofit corporation. Construction of residential units was scheduled to begin in Spring 1989. Telesis expressed concern about the environmental impact and questioned the need for increased capacity. The developer also inquired about how PEPCO would contribute to the future of citizens who lived near the generating station.

WMATA purchased $14 million each year in electric services from PEPCO in the District of Columbia and had a substantial interest in the company's plans for capacity expansion. Because of the amount and nature of power purchased, WMATA believed that no other party to the proceeding could adequately represent its interests. WMATA urged the Commission to deny PEPCO's request for expedited approval of the plant, as it believed environmental considerations, site suitability, transmission constraints, efficiency, and fuel transportation warranted that the matter be given careful consideration.

The Commission issued its "Order and Report on Prehearing Conference" on December 13, 1988. Among the list of designated issues for the PSC to consider were: (1) what environmental considerations PEPCO explored in consideration of sites, (2) how PEPCO informed and educated the community, (3) alternative sites for the facility, and (4) environmental impact of the proposed units relative to each considered site. The key issues of FC No. 877 that largely were defined by community input were: environmental impact, community education, and PSC jurisdiction.

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217 "Order and Report on Prehearing Conference," FC No. 877, Public Service Commission of the District of Columbia, 13 December 1988.
218 Ibid.

Given the widespread opposition, the Commission never approved PEPCO's request to add the two combustion turbines to the Benning Road plant. Eventually, the company withdrew its request.

D. WGL's Petition to Close its Anacostia Customer Service Center, FC No. 1014

On December 2, 2002, WGL informed the Commission of its intent, effective January 2, 2003, to close the company's Anacostia customer service center and to discontinue receiving cash payments at its main office, then located at 1100 H Street, Northwest. WGL argued that the service center was not cost effective, customers had other bill-payment options, and other payment locations were available. A few weeks later, the Commission issued Order No. 12627 opening FC No. 1014 and began an investigation of the proposed closure. The Commission directed WGL to keep the Anacostia service center open during the investigation, sent WGL a series of data requests, and sought its opinion on the impact of the closure on ratepayers. On January 2, 2003, OPC moved to intervene and requested a formal public hearing. In response to OPC's request, the PSC issued a notice scheduling two public hearings.

WGL's Customer Service Center in Ward 8

Over 35 members of the community spoke at the hearings, all to oppose closing the center and eliminating the option to make cash payments at the main office location. In Order No.12688 and affirmed in Order No. 12756, the Commission denied WGL's request, stating "the Anacostia Office should remain open because it provides services that are an essential and integral part of WGL's provision of service in the District of Columbia."[219] In discussing the viability of other payment options, the Commission noted that evidence presented during the public hearings showed that the options suggested by Washington Gas for paying by phone or online were unavailable to many customers in the community who did not have bank accounts, credit cards, or internet access.

E. Innovative Community-Based Outdoor Public Payphone Complaint Program, FC Nos. 829 and 712

In June 1984, the Federal Communications Commission (FCC) issued an order introducing competition in the payphone industry by allowing individuals and companies other than the local telephone companies to own payphones. It was the responsibility of the state public utility commissions to establish rules so the new entrants could connect to the public switched network of the local telephone companies.

219 Order No. 12756, p. 12.

Resident using payphone in Chinatown.

On August 13, 1984, the Commission opened FC No. 829 to initiate a proceeding to establish rules for Customer-Owned Coin Operated Telephones (COCOTs). On January 30, 1986, after holding a public hearing and publishing two notices of proposed rulemakings, the Commission issued Order No. 8410, ruling that COCOTs were in the public interest because they increased the availability of telephone service and improved quality of service by introducing new telephone devices. The Commission published new rules as Chapter 6 of the District of Columbia Municipal Regulations (DCMR) on April 4, 1986. Thereafter, many COCOTs were located throughout the city, often in residential neighborhoods. On June 20, 1991, OPC filed a petition for an investigation into the use of payphones, particularly by alleged drug dealers who were proving to be a public menace. CUB filed a letter in support of the OPC petition.

The PSC held three community hearings, on September 23, 24, and 28, 1991, where individuals and their representatives testified. Among the citizen groups were Hands Together Coalition, the TandT Block Club, ANC 4B, the Coalition of Concerned Citizens, CUB, several crime-prevention Orange Hat patrols, Neighborhood Watch, and Capitol Hill Public Safety. Commission chairman Howard C. Davenport and commissioner Edward M. Meyers toured some of the payphone sites with Elizabeth Noel, the people's counsel, and Daniel Wedderburn, president of CUB.

In balancing the public need for payphones with community concerns about the possible illegal use of them, the Commission issued Order No. 9865 on October 23, 1991, to amend its COCOT rules to include a community-based outdoor public payphone complaint program that covered payphones owned not only by COCOTs but also by C&P. The rules required payphone owners to notify the Commission when they transferred ownership to another company.

Payphone tour

The rules encouraged payphone owners to locate the instruments in areas with sufficient lighting during daytime and nighttime hours and to be visible from the street. Each payphone was to have the name and address of the owner, OPC, and the Commission on the phone and to display the price of a local call. A 24/7 hotline complaint number to the Commission was established, and the number was to be displayed on each instrument. Finally, payphone owners were encouraged to limit duration of calls to ten minutes in areas where citizens complained of illegal-drug and nuisance activity.

The rules specified a number of causes for filing complaints: loitering, suspicious activity, and continuous rude, loud, or

boisterous behavior by persons using the payphones, or an official recommendation by the police department.[220] Possible remedies included conversion of service to outgoing only, with a notice posted on the phone so users could comment on the restriction to the Commission within ten business days; limiting the capability of the phone to dial a pager; and temporarily terminating service, relocating the phone, or permanently terminating service at night with the exception of operator and 911 emergency service. If phone service was terminated, it could not be reconnected for at least one year unless the PSC determined otherwise. No other payphone could be placed within one business or residential block radius of that location for at least a year.

The rules established a complaint process for citizens to provide input on existing payphones and the installation of new payphones, and a new complaint form was designed. When the Commission received a complaint regarding a payphone, the PSC was required to notify the payphone owner, OPC, the local ANC, and the police department serving that area. The parties had ten days to comment. A PSC payphone inspector would conduct an investigation, to include site visits. An attorney in the OGC would conduct an informal meeting to seek a settlement agreement among the parties; if no resolution was achieved, a date and time for a formal hearing was established and another attorney in OGC (the "hearing officer") would conduct the formal hearing. The hearing officer was required to render a decision within ten days.

The process was similar for oppositions to installation of new outdoor payphones. The Commission would notify OPC, the local ANC, and the police department; the parties had ten days to comment. If an opposition was received, then an informal hearing was held. If no agreement was achieved, a formal hearing was conducted.

ANCs and other citizen groups immediately utilized the complaint process and filed hundreds of complaints covering all eight wards of the city. Table 7.4 shows the number of payphone complaints since the inception of the payphone program in 1991 compared with the relatively small number of complaints in the first years of the Commission.

Payphone inspection by Andrew Kelly.

The new rules also empowered the public by creating a working group composed of representatives from OPC, Commission staff, C&P, the Middle Atlantic Payphone Association, an ANC, the police department, and any other interested persons or organizations. This was the first time, but not the last, in the history of the Commission that a citizens group was a member of a Commission-mandated working group. The purpose of the group was to evaluate the Commission's procedures for monitoring usage and to report on any needed amendments to the rules. Over time, the PSC approved additional citizen group participants from CUB, ANC 2B, and ANC 6A. The working group filed six reports between 1992 and 1995 that recommended modifications to the rules. Among those approved by the Commission were measures allowing payphones to accept credit cards, extending the deadline for informal hearings from ten to 30 days because ANCs meet only once a month, and eliminating the requirement that payphones post PSC and OPC telephone numbers using fluorescent decals because it was easy to remove them (instead, the information was to be posted on a card that could not be removed).

220 Order No. 9865, Section 605.8 (a–d) of the rules.

Commissioners personally maintained their involvement by periodically touring payphone sites with community groups. The photograph below shows commissioners, including ANC commissioner Mary Cuthbert, and staff touring payphones in Ward 8 at night in 1993.

Commissioners' nighttime payphone tour

Over time, the payphone complaint process and rules were modified. In 1993 and 1994, the Commission relaxed some of the requirements in the October 1991 version of the rules to minimize the likelihood of legal challenges. Many of the causes of complaints were eliminated because the terms were "vague, subjective, and difficult to define." Instead, the Commission added to the list any allegations that the payphones were not in compliance with the rules. In the mid-1990s, OCS started conducting the informal hearings, while the attorneys in OGC continued to conduct the formal hearings.

In 1998, the Commission once again formed a working group comprising community representatives, activists, and industry experts to address payphone services in the District. That effort, undertaken in FC No. 712, concluded in February 2001 with approval of revised pay telephone rules found in Chapter 6 of Title 15 of the DCMR. The issue that required amendment to the rules was how to address complaints regarding graffiti and cleanliness of the phones. There have been three primary stages of complaints about payphones. The first stage, between 1991 and 1996, was when most complaints regarded existing phones. In the late 1990s, most citizen complaints were to oppose installation of new payphones. The third stage, which continued through 2013, was marked by complaints about graffiti and cleanliness.

Payphone rules, including the citizen complaint process, remained in effect as of 2013, but circumstances have changed. When the payphone rules were implemented, there were over 10,000 payphones in the District. In 2013, there were only 55. The decline can be attributed not only to citizen opposition but also to the proliferation of wireless cell phones and smartphones. Outdoor public payphones could still be necessary in the event of an emergency if wireless phones did not work. As an example, during the first inauguration of President Barack Obama, when two million people were projected to be on the Mall, the Commission required Verizon-DC to ensure that outdoor public payphone stations were in the vicinity. In the event that cell phone traffic exceeded the capacity of the wireless network, phone communication would still be possible.

Payphone rules were last amended February 8, 2008, to tighten the Commission's enforcement powers over payphone service providers (PSPs). Under the rules, if the complaint alleges that a payphone is the source of illicit activity or constituted a public nuisance, and the PSP is not willing to remove the phone, within 14 days a hearing or informal conference will be scheduled. Hearings will be scheduled at any time convenient to both parties, including evenings and Saturdays. Notice of the informal conference will also be given to the appropriate ANC, Metropolitan Police Department (MPD) and OPC.

At the informal conference, a hearing officer on the staff of OCS will seek to bring about an agreement among all parties for the operation of the payphone. Parties will sign a settlement agreement stating the terms under which the payphone may remain, and that the complainant can withdraw the complaint.

If no agreement can be reached as a result of the informal conference, the complainant may request a formal hearing and a hearing officer (on the staff of OGC) will be appointed to review the matter again. Within thirty (30) days, a hearing will be held. Notice will again be sent to the ANC, MPD, and OPC. At this hearing, parties have the right to introduce evidence, call witnesses, and present oral argument. The hearing officer can, at his discretion, accept written presentations, examine witnesses, and also limit questioning and the time for argument. The burden of proof is on the complainant, and the hearing officer will give great weight to any written statement or testimony presented by an MPD officer. The hearing officer will render a decision within 20 days of the closing of the record in the case. The hearing officer's decision may be appealed within 12 days. Appeals will be reviewed by the commissioners and their decision is final.

The process by which new payphones are installed is similar: whenever the Commission receives an application for the installation of a new payphone, it allows the community to have a voice through the action of the local ANC. As with existing payphone complaints, residents have the opportunity to challenge the installation of a payphone in their neighborhood. The Commission notifies the local ANC, MPD, as well as OPC of the request and allows 45 days to file a written opposition. If opposition is presented, a mediation process is initiated to bring about a compromise. If no accord is reached when the PSP is notified of the opposition, OCS will schedule an informal conference seeking to reach a settlement agreement. As with complaints, negotiations can escalate to formal hearings, appeals and Commission review.

F. Summary and Conclusions

All five vignettes discussed above reflect the benefits to the District of public advocacy and citizen participation at the PSC. The Capital Transit rate case shows how citizen pressure ensured affordable mass transportation. Citizen requests for changes in streetcar and bus routes led to service that met their needs. Citizen activism against the addition of combustion turbines at PEPCO's Benning Road Generation Station prevented increased capacity that could have harmed the environment, and particularly the neighborhood, when better alternatives were available. Citizen opposition to Washington Gas's proposed closure of a customer service center affirmed their need for the service in that neighborhood. The Commission's payphone complaint program empowered citizen groups to contribute to its design and implementation and ultimately resolved what had been a long-standing public-safety issue throughout the city.

Citizens and their representatives have been given the opportunity to contribute to the record of Commission proceedings and impact the PSC's decisions to the benefit of the District. In facilitating public input, the Commission has promoted democratic legitimacy by strengthening the connection between it and the public it serves. Responding to public input is just as important, if not more so, as providing a mechanism for such input. Increased participation allows the Commission as well as the utility companies to obtain information that may help them understand how current policies can be improved and how the public may react to change.

Tables

Table 7.1: History of PSC Consumer Complaints and Inquiries (Excluding Meter Tests), 1913–1955

Table 7.1										
History of Informal Cases (Excluding Meter Tests)										
1913-1955										
Year	Streetcars	Bus	Taxi	Electric	Gas	C&P	Express	Telegraph	Misc.	Total
	Complaints and Inquiries									
1913	172	-	-	9	13	18	-	-	-	212
1914	251	-	3	14	23	26	3	-	-	320
1915	212	18	1	26	39	17	4	-	-	317
1916	230	-	6	30	36	18	3	-	-	323
1917	280	-	6	31	22	35	4	-	5	383
1918	530	-	0	41	57	27	7	-	-	662
1919	404	-	4	49	40	40	3	-	-	540
1920	214	1	3	42	35	50	3	-	1	349
1921	117	7	4	41	65	52	4	-	-	290
1922	118	-	-	25	20	43	-	-	-	206
1923	90	20	2	42	12	43	1	-	-	210
1924	96	24	4	36	27	49	-	-	1	237
1925	162	55	-	45	41	36	-	-	1	340
1926	125	34	-	46	40	39	-	-	-	284
1927	151	48	3	63	44	29	-	-	-	338
1928	121	12	-	40	37	29	-	-	-	239
1929	131	69	2	42	36	26	-	-	-	306
1930	114	92	4	41	83	16	-	-	-	350
1931	108	71	25	97	440	20	-	-	-	761
1932	113	56	281	65	108	25	-	-	-	648
1933	114	48	118	81	57	22	-	-	-	440
1934	282	90	141	57	35	15	-	-	-	620
1935	154	262	27	29	29	17	-	-	-	518
1936	125	188	26	32	23	7	-	-	-	401
1937	69	236	46	37	7	10	-	-	-	405

Table 7.1: History of PSC Consumer Complaints and Inquiries (Excluding Meter Tests), 1913–1955 (continued)

Complaints Only										
1937	33	78	33	31	6	8	-	18	-	207
1938	28	64	15	32	10	7	-	6	-	162
1939	23	48	7	22	8	2	-	9	-	119
1940	35	65	14	19	7	4	-	7	-	151
1941	35	62	41	14	9	2	-	-	-	163
1942	32	61	105	6	12	7	-	18	-	241
1943	23	70	129	8	13	1	-	11	-	255
1944	46	36	92	10	1	5	-	6	-	196
1945	59	130	315	21	14	12	-	15	-	566
1946	14	27	151	4	1	2	-	4	-	203
1947	7	28	82	2	27	7	-	2	-	155
1948	14	53	59	3	-	14	-	11	-	154
1949	9	37	31	2	2	1	-	2	-	84
1950	6	40	21	3	4	2	-	-	7	83
1951	13	41	16	4	4	4	-	-	10	92
1952	17	47	6	4	2	4	-	-	2	82
1953	8	23	20	6	5	-	-	-	3	65
1954	8	18	5	5	5	5	-	-	4	50
1955	5	19	5	5	0	5	-	-	4	43

Note: Miscellaneous data for 1950-1955 pertain to complaints related to streetcar-bus service combined and interstate bus transportation.
Source: PUC Annual Reports 1913 - 1955; Data not provided after 1955.

Table 7.2: History of PSC Consumer Complaints and Inquiries (Excluding Meter Tests), 1974–2013

Year	Electric	Gas	Telephone	Totals
1974	321	73	114	508
1975	336	436	273	1045
1976	NA	NA	NA	NA
1977	NA	NA	NA	NA
1978	286	NA	NA	NA
1979	NA	NA	NA	NA
1980	NA	NA	NA	NA
1981	1296	1591	815	3702
1982	1822	2178	1223	5223
1983	NA	NA	NA	NA
1984	NA	NA	NA	NA
1985	NA	NA	NA	NA
1986	NA	NA	NA	NA
1987	NA	NA	NA	NA
1988	NA	NA	NA	NA
1989	NA	NA	NA	NA
1990	NA	NA	NA	946
1991	NA	NA	NA	1152
1992	304	397	368	1069
1993	456	714	416	1351

Year	Electric	Gas	Telephone	Totals
1994	NA	NA	NA	2019
1995	NA	NA	NA	2051
1996	NA	NA	NA	1351
1997	NA	NA	NA	1852
1998	NA	NA	NA	1609
1999	302	304	672	1736
2000	459	308	622	1389
2001	572	657	933	2162
2002	528	653	733	1914
2003	671	627	854	2152
2004	742	562	730	2034
2005	842	539	751	2132
2006	802	475	1039	2316
2007	627	493	897	2017
2008	601	366	793	1760
2009	683	370	635	1688
2010	960	392	656	2008
2011	808	229	534	1571
2012	697	208	372	1277
2013	953	191	252	1396

NA - Not Available

Sources: PSC annual reports: Data for 1985–1989 appear in the annual reports for those years but they are not credible, hence no numbers are provided in the table above. 1999–2012 - PSC annual reports 2007, 2009, and 2012. Bold line after 1998 signifies introduction of competition.

Table 7.3: History of PSC Gas and Electric Meter Tests Requested by Consumers, 1913–2013

Table 7.3		
History of PSC Gas and Electric Meter Tests Requested by Consumers, 1913-2013		
Year	Gas	Electric
1913	1,141	5
1914	1,065	27
1915	1,145	58
1916	881	44
1917	703	37
1918	1,828	47
1919	1,598	24
1920	2,908	55
1921	9,567	1,863
1922	1,953	1,801
1923	2,030	53
1924	1,444	40
1925	1,858	31
1926	1,851	10
1927	1,803	19
1928	1,825	23
1929	1,654	26
1930	1,518	14
1931	521	22
1932	184	19
1933	109	11
1934	160	10
1935	80	3
1936	58	10
1937	N/A	N/A
1938	69	205
1939	49	354
1940	33	216
1941	24	199
1942	26	131
1943	32	97
1944	22	216
1945	30	368
1946	44	417
1947	48	483
1948	39	658
1949	27	748
1950	61	420
1951	21	449
1952	20	405
1953	26	304
1954	20	335
1955	21	294
1956	22	295
1957	N/A	N/A
1958	18	299
1959	N/A	410
1960	17	296
1961	7	283
1962	4	294
1963	1	363
1964	14	353
1965	6	347
1966	2	351
1967	2	278
1968	9	218
1969	7	232
1970	9	182
1971	12	160
1972	12	123
1973	10	296
1974	1	330
1975	13	379
1976	N/A	N/A
1977	N/A	N/A
1978	N/A	N/A
1979	N/A	N/A
1980	8	NA
1981	9	NA
1982	11	NA
1983	N/A	N/A
1984	N/A	N/A
1985	N/A	N/A
1986	N/A	N/A
1987	7	N/A
1988	8	N/A
1989	7	N/A
1990	8	N/A
1991	N/A	N/A
1992	N/A	N/A
1993	N/A	N/A
1994	32	N/A
1995	N/A	N/A
1996	N/A	N/A
1997	N/A	N/A
1998	N/A	N/A
1999	N/A	N/A
2000	N/A	55
2001	18	34
2002	20	49
2003	33	58
2004	102	43
2005	69	38
2006	35	28
2007	35	44
2008	37	72
2009	38	113
2010	14	114
2011	44	123
2012	33	30
2013	8	28

N/A - Not Available
Sources: PUC and PSC annual reports

Table 7.4: History of PSC Payphone Complaints, 1913–2013

History of PSC Payphone Complaints, 1913-2013	
Years	Complaints
1913	2
1914	3
1915	1
1916	1
1917	1
1918	1
1919	2
1920	2
1921	1
1922	0
1923	0
1924	1
1925	2
1926	0
1927	0
1928	0
1929	2
1991	54
1992	242
1993	127

History of PSC Payphone Complaints, 1913-2013	
Years	Complaints
1994	132
1995	105
1996	66
1997	67
1998	53
1999	95
2000	45
2001	79
2002	11
2003	85
2004	27
2005	51
2006	41
2007	43
2008	48
2009	39
2010	12
2011	10
2012	1
2013	0

A Potomac Electric Power Co. employee uses a scaffold mounted to a service truck to change an electric arc streetlamp in front of PEPCO headquarters at Fourteenth and B (Constitution Avenue) streets, about 1915.
Historical Society of Washington, DC

CHAPTER 8

From Luxury to Necessity: The History of Electricity Regulation in the District

A. Background

Electricity was introduced into the District well before the creation of both PEPCO and the Public Utilities Commission (PUC). The first commercial use of electricity was street lighting based on arc technology. An arc lamp generates light by flowing current through air or an inert gas between two carbon rods or electrodes. Arc lighting was well suited for street lighting because of its brightness and ability to light a large area. It also was cheaper for lighting streets than the predominant use of gas or oil lamps.

The first demonstration of arc technology in the District occurred in 1872.[221] A decade later, in 1882, the DC Commissioners contracted for the installation of ten arc-based electric streetlamps suspended over F Street between the Treasury Department and Ninth Street, Northwest.[222] Seeing that this new type of light was viable, the city installed 100 more lamps over the next few months.[223]

In 1879, Thomas Edison demonstrated the first "commercially practical incandescent light."[224] Arc lighting produced dangerous UVA rays that were a fire hazard because of excessive heat and sparks; incandescent lighting was better suited for diverse uses and had low wattage that could be installed in homes.[225] For many years into the 1920s, street lighting used both arc and incandescent lighting.

The city's transportation system was a principal consumer of electricity. As Washington expanded beyond the city limits, horse-drawn streetcars, which began to operate in 1862 and were provided by five railway companies, had difficulty climbing the hills north of Florida Avenue, Northwest. In their place, in 1888, four new railway companies were incorporated to provide an electrified streetcar ("trolley car") system powered by overhead lines. In 1896, Congress mandated that an underground system replace streetcar service within the original city limits.

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221 Paula Kepos, ed., *International Directory of Company Histories*, Vol. 6 (*Detroit: St. James Press,* 1992), p.1.
222 "Electric Lighting. A Handsome Display on F Street by the Heisler Company," *Washington Post*, July 3, 1882, p. 3
223 "Estimates for City Lighting," *Washington Post*, Oct. 16, 1895, p. 12.
224 http:/en.wikipedia.org/wiki/Thomas_ Edison, p. 5.
225 William Beck, *100 Years of Matchless Service: Potomac Electric Power Company 1896-1996* (Washington, DC 1996), p. 9.

Also in 1896, PEPCO incorporated in Virginia.[226] Its customers were almost entirely commercial, mainly streetcar companies that needed electricity as they shifted from horse-drawn to electrified trolley systems. In the same year, Oscar T. Crosby, the company's first president, persuaded the DC Commissioners to allow PEPCO to extend its lines into the District, hoping that lower rates would follow from competition with the then dominant United States Electric Lighting Company.[227] Crosby secured the company's place in the DC market by obtaining a street-lighting contract with the city after first losing the bid and then winning it on appeal in court.[228] PEPCO and United States Electric Lighting Company merged in 1898.

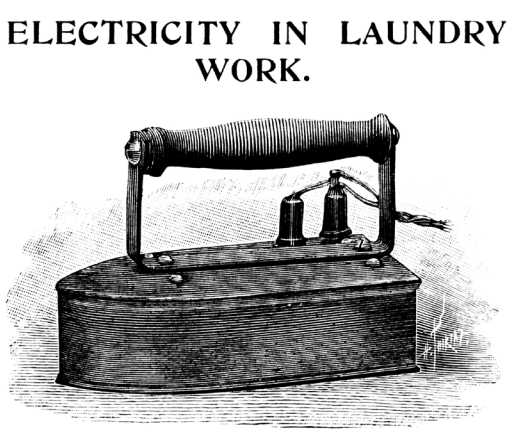
ELECTRICITY IN LAUNDRY WORK.

Fig. II.—Electrical Iron.

When the Public Utilities Commission was created in 1913, PEPCO was owned by the Washington Railway and Electric Company (WRECO), which had taken over the company in 1902. PEPCO had 20,581 meters in service and nearly 8,000 streetlamps. Excluding its railway operations, the utility had nearly $2 million in revenue and its connected load was about 43,000 kilowatts.[229] Its principal sources of revenue were commercial lighting (72 percent), commercial power (16 percent), and street and park lighting (10 percent).[230]

In 1913, residential electricity usage in the District was virtually nonexistent[231] —there is no mention of it in the statistics for PEPCO in the Commission's annual reports until 1929. Instead, among households, coal was the primary heating source. By the 1930s, the majority of US households in urban areas used electricity for lighting and a myriad of new appliances, and residents of the District were no exception.

New levels of convenience, efficiency and leisure time were achieved with the advent of electric appliances. In the early 1900s, PEPCO sold electric fans, toasters, irons and the like directly to customers. In the mid-1920s, with electric power still a novelty, PEPCO sent home economists into communities to educate consumers and ease the transition to the electric age.[232]

226 PEPCO's 1995 annual report.

227 PEPCO has never had a franchise agreement in the District of Columbia. However, the No. 2777-A Certificate of the Incorporation of the Potomac Electric Power Company in the District, dated April 28, 1896, is shown at the end of Chapter 8.

228 Kepos, *International Directory*, p.1.

229 1913 PUC annual report, pp. 165–166.

230 Ibid.

231 Nationally, only about 15 percent of urban areas had electricity for lighting and other household purposes.

232 PEPCO's 1995 annual report, p. 6.

B. Importance of Electricity to the District

PEPCO's 1995 annual report contains a summary of its first 100 years (1896–1995) that describes the impact of its role in providing electricity for the life of the city:

> *Since its incorporation on April 28, 1896, Potomac Electric Power Company (PEPCO) has powered the development and growth of the nation's capital. For a century the company's energy and services have enabled technological, social and economic change that transformed Washington from a small, country town to the magnificent capital of a great nation…. Over the past 100 years, electricity has evolved from a luxury for the few to a necessity of life, powering home comfort and convenience, area infrastructure and business productivity…. Throughout the century, electricity and the technological advances it made possible have led to an almost ceaseless improvement in the quality of life. Arc lighting, the first major commercial use of electricity in Washington, sparked a burst of business and social activity during once-quiet evening hours. Soon thereafter, electric lighting brightened home and hearth, as incandescent light bulbs made residential use practical. New levels of convenience, efficiency and leisure time were achieved with the advent of electric appliances…. More recently the information and entertainment revolution has penetrated living rooms as televisions, VCRs, and personal computers have become commonplace.*[233]

This chapter describes how the Commission, as PEPCO's regulator, has contributed to these achievements. PEPCO's accomplishments and its impact on the city could not have occurred without the guiding hand of regulation from the DC Commission.

C. Electricity Regulation Goals

Since 1913, PEPCO has been the sole electric utility company serving the District. It also was the monopoly electric utility company serving major parts of Montgomery and Prince George's counties in Maryland and, until 1986, nearby parts of Virginia. The company was "vertically integrated," in that it owned generation plants where electricity was produced (only two of these plants were in the District), transmission lines that took electricity from PEPCO's plants to PEPCO's facilities in its service territory, and a distribution system located within its service territory comprising substations, feeder lines, and other equipment that serve residential, government, and business customers.

In 1999, the DC Council passed the Retail Electric Competition and Customer Protection Act that authorized the Commission to consider a PEPCO request for approval to sell its generation plants and open the retail generation market to competition. Effective January 2001, electricity rates were "unbundled" into generation, transmission, and distribution so that all business, residential, and government customers could choose their retail generation and transmission supplier while PEPCO remained the sole monopoly electric distribution company. PEPCO customers who choose a competitive generation and transmission supplier pay the competitive supplier's charges on PEPCO's bills, because PEPCO as the sole distribution company does the billing while the supplier pays PEPCO for use of PEPCO's transmission lines and services in its service area.

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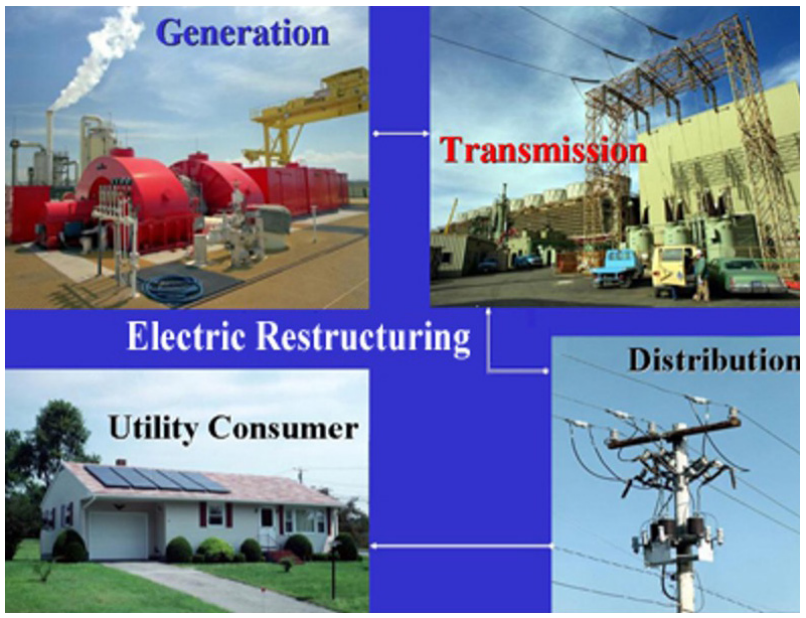
233 PEPCO's 1995 annual report, pp. 6–7.



In 2013, the PSC's centennial year, electricity cases accounted for more than half of the Commission's docket. Those cases pertained to each of the Commission's objectives or goals as follows:

1. *Ensuring Just and Reasonable Rates.* A PEPCO rate case was underway, with a sizable share of the requested revenue increase attributed to the smart meter program and reliability improvement initiatives. PEPCO had also completed its deployment and activation of "smart meters" that enable customers to track usage on an hourly or frequent basis, as desired, so they can minimize their bills by reducing or shifting usage from periods when electricity rates are relatively high to when they are relatively lower.

2. *Promoting Energy Efficiency and Preserving Environmental Quality.* The Commission promoted energy efficiency and the preservation of environmental quality by processing nearly 400 renewable portfolio standards applications, tracking the status of solar applications, and reporting to the DC Council on annual compliance reports.

3. *Fostering Competition.* While licensing nearly 40 new competitive electricity suppliers, the Commission received complaints regarding a few existing competitive electricity suppliers. The PSC held a public hearing, undertook an investigation, and ordered the most egregious violator to provide monetary compensation to several hundred customers who had been victimized by the company's misleading marketing practices. The Commission also began to tighten its electricity supplier rules.

4. *Improving PEPCO's Electric System Reliability.* The PSC chairman and staff participated in Mayor Vincent Gray's task force to draft legislation calling for undergrounding 60 overhead feeders over a seven-to-ten-year period to reduce the number of outages that are storm-related and non-storm-related (the latter known as "blue sky" outages). PEPCO's system reliability performance had degraded because of its aging overhead and underground infrastructure that needed accelerated maintenance and replacement. The Commission tracked the number of outages each month and PEPCO's quality of service performance annually and it conducted independent inspections of 200 manholes each year.

D. How the PSC Met Those Goals

1. Ensuring Just and Reasonable Rates

Approval of electricity rates over the Commission's first century falls into four stages: early years, sliding-scale arrangement, rate of return regulation, and economic and social ratemaking. Promotion of energy conservation and the introduction of competition are discussed in the section on economic and social ratemaking.

a. The Early Years

The price of electricity for residential service in the District was set by Congress in 1899 at a flat rate of ten cents per kilowatt hour (Kwh) plus a $1 minimum charge. The tariff for the rates was called Schedule A.[234] Combining the minimum charge and per Kwh charge with an estimated usage of 15 Kwh per month translates to an average rate per Kwh of about 16 cents. Electricity was used primarily for lighting and there were few residential customers.[235]

After it came into being, the Commission maintained the rate while it also valued PEPCO's physical property and assets per paragraphs 6–8 of the new public utilities law. That process took years: The Commission began the valuation of PEPCO and WRECO in 1914. In 1916, the PUC held 43 days of contested hearings. In 1917, it approved a valuation of PEPCO's assets within the District of $10.25 million as of July 1, 1914, and $11.2 million as of December 31, 1916 (Order No. 208, issued May 2, 1917, in FC No. 47).

In anticipation of rendering a decision on the value of PEPCO's assets, the Commission opened an investigation into PEPCO's rates, tolls, charges, and schedules by initiating FC No. 61 on January 26, 1917. On July 13 of that year, the Commission issued Order No. 223, establishing a 7 percent allowed rate of return for PEPCO and reducing PEPCO's revenue by $320,000. This translated into a reduction in Schedule A rates to a 75-cent minimum charge, 8 cents per Kwh for less than 60 Kwh of usage, and 5 cents per Kwh for usage greater than 60 Kwh.[236] The PUC ordered the reduction despite an increase in the wholesale cost of coal used to generate electricity. PEPCO also had added a 15,000-kilowatt generation unit to its Benning Road generation station in DC. The reduction reflected the Commission's determination that PEPCO's parent company, WRECO, was not contributing its fair share of the costs, which placed an unfair burden on PEPCO ratepayers. The PUC also reduced rates for streetlamps by 10 percent.

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234 Schedule A established rates primarily for lighting and was restricted to residential service.

235 In 1915, PEPCO filed a new Cooking and Heating Schedule H. The Commission-approved rate design was a minimum charge of $1 plus ten cents per Kwh for the first ten Kwh and then three cents per Kwh thereafter. See 1937 Public Utilities Commission (PUC) annual report, p. 74. Schedule H continued through 1938.

236 This form of rate design is called a declining block rate, meaning the average price falls as usage increases. It is used to stimulate usage or consumption.

The valuation process continued beyond Order No. 208. PEPCO filed a notice of dissatisfaction and petitioned for a retrial, which the Commission declined. The company then filed suit in the Supreme Court of the District of Columbia to set aside the findings. It was not until March 1920 that the court rendered its decision, sustaining the valuation findings of the Commission. PEPCO appealed the decision to the DC Court of Appeals.

Meanwhile, on May 28, 1920, PEPCO filed a petition asking the PUC to amend rates applied to wholesale customers because of the rising cost of coal. PEPCO later added a request to amend the rates for other classes of retail customers. On September 3, 1920, the Commission issued Order No. 388 in FC No. 85, approving a PEPCO revenue increase of $400,000. The residential rate was increased to 8.5 cents per Kwh for monthly usage less than 60 hours and 5.5 cents per Kwh for monthly usage greater than 60 Kwh.

On November 7, 1921, the DC Court of Appeals reversed the valuation decision of the DC Supreme Court. The Commission appealed the matter to the US Supreme Court, which accepted the case. In 1923, however, the US Supreme Court decided that it did not have jurisdiction on the valuation issues, so it remanded the case to the DC Supreme Court for retrial. In the interim, the Commission had approved three successive rate reductions, 5 percent each in 1921, 1922, and 1923. The 1923 reduction was held in abeyance pending a final decision in the valuation case.

b. Sliding-Scale Approach to Setting Rates

The DC Supreme Court approved a settlement agreement among the parties (consent decree) in the valuation case on February 12, 1924. PEPCO's property was revalued as of January 1, 1925, at $32.5 million, including Maryland property that was valued higher than the amount approved in 1917 in Order No. 208. PEPCO's allowed rate of return was set at 7.5 percent. If the rates yielded a rate of return above 7.5 percent, half of the excess would be used to reduce rates,

> *… thereby providing a sliding scale of rates under provisions of paragraph 18 of the act creating the Public Utilities Commission, advantageous to the public and company alike; that is to say, by way of example, if the return for any one year should amount to $100,000 over and above the 7.5 per cent on the base ascertained as aforesaid then the rates for the succeeding year to be charged the public shall be automatically reduced by the filing of new rate schedules to absorb $50,000 of such excess during such year. If the average return for any consecutive 5-year period falls below 7.5 per cent on the base ascertained as aforesaid, or if the average return for any consecutive 3-year period falls below 7 per cent on the base ascertained as aforesaid, or if the return for any consecutive 12-month period falls below 6.5 percent on the base ascertained as aforesaid, the Commission shall promptly increase rates so as to yield 7.5 per cent on the base ascertained as aforesaid.*[237]

The consent decree used a sliding-scale formula for dividing an escrowed amount totaling $5.888 million as of December 31, 1924, between ratepayers and PEPCO shareholders, which represented the difference between "the

237 1924 PUC annual report, p.47.

rates actually collected and those which were prescribed by Order No. 223,"[238] subject to several adjustments for taxes. The Boston sliding scale, which adjusts rates whenever a company's earnings fall below or exceed the prescribed rate of return, was sanctioned in the DC appropriations act that created the Commission and continued to be used to set rates for many years[239]

According to Order No. 2796 (issued July 22, 1944, in FC Nos. 335 and 338), PEPCO's residential rates were "well above the national average." For example, the cost of 100 Kwh consumption for residential service in DC was $9.24 in 1924 as compared with the average cost of $6.18 for comparable consumption in 150 cities having a population of 50,000 or more. As a result of the new rate schedules in effect January 1, 1925, the difference between the cost of PEPCO's service and the national average cost was substantially reduced. The cost for 100 Kwh consumption for residential service in the District in 1925 was $7.02, while the average cost for 150 cities having a population of 50,000 or more was $6.00.[240]

Analysis in Order No. 2796 indicated that the annual rate reductions under the sliding-scale arrangement resulted in rates that were more comparable with national averages: "… again using the 100 Kwh consumption for comparative purposes, the cost of such residential service in the District of Columbia fell below the national average costs during the year 1930 and remained consistently and progressively lower in each succeeding year. For the year 1942, the cost of 100 Kwh consumption for residential service in the District of Columbia was $2.56, as compared with an average cost of $3.80 for all cities having a population of 50,000 or more."[241]

The first rate increase after 1920 occurred in 1948 in FC No. 379, when the PUC approved a $2.75 million revenue increase out of a $3 million request by PEPCO. The increase was attributed to higher coal prices that decreased the company's earnings and its rate of return.[242] By Order Nos. 3397, 3402, and 3482, residential rates went up 8.7 percent. Schedule A became Schedule R for "low voltage electrical service in individual residences or individually metered dwelling units in multi-family buildings where the use is primarily for residential purposes and for farm operations served through residential meters."[243] Schedule R is still in effect today. The Commission also eliminated the off-peak discount on commercial schedules due to the development and popularity of air conditioning and its impact on commercial lighting loads, which shifted the peak to all daytime periods in both winter and summer. The order also rearranged, clarified, and changed some of the general terms and conditions, such as prorating bills, service connection charges, and extension of service mains.

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238 Ibid.
239 See paragraph 18 of the act, which is reproduced in the Appendix.
240 Order No. 2796, pp. 5–6.
241 Ibid.
242 See page 5 of the attachment to Order No. 3397 issued July 8, 1948.
243 See Order No. 3402 in FC No. 379 issued July 19, 1948, p. 9.

The rate increase in Order No. 3397 (issued July 8, 1949, in FC No. 379) occurred just a few months after the PUC approved a modified sliding-scale plan in February 1948.

> *The Modified Plan is a method of regulating income of the Company at a reasonable level. It does not require an annual adjustment of rates, but provision is made for the consideration of rate adjustments under certain specified conditions. The Modified Plan permits the institution of a special proceeding at any time, by either the Company or Commission, when it appears that an adjustment of rates should be affected. Thus, it provides a means during periods of economic uncertainty of stabilizing the income of the Company at a more reasonable level than could be attained in the absence of the Modified Plan. As an integral part of the Modified Plan, provision is made for the creation of a deferred credit account to which will be credited a portion of the annual earnings of the Company which may be in excess of the allowed return and against which will be charged amounts necessary to make up to the Company any annual deficiency by which the return earned is less than the basic return of 5.5%.*[244]

The modified plan replaced annual rate reductions when the Company earned more than its allowed rate of return by establishing a deferred credit account to provide customer refunds, withhold income, or release income previously withheld depending on whether the company was over- or under-earning. The change came about because PEPCO successfully argued that the sliding-scale plan was inequitable in that it did not provide an adequate adjustment mechanism when the company was under-earning.

On October 4, 1954, PEPCO filed a request to abandon the modified sliding-scale plan as part of a rate increase application docketed as FC No. 438. The Commission discontinued the plan effective December 31, 1954 (Order No. 4182 issued April 6, 1955).

c. Rate Base Rate of Return Regulation

FC No. 402, opened July 28, 1950, was the first electric rate case in which "modern regulation" or "rate base rate of return regulation" was implemented. Previously, valuations of companies and the determination of rates of return were made in separate proceedings. Rate base rate of return regulation essentially combines the two. The method entails derivation of a revenue requirement (RR), which is the amount of additional revenue a utility company needs to have an opportunity to earn its allowed rate of return. The formula used to calculate the revenue requirement is:

RR = Operating Expenses + Taxes
+ (Rate Base [Original Cost] - Accrued Depreciation) x Rate of Return

Operating expenses are calculated on the basis of historical or accounting costs and the rate base is the value of the utility company's physical assets. Once the revenue requirement is determined, the second step is to allocate it across

244 Findings and Opinion in Support of Orders Nos. 3397 and 3402, PUC No. 3481, FC No. 379, p. 8.

customer classes. The final step is to design rates for each customer class that will yield that class's revenue requirement responsibility.

In FC No. 402, PEPCO filed a request for a $3.5 million increase in revenue to cover the cost of an aggressive construction program that included the addition of a generation plant in Alexandria, outside the company's service territory. According to the company, the new plant was necessary to meet growing demand in DC and Maryland. This led several of the intervenors, including Capital Transit and the Federation of Citizens' Associations, to argue for a jurisdictional cost allocation study to be used to allocate the costs of the new plant between DC and Maryland. The Commission rejected use of a jurisdictional cost allocation study, noting in its decisional Order No. 3762, issued February 12, 1951, that rates previously had been set on a system-wide basis and that operation of PEPCO's facilities, conducted on an integrated basis, was economical and efficient and that "effective and equitable regulation requires consideration of system operations."[245] The PUC approved a $2.6 million revenue increase.

The Commission approved two more rate increases in the 1950s (FC No. 438 in 1955 and FC No. 464 in 1959)[246] and two rate reductions in the 1960s (FC No. 491 in 1963 and FC No. 511 in 1966). In the latter case, the entire reduction was applied to residential rates over PEPCO's objection.

The 1970s were difficult for electric utility companies and their customers nationwide, when the average price of electricity skyrocketed; the average price for residential customers nearly doubled. Never had rates increased so much. A combination of events outside the electric industry and the end of technological progress within the industry were contributing factors. Nationally, the demand for electricity was growing by 7 percent to 8 percent a year thanks to the proliferation of electrical appliances and air conditioning. Electric utility companies were having difficulty constructing enough capacity to meet demand, which led to brownouts during hot summer days between 1967 and 1969.

Coal was the predominant source of fuel for generating electricity, but by 1970, the public and Congress had become concerned about its environmental effects. As a result, Congress passed the Clean Air Act of 1970, which caused many electric utilities to increase their dependence on oil, which burned more cleanly than coal. The energy crisis, created a few years later by the 1973 Arab oil embargo, contributed to a substantial increase in the price of oil and thereby the price of electricity.

Previously, higher costs of construction and fuel had been offset by improved thermal efficiencies and economies of scale. These benefits slowed as metallurgical fatigue caused reliability to decrease and maintenance costs to increase; generating units larger than 1,000 megawatts endured greater failure rates than smaller units. Bigger no longer meant

245 Order No. 3702, p. 6.
246 See Order No. 4184 in FC No. 438 and Order No. 4525 in FC No. 464.

better. Nuclear plants were not the answer: their upfront construction costs were huge and they emitted thermal waste that required laws to protect the environment and the public, which thereby increased operating costs. In addition, as customer usage slowed after the energy crisis, utility companies no longer needed the larger plants.

A third source of upward pressure on utility costs and rates derived from higher interest rates that caused an increase in utility companies' borrowing costs. In the 1950s, interest rates hovered around 5 percent. In the 1970s and early 1980s, they rose to 15 percent or more. Consequently, stock prices fell. Energy prices increased dramatically, and consumers responded by reducing usage and consumption. Nationally, the average annual growth in electricity usage in the 1970s was about 2 percent a year, compared to 7 percent to 8 percent a year previously.

The District was not immune to any of these factors and trends. Average monthly residential electricity rates rose from 2.62 cents per Kwh (assuming 424 Kwh of usage) in 1970 to 4.83 cents per Kwh in 1980 (assuming 533 Kwh of usage) while usage growth slowed considerably. In the decade before, residential electric usage had nearly doubled, from 222 Kwh a month to 424 Kwh a month.

Thus, during the 1970s, the Commission approved seven rate increases. The first occurred in FC No. 541. PEPCO filed an application to increase rates by $24.9 million on February 27, 1969, and an emergency application to increase rates on an interim basis on August 5, 1969. The Commission refused to grant a 6.5 percent surcharge on an interim basis until it held a hearing and further proceeding.[247] After the hearing, PEPCO renewed its emergency application, arguing that it was having trouble meeting existing demand, as exemplified by brownouts on August 18, 1969. On June 29, 1970, the Commission authorized a 5 percent interim increase, which meant an average 42-cent monthly increase for residential (Standard R rate class) customers.[248]

FC No. 541 is noteworthy for several other reasons. First, the Commission approved seasonal rates—different rates for the winter and summer seasons. The rates for usage over 800 Kwh per month were higher in summer (1.9 cents per Kwh) than in winter (1.2 cents per Kwh). The summer season was defined as the billing months June through October; the winter season was defined as the billing months November through May. Second, due to increasing fuel costs, PEPCO had proposed a fuel adjustment clause (FAC) for residential customers, but the Commission did not approve PEPCO's proposal in this case.

Third, the impact of rates on low-income residents was an issue for the first time. The DC City-wide Consumer Council, backed by several other intervenors such as CHANGE, Inc., the Washington Urban League, and the Capitol Hill Group Ministry, proposed exempting households with income less than $5,500 a year for a family of four from the rate

247 See Order No. 5419.
248 See Order No. 5436.

increase, but the Commission deemed the proposal unlawful on the grounds it would be discriminatory and unworkable and the amount of the increase of less than $1.00 would not be an insurmountable financial burden. Fourth, for the first time, the Commission accepted a jurisdictional allocation cost study because growth was faster in Maryland than in DC and hence, District ratepayers' share of costs should be less than Maryland ratepayers' share.

Fifth, the Commission addressed PEPCO's employment practices particularly as they related to minorities and women after the Washington Urban League raised the issue. With the assistance of the Equal Employment Opportunity Commission, which also was investigating PEPCO's practices, the Commission proffered its own affirmative action plan for the company. PEPCO challenged the plan in court. While the court overruled the Commission's affirmative-action plan on the grounds the utility had not had an opportunity to offer its assessment of it during the proceeding, it affirmed the Commission's authority and right to address the issue in its rate cases or other proceedings.

A year later, PEPCO filed a new rate increase application that the Commission docketed as FC No. 568. PEPCO requested a revenue requirement increase of $24.7 million. The Commission approved a $12.152 million increase, slightly less than half the request. In this case, the PSC addressed the effect of electric utility operations on the environment and the Commission approved a FAC for the first time that appeared on customers' bills as a line item. With the rapid rise in fuel costs, the FAC enabled the company to pass along fuel costs to its customers as the costs were incurred rather than having to wait until the next rate case. The Commission continued its investigation of PEPCO's employment practices and ultimately opened a separate proceeding (FC No. 576) for further exploration.

PEPCO filed a third rate increase request on April 30, 1973 (docketed as FC No. 596). The company asked for an additional $44.4 million to cover the cost of increases in investment and operating costs which it deemed necessary to permit the utility to undertake a financing program to meet increasing demand for electricity in its service area. The Commission approved $17.8 million. Although the Commission, in its decisional order, exempted residential customers using at or fewer than 400 Kwh a month from the rate increase,[249] the rates for usage above 400 Kwh that the Commission subsequently approved on December 3, 1973, in Order No. 5617 were higher than previous rates.

In addition, the Commission approved for the first time a partial switch from a declining block rate structure to an inverted rate design structure for the residential class. In a declining block rate structure, rates decline as usage increases. In an inverted rate structure, rates increase as usage increases. In FC No. 596, the PSC approved a declining block rate structure for all winter usage but applied a higher rate to summer usage above 400 Kwh.

On December 20, 1974, PEPCO filed a fourth rate increase application, this time requesting $50.83 million. The Commission docketed the case as FC No. 630. The company claimed a substantial reduction in energy and capacity

249 See Order No. 5614, p. 21.

sales to the regional transmission organization, PJM,[250] and that the impact of energy conservation on retail sales had reduced PEPCO's earnings. This was the first electric rate case in which the newly reconstituted Office of the People's Counsel (OPC) participated on behalf of residential ratepayers. The Home Rule Act had created the office to ensure that consumers had a voice in Commission proceedings during a period of escalating rates.

In December 1975, in Order Nos. 5739 and 5748, the Commission approved a $27.7 million rate increase and exempted residential usage below 450 Kwh from the increase. The Commission also created, for the first time, a new all-electric rate class. All-electric rates were the same as residential rates in summer, but in winter, the new rate was lower than the residential rate for usage greater than 1000 Kwh because this usage was off-peak. The Commission also directed PEPCO to conduct a study to determine whether apartment buildings should pay the residential rate. The PSC initiated the concept of peak load pricing by giving the company one year to install meters at the facilities of large power customers that would permit rate schedules to vary by time of day.

PEPCO filed its next rate case, requesting a revenue requirement increase of $57.58 million, on December 29, 1975, and the Commission opened FC No. 651. PEPCO asked for an additional interim rate increase of $24 million through a 12.89 percent surcharge on all customers except street lighting. The Commission did not approve any surcharge and in Order No. 5831, issued October 20, 1976, it approved $29.4 million, about half of the request. The Commission also made changes in the way the FAC was calculated, which had the effect of reducing the amount of the charge. To ensure that PEPCO was operating efficiently, the Commission ordered a management audit to be conducted by independent consultants "to determine the relative level of efficiency at which the Company operates."[251]

Within a year of the Commission's order in FC No. 651 on July 26, 1977, PEPCO filed a rate increase request, this time for $45.5 million (later amended to $44.8 million), claiming its earnings were being eroded by inflation and regulatory lag and that the company could not achieve its allowed rate of return. The new case was designated as FC No. 685. The Commission approved $5.783 million in proposed Order No. 6096, issued June 14, 1979. In its order, the PSC described the proceeding as "extremely long and complicated."[252] After receiving exceptions to its proposed order, the Commission issued a final Order No. 7000 on July 18, 1979, that raised the revenue requirement to $6.783 million, around 15 percent of the amended request. Most (90 percent) of the increase in the revenue requirement was due to the fact that in the proposed order, the Commission protected low-income residential users by not imposing any rate increase on them. However, the Apartment and Office Building Association (AOBA), the Commission staff, and the federal Government Services Administration (GSA) argued there was no evidence to support such an exemption and the Commission reversed itself by ordering an across-the-board increase.

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250 PJM is an acronym for Pennsylvania-New Jersey-Maryland.

251 Order No. 5831, pp. 41–42.

252 Order No. 6096, p. 1.

Before the Commission rendered that decision, PEPCO filed another rate increase application on February 15, 1979. The Commission docketed the case as FC No. 715. PEPCO asked for an additional $15.464 million. In March, PEPCO amended the amount of its request to $18.5 million. After the Commission issued its final order in FC No. 685, PEPCO further amended its request by increasing it to $48.1 million.

d. Economic and Social Ratemaking

Events of the '70s ushered in an era of "economic and social ratemaking." Since World War II, electricity had been viewed as a necessity, which meant consumers were not expected to be able to reduce their consumption significantly as prices rose.[253] For the most part, prices did not rise significantly until the '70s. When that happened, consumers in fact did respond by reducing usage. In this context, DC regulators began to use rate design techniques to mitigate any adverse impact of rising rates by offering consumers opportunities to minimize their bills. One example includes the creation of seasonal rates that allowed rates to track costs, so that off-peak usage in the winter was priced lower than on-peak usage in the summer. The commissioners were sensitive to the impact of rising rates on low-income residents, who were assumed to consume relatively less electricity; several rate increases were not applied to consumers whose monthly usage was below 400 or 450 Kwh.[254] The creation of inverted rate structures that contained higher rates as usage increased recognized that low-cost base load units supply the initial demand for electricity and that high-cost peaking units supply the electricity used during on-peak summer periods. It also was a mechanism for protecting the environment by reducing energy usage.

During this time, forward-looking economic principles such as long-run incremental costs (LRIC) and marginal costs (MC) began to be used in rate design, particularly for peak load and time of day (TOD) pricing. Marginal cost is defined as including "only the out of pocket costs of supplying an additional unit of output, whereas long run incremental cost includes the additional cost of capital investment required for the additional unit."[255] The first case in which these concepts were introduced was FC No. 630.[256] While the Commission embraced the concepts, it did not adopt their use immediately due to the lack of adequate evidence. Instead, it directed PEPCO to conduct further empirical studies.

The actual estimation of long-run incremental or marginal costs was pursued further outside of rate cases in FC Nos. 680, 758, and 759. On June 28, 1979 (Order No. 7002 issued in FC No. 680), the Commission approved TOD rates for PEPCO's large general service customers that were derived from forward-looking estimations of PEPCO's marginal costs. The approved rates were to be implemented in the next rate case, FC No. 715. The Commission approved TOD rates for

253 Economists' measure for this behavior is called the price elasticity of demand.

254 In FC No. 596, effective December 8, 1973, the rate increase was not applied to usage below 400 Kwh. In FC Nos. 630, 651, and 685, effective December 13, 1975, December 16, 1976, and July 24, 1979, rate increases were not applied to residential usage below 450 Kwh.

255 Order No. 5739, issued November 12, 1975, p. 37.

256 Ibid., pp. 36–39.

the 800 largest residential customers in FC No. 759 in Order No. 8160, issued December 31, 1984. The new rates were implemented on a parallel billing basis for comparative purposes in 1985, with live billing commencing January 1, 1986.[257]

Pressure to raise rates did not abate as the '80s began. The Commission approved three successive rate increases: in 1980 in FC No. 715, in 1981 in FC No. 748, and in 1982 in FC No. 785.

There continued to be concern about the impact of these increases, particularly on low-income ratepayers. In FC No. 785, PEPCO proposed the creation of a targeted low-income discount program, the Residential Aid Rider (RAR). The Commission approved a 6 percent discount from the rates in the previous case in a pilot RAR program. The PSC also moved master-metered apartments onto the residential R rate, but only on an experimental basis, because it wanted PEPCO to track data to ensure that owners were distributing the benefits to their tenants.[258] In 1987 and 1988, the Commission approved two rate decreases in FC No. 852 to implement the 1986 Tax Reform Act. The reductions were spread across the board among all rate classes.

The first rate reduction since the 1960s in a formal rate case occurred in FC No. 869. On January 4, 1988, PEPCO filed a request to increase rates by $40.75 million. Over 60 percent of the request was for money needed to recover the costs of a long-term Ohio Edison contract. PEPCO also had sold its Virginia territory in 1986, so the District's 8.2 percent share of the $21.4 million net gain from the sale reduced the company's revenue requirement by $1.072 million, after accounting for all adjustments. In Order No. 9216, issued March 3, 1989, the Commission concluded that PEPCO was "earning excessive revenues in the amount of $14,553,000 and the ratepayers in the District of Columbia are entitled to a rate reduction of that amount on an annual basis."[259]

PEPCO filed four rate increase requests during the 1990s: FC No. 905 in 1990, FC No. 912 in 1991, FC No. 929 in 1993, and FC No. 939 in 1994. The first three cases were driven by the need to increase the company's generation capacity after its reserve margin fell to 9 percent, far below the planned reserve margin of 16 percent. This gap put PEPCO at risk of not meeting customer demand during an especially hot summer.

In FC No. 905, PEPCO sought recovery for District ratepayers' share of the costs of a new combustion turbine (CT) at its Dickerson plant and the costs of four CTs at its Chalk Point generating plant. In FC No. 912, the company sought recovery for a Station H CT; 1992 wage increases; and termination of Northern Virginia amortization costs associated with the Southern Maryland Electric Cooperative (SMECO). PEPCO's minority contracting practices were a significant issue. When PEPCO filed its third rate increase request, in 1993 (FC No. 929), it sought cost recovery for a second CT

257 Parallel billing means the customer's bill shows both the existing rates, which the customer pays, and the TOD rates so the two can be compared before new rates became effective a year later.

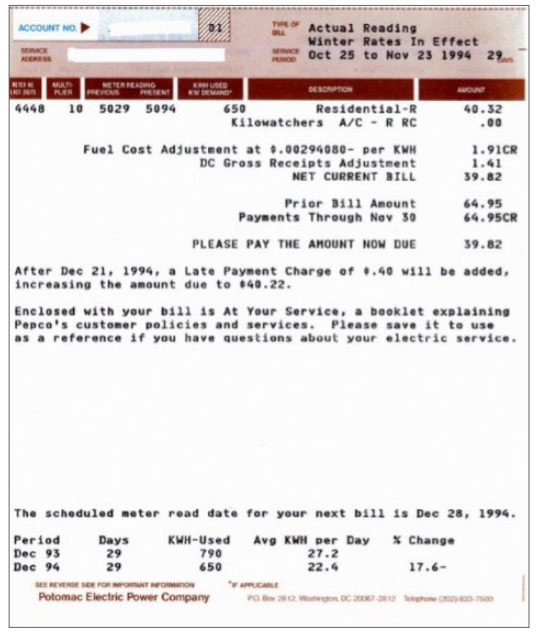
258 Order No. 7716, issued December 29, 1982.

259 Order No. 9216, issued March 3, 1989, p. 165.

at Station H; Ohio Edison contract purchases; a 1994 wage increase; demand-side management (DSM) programs; and a transmission line. The company proposed a DSM surcharge, which the Commission did not approve.

Thirteen years passed before PEPCO filed another rate case, but important changes in electric rate regulation occurred during the period.

In FC No. 912, the Commission required PEPCO, for the first time, to post rates on the bills of residential customers so they could understand how the total bill was calculated.



ACCOUNT NO. 01
TYPE OF BILL Actual Reading
Winter Rates In Effect
SERVICE ADDRESS
SERVICE PERIOD Oct 25 to Nov 23 1994 29 DAYS

METER NO. LAST DIGITS	MULTI-PLIER	METER READING PREVIOUS	METER READING PRESENT	KWH USED KW DEMAND*	DESCRIPTION	AMOUNT
4448	10	5029	5094	650	Residential-R	40.32
					Kilowatchers A/C - R RC	.00
					Fuel Cost Adjustment at $.00294080- per KWH	1.91CR
					DC Gross Receipts Adjustment	1.41
					NET CURRENT BILL	39.82
					Prior Bill Amount	64.95
					Payments Through Nov 30	64.95CR
					PLEASE PAY THE AMOUNT NOW DUE	39.82

After Dec 21, 1994, a Late Payment Charge of $.40 will be added, increasing the amount due to $40.22.

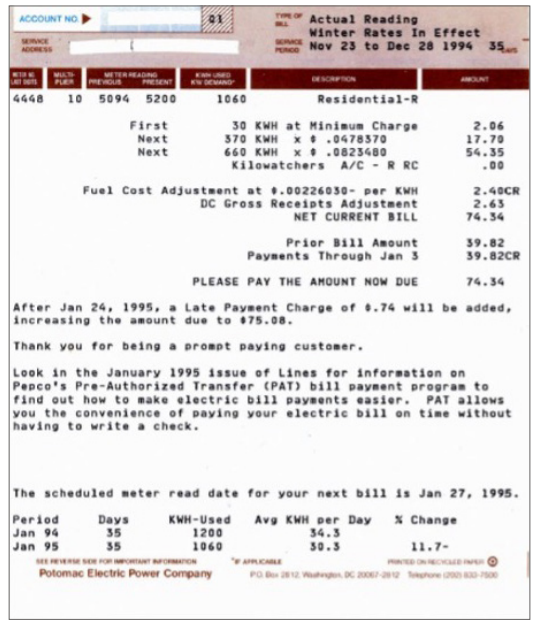
Enclosed with your bill is At Your Service, a booklet explaining Pepco's customer policies and services. Please save it to use as a reference if you have questions about your electric service.

The scheduled meter read date for your next bill is Dec 28, 1994.

Period	Days	KWH-Used	Avg KWH per Day	% Change
Dec 93	29	790	27.2	
Dec 94	29	650	22.4	17.6-

SEE REVERSE SIDE FOR IMPORTANT INFORMATION *IF APPLICABLE
Potomac Electric Power Company P.O. Box 2812, Washington, DC 20067-2812 Telephone (202) 833-7500

Bill before rates were added.



ACCOUNT NO. 01
TYPE OF BILL Actual Reading
Winter Rates In Effect
SERVICE ADDRESS
SERVICE PERIOD Nov 23 to Dec 28 1994 35 DAYS

METER NO. LAST DIGITS	MULTI-PLIER	METER READING PREVIOUS	METER READING PRESENT	KWH USED KW DEMAND*	DESCRIPTION	AMOUNT
4448	10	5094	5200	1060	Residential-R	
					First 30 KWH at Minimum Charge	2.06
					Next 370 KWH x $ .0478370	17.70
					Next 660 KWH x $ .0823480	54.35
					Kilowatchers A/C - R RC	.00
					Fuel Cost Adjustment at $.00226030- per KWH	2.40CR
					DC Gross Receipts Adjustment	2.63
					NET CURRENT BILL	74.34
					Prior Bill Amount	39.82
					Payments Through Jan 3	39.82CR
					PLEASE PAY THE AMOUNT NOW DUE	74.34

After Jan 24, 1995, a Late Payment Charge of $.74 will be added, increasing the amount due to $75.08.

Thank you for being a prompt paying customer.

Look in the January 1995 issue of Lines for information on Pepco's Pre-Authorized Transfer (PAT) bill payment program to find out how to make electric bill payments easier. PAT allows you the convenience of paying your electric bill on time without having to write a check.

The scheduled meter read date for your next bill is Jan 27, 1995.

Period	Days	KWH-Used	Avg KWH per Day	% Change
Jan 94	35	1200	34.3	
Jan 95	35	1060	30.3	11.7-

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Bill after rates were added.

2. Mitigating the Impact of Rate Increases

Although the Commission had approved only 27 percent of the additional revenue that PEPCO requested to finance its capital expenditures and non-fuel expenses, between 1970, when rates started rising, and 1995, the Commission took additional steps to protect electricity customers. Implementation of the low-income discount (RAR) program is described in section 1d above. To increase participation by clarifying that the Residential Aid Rider was a discount program designed to save income-qualified customers money on their electricity bill, PEPCO changed the program's name in 1991 to Residential Aid Discount (RAD). In many rate cases, the Commission exempted RAD customers from rate increases.

3. Promoting Energy Conservation, Energy Efficiency, and Protection of the Environment

The DC Council, in 2009, had the Commission add to its mission statement the goal of "conserving natural resources and preserving the environment." However, the record shows the Commission began promoting energy conservation and efficiency decades before. As early as 1962, in fact, the engineer commissioner, Gen. Frederick Clarke, "requested that the Engineering Bureau collect information related to electric automobiles."[260] In the 1970s, the Commission was in step with the nation. About the same time Congress created the Environmental Protection Administration, the Commission approved higher electric rates in summer than in winter that better tracked electricity costs, an inverted residential rate structure that encouraged conservation as usage

260 Minutes of Commission meetings, p. 4586.

increased. It also required PEPCO to report on its environmental program expenditures.[261] Many of these changes had been recommended by such groups as the Sierra Club, SHOCK,[262] DC Power, the Washington Urban League, the DC Federation of Civic Associations, and the DC City-wide Consumer Council.

By the mid-'70s, energy conservation was a national goal. In 1978, Congress passed the National Energy Conservation Policies Act (NECPA), which all states and the District were required to implement. NECPA was designed to reduce the nation's dependence on foreign oil by encouraging energy conservation through the establishment of, among other things, the Residential Conservation Service (RCS) program, in which utilities were required to provide energy audits to residential customers to identify possible conservation measures and to help arrange for financing, supply, and installation of conservation measures. Also in 1978, Congress passed the Public Utility Regulatory Policies Act (PURPA), which established forward-looking economic principles as opposed to historical-based accounting principles as the basis for determining a utility company's cost of service and rates. It also required utility companies to develop integrated resource plans that considered both cost-effective demand-side energy conservation programs and traditional supply-side programs on an equal basis. PURPA also encouraged use of seasonal and TOD rates to ensure that costs and usage aligned.

The PSC initiated a series of cases to implement these laws. In 1980, the Commission opened FC No. 743 by issuing a public notice requesting comments on issues related to conducting energy audits and financing and supplying energy-conservation measures. In Order No. 7617, issued July 16, 1982, the Commission approved an RCS program for the District.

The Commission implemented PURPA through a series of formal cases. Section 210 of PURPA required electric utilities to purchase energy offered by qualifying facilities (QF), that were defined as co-generators and small power producers, at rates that were just and reasonable to consumers and based on the incremental cost the utility would incur if it generated or purchased the supply. In FC No. 757, opened in 1980, the Commission approved a cogeneration tariff covering rates between PEPCO and QFs that were based on 100 percent of PEPCO's avoided costs as an incentive to spur competition at the generation level.[263] Avoided costs were defined as the incremental cost PEPCO would incur if it produced the energy itself rather than purchasing it from a QF. In FC No. 758, the Commission explored use of marginal versus embedded cost principles in determining PEPCO's cost of service.[264] The Commission previously had approved seasonal rates for all customers in 1970 and TOD rates for large commercial customers in FC Nos. 680 and 715. The subject of FC No. 759 was implementation of TOD rates for other than the largest commercial customers. As the marginal cost

261 See FC No. 568.

262 SHOCK is an acronym for Students Hot on Conserving Kilowatts.

263 See Order No. 7793, issued April 8, 1983, and Order No. 8019, issued May 3, 1984, in FC No. 757.

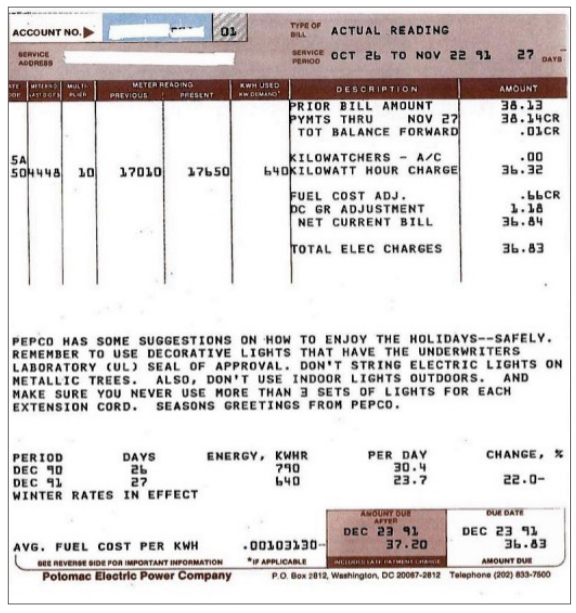
264 See Order No. 7614, issued July 23, 1982, in FC No. 758.

studies yielded rates several times higher than existing rates—which would have violated principles of gradualism—the Commission ultimately approved TOD rates only for the 800 largest residential (single family) customers.[265]

The PSC did not stop there. At the behest of Commissioner Wesley Long, a PhD economist, the Commission opened FC No. 834 on March 1, 1985, to explore ways to promote energy conservation in the District. The Commission held several public hearings and received testimony from at least 12 national experts, including Amory Lovins and Jon Wellinghoff.[266]

On March 16, 1988, the Commission issued seminal Order No. 8974 that required PEPCO and Washington Gas Light (WGL) to develop least cost integrated resource planning (IRP) programs derived by comparing on an equal basis the cost effectiveness of both supply-side and demand-side measures. The order required the companies to conduct free customer audits to replace the RCS program, after studies found it ineffective. PEPCO and WGL were required to submit for approval pilot energy efficiency and load management programs every other year.

The Commission approved and PEPCO implemented programs for all residential, commercial, and government customers that successfully "moved the market," as Washington Gas president Adrian Chapman related at the PSC's centennial symposium. PEPCO rebates for residential compact fluorescent lightbulbs, whose market price was $25 each but could be purchased for $1.00 with the rebate, led to the proliferation of more efficient lighting in homes throughout the District as market prices declined to rebate levels. Bill savings were also documented in follow-up evaluations as lighting accounts for about 6 percent of residential usage. PEPCO's commercial lighting program was equally if not more successful. A popular residential load management program[267] was called the Kilowatchers Club. Participants received a credit during each of the five summer months if they allowed the utility to cycle their central air conditioner on and off during peak usage periods on especially hot days.


ACCOUNT NO. 01
TYPE OF BILL ACTUAL READING
SERVICE ADDRESS
SERVICE PERIOD OCT 26 TO NOV 22 91 27 DAYS

RATE CODE	METER NO.	MULTIPLIER	METER READING PREVIOUS	METER READING PRESENT	KWH USED KW DEMAND*	DESCRIPTION	AMOUNT
						PRIOR BILL AMOUNT	38.13
						PYMTS THRU NOV 27	38.14CR
						TOT BALANCE FORWARD	.01CR
SA						KILOWATCHERS - A/C	.00
	504448	10	17010	17650	640	KILOWATT HOUR CHARGE	36.32
						FUEL COST ADJ.	.66CR
						DC GR ADJUSTMENT	1.18
						NET CURRENT BILL	36.84
						TOTAL ELEC CHARGES	36.83

PEPCO HAS SOME SUGGESTIONS ON HOW TO ENJOY THE HOLIDAYS--SAFELY. REMEMBER TO USE DECORATIVE LIGHTS THAT HAVE THE UNDERWRITERS LABORATORY (UL) SEAL OF APPROVAL. DON'T STRING ELECTRIC LIGHTS ON METALLIC TREES. ALSO, DON'T USE INDOOR LIGHTS OUTDOORS. AND MAKE SURE YOU NEVER USE MORE THAN 3 SETS OF LIGHTS FOR EACH EXTENSION CORD. SEASONS GREETINGS FROM PEPCO.

PERIOD	DAYS	ENERGY, KWHR	PER DAY	CHANGE, %
DEC 90	24	790	30.4	
DEC 91	27	640	23.7	22.0-

WINTER RATES IN EFFECT

AVG. FUEL COST PER KWH .00103130-

AMOUNT DUE AFTER DEC 23 91 37.20
DUE DATE DEC 23 91 36.83 AMOUNT DUE

SEE REVERSE SIDE FOR IMPORTANT INFORMATION *IF APPLICABLE INCLUDES LATE PAYMENT CHARGE

Potomac Electric Power Company P.O. Box 2812, Washington, DC 20087-2812 Telephone (202) 833-7500

Kilowatchers Bill

Throughout the nearly 12 years of least cost planning, the Commission required PEPCO to justify the cost-effectiveness of each program before it was approved using an All-Ratepayers Test, and, after implementation, by conducting post-program evaluations to estimate savings using econometric methods. The number of filings, studies, and reports in FC No. 834 became so large that the Commission opened a new case, FC No. 917, when it considered PEPCO's and Washington Gas's second least cost plans in 1992. Thereafter, PEPCO stepped up implementation of its programs. By 1994, the

265 See Order Nos. 7793 and 7794, issued April 8, 1983, and Order No. 8160, issued December 31, 1984.

266 Amory Lovins is an environmental scientist and chairman of the Rocky Mountain Institute. Jon Wellinghoff was the first Consumer Advocate in Nevada; he subsequently became chair of the Federal Energy Regulatory Commission.

267 Load management programs enable a utility company to reduce demand during peak usage. The Kilowatchers Club program was approved on an experimental basis in Order No. 8974.

Commission became concerned about growing program costs, and in Order No. 10387 in FC No. 929, it recommended elimination of some programs whose cost-effectiveness was marginal.

A key question was how to fund these initiatives. Initially, the Commission tracked program costs and addressed cost recovery issues in rate cases. In 1990, in Order No. 9509 issued in FC No. 889, the PSC denied PEPCO recovery of some of the energy conservation expenses due to noncompliance, and it reduced PEPCO's return on equity by 15 basis points for lack of commitment to energy conservation. The same order established cost recovery standards for existing, pilot, and prospective programs. A cost recovery mechanism was also addressed in FC No. 834, Phase III. In that case, the PSC issued Order No. 9714 on May 24, 1991, in which it concluded that, despite consensus among the parties and staff that an incentive mechanism was warranted, there was insufficient evidence in the record to decide on a mechanism.

The Commission deferred the matter to the ongoing PEPCO rate case, FC No. 905. The decisional Order No. 9868 in that case was issued a few months later on October 23, 1991. PEPCO had proposed an annual surcharge that included a provision for lost revenue sales due to demand-side management programs and a shared savings rider. The Commission approved an interim DSM cost recovery and incentive formula based on PEPCO's proposed method for calculating lost revenues and an alternative shared savings rider proposed by OPC. In addition, the Commission concluded that energy savings goals were necessary for the successful operation of the incentive mechanism. The Commission adopted an annual target of 1.5 percent as an energy-reduction goal. It also approved a reward system for energy savings achieved beyond that goal and a penalty system for failure to meet the annual target. The recovery of lost revenues or an incentive would be decided in the future in a base rate case, while determining whether lost revenues had occurred and whether the company should receive an incentive or penalty would take place outside a base rate case.[268]

In FC No. 929, PEPCO once again proposed a surcharge along with a relatively new concept called an electric rate adjustment mechanism (ERAM), modeled after California's ERAM. The ERAM would provide the company an incentive to promote energy conservation that might reduce its sales and earnings. By decoupling sales and costs so the company could recover lost revenues, the mechanism would ensure that PEPCO earned its authorized revenue requirement irrespective of sales. In Order No. 10387, issued March 4, 1994, the Commission affirmed its decision to address cost recovery issues in rate cases and denied PEPCO's proposed DSM surcharge, ERAM, and the recovery of lost revenues. DSM programs continued to be funded through base rates.

In FC No. 917, the PSC approved an environmental cost recovery rider (ECRR) for PEPCO's recovery of past DSM expenditures that the Commission had approved and Clean Air Act costs incurred after June 30, 1993. The ECRR

268 Order No. 9868, pp. 118–142.

was folded into base rates rather than shown as a line item on bills. PEPCO filed its first ECRR application June 3, 1996, and a true-up occurred annually thereafter.[269]

Establishment of the ECRR removed DSM as a contentious issue in rate cases. In the next rate case, FC No. 939, cost containment was a major theme. In its decisional order, the Commission concluded that PEPCO properly included its pre-July 1993 DSM program costs in operating expenses and that the amounts of energy use management and DSM expenditures included in PEPCO's rate base and operating expenses were appropriate and reasonable. However, it directed PEPCO to "develop a comprehensive, systematic cost containment program that is both realistic and effective. The program must include innovative strategies to limit costs in: (i) construction; (ii) DSM implementation and financing; and (iii) employee reduction."[270]

What has been the trend in electricity usage before and since the DSM programs? Data are available for consumption per customer in the Standard R residential class between 1966 and 2013 as shown in Table 8.1 (the trend is shown in Figure 8.1). Between 1966 and 1989, when growth in the District was relatively slower than in Maryland and before most of the DSM programs were implemented, monthly residential electricity usage in DC increased nearly 80 percent, from 318 Kwh to 566 Kwh. Between 1990 and 2000, when the DSM programs ended, monthly residential electricity usage was relatively flat—ranging between a low of 561 Kwh in 1992 and a high of 633 Kwh in 1994. Although not all of this trend can be attributed to the DSM programs, it is possible that DSM programs mitigated increases in average electricity usage that would have occurred with the shift to electric heating by District residents. Since the end of the DSM programs, average monthly residential electricity usage has increased somewhat, often ranging between 600 Kwh and 734 Kwh.

The 1989 Georgetown University/Dominion Energy complaint against PEPCO regarding the rate to be paid to the company for a 56 MW cogeneration plant on the university campus is another example of the Commission promoting energy efficiency and protecting the environment. The case was docketed as FC No. 888. Cogeneration refers to a generation plant that produces electricity and heat energy that can be used to supply hot water, steam, space heating, and cooling. As it does so, the operating efficiency of the power plant is increased and the amount of greenhouse gas emissions is reduced.

There was considerable participation in all aspects of the case, including presenting testimony in the evidentiary and community hearings, conducting cross-examination, and filing legal briefs by ANCs, civic associations, and neighboring communities, particularly on the environmental impact of the proposed cogeneration facility, including the impact of electromagnetic fields, noise, and impact on the social configuration of the affected communities. On February 14, 1992, the Commission issued Order No. 9661 approving Dominion Energy/Georgetown's plans to construct the plant by

269 Order No. 10650, issued June 30, 1995.
270 Order No. 10646, issued June 30, 1995, pp. 302, 304.

granting it a certificate of public convenience and necessity. The parties settled the issue of the energy and capacity rates to be paid in a confidential power purchase agreement. The PSC established an appropriate environmental threshold for future cogeneration and independent power plants proposed for the District, and the case became a hallmark decision that established principles and guidelines for distributed generation.[271]

4. Introducing Competition

Due in part to the exhaustion of the economies of scale that undermined the argument for the monopoly supply of electricity, the Federal Energy Regulatory Commission (FERC), which regulates wholesale electricity markets, began to open the generation market to competition in 1994. FERC allowed non-utility generators (NUGs), independent power producers (IPPs), and marketers to sell electricity to utility companies and required electric utilities to allow wholesale buyers and sellers to have comparable or nondiscriminatory access to their transmission systems. With competition established at the generation level, some states also authorized retail competition by allowing NUGs, IPPs, and marketers to sell electricity not only to electric utilities but also directly to retail customers while the electric utility companies continued to provide generation, transmission, and distribution services to retail customers.[272] This electric industry restructuring was called retail wheeling and subsequently retail competition or retail customer choice. Multiple states established pilot programs to evaluate the results, while California, Massachusetts, and Rhode Island opened their entire retail electricity markets to retail wheeling.[273]

In 1995, the PSC opened FC No. 945 to investigate whether retail electric restructuring and retail customer choice were in the public interest.[274] After the Commission sought comments on a number of designated issues and monitored activities in other states, Commission staff issued a report in the case on August 31, 1998, that described a plan for pursuing the question in the District. Not satisfied with the pace at which the Commission and staff were addressing the issue, Commissioner Edward M. Meyers worked with DC Council member Sharon Ambrose, chairman of the Commission's oversight committee at the council, to draft electric industry restructuring legislation.

The council passed the Electric Retail Competition and Consumer Protection Act of 1999, a comprehensive piece of legislation with broad impacts. It authorized the Commission to allow PEPCO to sell (divest) its generation plants, and in the same year PEPCO filed a request to sell its generating plants and power purchase agreements. On December 30, 1999, in Order No. 11576, the Commission approved PEPCO's request to sell its five generation plants located outside of the District. The Commission refused to allow the sale of PEPCO's two generating plants in DC on the grounds they

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271 See Order No. 10366, issued January 14, 1994, for a summary of the case.

272 Retail competition started in high-cost and Rust Belt states that were facing excess capacity due to declines in the demand for electricity by industrial customers. Many large customers sought competition as a way of avoiding paying for retrofitting dirty coal plants. Many states approved stranded cost recovery riders to ensure that no customers, such as large customers, could avoid excess capacity and environmental costs.

273 This is not the first time retail competition existed in the electricity market in the District. PEPCO was first established to create a competitive environment vis-à-vis US Electric Lighting Company with the goal of reducing prices.

274 Order No. 10720.

were needed for peak load periods and were must-run units. PEPCO completed the sale of the five plants to Mirant Corporation for $2.75 billion on January 8, 2001, and transferred ownership of the two DC plants to a newly created unregulated subsidiary, Potomac Power Resources. That entity then engaged Mirant to operate the plants. The plants run by Mirant accounted for over 90 percent of the electricity provided to DC customers.

Sale of PEPCO's generation plants enabled its ratepayers not to pay any outstanding DSM costs and thus reduced their rate burdens. In addition, PEPCO's customers shared the proceeds from divestiture with the company on an equal basis. DC electricity customers received nearly $100 million in divestiture sharing credits, including credits to each residential customer amounting to about $105 that were disbursed over four time periods. The bulk of the financial benefit went to electricity customers in the form of a series of three rate reductions between January 1, 2000, and February 8, 2001. The first reduction reflected elimination of the DSM surcharge that accounted for a 2 percent reduction in residential rates and a 3.5 percent reduction in commercial rates. The total reductions as of February 8, 2001, reflected a 7 percent reduction for residential customers and a 6.5 percent reduction for commercial customers. Thereafter, total rates were to be capped for four years until February 7, 2005, for all but RAD customers. RAD rates were capped until February 7, 2007.[275]

Implementation of the 1999 Retail Electric Competition Act also entailed the creation of retail customer choice programs effective January 1, 2001, so all residential and commercial customers could choose their electric generation and transmission supplier while PEPCO continued to be the sole distribution company.[276] To enable customers to choose their generation and transmission suppliers, rates were unbundled into generation, transmission, and distribution on customers' bills so consumers could compare generation and transmission rates among suppliers, including PEPCO.[277] The Commission ruled that PEPCO would be the default generation and transmission supplier (known as standard offer service or SOS) for customers who did not choose a supplier.

In 2001, PEPCO requested approval of a merger with New Jersey-based Conectiv; the matter was docketed in FC No. 1002. The Commission approved the merger, and one condition for approval was that the cap on PEPCO's distribution rates be extended 30 months through August 7, 2007, for non-RAD customers and through August 31, 2009, for RAD customers. On February 8, 2005, in Order No. 13493 in FC No. 945, the Commission approved higher SOS generation rates and lower SOS transmission rates for non-RAD customers. After approving a competitive bidding process[278] for setting PEPCO's SOS generation rates in FC No. 1017, generation rates rose again in that case on June 1, 2006, and June 1, 2007. The Commission-monitored competitive bidding process resulted in market-based generation rates declining

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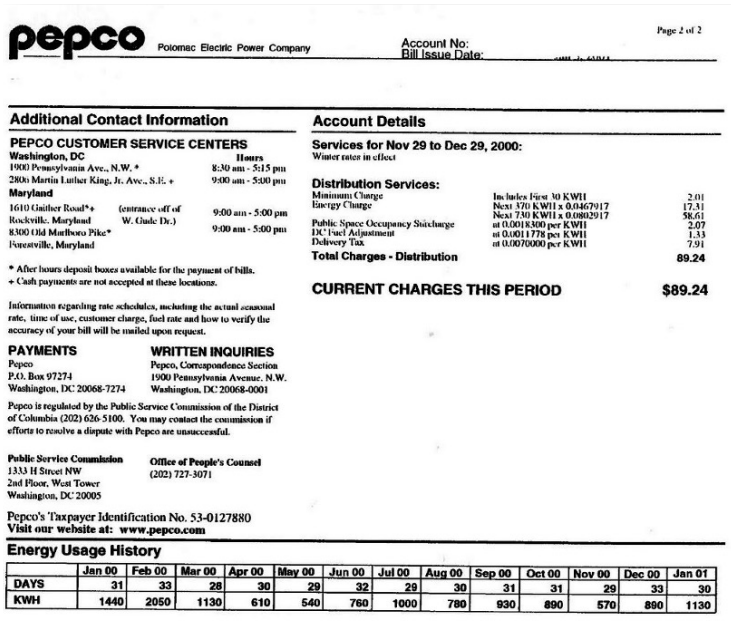
275 Order No. 11576, issued December 31, 1999.

276 Ibid.

277 Ibid., Order No. 11796, issued September 18, 2000, and Order No. 11845, issued December 5, 2000.

278 Under competitive bidding, PEPCO issues bids for segments of its load (residential, commercial, etc.) twice a year (usually in December and January) and the Commission oversees the process, including witnessing the opening of the bids and engaging a market consultant to monitor the process.

after 2009 from 11 cents per Kwh in 2009 to 7 cents per Kwh in 2014. This contributed an overall decline in retail rates, including nominal residential rates that decreased from 16.56 cents per Kwh in 2009 to 13.44 cents per Kwh in 2013 (see Table 8.2).



pepco Potomac Electric Power Company Page 2 of 2
Account No:
Bill Issue Date:

Additional Contact Information

PEPCO CUSTOMER SERVICE CENTERS

Washington, DC	Hours
1900 Pennsylvania Ave., N.W. *	8:30 am - 5:15 pm
2800 Martin Luther King, Jr. Ave., S.E. +	9:00 am - 5:00 pm
Maryland	
1610 Gaither Road*+ (entrance off of Rockville, Maryland W. Gude Dr.)	9:00 am - 5:00 pm
8300 Old Marlboro Pike* Forestville, Maryland	9:00 am - 5:00 pm

* After hours deposit boxes available for the payment of bills.
+ Cash payments are not accepted at these locations.

Information regarding rate schedules, including the actual seasonal rate, time of use, customer charge, fuel rate and how to verify the accuracy of your bill will be mailed upon request.

PAYMENTS
Pepco
P.O. Box 97274
Washington, DC 20068-7274

WRITTEN INQUIRIES
Pepco, Correspondence Section
1900 Pennsylvania Avenue, N.W.
Washington, DC 20068-0001

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Public Service Commission
1333 H Street NW
2nd Floor, West Tower
Washington, DC 20005

Office of People's Counsel
(202) 727-3071

Pepco's Taxpayer Identification No. 53-0127880
Visit our website at: www.pepco.com

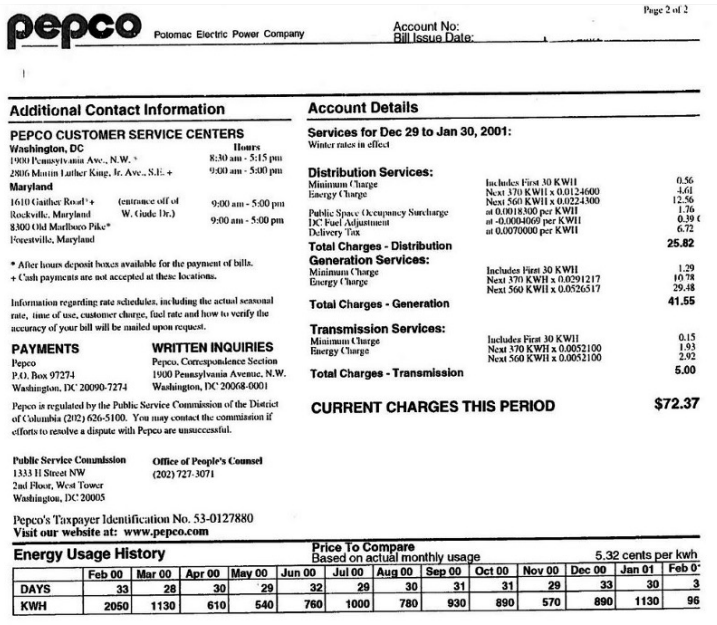
Account Details

Services for Nov 29 to Dec 29, 2000:
Winter rates in effect

Distribution Services:		
Minimum Charge	Includes First 30 KWH	2.01
Energy Charge	Next 370 KWH x 0.0467917	17.31
	Next 730 KWH x 0.0802917	58.61
Public Space Occupancy Surcharge	at 0.0018300 per KWH	2.07
DC Fuel Adjustment	at 0.0011778 per KWH	1.33
Delivery Tax	at 0.0070000 per KWH	7.91
Total Charges - Distribution		**89.24**
CURRENT CHARGES THIS PERIOD		**$89.24**

Energy Usage History

	Jan 00	Feb 00	Mar 00	Apr 00	May 00	Jun 00	Jul 00	Aug 00	Sep 00	Oct 00	Nov 00	Dec 00	Jan 01
DAYS	31	33	28	30	29	32	29	30	31	31	29	33	30
KWH	1440	2050	1130	610	540	760	1000	780	930	890	570	890	1130



pepco Potomac Electric Power Company Page 2 of 2
Account No:
Bill Issue Date:

Additional Contact Information

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Washington, DC	Hours
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2800 Martin Luther King, Jr. Ave., S.E. +	9:00 am - 5:00 pm
Maryland	
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* After hours deposit boxes available for the payment of bills.
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Information regarding rate schedules, including the actual seasonal rate, time of use, customer charge, fuel rate and how to verify the accuracy of your bill will be mailed upon request.

PAYMENTS
Pepco
P.O. Box 97274
Washington, DC 20090-7274

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Public Service Commission
1333 H Street NW
2nd Floor, West Tower
Washington, DC 20005

Office of People's Counsel
(202) 727-3071

Pepco's Taxpayer Identification No. 53-0127880
Visit our website at: www.pepco.com

Account Details

Services for Dec 29 to Jan 30, 2001:
Winter rates in effect

Distribution Services:		
Minimum Charge	Includes First 30 KWH	0.56
Energy Charge	Next 370 KWH x 0.0124600	4.61
	Next 560 KWH x 0.0224300	12.56
Public Space Occupancy Surcharge	at 0.0018300 per KWH	1.76
DC Fuel Adjustment	at -0.0004069 per KWH	0.39 C
Delivery Tax	at 0.0070000 per KWH	6.72
Total Charges - Distribution		**25.82**
Generation Services:		
Minimum Charge	Includes First 30 KWH	1.29
Energy Charge	Next 370 KWH x 0.0291217	10.78
	Next 560 KWH x 0.0526517	29.48
Total Charges - Generation		**41.55**
Transmission Services:		
Minimum Charge	Includes First 30 KWH	0.15
Energy Charge	Next 370 KWH x 0.0052100	1.93
	Next 560 KWH x 0.0052100	2.92
Total Charges - Transmission		**5.00**
CURRENT CHARGES THIS PERIOD		**$72.37**

Energy Usage History

Price To Compare 5.32 cents per kwh
Based on actual monthly usage

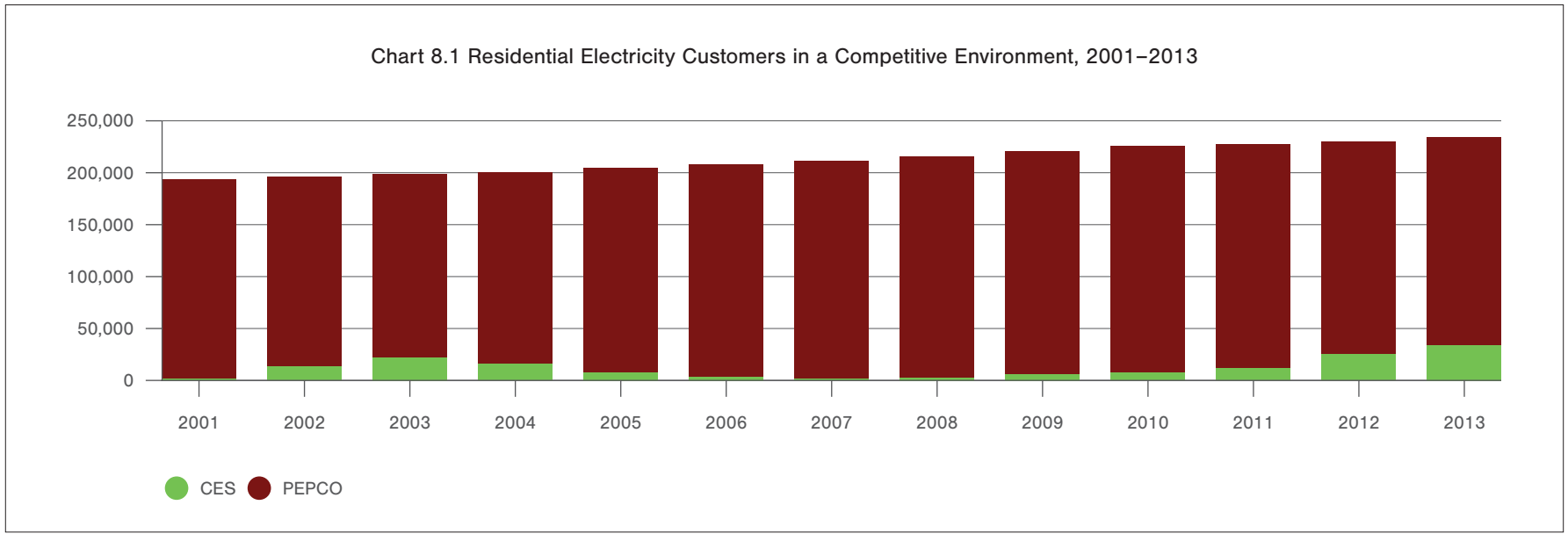
	Feb 00	Mar 00	Apr 00	May 00	Jun 00	Jul 00	Aug 00	Sep 00	Oct 00	Nov 00	Dec 00	Jan 01	Feb 0*
DAYS	33	28	30	29	32	29	30	31	31	29	33	30	3
KWH	2050	1130	610	540	760	1000	780	930	890	570	890	1130	96

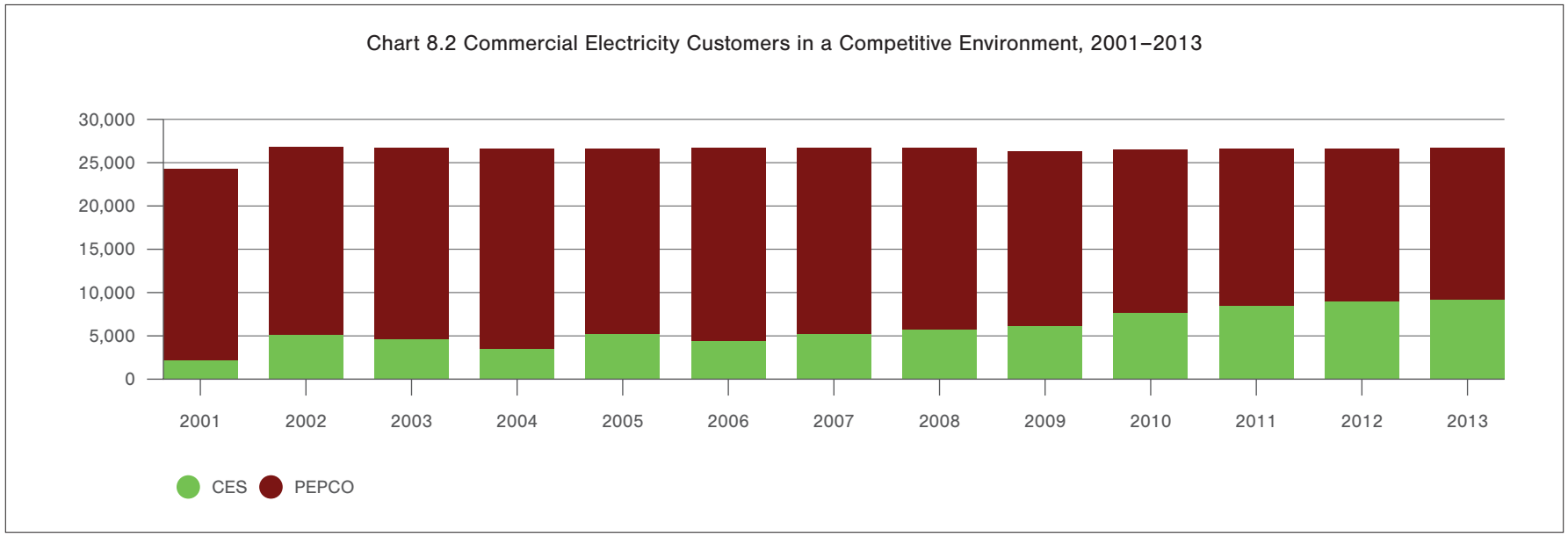
The two pictures above show rates bundled (first sample bill) and then unbundled (second sample bill) on a residential customer's bills. The bills also show that, in 2000, the Commission required PEPCO to post monthly usage over the past 13 months so consumers could track usage and make adjustments as needed to keep their bills affordable. By Order No. 12186, issued September 19, 2001, the Commission approved a new concept, Price to Compare, to be introduced on residential customers' bills to allow them to compare their electric generation and transmission costs from PEPCO with offers by other electricity suppliers.

To implement the retail competition act, the Commission also had to establish procedures for licensing competitive suppliers.[279] By the end of 2013, the Commission had approved 131 competitive suppliers. Not all, however, provided service in the District. By the end of 2013, 27 generation and transmission suppliers, including PEPCO, were serving customers in the District; all 27 were serving commercial customers and 19 had residential customers.

279 Order No. 11796 and Order No. 11862.

Chart 8.1 and Chart 8.2, above, show the extent to which residential and nonresidential electricity customers, respectively, have participated in customer choice programs.





Variations in participation shown in the two graphs reflect changing market conditions. Participation has been higher when competitive suppliers' prices are lower than PEPCO's SOS prices; participation has been lower when competitive suppliers' prices are higher than PEPCO's SOS prices. Over the 12 years, 2001-2013, electricity suppliers' share of the residential market ranged from less than one percent at the outset to a high of nearly 15 percent in 2013. Participation in the nonresidential customer choice program has been much higher over the period, ranging from 16 percent to 35 percent of the market.

The 1999 law also required the Commission to promote energy conservation, particularly among low-income residents. In Order No. 11876, it established a reliable energy trust fund (RETF) to cover the cost of Commission-authorized universal service, energy efficiency, and renewable resources programs. Renewable resources include solar, wind, geothermal, and hydroelectric facilities that will contribute to a cleaner environment. These programs replaced the least cost planning programs whose cost-effectiveness could no longer be measured on the basis of avoided costs because PEPCO no longer owned or operated generation plants. The RETF programs were funded through a non-bypassable surcharge that appeared as a line item on customers' bills beginning with the June 2001 billing cycle. All PEPCO customers except RAD customers paid the RETF surcharge.

The 1999 law required fuel mix disclosures by retail electricity suppliers, and an omnibus act in 2004 required emissions disclosure and reporting. PEPCO included its fuel mix and emissions data in customers' bill inserts twice a year. The Commission was also required to submit a fuel mix report to the DC Council every two years, beginning in 2003. The Commission established initial requirements in Order No. 12065, issued July 18, 2001.

The 1999 law permitted the Commission to establish net metering regulations. Net metering allows residential customers who generate electricity from solar power to sell excess power back to the grid and receive a credit on their bill. If the home or business is net metered, the electricity meter will run backward to provide a credit against what electricity is consumed and customers are billed only for "net" energy use. The Commission issued Order No. 13501 and a final rulemaking on February 10, 2005. PEPCO followed by filing a net metering tariff. After multiple revisions, the Commission approved a final tariff on January 26, 2007, and the final rulemaking appeared in the DC Register on February 9, 2007. Further revisions were approved in a final rulemaking issued on June 25, 2008; the rules were amended again in 2009 to expand the size of eligible customer-owned generators from 100 kW to 1,000 kW in compliance with the Clean and Affordable Energy Act of 2008. Amended rules were approved on June 11, 2010, resulting in PEPCO having to submit a revised standard net metering contract. The Commission approved a revised contract on April 8, 2011 (Order No. 16300).

On January 19, 2005, the DC Council enacted the Renewable Energy Portfolio Standard Act (REPS Act), which established a renewable energy portfolio standard (RPS) requiring that a minimum percentage of District electric providers' supply be derived from renewable energy sources beginning January 1, 2007, with the goal of reaching 11 percent by 2022. The act also required the Commission to adopt regulations governing the application and transfer of renewable energy credits (RECs), to begin by January 1, 2006. On December 28, 2005, the Commission issued Order No. 13840 that adopted interim RPS rules containing compliance requirements for electricity suppliers, generator eligibility, rules regarding the creation and tracking of RECs and rules concerning recovery of fees and costs. After issuing a notice of proposed rulemaking (NOPR) and receiving comments, the Commission published final RPS rules in the DC Register on January 18, 2008. Calendar year 2007 was the first year of compliance for the District's RPS program; the rules required electricity suppliers to file reports by May 1 of the following year. To facilitate the process, the Commission created a compliance form for suppliers to file.

Following pressure from members of the DC solar community—concerned about what they thought were relatively low REC prices because of competition from facilities located outside the District—the DC Council passed on August 1, 2011, the Distributed Generation Emergency Amendment Act of 2011, which amended the REPS Act of 2005 by requiring the Commission to stop certifying solar energy facilities not located in the District or not in a location served by a feeder that served the District. The 2011 act also required decertification of any solar facilities larger than 5 MW regardless of the date certified. In compliance, the Commission issued Order Nos. 16528 and 16529, both dated September 9, 2011, that decertified facilities no longer eligible for the program.

The 2011 act also increased RPS solar requirements, altered compliance payments for the solar requirement, and amended requirements for solar thermal systems. The Commission's amended RPS rules were finalized on March 23, 2012, when they appeared in the DC Register.

Chart 8.3 Number of Renewable Portfolio Standard Applications Received

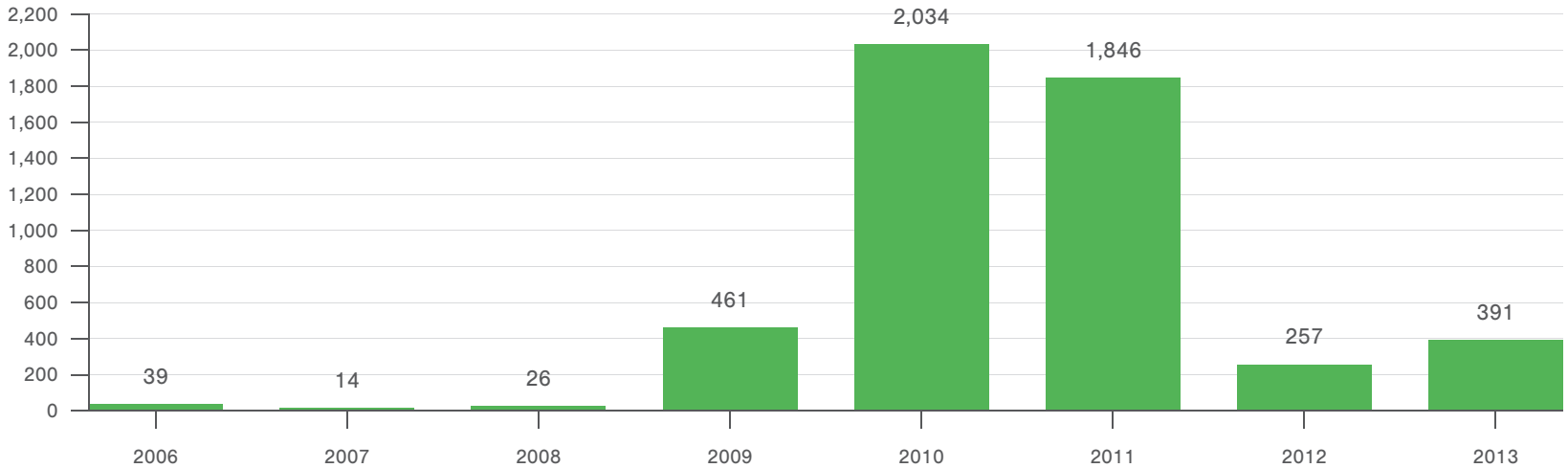


Chart 8.3, above, shows the trend in the number of RPS applications received between 2006 and 2013. The sharp reduction from 2011 to 2012 reflects the impact of the 2011 Distributed Generation Act, which disallowed out-of-state solar energy systems.

Theoretically, a competitive market will yield a lower price than a noncompetitive market, so competition can be seen as a vehicle for minimizing consumer electric bills. Whether the market is deemed competitive, however, depends on various conditions that may or may not exist in the real world. One economic condition for a competitive market is that no one supplier has market power so that it can set the price. This is a stricter condition than simply having more than one supplier in the market. In the first few years of the retail electric generation market in DC, there were two competitive suppliers, both subsidiaries of larger utility companies. Over time, additional generation suppliers entered the market.

Nonetheless, since the beginning of 2001, PEPCO has not had less than 85 percent of the residential generation market or less than 60 percent of the nonresidential generation market based on the number of customers.

The Commission is required periodically to review the process for providing SOS in the District and to make any needed changes or adjustments. On February 1, 2013, the Commission issued Order No. 17064, seeking comments on multiple designated issues, among them, "Should PEPCO continue to act as the SOS provider or should the Commission choose another option for providing SOS?" Comments were filed, but no decision had been made as of the end of 2013. In 2014, a proposed merger with Chicago-based Exelon made the issue moot until a decision on the merger was rendered.

A second theoretical condition for a competitive market is perfect knowledge. This often does not exist in the real world. Despite considerable efforts to track and post rates and related information on the Commission's website, on bills, and in educational materials distributed at public forums, in a few cases, competitive suppliers have been found to mislead prospective customers, many of whom are low-income consumers. The most recent example is Starion Energy. After receiving complaints, the Commission opened an investigation in 2013, which was docketed in FC No. 1105. Starion and OPC ultimately submitted a joint stipulation agreement in which the company agreed to reimburse customers who had been misled by its marketing agents. The Commission approved the agreement and is monitoring the compensation process.

Led by DC Councilwoman Mary Cheh, Ward 3 representative and chairperson of the Commission's oversight committee, the DC Council passed a Clean and Affordable Energy Act of 2008 (CAEA) that became effective October 22 of the same year. Among other things, the law discontinued the RETF programs and created the energy assistance trust fund (EATF) to pay for a variety of low-income programs, including RAD. The act transferred the Commission's responsibilities for the RAD program and its funding to the DC mayor and the District Department of the Environment's (DDOE) energy office and provided a statutory assessment to fund the program. All non-RAD customers had the EATF surcharge added to their bills. In 2009 on an emergency basis and in 2010 on a permanent basis, the DC Council amended the CAEA by returning jurisdiction over and responsibility for the RAD program to the Commission.[280]

The CAEA required establishment of a Sustainable Energy Utility (SEU) to be administered by DDOE. The purpose of the SEU is to provide energy efficiency programs throughout the District. Funding for SEU projects is provided by ratepayers rather than taxpayers by imposing a sustainable energy trust fund (SETF) surcharge on the bills of all non-RAD customers. The CAEA allowed the SETF to fund five energy efficiency programs costing up to $6 million a year until the SEU became operational. On December 18, 2008, in Order No. 15139, the Commission approved a residential lighting and appliances program; a nonresidential prescriptive rebate; a nonresidential custom incentive program; a nonresidential HVAC efficiency program; and a nonresidential building commissioning program. Those activities continued until 2011, when the SEU began operations. The CAEA also required the PSC to promulgate sub-metering rules for nonresidential buildings. Final rules went into effect on November 11, 2011, when they appeared in the DC Register.

280 The Residential Aid Discount Subsidy Stabilization Emergency Act of 2009 and the Residential Aid Discount Subsidy Stabilization Amendment Act of 2010. See Order No. 17575 in FC No. 1120 for details.

5. Dynamic Pricing

Another strategy the Commission has explored for encouraging residential consumers to reduce their usage and thus minimize their bills is to allow PEPCO to offer rates that vary with real-time costs—such as weather, generator outages, and transmission failures—over the course of the day and particularly during peak usage periods when costs are relatively high. This concept is often referred to as dynamic pricing.

Although there had been early consideration of time of day pricing dating back to PURPA in the early 1980s, technological change—particularly as it relates to meters over the course of the ensuing 20 years—has made implementation of dynamic pricing worthy of reconsideration. The Commission addressed the issue of dynamic pricing in FC No. 1002. In May 2001, PEPCO filed a joint application for approval of a proposed merger with Conectiv, a Delaware-based corporation that provided retail electricity service in Delaware, New Jersey, Maryland, and Virginia. The Commission docketed the filing in FC No. 1002. In February 2002, the parties filed a request for approval of a unanimous settlement agreement, which the Commission approved in Order No. 12395 on May 1, 2002. One of the conditions in the settlement agreement was that PEPCO would contribute $2 million to support the development and implementation of a small customer smart meter pilot program in the District and the company would not seek to recover any of the costs of the program in DC rates. The 2005 Smart Meter Pilot Program, Inc. (SMPPI), comprised representatives from PEPCO, the PSC, OPC, the Consumer Utility Board, and the International Brotherhood of Electrical Workers union. Commissioner Rick Morgan chaired SMPPI. Dr. Frank Wolak, an economics professor at Stanford University, provided guidance to SMPPI in designing its work.

In 2007, SMPPI "initiated PowerCentsDC to test the reactions and impacts on consumer behavior of smart prices, smart meters, and smart thermostats in the District of Columbia. In July 2008, 900 residential customers across the District began receiving electricity with one of three plans for supply service: critical peak pricing (CPP), critical peak rebate (CPR), or hourly pricing (HP). Each customer received a smart meter that records power usage every hour, and those with a central air conditioner were offered a smart thermostat that automatically reduces air conditioning usage when power prices are high."[281] Customers with limited income were specifically recruited to test their responsiveness to dynamic pricing. As described in SMPPI's October 2010 final report, all customer participant groups reduced usage during peak periods when prices were relatively high, and their reductions were greater than those achieved by a control group of nonparticipants.

During the SMPPI experiment, in 2009, Congress passed a federal stimulus, the American Recovery and Reinvestment Act (ARRA), that provided funding for utility companies to implement smart grids. PEPCO applied for the funding, and the DC Council required the Commission to determine if the investment would be cost-effective. The Commission

281 See PowerCentsDC program final report, p. 1.

approved the cost-effectiveness of PEPCO's program in FC No. 1056. In 2010, the company began deploying smart meters to all of its DC customers; that deployment was completed in 2012 and the smart meters were activated that year. With deployment complete, on October 7, 2013, PEPCO filed a new dynamic pricing proposal that was docketed in FC No. 1109. In 2014, the Commission denied the proposal to explore a number of related issues in a newly designated case, FC No. 1114.

6. Back to Rate Cases

Electric industry restructuring, including PEPCO's sale of its generation plants, did not end the era of traditional ratemaking. Although generation and transmission rates were approved outside of rate cases, a rate case still was necessary to set distribution service rates. There were three PEPCO distribution service rate cases between 2008 and 2013, FC Nos. 1053, 1076, and 1087.

In December 2006, PEPCO filed a request for approval of a $50.5 million revenue requirement increase that was docketed in FC No. 1053. The company subsequently reduced the request to $47.9 million. In the case, PEPCO proposed a decoupling mechanism called a bill stabilization adjustment (BSA) as a means of accounting for variations in electricity consumption from test-year levels. The proposed BSA would automatically increase or decrease distribution service rates depending on whether actual revenues per customer were below or above the Commission-approved level based on test-year data. Among other things, the company also proposed cost recovery for its new Northeast Substation that was placed in service in August 2007.

In Order No. 14712, issued January 30, 2008, the Commission approved a $28.3 million distribution revenue increase, 59 percent of PEPCO's $47.9 million request. The Commission also approved DC's share of the costs of the Northeast Substation and deferred the BSA issue to the second phase of the case. On September 28, 2009, the PSC issued Order No. 15556, in which it approved a modified version of the BSA to account for variations in weather, customer responses to price changes, and energy efficiency programs. To reflect lower risk, the Commission also reduced PEPCO's return on equity (ROE) by 50 basis points. The effect of the BSA has been to reduce standard residential rates each year since implementation. The purpose of the BSA was to remove the disincentive for PEPCO to offer energy efficiency programs, yet by the time it was implemented, the CAEA had transferred jurisdiction over energy efficiency programs from PEPCO and the PSC to DDOE and the SEU.

Less than 16 months after the Commission approved the rate increase in FC No. 1053, PEPCO filed another distribution rate increase request, this time for $51.7 million in FC No. 1076. The utility subsequently reduced its request to $44.5 million. PEPCO argued that it required higher distribution rates to cover higher costs of capital, operations and maintenance expenses, and capital expenditures to maintain poles, wires, and critical equipment as well as a need to invest in "smart grid" technology. On March 2, 2010, the Commission issued Order No. 15710 in which it approved a $19.8

million distribution rate increase, less than half of the modified request. For customers who had not chosen a competitive generation supplier, the increase was at least partially offset by a subsequent reduction in PEPCO's SOS generation rates effective June 1, 2010. Together, total residential SOS bills increased by 2 percent or $2.30 per month on average.

When PEPCO filed its next distribution rate increase request in 2011, docketed in FC No. 1087, it asked for $42.1 million. During evidentiary hearings, the company reduced the request to $39.75 million. The Commission approved $24 million in Order No. 16930, issued September 27, 2012. As a result of the decision, the typical residential bill would increase by $2.60 per month. About one-third of the increase was attributed to implementation of advanced metering infrastructure (AMI). The Commission reduced PEPCO's ROE from 10.75 percent to 9.5 percent and it rejected the company's proposed reliability investment recovery mechanism surcharge on the grounds it would weaken Commission oversight of PEPCO's DC reliability improvement construction program at a time when doubts had been raised about its cost-effectiveness. Also in 2012, the Commission approved lower electric generation rates. For the 85 percent of PEPCO's residential customers served by SOS, the net effect of the distribution and generation rate changes was to decrease the total bill on average by 2.9 percent.

a. Master Meter Apartment Rates

In contrast with the national average (26 percent), the majority of DC residents (62 percent) live in rental housing, and a large proportion of them are in master-metered apartments (MMAs) (see Table 2.7). This is especially true for low-income residents. As such, electricity rates charged to MMAs impact a significant share of District residents as a component of their housing costs.

Electricity rates for MMAs have been an issue for over 40 years, dating back to FC No. 630 in 1975. The question at that time was whether MMAs should be charged commercial general service (GS) or residential (R) rates. The Commission recognized that some MMA buildings have residential tenants and some have commercial tenants. In Order No. 5739, issued November 12, 1975, it directed PEPCO to conduct a study of the apartment segment of the GS class and submit the results within six months of its order along with any proposals to establish a new or changed classification of residential users and a new tariff. PEPCO had not completed the studies when it filed its next rate case, FC No. 685, so no Commission action was taken in that case. The Commission hired an agent, Charles Schultz, to assist the company with the study, which was filed in FC No. 685. Schultz recommended that MMA tenants remain on the GS rate schedule, but AOBA opposed the recommendation by arguing that all residential users in MMAs be billed on a multiple application of the Standard R residential rate schedule. The Commission ruled that there was insufficient evidence to change the rate class of MMAs in Order No. 6096 issued June 14, 1979.

AOBA raised the issue again in the next rate case, FC No. 748, using the same study filed in FC No. 685. PEPCO argued that more recent load survey data showed that the load profile for MMA buildings was closer to that of residential

customers than the GS rate class. In Order No. 7457, issued December 30, 1981, the Commission once again found problems with the underlying evidence, but Commissioner Long dissented based on a PEPCO witness's testimony that MMAs have usage patterns closer to Standard R residential than to the GS class.

The Commission settled the matter in FC No. 785. This time, PEPCO's position was that MMAs should be billed on the GS rate schedule but that it would not object if MMAs were placed on a multiple application of the Standard R residential rate, provided any resulting revenue deficiency be recovered from other customer classes. Convinced by AOBA's argument that MMAs reflected load consumption characteristics of the residential class, the PSC moved MMAs to the multiple application of the Standard R residential class in Order No. 7716, issued December 29, 1982. The Commission also accepted the stipulation between AOBA and PEPCO that the revenue deficiency of $3.4 million would be recovered from all customer classes.

The issue of MMA rates reappeared 30 years later in a PEPCO rate case, FC No. 1087. In Order No. 16930, AOBA challenged the customer charge applicable to MMAs, which was calculated by multiplying the customer charge by the number of units in the MMA. PEPCO conceded that this method did not reflect the cost of serving the customer. Although the Commission maintained the status quo for the MMA class rate design in Order No. 16930, issued September 27, 2012, it directed PEPCO to present a class cost of service study showing the actual cost of serving MMAs in the next rate case. It also directed the utility company to analyze MMA class returns and rate structures as a standalone class and to propose a separate rate classification and schedule for MMAs in the next rate case.[282]

As 2013 ended, the issue was still being litigated in FC No. 1103, and no decision was rendered in Order No. 17424 issued March 26, 2014. In that case, PEPCO proposed a new rate schedule and rate design for a separate MMA class, while AOBA urged the Commission to retain the same basic structure of MMA rates—monthly charges billed on an average use per dwelling unit basis—until a better MMA rate design was presented in the next PEPCO rate case. AOBA opposed PEPCO's proposal on the grounds it would cause large disparities in rate impacts within the class due to differing sizes of MMA customers. The PSC found that since there was no load research or building unit distribution information on the record, no changes to MMA rates should be made. The Commission directed the company to design MMA rates that reflect the company's cost of service and report back to it with an improved MMA rate design in the next rate case.

b. Trends in Residential Electricity Rates in the District, 1913–2013

Normally, average residential electricity prices or rates are constructed by dividing residential revenue by the number of residential sales measured in Kwh. This approach enables comparisons across jurisdictions. However, because variations in revenue collections are a function of factors such as weather and number of customers, results cannot be tied directly

282 See pp. 140–141.

to the Commission's policy decisions in its rate cases and other proceedings. As part of this book's focus on the impact of PSC decisions, nominal and real residential electricity rates can be constructed directly from the rate designs approved by the Commission back to 1913.

These are the steps taken to derive nominal and real average monthly residential electricity rates between 1913 and 2013:

1. Compiled all rate case orders and compliance filings back to 1913.

2. Compiled residential electric rate designs approved by the Commission from rate case orders and compliance filings back to 1913. Some data also were found in Commission annual reports back to 1913 (see Appendix Table 8.1).

3. Compiled monthly average residential usage data, when available, from PEPCO, Commission annual reports, and PEPCO's annual reports to the Federal Power Commission (1956–1980). Actual monthly residential usage from 1956 through 2013 was available from one or more of these sources. DC usage data are estimated prior to 1956. Average monthly residential usage between 1929 and 1945 from the Commission's annual reports was system-wide rather than specifically for DC. Assuming that DC consumption paralleled the service territory, the annual average growth rate for that period was calculated and used to back-cast DC average residential monthly usage to 1913 (see Table 8.1).

4. Compiled winter and summer usage data from 1970 to 2013. (The PSC approved seasonal winter and summer rates beginning in 1970).

5. Multiplied rate designs by the monthly average residential usage to obtain a nominal price series.

6. Adjusted the nominal price series by adding fuel adjustment clause (FAC) data from 1977 to 1999, when the FAC was eliminated as part of PEPCO's sale of its generation plants and electric industry restructuring.

7. Converted nominal prices to real prices in 2013 dollars by applying the US CPI-U, US City Average.[283]

283 The US CPI was used because there was no single DC-area CPI for the entire 1913–2013 period. For years when both DC and US CPI-U data were available, both measures were graphed, and they were virtually the same.

The resulting electricity rates are presented in Table 8.2, Figure 8.2, and Figure 8.3. They show the trend in nominal and real average monthly residential electricity rates in the District between 1913 and 2013 as calculated from Commission-approved rate designs.[284] The trend in nominal rates was downward until the 1970s; since then, nominal rates have risen steadily, and particularly after electric industry restructuring and the introduction of competition in 2001. However, after adjusting for inflation, there is a significant decline in average real residential electricity rates in the District over the 101-year period.

Table 8.3 (in nominal dollars) and Table 8.4 (in 2013 constant dollars) and Figure 8.4 and Figure 8.5 allow comparison of the PSC-constructed rates with the traditional measure of residential electricity prices. The traditional measure goes back only to 1930, so that is where these tables and graphs begin. The traditionally constructed price series shows not only the same trend as the PSC-constructed series but the results are similar in each year.

284 These base rates exclude taxes, surcharges, and other fees.

Figure 8.2: PSC-Calculated Nominal Average Monthly Residential Electricity Rates per Kwh, 1913–2013

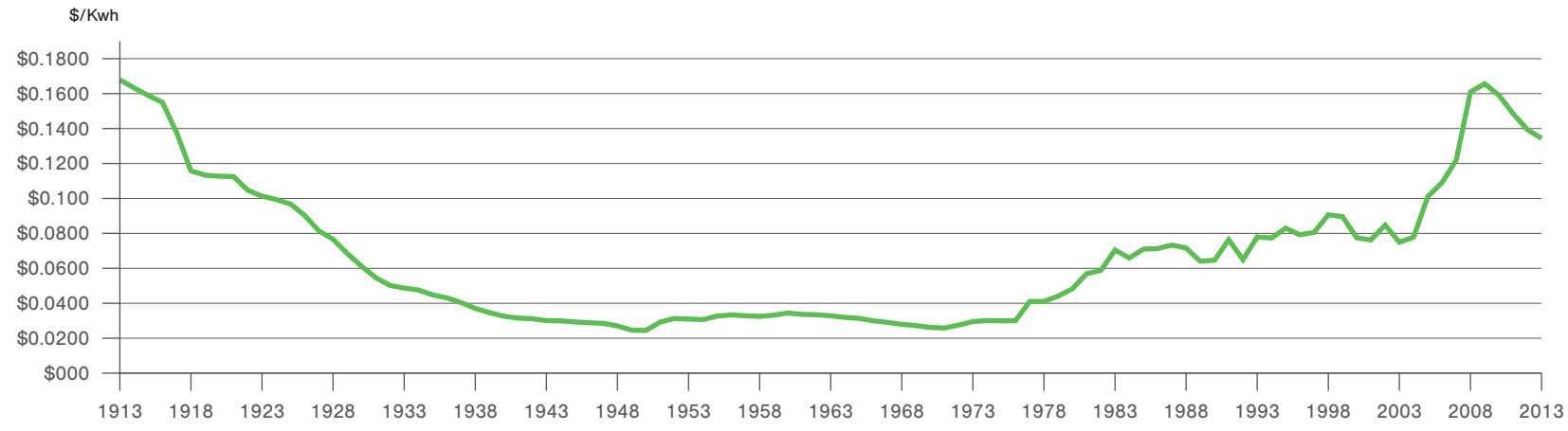


Figure 8.3: PSC-Calculated Real Average Monthly Residential Electricity Rates per Kwh, 1913–2013

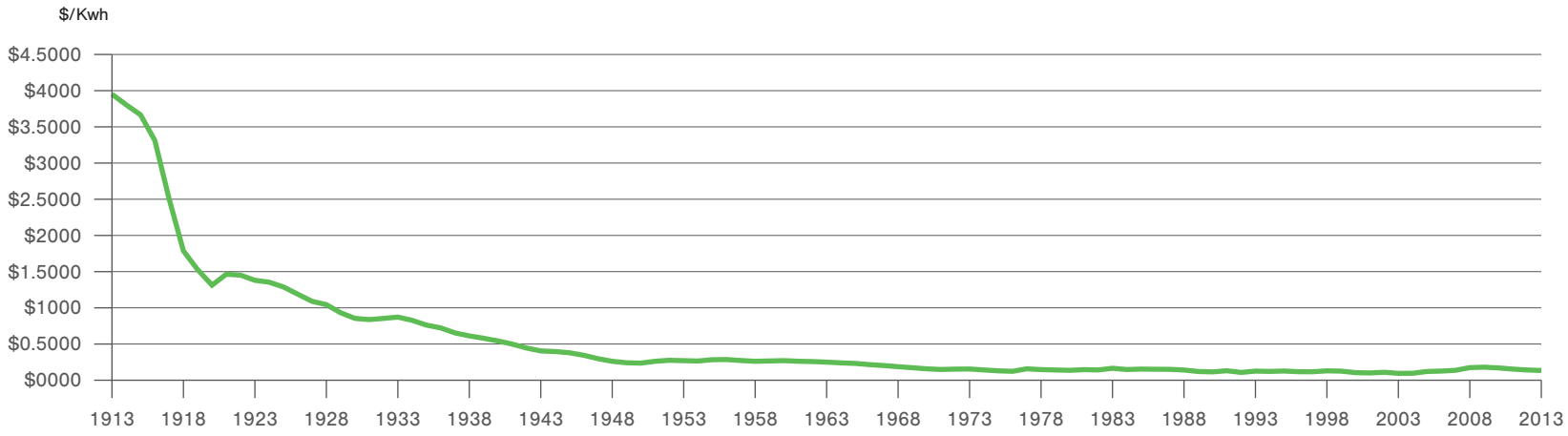


Figure 8.4: Average Nominal Residential Electricity Rates per Kwh, (Two methods) 1930–2013

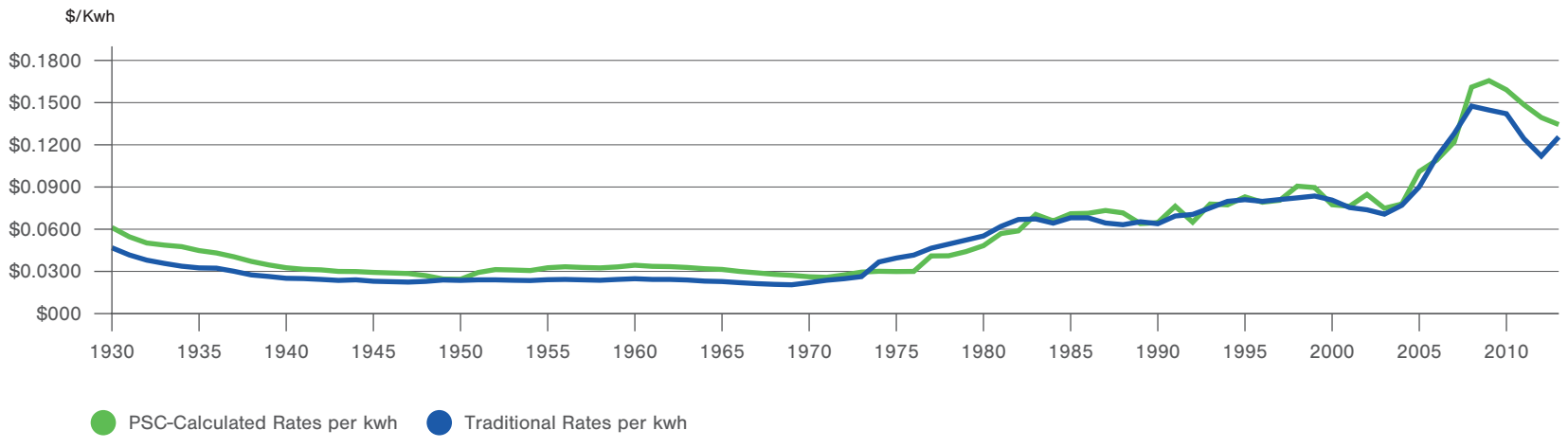
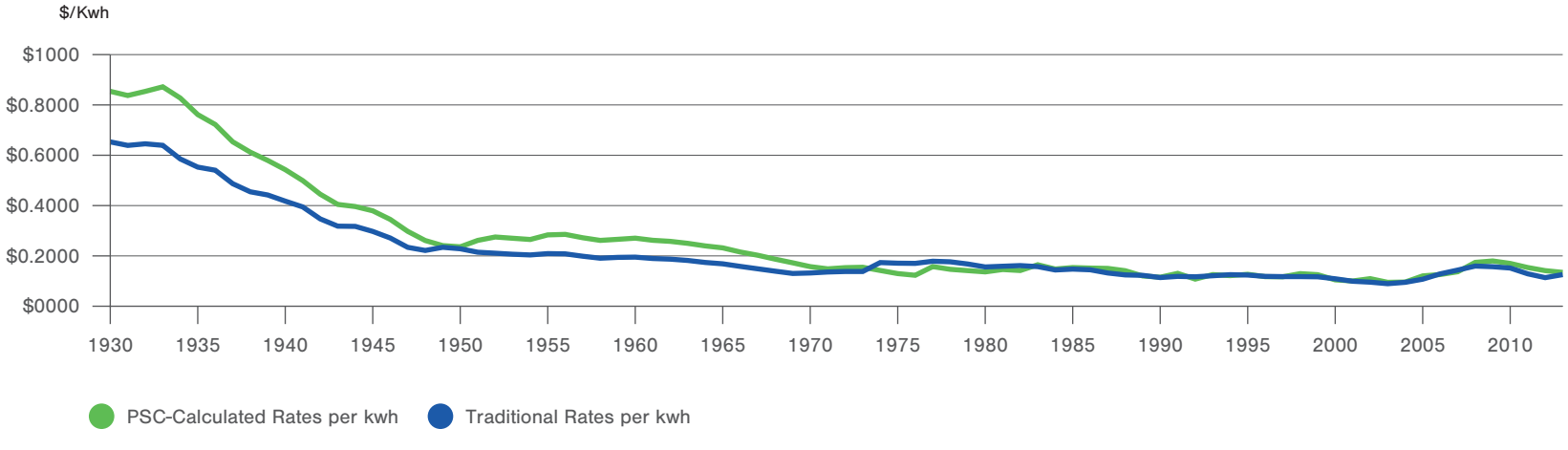


Figure 8.5: Average Real Residential Electricity Rates per Kwh, (Two methods) 1930–2013



7. Ensuring Safe, Reliable, and Quality Service

In its early years, the Commission devoted time to establishing electricity regulations to ensure the accuracy of meters and having them properly located with respect to safety, accessibility, and proximity to other meters. The rules also covered testing procedures, testing fees, factors for calculating monthly bills, and the range in variations of voltage on lighting and power circuits to be maintained.[285] The rules were amended in 1917 and 1925 to cover the frequency of testing both direct current and alternating current meters.[286] In 1916, the Commission approved regulations in FC No. 54 that established standards for testing new meters after conducting a voltage survey to ensure that PEPCO was maintaining voltage on its lines within the Commission's specified limits. There were relatively few customer complaints about electric-meter accuracy compared with gas meters because there were relatively few electric customers, electric meters tended to run slow over time, and they were generally more accurate than gas meters. According to the Commission's 1917 annual report, special consideration was given to stray electrical currents after inspection of underground pipes and cable conditions in Georgetown, Chevy Chase Lake, Brightwood, and Eckington. In the same year, the Commission provided to the DC Commissioners its opinion on adopting the National Electric Safety Code.[287]

In 1919, after receiving many complaints, the Commission established rules for extending service mains,[288] which stipulated who should pay the cost of an extension—the customer, PEPCO, or both—and how costs to each party should be determined. Because the cost could be a burden, particularly to residential customers, consumers often challenged these rules.

Congress mandated that electrical lines on major thoroughfares be underground within the boundary of the City of Washington well before the Commission was established. After 1913, the PUC faced requests to extend underground conduit within city limits. One of the first formal electricity cases was FC No. 59, which covered the proposed extension of underground conduit on Sixth Street, Northeast, between H Street and Florida Avenue. Requests for approval of undergrounding projects beyond city limits came from PEPCO, community organizations, and individuals. The key issues were who should pay and how much. In considering these requests, the Commission often communicated with the electrical engineer for the District. Frequently, the Commission denied requests because of cost.

Early in the 20th century, not many households and businesses had access to electricity. For this reason, major storms such as the July 1913 heat wave and tornado and the 1922 Knickerbocker snowstorm had adverse impacts but did not cause many power outages because the grid had not been established. Nonetheless, on October 7, 1920, the Commission established an electric reliability standard by requiring PEPCO to file daily reports on interruptions of service of ten

285 See FC No. 29, Order No. 139 issued January 30, 1915.
286 See Order No. 202, issued February 27, 1917, and Order No. 545, issued January 24, 1925.
287 PUC minutes of meetings, 1915–1917 Volume, p. 216.
288 See Order No. 368, issued March 23, 1920, in FC No. 78.

minutes or more within 48 hours of the occurrence when the interruptions involved equal or greater equipment than one outgoing substation feeder panel.[289]

As demand for electricity grew, reliability meant ensuring that PEPCO had adequate capacity to meet its peak load. The Commission played a role in the build-out of PEPCO's system because each major project required Commission approval. There are many references in the minutes of Commission meetings to the PUC's certification to the DC Commissioners or engineer commissioner that PEPCO's proposed construction of and additions to generating stations and substations were "necessary to public convenience and welfare."[290]

The company's two oldest generation plants were located on Benning Road and at Buzzard Point in the District. The Benning plant was built in 1906, before the Commission was created; the Buzzard plant was built in 1933. The first mention of the installation of generation capacity in the Commission's minutes was in 1917, when PEPCO installed a 15,000 kW steam turbine at the Benning Road plant and built three new substations, at Deanwood, the War Department at Sixth and B streets, Northwest, and a federal office building at 18th and D streets, Northwest. The company completed work at Benning in 1918 and immediately began construction of a similar unit there. In 1939, a 50,000 kW unit was added at Buzzard Point that began service in 1940. Given the rapid increase in load, a second 50,000 kW unit was added in 1942, after a one-year delay in construction due to the war (a "national emergency" in the PUC minutes). In 1951, after documenting that peak load exceeded capacity, the Commission approved modernization of the old Benning plant; that work was completed in 1952.

The Commission addressed these matters in PUC No. 2477 until the PUC-numbered docketing system was eliminated in the 1960s. Also, in the '60s, interconnection with Baltimore Gas and Electric (BG&E) and PJM allowed PEPCO to serve its growing load in the suburbs beyond its own generation capacity and through purchase power contracts.

Reliable electric service, even with interconnection to PJM and the national grid, was not assured, as evidenced by the Northeast Blackout in 1965. That event was a red flag to utility companies and state regulatory commissions. The Commission's chief engineer served on a regional task force assigned to provide recommendations for the future. Chairman James Washington Jr. and three staff members attended several meetings. His response was to survey government installations and hospitals in DC about the status, if any, of their standby generation capabilities. After learning the DC Board of Commissioners was considering the same approach, the Commission worked with the Director of Civil Defense to distribute to 20 DC facilities a questionnaire the Commission drafted. The outreach received 13 responses. Chairman Washington also sought information from PEPCO about its ability to meet current demand in DC, the feasibility of adding peaking facilities, and the potential for scheduling them.[291]

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289 PUC minutes of Commission meetings, Volume 1920–1922, p. 76, and PUC No. 1845.

290 These certifications were usually docketed in PUC No 2477 and no orders were issued.

291 See minutes of Commission meetings, pp. 5381–5510.

By the 1980s, adding generation capacity was a key issue, as described in Chapter 7 on the role of public input. In 1988, PEPCO filed an application with the Commission to add two combustion turbines to the Benning Road plant to maintain reliable service. The Commission docketed the matter as FC No. 877 to determine if the project was in the public interest. The neighboring River Terrace community strenuously opposed the project on the grounds the operation of the turbines would have adverse environmental impacts and would be a health risk for residents. The Commission never approved the project. PEPCO did, however, require added capacity, as the company's reserve margin had fallen to about 9 percent, well below the 16 percent planning margin. Between 1991 and 1994, the Commission approved PEPCO's request, and therefore the cost, to add combustion turbines to several of its plants located in Maryland in a series of rate cases: FC Nos. 905, 912, and 929.

Although PEPCO did not need to add any more generation capacity until it sold its plants in 2000, there was a need to undertake a number of both underground and overhead transmission projects to ensure electric reliability, particularly after Mirant, the company that was operating the plant, shut down the Potomac River site in August 2005 to comply with environmental ordinances imposed by the city of Alexandria, Virginia, where it was located. The Potomac River plant was needed for peak load reliability, so the Commission, through Chairman Agnes Alexander Yates, succeeded in getting the US Department of Energy to require Mirant to reopen the plant and maintain operations until several alternative transmission projects were completed.[292] After holding formal and community hearings in FC No. 1044, the Commission granted PEPCO a certificate of public convenience and necessity to construct four new transmission lines—two 69 kV overhead and two 230 kV underground. As planned, the two overhead lines were completed in 2006 and the two underground lines were completed in 2007.

The Commission approved two more PEPCO transmission projects: In FC No. 1073, the PSC issued Order No. 15553 on September 23, 2009, ruling that PEPCO had sufficiently demonstrated the reasonableness, safety, and need for two 230 kV underground transmission circuits between the Benning Road station in DC and a PEPCO substation in Seat Pleasant, Maryland. The Commission monitored PEPCO's construction through quarterly report filings by PEPCO and the project was completed in 2012. That same year, the Commission approved PEPCO's plan to upgrade a 138 kV and a 230 kV underground transmission circuit between Buzzard Point in DC and the Seat Pleasant substation. With completion of that project, PEPCO could implement its plan to retire the Buzzard Point plant. The project was also necessary to meet North American Electric Reliability Corporation (NERC) reliability standards for bulk electric system facilities. The PSC allowed the utility to proceed with construction, subject to obtaining necessary permits from other DC agencies, in Order No. 16820, issued on June 21, 2012, in FC No. 1095. In 2012, PEPCO retired both the Benning Road and Buzzard Point plants.

292 See FC No. 1023.

a. Electric System Reliability and Storm Restoration

Storm restoration first became a public issue for PEPCO and the Commission in September 1952, when a tropical storm with two small tornadoes and 70-to-100-mile-per-hour winds hit the company's service territory. Many homes relied on electricity not only for lighting but also for televisions and household appliances, such as refrigerators, washing machines, and window air conditioners. PEPCO estimated that several thousand customers in Maryland and DC lacked power for varying lengths of time ranging between one and four hours after an underground power line failed. Areas particularly affected included Southeast DC, Silver Spring, Bethesda, and Takoma Park, Maryland. Even a precinct police station was left without power.

The media widely covered the impact of Hurricane Hazel, on October 16, 1954, which felled many trees and blew off some roofs. Over 1,000 PEPCO wires were downed and over half of the company's customers lost power at some time during or after the storm in DC, Maryland, and Virginia, with the latter two jurisdictions more widely damaged because most of their power was distributed by overhead lines. About 7,000 DC customers, mostly in Northwest where lines also were above ground, were without power. PEPCO called it the worst destruction in its history.[293] Using workers borrowed from other utilities, the company restored power to all customers in the District by October 19 and in Maryland by October 21. As a follow-up to the storm, consideration was given to undergrounding overhead lines, but the estimated cost of ten times that of overhead lines and the impact on rates deterred any action. The Commission did monitor PEPCO's repair work, as briefly alluded to in minutes of its meeting on June 3, 1955.[294]

Hurricane Agnes, on June 22, 1972, challenged PEPCO's (as well as WGL's and C&P's) infrastructure and customers. There was severe damage to underground cables and trunk lines; falling trees and limbs and equipment short circuits caused flooding. Most power to the many thousands of affected homes was restored by the next day.

In response to a high volume of complaints about numerous power outages after severe storms on June 27 and June 29, 1978, the Commission initiated FC No. 703, "In the Matter of the Review of Procedures and Practices of the Potomac Electric Power Company for Coping with Service Outages and Other Emergencies Resulting from Natural Phenomena." The PSC undertook an investigation into whether PEPCO's restoration efforts favored some geographic areas of the city, the time it took the company to restore service, and the adequacy of PEPCO's restoration procedures. On July 21, 1978, the Commission held an informal hearing in which citizens, businesses, and organizations were invited to relate their experiences and recommend remedial action. Commission staff next conducted an investigation. On April 24, 1981, the Commission issued Order No. 7296, in which it closed the case after reporting the results of its investigation that included a random sampling of 700 customer complaints. No bias or geographic preference was found.

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293 PEPCO was not the only utility adversely impacted by the storm. C&P had 6,500 phones knocked out in the DC area, and 1,000 were still out 24 hours after the storm.

294 See minutes of Commission meetings, p. 3959 and PUC No. 1845/16.

During investigation of the 1978 storms, two violent thunderstorms occurred in late August and early September 1979 that caused thousands of customer outages in upper Northwest DC and Montgomery and Prince George's counties in Maryland; however, no formal investigation was conducted.

PEPCO has described the Flag Day (June 14) thunderstorm in 1989 as the "worst storm in the company's 93-year history in terms of the number of customers affected, number of customer calls, and the damage to the distribution system."[295] Its overhead distribution system was destroyed and 150,000 customers in Maryland and DC lost power. The company received nearly 100,000 customer calls. According to PEPCO, about 44 percent of the damage was in the District, reflected in 663 tree complaints, 44 feeder lockouts, and six substation shutdowns.[296] Because PEPCO had to rebuild its overhead distribution system, the company took six days to restore service to all of its customers, although 96 percent had power within four days. During that period, PEPCO implemented a well-received community outreach program that included distribution of dry ice. The company noted many consumer compliments for its restoration efforts.

A few years later, in 1994, OPC filed a petition for an investigation of PEPCO after severely cold weather between January 16 and 21 led the company to conduct electric power brownouts and rolling blackouts to prevent shortages. The Commission conducted its investigation in FC No. 936, ultimately affirming, without criticism, PEPCO's—and WGL's—forecasting and public information procedures.

Public dependence on electricity significantly increased over the ensuing decade, in part due to the proliferation of computers, so customers had limited patience for extended outages during and after Hurricane Floyd in September 1999. Earlier that year, it took PEPCO three days to restore service to 10,000 DC customers after a severe ice storm hit the area in January; the Commission received numerous complaints.

The Commission responded by opening FC No. 982 to investigate PEPCO's restoration processes and practices that requires every public utility doing business within the District to "furnish service and facilities reasonable safe and adequate and in all respects just and reasonable." Special focus of the Commission's inquiry was customer relations and company planning and preparedness to identify any improvements that could be achieved. The Commission convened a public hearing on January 21, 1999, to receive testimony on the matter from PEPCO. Meanwhile, PEPCO engaged PHB

295 *The Flag Day Downburst–PEPCO's Response*, June 1989, pp. 1 and 13.
296 Ibid., p. 7.

Hagler Bailly, a management consulting firm, to conduct a comprehensive assessment of its emergency communications and response plans and its performance during the ice storm.

Soon after PEPCO filed those reports, Hurricane Floyd hit the District, so the Commission asked PEPCO to explain whether the updated plans were effective during this event. PEPCO filed its report on October 22, and subsequently OPC filed comments and Commission staff filed a report. On February 10, 2000, the Commission issued Order No. 11604, noting that PEPCO's storm restoration performance after Hurricane Floyd was an improvement over the ice storm and that PEPCO's transmission and distribution (T&D) performance was better than the industry average. It directed the Productivity Improvement Working Group (PIWG), comprising PEPCO, OPC, and Commission staff, to examine related issues such as PEPCO's emergency staffing resources; additional T&D reliability measuring criteria, outage documentation, and reporting indices; revised standards; and best practices. This assignment was a turning point for the group, which was formed in the early 1980s to address performance of PEPCO's generating plants. Since, in 2000, PEPCO sold those plants and promised to concentrate on its distribution system, electric distribution reliability became the new focus of the PIWG.

PIWG meeting in 2008 with PEPCO engineers, William Gausman and Chet Knapp and PEPCO attorney Marc Williams; OPC attorney Brian Edmonds; and PSC technical staff chief engineer Udeozo Ogbue, chief economist Dr. Grace Hu, and senior economist Dr. Roger Fujihara.

b. Manhole Incidents and Aging Infrastructure

Signs of trouble in PEPCO's underground distribution system appeared during winter 2000, when several fires, explosions, and incidents of smoke emanating from manholes occurred in the Georgetown and downtown sections of the District that triggered PEPCO and Commission investigations. The Commission initiated FC No. 991. Both reliability and safety issues were involved as manhole covers blew off, endangering traffic and pedestrians. PEPCO hired consultants and the Commission engaged Stone and Webster (S&W), an engineering consulting firm, to conduct an independent assessment of the utility's underground distribution system in the affected areas. S&W concluded that overloading (instances when there is too much demand on the system) caused cable and splice failures that led to the smoke, fires, and explosions. In addition, the consultants found that several incidents were caused by crowded manholes and outdated

equipment. At least some of this infrastructure may have dated back over a hundred years to the city's electrified streetcar system that began in 1888, predating both PEPCO and the PSC. Most likely, construction of the Metro subway system in the 1960s was the last major underground infrastructure project in which PEPCO participated before the incidents in Georgetown.

Both short-term and long-term solutions were implemented. The Commission directed PEPCO to install slotted manhole covers, which proved effective in reducing the number of explosions.[297] The long-run solution was to rebuild the underground system in Georgetown. PEPCO, the other utilities, and the District government, with some Commission monitoring and oversight, began in 2003 to rebuild the underground electrical, gas, telephone, and water facilities in Georgetown. The project was completed in 2007. For preventive maintenance and safety purposes, the Commission engaged Siemens Power Transmission and Distribution, the successor to S&W, to monitor and conduct independent inspections of manholes in other parts of the District and to report its findings to the Commission every year.

From left to right, deputy executive director for regulatory analysis Dr. Joseph Nwude, Commissioner Agnes Yates, and Acting Chairman Ed Meyers on a manhole inspection in Georgetown.

While the number of reported incidents declined, the Commission was concerned about the safety of PEPCO workers who responded to manhole incidents. The PSC opened an investigation into an underground manhole explosion that occurred on May 10, 2007, at New Jersey Avenue and K Street, Northwest (FC No. 1058), after a PEPCO worker was burned. The cause of the explosion was attributed to a primary joint failure due to deteriorated insulation. The incident validated the need for continued monitoring of PEPCO's manhole-inspection program. The Commission required PEPCO to provide further information on its safety procedures for manhole inspections, including identifying hazards, barriers and safeguards used to eliminate, minimize, or control the hazards, and methods used to ensure compliance with safety procedures by all employees at risk.

297 Order No. 11716 issued June 16, 2000.

Dr. Joseph Nwude, deputy executive director for regulatory analysis (at right), conducting a manhole inspection.

c. Back to Storm Restoration

As required by Order No. 11604, the PIWG proposed and the Commission approved (in Order No. 12574, issued on October 22, 2002) reporting standards for service outages and restoration performance. The standards contained definitions of major and non-major outages—the threshold for a major outage was 10,000 or more customers without power.

These reporting standards proved useful the next year, when four major storms hit. The first occurred on June 11 and 13, 2003, when nearly 21,000 District customers lost power. On four days in late August, a series of thunderstorms knocked out power to about 18,000 DC customers at its peak. Massive damage occurred to PEPCO's system during Hurricane Isabel on September 18 and 19, when 538,000, or 76 percent, of the company customers, including 135,000 DC customers, lost power. Nineteen of PEPCO's 13 kV distribution substations shut down—it was the worst outage to date in PEPCO's history. On November 13, another storm caused over 10,000 DC customers to lose power.

PEPCO restored power to all DC customers within a day or two for three of the four storms, but it took the utility company ten days to restore power to all customers and nine days to restore power to all DC customers after Isabel. PEPCO took longer to restore service to its customers than electric utility companies serving neighboring jurisdictions that also were hard-hit. The Commission held a community hearing on November 13 and an informational hearing on November 14. Many customers felt that PEPCO's public communications were poor during the extended outages.

PEPCO engaged James Lee Witt Associates to review its response to the August storms and Hurricane Isabel and to determine how the company could better respond to customer needs during such events. The consultants' report blamed overloading and failure of PEPCO's new outage management system (OMS) that had been installed and activated in November 2002 to provide storm status, a summary of active complaints, priority status of customers and facilities, and crew status so the company could provide geographic-based restoration estimates. PEPCO filed the review, which became known as the Witt Report, on January 12, 2004. After receiving public comments on the report, on September 15, 2004, the Commission issued Order No. 13381, accepting the report's recommendations and determining that the amount of time PEPCO took to restore power was reasonable given widespread damage to its system. However, the PSC also directed PEPCO and the PIWG to submit a report on a comprehensive tree management program since much of the storm damage was the result of downed trees and limbs. Correction of flaws in PEPCO's OMS system were implemented in May 2004. The Commission ordered a review of both PEPCO's underground and overhead distribution system and the development of storm restoration performance standards for major outages. The Commission monitored PEPCO's and the PIWG's progress on these initiatives by requiring that quarterly reports be filed. These initiatives were completed by 2007.

d. Smart Grid Technology to Reduce Restoration Times

One of the major federal initiatives to stimulate the US economy after the Great Recession of 2007 was Congress's passage of the American Recovery and Reinvestment Act (ARRA), which became law in February 2009. Among other things, it authorized the US Department of Energy (DOE) to award grants of up to 50 percent of the cost to deploy smart grid technologies called advanced metering infrastructure or AMI. AMI provided two-way communications between customers and utility companies that could reduce restoration times after storms by helping the utilities more quickly identify outage causes and, in some cases, restore service remotely. The DC Council approved implementation of AMI in the city subject to Commission approval that the project, with the federal funding, would be cost-effective. PEPCO applied to DOE for the funding and on October 29, 2009, was awarded $44.6 million for AMI deployment. On December 17, 2009, in Order No. 15629, the Commission certified the cost-effectiveness of the program. PEPCO began phasing in AMI meters in October 2010. By 2012, deployment was complete and the meters were activated for two-way communications.[298]

FC No. 1056, funding hearing for smart grid

e. Undergrounding as a Long-Run Solution to Minimize Outages

One of the recommendations of the Witt Report was that PEPCO more aggressively seek opportunities for public-private partnerships, as in the case of communities that wanted to share the costs of undergrounding.[299] In fact, undergrounding the electrical system has a long history in the District. In 1888, Congress mandated that the electric distribution system be underground within the city limits.[300] The boundary for the city covered Georgetown and the area between Florida Avenue and the Potomac and Anacostia rivers and included the central business district, Capitol Hill, Dupont Circle, Logan Circle, Shaw, and Southwest.[301] The underground system was first used for the electrified streetcar system in place by the beginning of the 20th century. It subsequently formed the basis for electric street lighting in the downtown area.

As the local population migrated beyond the city, streetcars and then homes and businesses were served principally by overhead electrical lines. According to the minutes of Commission meetings, in 1917, the DC Commissioners asked the PUC to assess the need for extending PEPCO's underground conduit on Champlain Avenue, from Kalorama Road to Euclid Street. The Commission opened FC No. 60, held a formal public hearing, and approved the extensions in Order No. 222 issued June 29, 1917. During the 1920s and 1930s, the Commission began getting requests for extensions of the underground system not only from PEPCO and the Committee on Extension of Underground Mains in Advance of Street

298 For more details, see FC No. 1056.
299 Witt Report at 5.
300 See section 34-1901.01 of the DC Office Code.
301 Mayor's 2013 task force report, p. 114.

Paving but also from private citizens and businesses. The question was whether electricity consumers should pay a portion of the cost to convert from overhead to underground service. In 1929, the PUC directed PEPCO to obtain feedback from citizen associations as to whether they were willing to approve expenditures necessary to underground overhead lines on Montello Avenue, Northeast, and on Buchanan, Varnum, and Allison streets, Northwest. PEPCO estimated the cost to the company would be $20,370.44 and the cost to property owners would be $1,831.20. In the alternative, PEPCO submitted applications for permits to renew and relocate poles and the aerial system on the streets.[302] The Commission did not order undergrounding of the lines until it obtained from the DC electrical engineer the cost of the proposed change. Once received, the Commission approved undergrounding on the streets in Northwest.

The Commission also was asked to approve such conversions by PEPCO as part of efforts to replace poles on major thoroughfares. Often, the Commission denied the request to underground lines instead of renewing or relocating poles because the project was not deemed cost-effective. The engineer commissioner was a key player in these decisions, given his dual role as a member of the DC Board of Commissioners.[303] After Hurricane Hazel, the question of undergrounding overhead lines again arose, but the cost was estimated to be about ten times the cost of the overhead system and would have required boosting rates.

In the mid-1960s, there were two instances when undergrounding lines was considered. The first began in 1962 when school construction in far Northeast required a change to the right-of-way for a high-voltage transmission line. The Commission's executive secretary and its vice chairman toured the area where the 69kV line was proposed to seek a suitable route for relocation. Chairman Washington instructed the executive secretary to notify the Northeast Business and Professional Men's Association of the plans and request their position on them. The group sent a letter saying the line should be placed underground from the Benning Road plant to the District line. Commissioner Gen. Charles Duke wanted the line put underground, but that would cost $1 million.[304] The economics of the matter, however, was overtaken by a legal question: Did the Commission have the authority to render a decision? Chairman Washington believed the Commission had the authority based on Section 56 of the Commission's statute pertaining to health, safety, and welfare, while the DC Corporation Counsel rendered two opinions (one dated August 14, 1964, and the second dated November 8, 1965) claiming otherwise.

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302 PUC No. 2767/1 and minutes of Commission meetings, 1928–1932 Volume, p. 135.

303 Ibid., p. 151.

304 Minutes of Commission meetings, p. 5465.

With that dispute ongoing, in 1965, US Senator Alan Bible sent a letter request to the Commission to underground poles and wires carrying electric and telephone equipment throughout the District. Gen. Duke noted that a zoning issue would first need to be addressed because overhead and underground equipment are zoned differently. The chief engineer prepared a report and the matter was referred to the DC Commissioners because all permits for construction were issued by them.

The Commission considered adding the issue to a PEPCO rate case but eliminated it before the order designating issues was released. Instead, in 1966, the Commission directed PEPCO to furnish the location of all overhead and underground lines of 33 kV or higher; to note whether the costs were in the present rate base; and to identify any special community problems that could be envisioned if the lines were relocated and why each problem could not be resolved. The Commission had to insist repeatedly that PEPCO provide the information, and the company finally complied with the request. Once the information was received, the Commission planned to meet with public utility commissions in Maryland, Pennsylvania, New Jersey, and Delaware, which had similar cases before them. PEPCO's information indicated that in far Northeast alone there were 19 circuit miles to be undergrounded and the cost would be $1.248 million. By the time Chairman Washington left office, no action had been taken. The next PSC chairman, George Avery, did not act on the matter. He was concerned there would be a windfall to one person for the Northeast project, which also required participation by the National Capital Planning Commission because the line would be rerouted through Park Service property.

Shaw Engineering presentation of undergrounding study

Service restoration problems encountered during and after Hurricane Isabel moved the Commission to reconsider the feasibility of undergrounding lines in the District. The first step was to open a proceeding, FC No. 1026, by issuing Order No. 13993 on December 3, 2003. PEPCO conducted a study, with recommendations, which was filed on September 30, 2004. The study indicated that the cost to underground the company's entire system would be prohibitive—an estimated $4 billion (in 2004 dollars). Instead, PEPCO recommended selective undergrounding as an option.

After receiving comments on the report, on December 6, 2005, the PSC issued Order No. 13830, declining to order PEPCO to convert its overhead lines to an underground system. However, the Commission did direct the company to conduct a cost and feasibility study of undergrounding selected feeders in areas prone to power outages. On June 5, 2006, PEPCO submitted its report. After another round of comments was requested and received, on February 12, 2007, the Commission issued Order No. 14209, requiring PEPCO to address whether converting overhead lines to an underground system in communities and neighborhoods susceptible to power outages would lead to better, more reliable, and less outage-prone electric service. The company filed its response April 27, 2007.

As the next step, the Commission decided to conduct its own study. After issuing a request for proposal (RFP) in 2008, the Commission engaged Shaw Engineering in 2009 to conduct the study. The firm submitted its report to the Commission on July 2, 2010.

The Shaw study concluded:

1. The estimated cost to underground PEPCO's entire overhead distribution system was $6.2 billion (in 2010 dollars).

2. Undergrounding would reduce the frequency of outages but increase their duration because it takes longer to detect and repair problems in an underground system than in an overhead system.

3. Immediately after undergrounding, reliability would improve. But because underground cables have a shorter life span than overhead lines, over time it would worsen.

4. The greatest benefit would come from undergrounding primary lines but not secondary lines to individual homes and businesses.

5. While undergrounding the entire system is not cost-effective, a targeted approach is worthwhile.

While PEPCO and the Commission pursued the idea of selective undergrounding as one of six options for improving reliability in PEPCO's comprehensive reliability plan, there were seven more major storms. The company filed reports on its restoration efforts after each of them. Not dissatisfied with the utility's performance but seeking further improvements, the Commission grappled with whether to establish storm restoration benchmarks.

f. Storm Restoration Benchmarks and Plan

In Order No. 13381, issued in 2004, the Commission directed PEPCO and the PIWG to develop storm restoration performance standards for major outages, considering the severity of a storm in terms of the percentage of PEPCO customers affected system-wide; the time to restore 90 percent and 100 percent of affected customers; and the practices in other states and jurisdictions. The PIWG was required to submit quarterly progress reports.

The task proved difficult, as each storm seemed to have circumstances not easy to "normalize," and few if any jurisdictions had created standards that could be used as models, most likely due to the same problems being encountered in DC. By 2011, after storm restoration problems continued and as a follow-up to the Commission's 2008 investigation of outages, the PSC decided to obtain public input by issuing Order No. 16249 that began an inquiry into whether such standards should be established. Comments were received, and the Commission issued a notice of inquiry (NOI) on April

27, 2012. In response to comments received on the NOI, the Commission issued another NOI on June 7, 2013, on the narrow issue of whether to change the definition of a major outage. After receiving comments, the PSC issued Order No. 17286 on October 30, 2013, requesting further comments. Responses were due in December 2013.

Although the Commission did not establish storm restoration benchmarks by the end of 2013, it approved a PEPCO DC Major Storm Outage Restoration Plan. On April 27, 2012, the Commission had issued a NOPR that included provisions requiring the company to design and implement such a plan. The Commission approved the plan in Order No. 16839 on July 17, 2012. On November 6, 2012, PEPCO filed its plan with the Commission. After receiving comments from OPC, PEPCO filed a corrected version on January 16, 2013. On May 30, 2013, after another round of comments, the Commission approved PEPCO's plan, subject to several revisions and reporting conditions.

g. The Derecho Game Changer

The June 29, 2012, Derecho windstorm was a game changer. At the peak, nearly 500,000 PEPCO customers lost power and over 75,000 of them were in DC. It took PEPCO eight days to restore power to all DC customers and a little longer to restore power to its Maryland customers.

PSC Chairman Betty Ann Kane responded to Mayor Vincent Gray's call for a "game changer," by suggesting he form a task force to pursue the idea of selective undergrounding. On August 16, 2013, the mayor issued Executive Order 2012-130, which established the Mayor's Power Line Undergrounding Task Force to improve electric system reliability and resilience in response to more frequent weather events and their impact on the electric distribution system. The task force was led by City Administrator Allen Lew, and Joe Rigby, PEPCO president and chairman of the board. Members included Chairman Kane; DC Council member Yvette Alexander; People's Counsel Sandra Mattavous-Frye; the directors of the Departments of the Environment, Transportation, and Public Works; the DC Office of the Chief Financial Officer and Office of the Budget; citizen representatives of wards 3 and 7; and representatives of the water and sewer authority, WGL, Comcast Cable, and RCN.

In October 2013, the group submitted its findings and recommendations, including draft legislation it submitted to the DC Council. Some of the key recommendations were to:

- Proceed with selective undergrounding of power lines by implementing a seven-to-ten-year plan for undergrounding up to 60 distribution lines at a cost of nearly $1 billion.
- Proceed with legislation that allows funding for the project through a rate surcharge totaling up to $500 million and up to $375 million authorized through utility rate securitization in bonds.
- Develop a public awareness and stakeholder communications plan.

PSC Chairman Betty Ann Kane participating in a meeting of Mayor Vincent Gray's undergrounding task force.

h. Blue Sky Outages and Electric Reliability Goals and Benchmarks

Although the impetus for undergrounding overhead lines stemmed from a search for ways to improve PEPCO's storm restoration efforts, the Commission has also sought to improve the company's overall electric system reliability.

The electric utility industry measures electric reliability on the basis of the average number of outages or frequency of outages (SAIFI or System Average Interruption Frequency Index) and the average duration of outages in hours (SAIDI or System Average Interruption Duration Index and CAIDI or Customer Average Interruption Duration Index). Principal causes of sustained outages[305] include equipment failure, trees, weather, animals, cable cuts, load, motor vehicle collisions, fire, and downed wires. (Major events such as storm-related outages are not included in the definition.) These types of outages are often referred to as "blue sky" outages because they generally occur when weather is not a primary factor. Blue sky outages are now defined as non-major outages lasting more than eight hours regardless of how many customers are affected or customer service outages affecting more than 100 and fewer than 10,000 customers, regardless of duration, and are reported by PEPCO in Attachments 1–4 of its monthly outage reports. Major service outages are defined as impacting more than 10,000 customers and restoration efforts take more than 24 hours.

> *The first mention of blue sky outages in the Minutes of Commission meetings was in 1964 when a resident, Mr. Richard Goode, of 1623 45th Street, N.W. complained of experiencing many electric power failures. They frequently occurred on a hot Saturday or Sunday, probably due to heavy demand for air conditioning. Chairman Washington asked the Assistant Chief Engineer to investigate and report to the Commission as to why the area was experiencing electric power failures.*[306]

Although, looking back, there was at least one equipment-caused blue sky outage (January 6, 1992[307]), the Commission began to focus on PEPCO's electric system reliability and track its performance in 2000. At that time, the Commission

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305 Prior to 2001, PEPCO used a one-minute standard. Beginning in 2001, PEPCO adopted the industry standard of five minutes for a sustained outage.

306 Minutes of Commission meetings, p. 4995.

307 See PEPCO's May 8, 1992, report on its January 6, 1992, power outage.

also was grappling with investigations of manhole incidents—the first evidence of aging underground infrastructure—and PEPCO's performance in restoring service after the 1999 ice storm. That same year, PEPCO sold or transferred its generation assets to Mirant. The Commission ordered PEPCO to revise the scope of its annual productivity improvement plans (PIPs) by shifting focus away from the performance of its generating facilities and the procurement of fuel for the units to the company's T&D system and evaluation and remediation of its least performing feeders (LPFs) that accounted for about 2 percent of its 751 feeders in the District. In Order No. 11604, issued February 10, 2000, the Commission stated:

> *We note that, although PEPCO's performance may exceed the industry average, it remains incumbent upon PEPCO to continue to ensure the provision of safe and reliable electric service to customers in the District. To that end, the Commission concurs with Staff's recommendation that PEPCO work with the PIWG to investigate additional T&D reliability measuring criteria, and outage documentation and reporting indices. Further, PEPCO is directed to report to the PIWG, on an annual basis, the results of its evaluations of the performance of its feeders and the status of its reliability improvement projects, including the ongoing hardening of power supply to each substation.*[308]

This action proved timely, as FC No. 766, first opened in 1981 to audit PEPCO's productivity performance, became the locus for a comprehensive review of the company's system reliability each year, with particular attention paid to improving performance of the company's poorest feeders that contributed to the most blue sky outages. Also in Order No. 11604, the Commission noted that PEPCO had indicated that it used the reliability measures of the frequency and duration of outages to identify LPFs. In its March 1, 2001, Order No. 11931 on PEPCO's 2000 PIP, the PSC approved an outline for the company's 2001 PIP that contained a new section on feeder performance and reliability of the utility's T&D facilities, including industry comparisons.[309]

The Commission stated:

> *The Commission is of the view that the PIP should be expanded to include the new sections so that the PIWG and the Commission can continually monitor the effect of PEPCO's post-divestiture structure and operations on its transmission and distribution productivity.*[310]

In its 2001 PIP, filed May 9, 2001, PEPCO, with input from the PIWG, added sections on its manhole inspection program, its follow-up storm restoration performance after the 1999 ice storm, and SAIFI, SAIDI, and CAIDI performance and goals (overall and for the 15 least performing feeders that accounted for 2 percent of all DC feeders). The reliability indices for PEPCO and industry averages were based on 1999 blue sky data from the Salt River Project survey of 35 large cities, including DC. PEPCO set the 2001 goal for SAIFI at 1.41 outages a year, the SAIDI goal at two hours, and the CAIDI goal at 1.42 hours. The duration indexes were calculated based on the past-three-years average of the utility's system-wide performance.

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308 pp. 16–17.
309 Order No. 11931, p. 4.
310 Ibid., p. 7.

In Order No. 12339, issued on March 15, 2002, the PSC approved PEPCO's 2001 PIP but toughened the reliability goals by lowering them slightly to an average of 1.4 outages per year for SAIFI and an average of 1.9 hours of outages for SAIDI. PEPCO reported its actual 2001 performance in its 2003 PIP. It met all three SAIFI, SAIDI, and CAIDI goals and performed well in comparison with the SAIFI industry average, but its performance was below SAIDI and CAIDI industry averages.

With respect to PEPCO's 2002 PIP, in Order No. 12596, issued November 7, 2002, the Commission approved PEPCO's proposed 2002 SAIFI and SAIDI goals of an average of 1.32 outages and 1.95 hours of outages respectively, pending review by the PIWG of an appropriate method for setting performance goals.[311] The company met those goals in 2002, with actual performances of 1.29 for SAIFI and 1.48 for SAIDI. Its performance continued to be on par with industry averages, attributed to ongoing initiatives such as identification and remediation of the worst performing feeders; the manhole and T&D inspection program; automation of substation and distribution system; implementation of an OMS; and tree-trimming activities.[312]

System-wide data were used to calculate PEPCO's reliability performance through 2002. On May 6, 2003, in the manhole investigation case FC No. 991, the Commission required the company to file performance indices for DC-only in addition to the PEPCO system data.[313] PEPCO filed data from 1998 through 2003 in the 2004 PIP in February that year. DC data showed the company's 2003 SAIFI and SAIDI performance was better than the PEPCO system data but worse than the industry averages; the DC CAIDI performance was worse than the PEPCO system and the industry average. More needed to be done.

To encourage PEPCO to improve its performance, the PSC established new reliability performance benchmarks in the absence of industry benchmarks. On April 27, 2005, it issued Order No. 13565 in FC No. 982, adopting customer service and interim reliability benchmarks that the PIWG had submitted June 4, 2003. The first benchmark, for 2006, was to be based on four years of OMS data, excluding major event days, using an Institute of Electrical and Electronics Engineers (IEEE) method. An additional year of OMS data was to be added annually until there was five years of new data. Thereafter, the benchmark would be reset annually using a rolling five-year average. The 2006 benchmarks were 1.09 for SAIFI, 3.52 hours for SAIDI, and 3.72 hours for CAIDI.

PEPCO's DC performance usually met the three benchmarks between 2006 and 2009. However, as the Commission continued to track the company's reliability performance through annual PIPs, it began to receive complaints of frequent outages in specific wards and neighborhoods. Feeder 15197 in Ward 4 was on the LPF list in 2004 and again in 2006, for example, despite PEPCO's remedial efforts. The Commission docketed the complaints in FC No. 1055 and arranged for

311 Order No. 12596, pp. 6, 7, 20.
312 Order No. 12804, p. 20 and Order No. 13422, p. 21.
313 See Order No. 12735, p. 55.

2008 community hearing about outages

2011 reliability hearing

PEPCO to meet with residents to discuss proposed remediation. That work was completed in August 2007. Residents' complaints continued, however, such that on January 24, 2007, OPC filed a petition for the Commission to investigate recurring unplanned outages in ward 4. In a subsequent petition, OPC added complaints from wards 7 and 8 in June 2007. On July 26, 2007, the Commission granted OPC's request in Order No. 14390. PEPCO agreed to compensate the nearly 400 customers who filed claims for damages related to the outages and the Commission monitored the process until all claims were paid.

Moreover, on September 28, 2007, the PSC finalized electric quality of service standards (EQSS) in FC No. 982 as a foundation for holding PEPCO accountable for its service reliability performance. The rules contained requirements for ensuring that PEPCO and electricity suppliers operating in the District met adequate levels of quality and reliable service. There were reporting requirements for major and non-major outages, manhole incidents, and power quality complaints, as well as customer service standards, reliability benchmarks, and billing error notification both to the Commission and OPC. Whenever PEPCO failed a benchmark, the company was required to develop a corrective action plan and report on its progress to the Commission in its annual consolidated reports (ACRs), which in 2005 became the successor name to the PIP.

On June 13, 2008, a major service outage affected 12,000 customers in downtown DC, including the Commission's offices. Caused by a shutdown of the Tenth Street substation, the outage affected the Metro subway system, traffic signals, and many government and commercial buildings. On June 17, 2008, the Commission issued Order No. 14834, initiating an investigation in FC No. 1062. The PSC concluded its investigation in 2009, after another power outage caused PEPCO to replace the switches that contributed to both events.

Also on June 17, 2008, OPC, using data compiled from PEPCO's notices of outages in accordance with the EQSS and after the unplanned outage on June 13, filed a petition for investigation into 2008 electric service outages. The Commission was receiving complaints from multiple citizens, particularly in ward 3, regarding frequent outages. Thus, on November 8, 2008, the Commission held a public hearing to address the complaints. In the meantime, to ensure compliance with the EQSS, the Commission modified the standards in July 2008 to require PEPCO and all electricity suppliers to file quarterly compliance reports with explanations of any failures and plans for remedy in the following quarterly report. On December 2, 2008, after the public hearing, the Commission issued Order

No. 15131. The order required PEPCO to file monthly non-major outage reports so the PSC would have more timely data than it was receiving in the ACRs and it could be more proactive in directing ongoing improvements.

In Order No. 15568, issued October 7, 2009, with respect to PEPCO's 2009 ACR, the Commission directed the company to achieve the best quartile of performance, using the IEEE T&D System Benchmarking Study.[314] PEPCO had been reporting the results of the survey in its PIPs and ACRs, but the data represented the company system-wide and was not DC-specific. The Commission did not set a date for achieving the goal. Nonetheless, in PEPCO's 2011 ACR that contained 2009 data, the company began comparing PEPCO's DC results with the industry data separated into quartiles. PEPCO's DC performance fell in the second quartile for SAIFI, the third quartile for SAIDI, and the fourth quartile for CAIDI.

Blue sky outages caused by equipment failure continued, and in 2011, the Commission initiated an investigation, also in FC No. 1062, into a power outage at New York Avenue and First Street, Northeast, after failure of certain underground cables. Although the company was meeting benchmarks established in the EQSS, the PSC was not satisfied with the continued number of blue sky outages based on its review of PEPCO's monthly outage reports. One of the problems with the benchmarks was that they depended on PEPCO's past performance. When PEPCO's performance deteriorated, it increased the benchmarks and made it easier for the company to meet them. After issuing two NOPRs, the Commission toughened the reliability performance benchmarks in the EQSS in Order No. 16427 issued July 7, 2011. The new rules went into effect with publication, on July 22, 2011, of a notice of final rulemaking in the DC Register.

The revised SAIFI and SAIDI standards, which began in 2013, were designed to enforce continuous improvement in electric service reliability through 2020, when the company's performance was expected to reach the top tier of electric distribution systems. The Commission required that the SAIFI and SAIDI indices be based on DC-only data rather than PEPCO system-wide data. The new rules also imposed forfeitures and penalties pursuant to DC Code, sections 34-706 and 34-1508. Under section 34-706, failure to perform a duty or obey a Commission order carried a $5,000 penalty and the penalty for violation of the Electric Competition and Consumer Protection Act could lead to a penalty not exceeding $10,000. Between 2011 and 2013, the Commission issued several NOPRs in an attempt to implement a new section, 34-706e, which mandated a $100,000 forfeiture and fine for reliability performance violations. As of the end of 2013, the PSC had not established regulations because legally the Commission would have to provide the utility company with the opportunity to remedy the situation before any fine could be imposed.

The record shows that by 2013, PSC efforts to improve electric reliability had proven successful. In the Commission's centennial year, PEPCO's DC performance was better than the SAIFI and SAIDI benchmarks and its SAIFI and CAIDI performances equaled the industry averages (.88 and 2.35 respectively); its SAIDI performance was higher than the industry average by .01 points (2.07 versus 2.06). In addition, consumer complaints about blue sky outages had plummeted. The Commission stated in its Order No. 17455 regarding PEPCO's 2013 ACR:

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314 p. 16.

> *… we want to make note of two items with respect to PEPCO's reliability performance. The first is to note that the reliability performance standards adopted by the Commission in 2012, to be effective in 2013, require that PEPCO meet certain SAIFI and SAIDI standards, excluding Major Service Outages. We note that PEPCO describes in the 2013 Consolidated Report that in 2012, it achieved a SAIFI of 0.96 and SAIDI of 2.21. Under the Commission's regulations, the 2013 SAIFI reliability performance standard is 1.13 and the SAIDI reliability performance standard is 2.68. PEPCO has reached this performance standard one year in advance. This is a significant achievement and we congratulate PEPCO for the progress that it has made in this regard. We hope PEPCO will continue to improve its performance and continue to meet or exceed these standards in the coming years.*[315]

The Commission remains committed to continuing progress. Table 8.5 tracks the history of PEPCO's electric reliability performance for purposes of future monitoring.

315 Order No. 17455, paragraph 138, p. 56.

Tables

Table 8.1: DC Average Monthly PEPCO Residential Electricity Usage, 1913–2013

Table 8.1	
Average PEPCO Monthly Residential Electricity Usage in DC, 1913-2013	
Year	Residential Usage (Kwh)
1913	15
1914	16
1915	17
1916	18
1917	20
1918	21
1919	23
1920	24
1921	26
1922	28
1923	30
1924	32
1925	34
1926	37
1927	40
1928	43
1929	46
1930	53
1931	59
1932	67
1933	72
1934	72
1935	84
1936	89
1937	90
1938	95
1939	101
1940	107

Year	Residential Usage (Kwh)
1941	112
1942	115
1943	122
1944	123
1945	130
1946	135
1947	140
1948	145
1949	150
1950	155
1951	160
1952	165
1953	170
1954	175
1955	180
1956	187
1957	196
1958	203
1959	222
1960	222
1961	239
1962	244
1963	257
1964	275
1965	295
1966	318
1967	324
1968	360
1969	390
1970	424
1971	437

Year	Residential Usage (Kwh)
1972	441
1973	492
1974	458
1975	472
1976	482
1977	496
1978	500
1979	497
1980	533
1981	526
1982	528
1983	516
1984	512
1985	513
1986	534
1987	560
1988	572
1989	566
1990	568
1991	615
1992	561
1993	624
1994	604
1995	624
1996	615
1997	606
1998	628
1999	633
2000	616
2001	643
2002	700

Year	Residential Usage (Kwh)
2003	668
2004	699
2005	743
2006	710
2007	739
2008	699
2009	686
2010	734
2011	718
2012	695
2013	697

Sources:
Electricity usage data from 1929-1945 are taken from the PSC annual reports for those years and are for PEPCO's DC, MD, and VA service areas because no DC-specific data are available.

Electricity usage is estimated for the years 1913-1928 by backcasting based on the average annual rate of change for the 1929-1945 period.

Electricity usage is estimated for the years 1946-1955 by spreading the difference between the two end points evenly over the intervening years.

Electricity usage provided by PEPCO.

Table 8.2: PSC-Calculated Average Monthly PEPCO Residential Electricity Rates in DC, Nominal and Real, 1913–2013

PSC-Calculated Average Monthly PEPCO Residential Electricity Rates in DC, Nominal and Real, 1913-2013			
Year	Nominal Rates Per Kwh	CPI Value - Base Year 2013	Real Rates Per Kwh
1913	$0.1679	4.250	$3.9513
1914	$0.1633	4.293	$3.8037
1915	$0.1590	4.336	$3.6663
1916	$0.1549	4.679	$3.3111
1917	$0.1375	5.495	$2.5026
1918	$0.1158	6.482	$1.7858
1919	$0.1133	7.426	$1.5258
1920	$0.1127	8.585	$1.3127
1921	$0.1125	7.684	$1.4641
1922	$0.1047	7.212	$1.4513
1923	$0.1013	7.340	$1.3797
1924	$0.0994	7.340	$1.3539
1925	$0.0968	7.512	$1.2884
1926	$0.0903	7.598	$1.1884
1927	$0.0814	7.469	$1.0899
1928	$0.0766	7.340	$1.0437
1929	$0.0684	7.340	$0.9320
1930	$0.0612	7.169	$0.8540
1931	$0.0546	6.525	$0.8374
1932	$0.0502	5.881	$0.8538
1933	$0.0487	5.580	$0.8719
1934	$0.0476	5.752	$0.8274
1935	$0.0448	5.881	$0.7615
1936	$0.0431	5.967	$0.7222
1937	$0.0404	6.181	$0.6533
1938	$0.0371	6.053	$0.6123
1939	$0.0346	5.967	$0.5794
1940	$0.0326	6.010	$0.5427
1941	$0.0315	6.310	$0.4992
1942	$0.0311	6.997	$0.4451
1943	$0.0300	7.426	$0.4046

PSC-Calculated Average Monthly PEPCO Residential Electricity Rates in DC, Nominal and Real, 1913-2013			
Year	Nominal Rates Per Kwh	CPI Value - Base Year 2013	Real Rates Per Kwh
1944	$0.0299	7.555	$0.3962
1945	$0.0293	7.727	$0.3792
1946	$0.0289	8.371	$0.3450
1947	$0.0285	9.573	$0.2975
1948	$0.0270	10.345	$0.2611
1949	$0.0246	10.216	$0.2409
1950	$0.0244	10.345	$0.2361
1951	$0.0292	11.161	$0.2616
1952	$0.0313	11.375	$0.2751
1953	$0.0310	11.461	$0.2701
1954	$0.0306	11.547	$0.2652
1955	$0.0326	11.504	$0.2835
1956	$0.0333	11.676	$0.2855
1957	$0.0328	12.062	$0.2721
1958	$0.0325	12.406	$0.2616
1959	$0.0332	12.492	$0.2659
1960	$0.0344	12.706	$0.2705
1961	$0.0336	12.835	$0.2620
1962	$0.0334	12.964	$0.2578
1963	$0.0328	13.135	$0.2499
1964	$0.0319	13.307	$0.2397
1965	$0.0314	13.522	$0.2319
1966	$0.0300	13.908	$0.2155
1967	$0.0290	14.337	$0.2026
1968	$0.0279	14.938	$0.1870
1969	$0.0272	15.754	$0.1725
1970	$0.0262	16.655	$0.1573
1971	$0.0258	17.385	$0.1485
1972	$0.0275	17.943	$0.1533
1973	$0.0295	19.059	$0.1548
1974	$0.0301	21.163	$0.1421

Table 8.2: PSC-Calculated Average Monthly PEPCO Residential Electricity Rates in DC, Nominal and Real, 1913–2013 (continued)

PSC-Calculated Average Monthly PEPCO Residential Electricity Rates in DC, Nominal and Real, 1913-2013			
Year	Nominal Rates Per Kwh	CPI Value - Base Year 2013	Real Rates Per Kwh
1975	$0.0299	23.094	$0.1297
1976	$0.0300	24.425	$0.1230
1977	$0.0410	26.013	$0.1575
1978	$0.0411	27.988	$0.1467
1979	$0.0441	31.165	$0.1415
1980	$0.0483	35.371	$0.1365
1981	$0.0569	39.020	$0.1459
1982	$0.0588	41.424	$0.1419
1983	$0.0705	42.755	$0.1648
1984	$0.0659	44.601	$0.1478
1985	$0.0710	46.189	$0.1537
1986	$0.0713	47.047	$0.1516
1987	$0.0733	48.764	$0.1503
1988	$0.0716	50.782	$0.1411
1989	$0.0640	53.229	$0.1203
1990	$0.0647	56.105	$0.1153
1991	$0.0763	58.466	$0.1306
1992	$0.0650	60.226	$0.1078
1993	$0.0779	62.029	$0.1257
1994	$0.0773	63.617	$0.1216

PSC-Calculated Average Monthly PEPCO Residential Electricity Rates in DC, Nominal and Real, 1913-2013			
Year	Nominal Rates Per Kwh	CPI Value - Base Year 2013	Real Rates Per Kwh
1995	$0.0830	65.420	$0.1269
1996	$0.0792	67.351	$0.1176
1997	$0.0806	68.897	$0.1169
1998	$0.0906	69.970	$0.1295
1999	$0.0896	71.515	$0.1253
2000	$0.0774	73.919	$0.1048
2001	$0.0763	76.023	$0.1003
2002	$0.0847	77.225	$0.1096
2003	$0.0749	78.985	$0.0949
2004	$0.0779	81.088	$0.0960
2005	$0.1010	83.835	$0.1205
2006	$0.1091	86.540	$0.1260
2007	$0.1219	89.004	$0.1370
2008	$0.1610	92.422	$0.1742
2009	$0.1656	92.093	$0.1799
2010	$0.1591	93.604	$0.1700
2011	$0.1485	96.558	$0.1538
2012	$0.1394	98.556	$0.1414
2013	$0.1344	100.000	$0.1344

Notes and Sources:
Average rates are calculated by multiplying rate designs by average monthly usage.

Electricity usage is estimated for the years 1913-1928 by backcasting based on the average annual rate of change for the 1929-1945 period.

Electricity usage data from 1929-1945 are taken from the PSC annual reports for those years and are for PEPCO's DC, MD, and VA service areas because no DC-specific data are available.

Electricity usage is estimated for the years 1946-1955 by spreading the difference between the two end points evenly over the intervening years.

Table 8.3: DC Average Monthly PEPCO Nominal Residential Electricity Rates, PSC and Traditional Calculations, 1930–2013

Table 8.3		
DC Average Monthly Nominal PEPCO Residential Electricity Rates, PSC and Traditional Calculations, 1930-2013		
Year	PSC Calculations Rates Per Kwh	Traditional Calculations Rates Per Kwh
1930	$0.061	$0.047
1931	$0.055	$0.042
1932	$0.050	$0.038
1933	$0.049	$0.036
1934	$0.048	$0.034
1935	$0.045	$0.033
1936	$0.043	$0.032
1937	$0.040	$0.030
1938	$0.037	$0.028
1939	$0.035	$0.026
1940	$0.033	$0.025
1941	$0.032	$0.025
1942	$0.031	$0.024
1943	$0.030	$0.024
1944	$0.030	$0.024
1945	$0.029	$0.023
1946	$0.029	$0.023
1947	$0.028	$0.022
1948	$0.027	$0.023
1949	$0.025	$0.024
1950	$0.024	$0.024
1951	$0.029	$0.024
1952	$0.031	$0.024
1953	$0.031	$0.024
1954	$0.031	$0.024
1955	$0.033	$0.024
1956	$0.033	$0.024
1957	$0.033	$0.024
1958	$0.032	$0.024
1959	$0.033	$0.024
1960	$0.034	$0.025
1961	$0.034	$0.024
1962	$0.033	$0.024
1963	$0.033	$0.024
1964	$0.032	$0.023
1965	$0.031	$0.023
1966	$0.030	$0.022
1967	$0.029	$0.021
1968	$0.028	$0.021
1969	$0.027	$0.021
1970	$0.026	$0.022
1971	$0.026	$0.024
1972	$0.028	$0.025
1973	$0.029	$0.026
1974	$0.030	$0.037
1975	$0.030	$0.040
1976	$0.030	$0.042
1977	$0.041	$0.047
1978	$0.041	$0.049
1979	$0.044	$0.052
1980	$0.048	$0.055
1981	$0.057	$0.062
1982	$0.059	$0.067
1983	$0.070	$0.067
1984	$0.066	$0.064
1985	$0.071	$0.068
1986	$0.071	$0.068
1987	$0.073	$0.064
1988	$0.072	$0.063
1989	$0.064	$0.065
1990	$0.065	$0.064
1991	$0.076	$0.069
1992	$0.065	$0.070
1993	$0.078	$0.075
1994	$0.077	$0.080
1995	$0.083	$0.081
1996	$0.079	$0.080
1997	$0.081	$0.081
1998	$0.091	$0.082
1999	$0.090	$0.084
2000	$0.077	$0.081
2001	$0.076	$0.075
2002	$0.085	$0.074
2003	$0.075	$0.071
2004	$0.078	$0.077
2005	$0.101	$0.090
2006	$0.109	$0.111
2007	$0.122	$0.128
2008	$0.161	$0.148
2009	$0.166	$0.145
2010	$0.159	$0.142
2011	$0.149	$0.124
2012	$0.139	$0.112
2013	$0.134	$0.126

Notes and Sources:

Prices are estimated for these years.

PSC-calculated rates are calculated by multiplying rate designs by average monthly usage.

Traditionally calculated rates are calculated by dividing residential revenue by Kwh sales. Traditional rates for 1930-1955 are taken from PSC annual reports. Rates for 1956-1989 are taken from FERC annuar reports. Rates for 1990-2013 are taken from Energy Information Adminisrtration (EIA), US Department of Energy.

Electricity usage data from 1930-1945 are taken from the PSC annual reports for those years and are for PEPCO's DC, MD, and VA service areas because no DC-specific data are available.

Electricity usage is estimated for the years 1946-1955 by spreading the difference between the two end points evenly over the intervening years.

Table 8.4: DC Average Monthly PEPCO Real Residential Electricity Rates, PSC and Traditional Calculations, 1930–2013

Table 8.4		
DC Average Monthly Real PEPCO Residential Electricity Rates, PSC and Traditonal Calculations, 1930-2013		
Year	PSC-Calculated Rates per Kwh	Traditional Rates per Kwh
1930	$0.8540	$0.6531
1931	$0.8374	$0.6391
1932	$0.8538	$0.6455
1933	$0.8719	$0.6394
1934	$0.8274	$0.5853
1935	$0.7615	$0.5528
1936	$0.7222	$0.5405
1937	$0.6533	$0.4869
1938	$0.6123	$0.4548
1939	$0.5794	$0.4421
1940	$0.5427	$0.4177
1941	$0.4992	$0.3946
1942	$0.4451	$0.3470
1943	$0.4046	$0.3182
1944	$0.3962	$0.3173
1945	$0.3792	$0.2973
1946	$0.3450	$0.2711
1947	$0.2975	$0.2340
1948	$0.2611	$0.2216
1949	$0.2409	$0.2342
1950	$0.2361	$0.2283
1951	$0.2616	$0.2146
1952	$0.2751	$0.2107
1953	$0.2701	$0.2066
1954	$0.2652	$0.2038
1955	$0.2835	$0.2091
1956	$0.2855	$0.2081
1957	$0.2721	$0.1987
1958	$0.2616	$0.1908
1959	$0.2659	$0.1941
1960	$0.2705	$0.1951
1961	$0.2620	$0.1896
1962	$0.2578	$0.1871
1963	$0.2499	$0.1819
1964	$0.2397	$0.1739
1965	$0.2319	$0.1685
1966	$0.2155	$0.1583
1967	$0.2026	$0.1487
1968	$0.1870	$0.1392
1969	$0.1725	$0.1302
1970	$0.1573	$0.1321
1971	$0.1485	$0.1360
1972	$0.1533	$0.1380
1973	$0.1548	$0.1380
1974	$0.1421	$0.1735
1975	$0.1297	$0.1710
1976	$0.1230	$0.1703
1977	$0.1575	$0.1788
1978	$0.1467	$0.1765
1979	$0.1415	$0.1678
1980	$0.1365	$0.1561
1981	$0.1459	$0.1589
1982	$0.1419	$0.1615
1983	$0.1648	$0.1574
1984	$0.1478	$0.1441
1985	$0.1537	$0.1475
1986	$0.1516	$0.1448
1987	$0.1503	$0.1321
1988	$0.1411	$0.1244
1989	$0.1203	$0.1227
1990	$0.1153	$0.1139
1991	$0.1306	$0.1186
1992	$0.1078	$0.1170
1993	$0.1257	$0.1211
1994	$0.1216	$0.1254
1995	$0.1269	$0.1239
1996	$0.1176	$0.1185
1997	$0.1169	$0.1177
1998	$0.1295	$0.1177
1999	$0.1253	$0.1169
2000	$0.1048	$0.1091
2001	$0.1003	$0.0992
2002	$0.1096	$0.0956
2003	$0.0949	$0.0895
2004	$0.0960	$0.0950
2005	$0.1205	$0.1074
2006	$0.1260	$0.1286
2007	$0.1370	$0.1437
2008	$0.1742	$0.1596
2009	$0.1799	$0.1571
2010	$0.1700	$0.1518
2011	$0.1538	$0.1288
2012	$0.1414	$0.1136
2013	$0.1344	$0.1256

Notes and Sources:

Prices are estimated for these years.

PSC-calculated rates are calculated by multiplying rate designs by average monthly usage.

Traditionally calculated rates are calculated by dividing residential revenue by Kwh sales. Traditional rates for 1930-1955 are taken from PSC annual reports. Rates for 1956-1989 are taken from FERC annual reports. Rates for 1990-2013 are taken from Energy Information Administration (EIA), US Department of Energy.

Electricity usage data from 1930-1945 are taken from the PSC Annual Reports for those years and are for PEPCO's DC, MD, and VA service areas because no DC-specific data are available.

Electricity usage is estimated for the years 1946-1955 by spreading the difference between the two end points evenly over the intervening years.

Table 8.5: PSC's Tracking of PEPCO's Reliability Performance Standards and Record, 1998–2020

Table 8.5																							
PSC's Tracking of PEPCO's Reliability Performance Standards and Record, 1998-2020 (The Lower the Indice, the Better.)																							
Category	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Green - PEPCO's performance is equal to or below the benchmark or industry average and hence it met or exceeded the benchmark or industry average.																							
Orange - PEPCO's performance is higher than the benchmark or industry average and hence it did not meet or exceed the benchmark or industry average.																							
Numbers in bold are the numbers the PSC used to track PEPCO's performance each year.																							
SYSTEM AVERAGE INTERRUPTION FREQUENCY INDEX (SAIFI) - Number of Outages																							
PEPCO DC	1.05	1.21	1.00	0.80	1.05	**0.95**	**0.73**	**0.90**	**0.99**	1.07													
PEPCO DC - Corrected in 2009 Consolidated Report f							0.75	0.92	0.85	**1.04**	**1.05**	**1.06**	1.12										
PEPCO DC - IEEE Std, DC-Based k							0.73	0.90	0.99	1.07	1.24	1.06	**1.26**	**1.26**	**1.14**	0.88	0.69	0.69					
PEPCO DC - MSO Criteria							0.78	0.87	1.08	1.07	1.14	1.06	1.21	1.19	1.01	**0.88**	0.69	0.69					
PEPCO System - IEEE Method	**1.35**	**1.40**	**1.48**	**1.02**	**1.29**	1.71	1.22	1.34	1.44	1.69	1.73	1.74	1.97	1.67	1.24	1.25	1.02	0.96					
PSC-Approved Goals/Benchmarks	.	.	.	1.41a (1.4)	1.32b	.	.	.	1.09c	1.12c	1.18d (1.17e)	1.18e	1.17g	1.22h	. i	1.13j	1.09	1.05	1.02	0.98	0.95	0.92	0.89
Industry Average	N/A	1.09	1.16	1.01	1.01m	0.92	0.99	0.97	0.85	1.00	0.97	1.12	1.17	1.21	0.96	0.88	N/A						
SYSTEM AVERAGE INTERRUPTION DURATION INDEX (SAIDI) - Hours																							
Category	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
PEPCO DC	1.61	2.79	1.96	1.84	1.45	**2.01**	**1.29**	**2.78**	**4.56**	3.83													
PEPCO DC - Corrected in 2009 Consolidated Report f							1.35	2.98	3.50	**3.58**	**3.48**	**2.35**	2.68										
PEPCO DC - IEEE Std, DC-Based k							1.29	2.78	4.56	3.83	4.55	2.35	**3.48**	**3.12**	**3.57**	**2.07**	1.61	1.87					
PEPCO DC - MSO Criteria							1.42	2.60	5.28	3.83	3.78	2.35	3.27	2.80	2.58	**2.07**	1.61	1.87					
PEPCO System - IEEE Method	**1.55**	**2.50**	**1.95**	**1.39**	**1.48**	2.38	1.61	3.3	4.11	4.19	4.27	3.07	3.93	3.16	2.35	2.2	1.55	1.88					
PSC-Approved Goals/Benchmarks	.	.	.	2.00a (1.9)	1.95b	.	.	.	3.52c	5.48c	5.55d (5.43) e	4.85e	4.22g	4.24h	.i	2.68j	2.43	2.21	2.00	1.81	1.65	1.49	1.35
Industry Average	N/A	1.72	1.92	1.41	1.58	1.53	1.56	1.86	1.49	1.36	1.41	1.41	2.13	2.08	2.21	2.06	N/A						

Table 8.5: PSC's Tracking of PEPCO's Reliability Performance Standards and Record, 1998–2020 (continued)

CUSTOMER AVERAGE INTERRUPTION DURATION INDEX (CAIDI) - Hours																							
Category	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
PEPCO DC	1.53	2.31	1.96	2.30	1.38	**2.11**	**1.77**	**3.10**	**4.62**	3.57													
PEPCO DC - Corrected in 2009 Consolidated Report f							1.80	3.22	4.10	**3.43**	**3.31**	**2.23**	2.41	2.49									
PEPCO DC - IEEE Std, DC-Based k							1.77	3.10	4.62	3.57	3.68	2.23	**2.76**	**2.49**	**3.12**	2.35	2.34	2.73					
PEPCO DC - MSO Criteria							1.82	2.99	4.89	3.58	3.32	2.22	2.70	2.35	2.56	**2.35**	2.33	2.73					
PEPCO System - IEEE Method	**1.15**	**1.78**	**1.32**	**1.27**	**1.15**	1.39	1.32	2.46	2.84	2.47	2.47	1.76	2	1.89	1.9	1.77	1.53	1.96					
PSC-Approved Goals/Benchmarks	.	.	.	1.42a	.	.	.	.	3.72c	5.46c	5.33d (5.36) e	4.85e	4.60g	4.64h	. i								
Industry Average	N/A	1.72	1.55	1.45	1.67	1.67	1.60	1.92	1.76	1.47	1.46	1.70	1.77	1.91	2.31	2.35	N/A						

Green - PEPCO's performance is equal to or below the benchmark or industry average and hence it met or exceeded the benchmark or industry average.

Orange - PEPCO's performance is higher than the benchmark or industry average and hence it did not meet or exceed the benchmark or industry average.

Numbers in **bold** are the numbers the PSC used to track PEPCO's performance each year.

Notes and Sources:

1998 - PEPCO system data are from the 2001 PIP, Combined Sections 3 and 4, p. 13 and 2002 PIP, Section 3, page 12; SAIFI , SAIDI, and CAIDI industry averages for 25 large cities, including DC, exclude major events in the Large City Reliability Survey conducted by the Salt River Project (SRP); DC-specific data are from the 2004 Consolidated Report, Part 2-Section 3, p. 94.

1999 - PEPCO system data are from the 2001 PIP, Combined Sections 3 and 4, p. 13 and Appendix 1D - pp. 74-83. SAIFI , SAIDI, and CAIDI industry averages for 25 large cities, including DC, exclude major events. DC-specific data are from the 2004 Consolidated Report, Part 2, Section 3, p. 94.

2000 - PEPCO system data are from the 2001 PIP, Combined Sections 3 and 4, p. 13 and 2002 PIP, Appendix 1B, pp 19-27; SAIFI , SAIDI, and CAIDI industry averages for 25 large cities, including DC, exclude major events. DC-specific data are from the 2004 Consolidated Report, Part 2- Section 3, p. 94.

2001 - PEPCO system data are from the 2003 PIP, Appendix 1C, pp. 28-36; SAIFI, SAIDI, and CAIDI industry averages for 25 large cities, including DC, exclude major events. DC-specific data are from the 2004 Consolidated Report, Part 2-Section 3, p. 94.

a -2001 PIP Table 3.7 PEPCO's reliability performance goals based on average of actual system-wide performance during the previous three years. See p. 14 of Combined Sections 3 and 4. Numbers in parentheses are goals approved by the PSC in Order No. 12339, issued March 15, 2002.

2002 - PEPCO system data are from the 2003 PIP, Section 3, page 14 and 2004 Consolidated Report, Part 1- Section 9, pp. 54-62; SAIFI, SAIDI, and CAIDI industry averages for 25 large cities, including DC, exclude major events. DC-specific data are from the 2004 Consolidated Report, Part 2-Section 3, p. 94.

b -PEPCO proposed, Staff recommended, and the DC PSC approved goals for SAIFI and SAIDI - DC PSC Order No 12597 dated November 7, 2002, p. 20.

2003 data are from the 2004 Consolidated Report, Part 2-Section 3, pp. 93-94. For the first time, PEPCO provided DC-specific data back to 1998 because the DC PSC had directed the Company to work with the PIWG to develop target system reliability indices for the District of Columbia only in Order No. 12735 issued May 6, 2003.

2004 data are from the 2005 Consolidated Report, Part 2 - Section 3 - pp. 91-92.

2005 data are from the 2006 Consolidated Report, Part 2 - Section 3, pp. 82-83.

c - 2006 Interim benchmarks approved by the Commission in Order No. 13565 in F.C. Nos. 982 and 1002, issued April 27, 2005.

c - 2006 (Corrected) and 2007 benchmarks are from the 2007 Consolidated Report, Table 1.6A, Part 1- Section 6, page 44.

2006 data are from the 2007 Consolidated Report; Part 2 - Section 3, pp. 82-83.

2007 data are from the 2008 Consolidated Report, Part 2-Section 3, p. 127-128.

d - 2008 benchmarks are contained in the 2008 Consolidated Report, Table 1.5A, Part 1 - Section 5, p. 34.

e - 2009 benchmarks are contained in the 2009 Consolidated Report, Table 1.5-A, Part 1 - Section 5, p. 42.

2008 data are from the 2009 Consolidated Report, Part 2 - Section 3, pp. 142-144.

f - Upon reviewing the benchmarking calculations, it was determined that the PEPCO MEDs had not been properly included in the benchmarks nor in the annual performance reporting. Thus the 2008 benchmarks were recalculated and the annual performance metrics have been corrected for years 2004 through 2007. See Part 2- Section 3, p. 143 of the 2009 Consolidated Report. These data are for DC, but use PEPCO system-wide MEDs and IEEE Std.

2009 data are from the 2010 Consolidated Report, Part 2 - Section 3, pp. 62-64. Industry data are based on IEEE T&D Benchmarking Study covering 28 utilities. SRP data covered 2008.

g - 2010 benchmarks are contained in the 2010 Consolidated Report, Part 2 - Section 3, p. 121.

2010 data are from the 2011 Consolidated Report, Part 2- Section 3, pp. 76-77.

h -2011 benchmarks are contained in the 2011 Consolidated Report, Part 2-Section 3, p. 142.

i - B/S = Benchmark suspended for 2011 and no benchmark set for 2012 per Order No. 16700 Also, Section 3603.12 of the EQSS rules was revised.

j - On July 22, 2011, the PSC published a NOFR in the DC Register that established new more aggressive benchmarks for SAIFI and SAIDI only starting in 2013 through 2020.

k - DC-specific indices recalculated back to 2004 through 2011 in the 2012 Consolidated Report, Part 2 - p. 223.

2011 data are from the 2012 Consolidated Report, Part 2 - page 220-223.

2012 data are from the 2013 Consolidated Report, Part 2, pp. 66 and 341+.

2013 data are from the 2014 Consolidated Report, Part 2, pp. 274-277.

2014 data are from the 2015 Consolidated Report, Part 2, pp. 240-243.

2015 data are from the 2016 Consolidated Report, Part 2, pp. 223-227. See also Industry Comparisons in Part 1, pages 73-77.

PEPCO Certificate of Incorporation

No. 2777

Recorded April 28, 1896
at 11:30 A. M.

CERTIFICATE OF THE INCORPORATION OF THE POTOMAC ELECTRIC POWER COMPANY OF THE DISTRICT OF COLUMBIA.

We, Oscar T. Crosby, Frederick C. Stevens and Charles A. Lieb, do hereby certify:

First: That we have formed ourselves into a body corporate, under the provisions of the general incorporation act in force in the District of Columbia, under the corporate name of the Potomac Electric Power Company of the District of Columbia, and that the object for which the said corporation is formed is, to manufacture, buy, sell and distribute electricity and electric appliances, for any and all purposes.

Second: The term of the existence of the said corporation shall be twenty years.

Third: The amount of the capital stock of the said body corporate shall be five hundred thousand ($500,000.00) dollars, divided into five thousand (5,000) shares of one hundred ($100.) Dollars each.

Fourth: The trustees who shall manage the concerns of the company for the first year shall be seven (7) in number, namely: Oscar T. Crosby, Frederick C. Stevens, Charles A. Lieb, Henry W. Cramp, David M. Anderson, Charles P. Williams and Henry T. Purdy, of which the said Oscar T. Crosby, David M. Anderson, Charles P. Williams and Henry T. Purdy are residents of the District of Columbia.

Fifth: The operations of the said company are to be carried on in the City of Washington, and thence throughout the said District, the principal works of said company to be located at the corner of Thirty-third and K Streets, Northwest, in Georgetown, D. C., sometimes known as West Washington.

Given under our hands and seals this 28th day of April, A. D. 1896.

OSCAR T. CROSBY (Seal)

Witness:

JESSE E. POTBURY

FREDERICK C. STEVENS (Seal)

CHAS. A. LIEB (Seal)

DISTRICT OF COLUMBIA, ss:

I, Rutledge Willson, a Notary Public in and for the District of Columbia, do hereby certify that Oscar T. Crosby, Frederick C. Stevens and Charles A. Lieb, parties to a certain certificate of incorporation bearing date on the 28th day of April, A.D. 1896, and hereto annexed, personally appeared before me in the said District, the said Oscar T. Crosby, Frederick C. Stevens and Charles A. Lieb being personally well known to me to be the persons who executed the said Certificate of Incorporation, and acknowledged the same to be their act and deed.

Given under my hand and notarial seal this 28th day of April, A.D. 1896.

(NOTARIAL SEAL)

RUTLEDGE WILLSON
Notary Public, D. C.

[1]

CHAPTER 9

From Gas Lights to Gas Heating and Appliances: The History of Gas Regulation in the District

A. Background

Washington Gas Light Co. (WGL) is the oldest of the three utility companies currently serving the District, and it also has served neighboring jurisdictions in Maryland and Virginia since its inception. In the year WGL was established by Congress, 1848, the cornerstone of the Washington Monument was laid and the City of Washington had "about 6,000 houses."[316] The streets were wide, muddy, and unlit, posing a danger to both pedestrians and horse-drawn traffic and making commerce after dark virtually impossible. Residents had used candles and oil for illumination since the city was founded in 1790. In 1802, Congress appropriated $100 for providing oil to light the important avenues and streets in the District.[317]

Gas lighting was introduced to the city as early as 1804, when a house and the lamp in front of it on Pennsylvania Avenue, owned by Benjamin Henfry, were illuminated with gas. In 1816, there were proposals to form a local gas company but that project did not materialize. In 1831, an attempt to use portable gas lamps in a new theater failed on opening night. In 1841, Robert Grant successfully built an apparatus in the new Treasury Building that lit a room with water-carbureted hydrogen gas manufactured from the bark of a birch tree. "A year later, Congress considered the use of gas manufactured from coal."[318]

Citizens became dissatisfied with oil and candle lamps in their homes and on their streets as they saw neighboring cities, such as Baltimore and Philadelphia, incorporate gas companies. They implored Congress to do the same for the District. James Crutchett, a gas pioneer, lit his house and property with solar gas made from rosin, attracting the attention of Congress and residents.[319] Congress gave Crutchett a contract to light the Capitol and its grounds that included construction of a gas plant and gas holder. Relations with Crutchett became difficult, so Congress turned to the formation of a gas company led by Benjamin French, chief clerk of the House of Representatives. The new incorporators purchased the patent rights from Crutchett, and in April 1848 began supplying gas to the Capitol and grounds using the plant at the Capitol.

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316 *Growing With Washington*, *The Story of Our First 100 Years* by Washington Gas Light Co., 1948, p. 13.
317 Ibid., p. 19.
318 Ibid., p. 20.
319 Ibid., pp. 21–22.

On July 8, 1848, President James K. Polk signed a bill incorporating WGL. However, "citizens were unable to afford gas in their homes at the rate of eight dollars a thousand cubic feet [1,000 cf or 1 mcf],[320] nor were many of them able to buy capital stock in the new company."[321] The new company lit the President's house with gas.[322] As sales to several commercial establishments such as hotels and stores grew, WGL reduced rates from $8.00 per mcf to $6.40 per mcf. Purchasing the gas mains owned by the government enabled WGL to seek public customers in October 1851.[323] About the same time, Georgetown residents organized Georgetown Gas Light Company, which built a plant on 29th Street at the canal. "Many citizens installed gas lamps in front of their homes because there was an insufficient number of street lights."[324]

B. The Commission's Gas Rate-Making Record

The history of WGL's average monthly residential gas rates in the District is contained in Table 9.1. When the PUC was created in 1913, the predominant use of gas was municipal lighting, while coal was the principal source of residential heat, followed by oil. The act creating the Commission placed WGL and Georgetown Gas Light Co. under the jurisdiction of the PUC. Congress had set a flat-rate price of gas at 85 cents per mcf (or 8.5 cents per therm[325]) for all uses by non-governmental customers, including residential and commercial. While the Commission busied itself with the valuation of WGL, which it began in 1914 by opening FC No. 56, World War 1 started and Congress reduced the price to 7.5 cents per therm. The Commission initiated a separate valuation of Georgetown Gas Light in 1917 in FC No. 55.

1. Changes in Input Prices

On May 2, 1917, the Commission issued Order No. 209 in the WGL valuation case, FC No. 56. The Commission determined that the fair value of WGL's used and useful property was $9.098 million as of December 31, 1916.[326] The company appealed the decision. On December 1, 1917, WGL, on its own behalf and that of Georgetown Gas Light Company, whose stock it owned, petitioned the PUC for an increase in rates because key input prices, such as coal and oil, had risen as a result of the war. In fact, oil prices had doubled. The company agreed to accept the valuation as a basis for the rate increase without prejudicing its appeal and promised to refund any difference between the existing rate and the increased rate if the court's decision meant the increase was not warranted. After opening FC No. 13, holding

320 $8 per 1,000 cubic feet is equivalent to 80 cents per therm.
321 Ibid., p. 28.
322 Ibid., p. 31.
323 Ibid., p. 33.
324 Ibid., p. 37.
325 In 1947, the Commission approved the conversion of gas to natural gas and the unit of measure changed from cubic feet to therms. Therm is the term used throughout this chapter.
326 Order No. 209, p. 42.

public hearings in December 1917 and February 1918, and verifying the input price increases, on March 15, 1918, the PUC issued Order No. 254 approving an increase in rates to 9 cents per therm.

After claiming it was not earning its allowed 6 percent rate of return approved in Order No. 254, on November 21, 1918, WGL petitioned for another rate increase, to 9.5 cents per therm. The Commission approved the increase in Order No. 314, issued March 15, 1919, in FC No. 70. Originally the rate was to return to 9 cents per therm by September 20, 1919, but the Commission later extended the higher rate of 9.5 cents per therm twice, on September 19, 1919, and again on March 25, 1920, in Order Nos. 341 and 369, respectively.

Soon after, on May 29, 1920, the Commission changed its rate design from a flat rate to a declining block rate structure. In this type of structure, designed to promote sales, rates decline as usage increases, so larger customers pay a lower rate than smaller customers. The new rate structure had six usage blocks. For the smallest block (less than 1,000 therms of usage in a month) the rate was 12.5 cents per therm.[327] The lowest rate was 10 cents per therm for usage greater than 10,000 therms per month. The higher rates were based on an increase in oil prices. The new rates were to expire on August 31, 1920, and then revert to the flat rate of 9.5 cents per therm. Rates charged to the DC and US governments were not impacted, because there was a statutory provision that limited to 7 cents per therm the amount they would pay. On August 10, 1920, WGL, on behalf of itself and Georgetown Gas Light Co., asked for a continuance of existing rates or another increase of 1 cent for each of the six blocks of usage. This would increase the rate in the first block to 13.5 cents per therm for two more months due to higher oil and coal prices. The Commission approved the continuation of existing rates for two more months until October 31, 1920. Thereafter, rates would return to 9.5 cents per therm. [328]

On October 7, 1920, just before the new rates were to expire, WGL filed a rate increase request based on an increase in its allowed rate of return from 6 percent to 8 percent. The Commission verified a "material" increase in the price of coal and "some increase" in the prices of oil and wages but it did not adjust the 6 percent allowed rate of return. Instead, it increased rates in each of the six usage blocks by 0.7 cents. This meant the new rate for the first usage block rose to 13.2 cents per therm.[329] As of April 1921, rates were to revert to 9.5 cents per therm.

But that did not happen: The Commission maintained rates ranging from 12.5 cents per therm to 10 cents per therm and changed the size of the first three usage blocks. The 12.5 cents per therm rate became applicable to usage of less than 500 therms in a month; usage between 500 and 2,500 therms a month was charged 12 cents per therm; and usage

327 See Order No. 378 issued May 29, 1920, in FC No. 83.
328 See Order No. 387 issued August 30, 1920, in FC No. 86.
329 See Order No. 393 issued October 29, 1920, in FC No. 88.

between 2,500 and less than 5,000 therms a month paid 11.5 cents per therm. The changes were due to a reduction in the price of oil.[330] In July of that year, rates decreased by a half-cent per therm.[331]

Another reduction of 5 cents for each rate block occurred in 1922, and those rates remained in effect until 1930,[332] when the Commission approved separate classes of customers for non-heating and heating service in addition to a commercial and industrial service class.[333] Rates for the non-heating service were set at 10 cents per therm for the first 15 therms and 9 cents per therm for more than 15 therms of usage in a month. The rate for centralized space heating was not based on a declining rate structure basis. It was set at a minimum use (fixed) charge of $2 plus a consumption (variable) charge of 6 cents per therm.

In 1932, the non-heating service was called Schedule A and the heating service was called Schedule B.[334] Schedule A rates declined slightly as the rate design changed to 10 cents per therm for the first 10 therms and 9 cents per therm thereafter. Schedule B rates did not change. In addition, several new customer classes were created. The commercial and industrial service was divided into Schedules C and D based on the level of usage. A new Schedule E—a seasonal off-peak rate—applied to customers using gas for water heating, space cooling, or "generation of power by the use of gas." A new Schedule F covered service to master-metered apartments.

2. Sliding-Scale Arrangements

The year 1935 is significant because that is when the Commission approved a sliding-scale arrangement for setting rates, as requested by WGL and Georgetown Gas Light Co. after the DC Supreme Court allowed a similar arrangement in PEPCO vs. Public Utilities Commission, Equity No. 53475.[335] WGL's rate base was set at $21 million as of June 30, 1935, and the allowed rate of return was set at 6.5 percent. Effective the beginning of 1936, the new method yielded, for Schedule A, a reduction to a flat 75 cents for the first eight therms (or 9.375 cents per therm), 8 cents per therm for the next 32 therms, 7 cents per therm for the next 40 therms, and 6.6 cents per therm for greater than 80 therms. For Schedule B, the reduction was in the minimum charge from $2 to 75 cents. Thereafter, rates were to be adjusted September 1 each year.

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330 See Order No. 415 issued March 17, 1921, in FC No. 93.

331 See Order No. 431 issued July 29, 1931, in FC No. 101.

332 See Order Nos. 463 and 526.

333 See Order No. 871 issued September 25, 1930, in FC No. 218.

334 See Order No. 995 issued February 26, 1932, in FC No. 234.

335 See Order No. 1458 issued December 13, 1935, in FC No. 255. The 'Boston' sliding scale approach adjusted rates whenever the company's earnings fell below or rose above the prescribed allowed rate of return.

Schedule B rates remained the same through 1942, when Schedules A and B were merged.[336] Between 1936 and 1942, Schedule A rates changed only slightly due to modifications in the range of the rate blocks. In September 1942, there was a small increase in Schedule A rates for usage greater than 25 therms and customers who had been on Schedule B also experienced a rate increase. Commissioner Gregory Hankins dissented, arguing that a rate reduction was warranted.

The rate increase was short-lived. In 1943, the Commission lowered the Schedule A rates above the first eight therms slightly and then, in 1944, reversed the change to 1942 levels. Rates were unchanged through 1946.[337] The temporary reduction was based on a decrease in the allowed rate of return from 6.5 percent to 5.75 percent; the return to 1942 levels reflected a rise in the rate of return to 6 percent.

3. Switch from Manufactured to Natural Gas

On November 27, 1946, WGL asked the Commission for approval to substitute natural gas for the mixed gas that was being manufactured and sold by WGL. Natural gas is a cleaner product than manufactured gas, in addition to which WGL foresaw increased demand for gas due to the growth in the number of homes, apartments, and businesses using gas, together with an increase in the use of gas for space heating. Although most of that growth was outside of the District, the company argued the change would eliminate the need to increase rates. WGL also asked the Commission to switch from using cubic feet to therms as the unit of measure.[338]

The Commission opened the proceeding in FC No. 361. After appropriate notice, public hearings were held in December 1946. The Commission approved the request in Order No. 3155 issued March 6, 1947, using the sliding-scale formula. However, the PUC agreed to investigate the feasibility of using the sliding-scale formula in light of the switch to natural gas. In that same order, the Commission approved a significant increase in rates. For a residential customer using an average of 40 therms per month, the new Schedule A rate design, in therms, reflected an average increase of about 40 percent, from about 8 cents per therm to 11.43 cents per therm.

4. Rate Base Rate of Return Regulation

In the late 1940s, the Commission began using the revenue requirement (RR) formula below to establish rates:

RR = Operating Expenses + Taxes + (Rate Base [Original Cost] – Accrued Depreciation) x Rate of Return (ROR)

336 See Order No. 2401 issued October 13, 1942, in FC No. 316.
337 See Order Nos. 2682 issued November 8, 1943, in FC No. 334 and Order No. 2827 issued August 31, 1944, in FC No. 334 and 340.
338 See Order No. 3355 issued March 6, 1947, in FC No. 361.

The sliding-scale method protects the financial health of a company by eliminating regulatory lag and provides benefits to consumers by passing through over-earnings during high growth periods; it does not, however, provide an incentive for the utility company to manage expenses efficiently and it does not allow the Commission to investigate whether expenses are warranted. In contrast, rate of return regulation allows the investigation of the prudency of expenses and, because of regulatory lag, the utility company has an incentive to minimize costs. If successful, the company can keep over-earnings or avoid losses.

On July 14, 1949, WGL filed a request for an emergency 7 percent increase in rates for a $900,000 revenue requirement because its actual rate of return was less than 4 percent, well below the allowed rate of return of 6 percent. This was the first case where rate base rate of return methodology was used to determine the revenue requirement and rates. After 13 days of hearings and participation by the people's counsel, the Federation of Citizens' Associations, the DC Industrial Union Council, the Congress of Industrial Organizations, Fort Davis Citizens Association, and Restaurant Beverage Association, on November 9, 1949, the PUC approved an increase in the revenue requirement of $749,520 and an allowed rate of return of 6.14 percent. The Commission also combined the commercial and industrial and master-metered apartment rate schedules into Schedule A on the grounds there was little difference in services within them. The Commission reduced the number of rate schedules from four to two by retaining Schedule E for the seasonal off-peak rate.

On November 28, 1951, WGL requested another rate increase, this time for a $2.345 million increase in revenue due to a 40 percent increase in the wholesale cost of natural gas per the US Natural Gas Act that became effective September 1, 1951. The company also cited increases in wage rates and federal income tax rates as justification for the increase. The Commission rendered its decision on WGL's request on March 27, 1952 (Order No. 3876 in FC No. 414). The Commission approved a $1.723 million revenue increase and a 6.25 percent allowed rate of return.[339] Assuming residential consumption of about 52 therms per month, the average Schedule A rate increased from 12.7 cents per therm to 13.1 cents per therm.

The PUC approved another rate increase in FC No. 422 in Order Nos. 3989 and 3992. WGL had filed a request to increase revenue by $850,000 on November 21, 1952, arguing that increases in the wholesale cost of gas per Federal Power Commission (FPC) tariffs and other costs meant the company would not earn its allowed rate of return. The company also requested an increase in the allowed rate of return to 6.25 percent. The federal Government Services Administration (GSA) and the Federation of Citizens' Associations intervened and WGL, GSA, and Commission staff testified. In Order Nos. 3989 and 3992, the Commission approved a $754,000 revenue increase and the company's proposed 6.25 percent allowed rate of return. Schedule A rates increased approximately half a cent to 13.66 cents per therm.

339 See Order Nos. 3876 issued March 27, 1952, and 3879 issued April 8, 1952, both in FC No. 414.

The next major event to impact WGL's rate schedules (but not rate design) occurred in 1954 when the Commission approved a purchased gas adjustment (PGA). On May 26, 1954, WGL filed an application "requesting approval of a plan for making credit adjustments to customers' bills representing reimbursement of portions of retail charges collected by the Company for gas sold."[340] The Commission approved the request in Order No. 4088 (June 30, 1954, in FC No. 436) as "an inexpensive and simplified method of adjusting charges to retail customers for gas service in accordance with decreases or increases in the wholesale price of natural gas purchased by the Company."[341]

On December 2, 1957, WGL requested a revenue increase of $4.3 million and a 7 percent allowed rate of return. In FC No. 456, on July 22, 1958, the Commission issued Order No. 4468, approving a $2.654 million revenue increase and a 6.45 percent allowed rate of return. Average residential rates increased by about 2.5 cents per therm per the rate schedules approved in Order No. 4473 on July 31, 1958. With the PGA added, the average residential rate per therm was about 14 cents. A year later, in the same formal case, the PUC approved a lower air-conditioning rate for very large users (greater than 100,000 therms per month) to promote summer gas sales.

With the PGA in effect, the utility was allowed to recover costs associated with volatility in wholesale gas rates without delay; thus, there was no change in WGL's Schedule A rates until 1975.[342] One factor in rates remaining stable may have been the District's declining population which began after World War II ended and accelerated after the desegregation of DC public schools in 1954 and "White flight." Rapid population growth in the suburbs caused the number of WGL's DC residential customers to fall virtually every year through 1978. In addition, residential gas sales per customer in the District grew relatively slowly, from about 60 therms per customer in 1956 to 80 therms in 1975. This increase is probably the result of residential customers shifting from oil to gas for heating.

During the 1960s, the Commission approved an "interruptible" rate (Schedule I) for large-volume customers in FC No. 480[343] and a tariff covering an agreement between WGL and the Watergate complex to supply steam and chilled water services in FC No. 503 (Schedule W).[344]

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340 Order No. 4088 issued June 30, 1954, in FC No. 436.

341 Ibid., pp. 1–2.

342 On November 16, 1972, the Commission did approve a 1.0526 percent surcharge as an increase in the gross receipts tax on public utilities per the DC Teachers Salary Act Amendments of 1972, P.L. 92-518.

343 Order No. 4795 issued April 4, 1962.

344 Order No. 4902 issued March 18, 1965.

5. Natural Gas Shortages

The decade of the 1970s was a tumultuous time for the natural gas industry, including WGL. Nationally and regionally, demand for natural gas was growing, particularly for space heating and use of multiple natural gas appliances, including air conditioners. Environmental concerns following the Ohio River oil slick in June 1969 sparked citizen and government activism against pollution and thus favored the use of natural gas, which was deemed a cleaner burning source of energy than electricity generation. Supply could not keep up with demand, however, leading to gas shortages and curtailments. In WGL's case, in 1970, its two suppliers, Columbia Gas Transmission Co. and Transcontinental Gas Pipeline Co. (Transco), "asked Washington Gas to limit sales of gas to new retail customers to 300,000 cubic feet of gas per day."[345] This curtailment affected only a few primarily large customers, most of them probably outside the District. By 1971, WGL could not accommodate "the normal growth of the business"[346] and the company suspended all new Schedule I rate customers. The shortage worsened over the year. In response, WGL sought and received a moratorium on acquiring new customers. That moratorium lasted six years.

WGL filed with the PSC—its name as of 1964—an Emergency Application for Temporary Rates on January 11, 1974. The Commission opened FC No. 610 and denied the request for emergency relief but left the door open for a new filing.[347] On March 29, 1974, WGL filed an application for a permanent increase of $9 million and an allowed rate of return of 9 percent. While that proceeding was underway, WGL filed an application on May 20, 1974, for a temporary increase in rates by adding a temporary uniform surcharge of 19.5 percent to base rates on all bills. The company asked for interim action because of the length of time it needed for the Commission to render its decision on a permanent increase. In Order No. 5655, issued July 11, 1974, the PSC approved a temporary surcharge on base rates, but for 14 percent rather than the 19.5 percent request. As a condition of approval, the Commission also required the company to make refunds, with annual interest of 8 percent, of any amount in excess of what was approved as a permanent rate.

The PSC rendered its decision on the permanent rate increase in Order No. 5685, issued on January 23, 1975. The Commission approved an additional revenue requirement of $6.794 million and an allowed rate of return of 8.75 percent. It found that such rates should be designed to yield a uniform 15.64 percent increase in all rate blocks except the first block of Schedule A, including air-conditioning, which the Commission allowed to rise from $2.00 for the first five therms to $2.50 for the first five therms. After receiving WGL's proposed tariffs and several exceptions, on January 31, 1975, in Order No. 5686, the Commission approved new rates. Schedule A residential rates rose nearly 10 cents a therm. Those rates were adjusted downward slightly in Order No. 5708 issued April 7, 1975.

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345 *Growing with Washington, Part II, A History of Washington Gas, 1948-2012*, p. 43.

346 Ibid.

347 Order No. 5627 issued February 14, 1974.

In July 1976, the Commission approved a surcharge of 1.0638 percent on all rate schedules except Schedule W due to an increase in the DC gross receipts tax from 5 percent to 6 percent. The surcharge on Schedule W increased to 2.1277 percent.[348]

The Commission sought to ease upward pressure on rates by opening an investigation of WGL's PGA in FC No. 638 on May 5, 1975. While the PGA was not included in base rates, it was added to base rates on monthly bills. The Commission engaged an accounting consultant, Ernst and Ernst, which found WGL's practices for calculating the PGA was in compliance with the Commission's intent and that overall implementation was sound. Some modifications were recommended, however. After the Commission held hearings, the parties in the case reached a settlement agreement, which the Commission approved in Order No. 5936 on October 27, 1977. The agreement called for explicitly listing PGA cost components and notice and review of any changes; introduction of an actual cost adjustment (ACA) that reconciles over- and under-collections compared to actual costs because of a lag between when costs are incurred and when the PGA is computed; a simplified refund procedure; and an increase in the interest WGL pays on supplier refunds from 5 percent to 6 percent. These changes all favored ratepayers as customers.

As the moratorium and national promotion of energy conservation took its toll on WGL's sales, the company responded by changing its rate design structure. Until the mid-'70s, rates had been designed to promote usage through declining block rate structures. In the new environment, this approach no longer served the company's needs and WGL revised its proposed rate design in its next rate case submission. On September 30, 1975, WGL filed a request to increase revenue by $7.4965 million and a 9.5 percent allowed rate of return. The Commission granted several entities the right to intervene, including the Office of the People's Counsel (OPC), GSA, the Apartment and Office Building Association (AOBA), and the Washington Public Interest Organization. In this rate case, the company proposed to switch from a declining block rate structure to a two-part rate structure, comprising a separate flat basic monthly charge for each customer class ("system charge") plus a uniform commodity charge applied to each therm of usage. With the uniform commodity charge, there was no incentive to use more gas because the rate did not decline as usage increased. WGL proposed to set the commodity charge at 20 cents per therm to encourage conservation. WGL's proposed monthly system charge was $12 for the months September through May for residential customers and $25 for the commercial and industrial group. WGL also proposed to abandon the concept of Schedule A and instead set rate schedules for each type of customer (e.g., residential and commercial) and two uses: heating/cooling and other. Given average monthly residential usage in DC of about 87 therms in 1976, the average cost for residential heating and cooling customers would be nearly 28 cents per therm.

348 Order No. 5808 issued July 9, 1976, in FC No. 655.

The Commission approved a departure from the declining block rate structure to a two-part system/commodity charge format. In its final order, it stated:

> *As traditionally designed, declining block rates are inherently promotional. In the past, promotional gas rate structures have been justified on strictly economic grounds. To be sure, when gas was plentiful, the utility's costs of serving a customer could be said to decline with increased volumes… The economic equation, however, has become very complex. Complicating the cost picture are several factors. One is that existing and new supplies of gas are becoming more and more costly…. Another factor is that the Company's service is limited by gas supply as well as by pipeline capacity. In these circumstances, traditional allocation techniques must be reevaluated; customers' responsibility for fixed costs must be related more closely to their gas usage. Moreover, the Commission is not required to consider the niceties of cost allocation in a vacuum, but must relate them pragmatically to overriding public policy. For the foreseeable future, public policy must stress conservation of a wasting resource, natural gas. Promotional rate structures tend to foster a misallocation of scarce resources.* [349]

The Commission, however, did alter the actual rates. For the largest residential class, heating and cooling, it reduced WGL's proposed system charge of $12 per month for nine months to $8 a month for the same period and it set the commodity charge at 21 cents per therm rather than 20 cents per therm. Overall, these rates were designed to yield $6.701 million in additional revenues based on a 9.25 percent allowed rate of return.

In an environment of "unabated" inflation and "little opportunity for WGL to offset rising costs with increased sales,"[350] the company filed for another rate increase in October 1977. The Commission docketed the case in FC No. 686. This time, WGL asked for an increase of $10.9 million (in an amended filing in December 1977) and a 9.85 percent allowed rate of return. In its proposed Order No. 6051, issued February 13, 1979, the Commission approved $7.232 million and kept the allowed rate of return at 9.25 percent. The rate design for the residential heating and cooling class included a reduction in the system charge (which became known as a "customer charge").[351]

On March 16, 1979, the Commission issued its final Order No. 6060. WGL filed tariffs that showed the system charge for residential heating and cooling customers would be reduced to $5 per month for nine months while the commodity charge would be increased to 32.55 cents per therm. At a residential usage of about 90 therms, the average rate for the September–May period would be about 38 cents per therm. For the remainder of the year, the average rate would be 32.6 cents per therm.[352]

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349 Order No. 5833 issued October 29, 1976, in FC No. 647, pp. 39–40.

350 Order No. 6051 issued February 13, 1979, in FC No. 686.

351 The Commission decided that "customer charge" was more descriptive than "system charge" since it reimburses WGL for part of the fixed costs it incurs to serve each customer. Customer costs are related to fixed facilities such as mains and meters in addition to the costs for money invested in those facilities, operating and maintenance of those facilities, and meter reading, billing, and similar customer services. See Order No. 6051, page 81 (text and footnote).

352 These prices exclude the PGA.

C. Inflation, Low-Income Discount Program, and Energy Conservation

Gas procurement is an important element in the retail price of gas because gas is not produced locally. Several states in the South, including Louisiana, Texas, and West Virginia, produce commodity gas and transport it to WGL through interstate pipelines. In the 1938 Natural Gas Act, the FPC was given regulatory jurisdiction over companies that engaged in the interstate sale and transport of natural gas. Pipeline companies purchased natural gas from producers, transported the gas to their customers—local distribution companies (LDCs) such as WGL—and sold the bundled product for a regulated price. The Natural Gas Policy Act of 1978 began the process of deregulating the natural gas market by allowing supply, demand, and the wellhead price of natural gas to be dictated by market forces. This stimulated natural gas production and supply such that restrictions from the 1970s were lifted. Accustomed to nearly a decade of shortages, the pipeline companies signed long-term "take-or-pay" contracts, which meant the pipelines had to pay for a fixed amount of gas regardless of demand for it.

Between 1980 and 1985, rising natural gas prices caused demand to fall, resulting in an oversupply that required the pipelines to incur costs from the take-or-pay contracts that could be passed on to the LDCs, putting upward pressure on retail rates. Moreover, the 1980s were characterized by even higher rates of inflation and interest rates. Reflecting these conditions, six WGL rate cases were litigated.[353] In a trend akin to prices in general, average monthly residential natural gas heating and cooling rates (including the PGA) rose substantially from about 42 cents per therm to nearly 75 cents a therm by the end of the decade.[354]

The Commission remained concerned as retail natural gas rates rose. When District of Columbia Natural Gas (DCNG), a WGL subsidiary formed to serve District retail customers, filed a rate case in 1985, the Commission opened FC No. 840 and designated the company's gas procurement practices as one of the issues to be addressed to ensure it was procuring commodity gas at the lowest possible prices. This also was an opportunity for the Commission to review the impact of Federal Energy Regulatory Commission (FERC) Order 436[355] that allowed gas pipeline companies to transport gas without FERC approval if they provided the gas on a nondiscriminatory basis. This would make it easier for local distribution companies such as DCNG to buy gas directly from producers. Only one of WGL's two suppliers, Columbia, participated in the "open access" program. The utility found that it needed a third supplier to overcome a short-term shortage because Columbia was favoring supply for large and industrial customers over residential and small commercial customers. In FC No. 840, the Commission concluded that the open transportation opportunity allowed in

353 FC Nos. 722, 763, 768, 787, 840, and 870.

354 FC No. 763 was an exception. In that case, WGL sought a decrease in rates, which the Commission approved in Order No. 7289 issued April 3, 1981. The reduction offset an increase in revenues of about $500,000 as a result of GSA becoming an interruptible service customer and paying a higher rate.

355 In 1987, Order 436 was vacated and remanded to FERC. However, the court upheld the general terms of the order including FERC's authority to establish the transportation program.

FERC Order 436 "will be favorable to both WGL and its customers."[356] The PSC realized the situation needed ongoing monitoring and required DCNG to start filing an annual gas procurement report (GPR).[357]

Anna Flores, in red, PSC director of the Office Consumer Services, demonstrates a WGL natural gas car.

PSC Chairman Davenport speaking at the 1992 Natural Gas Least Cost Planning Conference.

When DCNG filed its next rate case in January 1988, docketed as FC No. 870, the company did not propose any issues regarding gas acquisition. However, OPC recommended the addition of the same issues as in FC No. 840. There was continued concern about the impact of the pipelines' take-or-pay contract liabilities that could be passed on to WGL's firm service (not interruptible service) customers that would contribute to higher rates. In Order No. 8976 issued March 18, 1988, the Commission decided to investigate WGL's gas acquisition strategies in a separate proceeding that was opened April 7, 1988 (FC No. 874 in Order No. 9000). In Order No. 9793, issued August 27, 1991, the Commission created a Gas Procurement Working Group (GPWG) comprising staff from WGL, OPC, and the Commission. The GPWG was formed to provide an effective review process for monitoring WGL's acquisition strategies and gas procurement practices. In 1994, the Commission changed the filing requirement for the GPR from annually to biennially, and it continued to be filed this way on November 1 of every other year through 2013. (With the 2014 report, the due date was changed to December 1 each even-numbered year.)

In the first five years of the '90s, rates continued to rise but at a slower pace. By August 1, 1994, the average monthly residential rate for heating and cooling customers was about 83 cents per therm assuming monthly average usage of about 84 therms.[358]

The PSC's response to rising rates was twofold. The first strategy was to promote energy conservation as a way for all consumers to manage their usage and minimize their bills. Although originally a PEPCO rate case opened March 1, 1985, FC No. 834 was the Commission's opportunity to pursue energy conservation through the adoption of integrated least cost planning for both PEPCO and DCNG. In contrast to what traditionally had been system planning that relied solely on supply-side options, integrated least cost planning is a tool by which utility companies consider all feasible demand-side (energy conservation) and supply-side programs equally to determine the most cost-effective ways to serve their customers. The Commission required use of the Maine version of the All Ratepayers test as the tool for screening all programs. In FC No. 834, DCNG filed its first plan on August 31, 1990.

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356 Order No 8569 issued September 5, 1986, p. 112.

357 Ibid, p. 137.

358 Average usage is calculated using test-year data in tables WGL submitted in FC No. 934 for 1993.

In formulating the plans, the Commission required DCNG to collaborate with other parties in several working groups.[359] The demand-side energy conservation programs the company implemented included free audits, rebates for boiler/furnace installation that covered the difference in cost between a standard-efficiency unit and a high-efficiency unit (80 percent AFUE or higher), and gas water heating, dryer, and oven/range incentives. The Commission considered WGL, District of Columbia division's subsequent least cost plans in FC No. 921. WGL filed its second plan October 1, 1992, its third plan September 1, 1994, and its fourth plan September 3, 1996, before the Commission terminated the process and programs as it introduced competition into the natural gas retail market.[360] The collaborative process resulted in submission of settlement agreements for all three plans, and the programs proved successful through the 1990s in "moving the market," as Adrian Chapman, president of WGL, related at the Commission's 2013 centennial symposium. High-efficiency gas furnaces and other appliances, for example, became available at affordable prices to most residents and businesses.

The second strategy for addressing rising rates was approval of discount rates to protect low-income households least able to pay. In the case of WGL, the Commission approved a Residential Essential Service (RES) rate for LIHEAP[361]-eligible gas heating customers in FC No. 840 (Order No. 8569 issued September 5, 1986). RES customers were to pay 74.53 cents per therm for the first 150 therms from the December-through-March billing period, a discount of 4.6 cents per therm on the first 150 therms during the four billing months. The discount was shown on RES customers' bills as a monthly credit. Over time, the credit rose, peaking at $263 over the six-month billing period November through April in 2005. In 2013, the credit was $123 over the same six-month period. The average amount of the credit varies from year to year based on changes in the weather, usage, and number of participants.

RES working group meeting

D. Introduction of Competition and the 21st Century

The August 1, 1994 rates approved by the Commission in FC No. 934 remained in effect for nearly six years, during which time competition was introduced into the natural gas industry. The stimulus for competition first came from Congress and FERC, which had regulatory jurisdiction over gas procurement at the interstate level.

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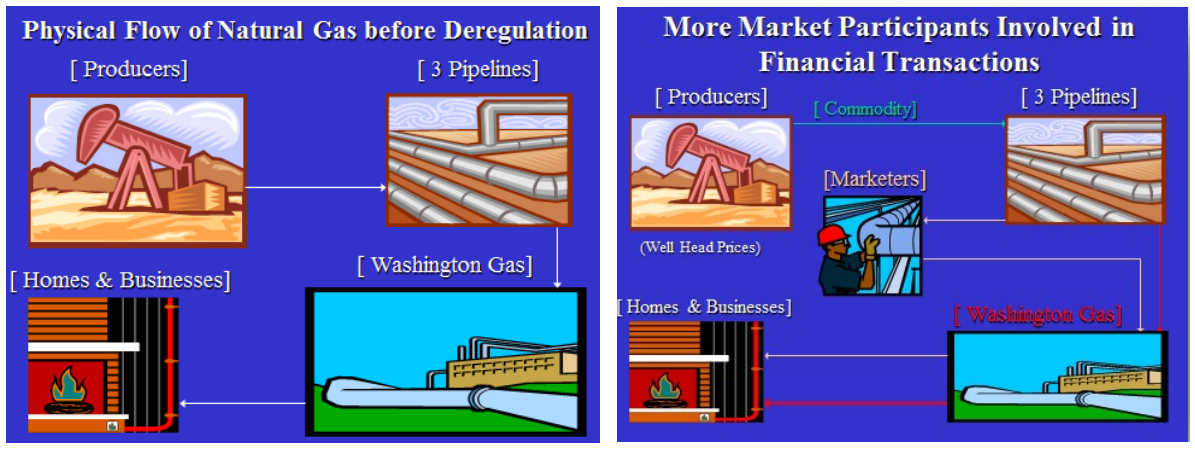
359 The Load Research Advisory Working Group and the Natural Gas Least Cost Planning Working Group. Members included DCNG/WGL, Commission staff, OPC, and the DC Energy Office. Commission staff chaired the working groups.

360 The Commission approved the second least cost plan in Order No. 10252 issued June 29, 1993; the third least cost plan in Order No. 10584 issued March 9, 1995; and the fourth least cost plan in Order No. 1268 on December 21, 1998.

361 LIHEAP is the federally funded Low-Income Home Energy Assistance Program operated by the DC Energy Office (DCEO).



Natural gas market structure before and after competition

The Natural Gas Policy Act of 1978 "encouraged increased gas production, began the gradual deregulation of gas prices, and reduced FERC's regulation of natural gas supplies. In 1985, FERC issued Order 436, which enabled local distribution companies (LDCs) [like WGL] to purchase gas directly from producers and pay pipeline companies to transport the gas. However, the pipelines were able to retain a competitive advantage over the producers for gas sales because of their ability to bundle transportation with storage and other services. To alleviate this inequity, in 1992, the FERC issued Order 636, which removed this competitive advantage by requiring pipeline companies to offer only unbundled services and provide equal open access transportation services for all natural gas supplies.[362]

Retail competition was made possible because marketers were able to purchase gas from the pipelines and sell to retail customers just like the LDCs. With competition proving viable at the wholesale level, the next step was to introduce it to retail customers. This was first done in the District in 1988 for interruptible customers. Ten years later, the Commission approved "customer choice" programs for three customer classes through a series of gas tariffs (GTs). Specifically, in January 1998, the Commission approved a customer choice program for retail large commercial customers in GT 96-2 and WGL implemented the program in April 1998. In April 1998, the Commission approved a pilot customer choice program for all residential customers in GT 96-3. WGL implemented that program in January 1999 and the Commission approved it as a full-scale program in February 2001. In January 1999, the Commission approved a pilot program for small commercial customers in GT 97-3. The Commission approved the pilot program as a full-scale program in January 2002.

Introduction of retail competition required restructuring WGL's rate design. The customer charge remained the same but was subsequently extended for 12 months for residential heating and cooling customers, while the commodity charge and PGA were changed to a distribution charge and a purchased gas charge (PGC). All customers paid WGL the customer charge and the distribution charge to cover the company's costs to deliver gas. The PGC was designed to cover the cost of the commodity that flows through WGL's distribution system. Retail customers could choose not to pay WGL's PGC and instead pay a commodity charge from another company.

Using the residential customer choice program as an example, initially there were only two suppliers—WGL and its unregulated affiliate, Washington Gas Energy Services (WGES). WGES's commodity charge was lower than WGL's PGC. A year later, PEPCO's unregulated subsidiary, PEPCO Energy Services (PES), started serving natural gas customers in the District. By September 2001, a third company, Gateway Energy, entered the market. By the end of 2013, there were eight competitors to WGL for residential service: Ambit, Deca, Gateway Energy, Hess, MetroMedia Energy, Northern Virginia Electric Cooperative (NOVEC) Energy Solutions, PES, and WGES.

362 Regulatory Research Associates, *Regulatory Focus,* February 3, 2000, "Special Report: Gas Industry Restructuring Update," p. 1.

Appendix Chart 9.1 contains the numbers underlying Figure 9.1

Figure 9.1 - Competitive Residential Natural Gas Rates, by Company, 1999–2015 (Cents Per Therm)

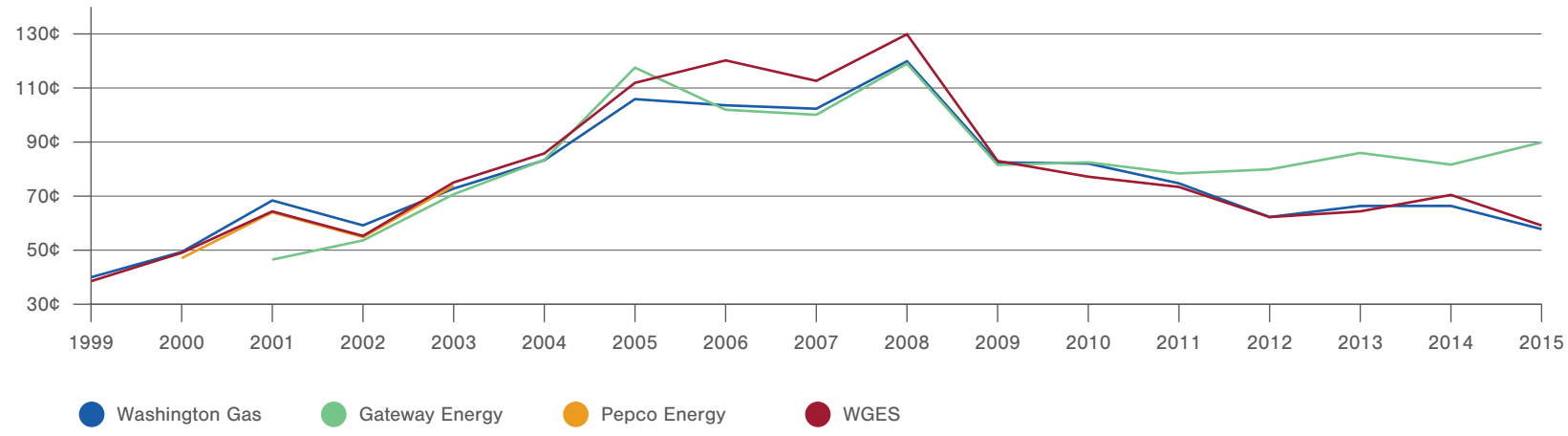


Chart 9.1 - Residential Natural Gas Customers in a Competitive Environment, 1999–2013

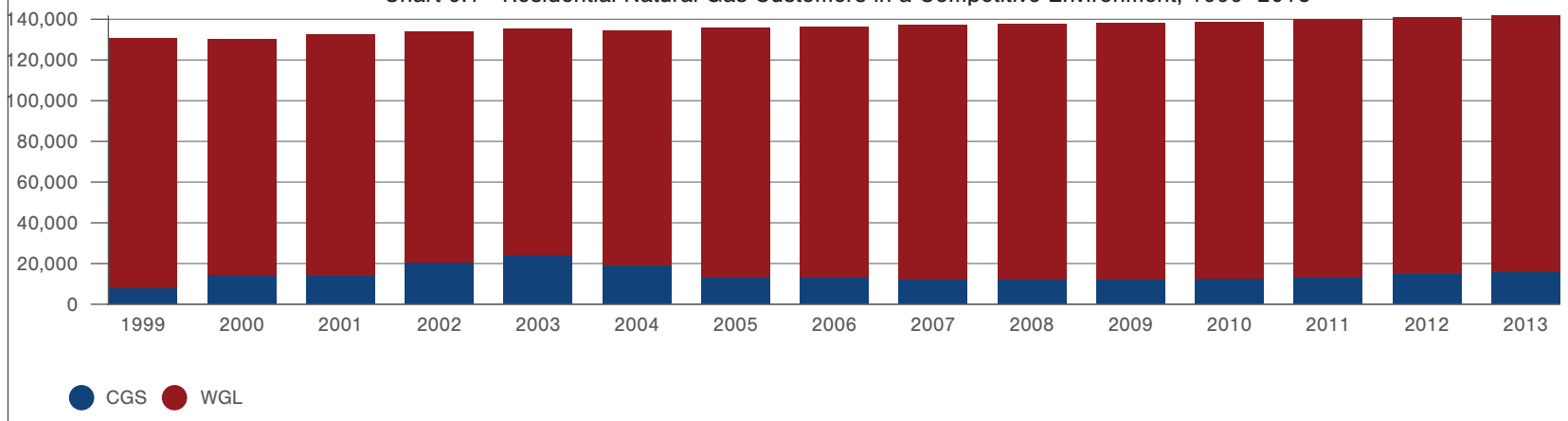
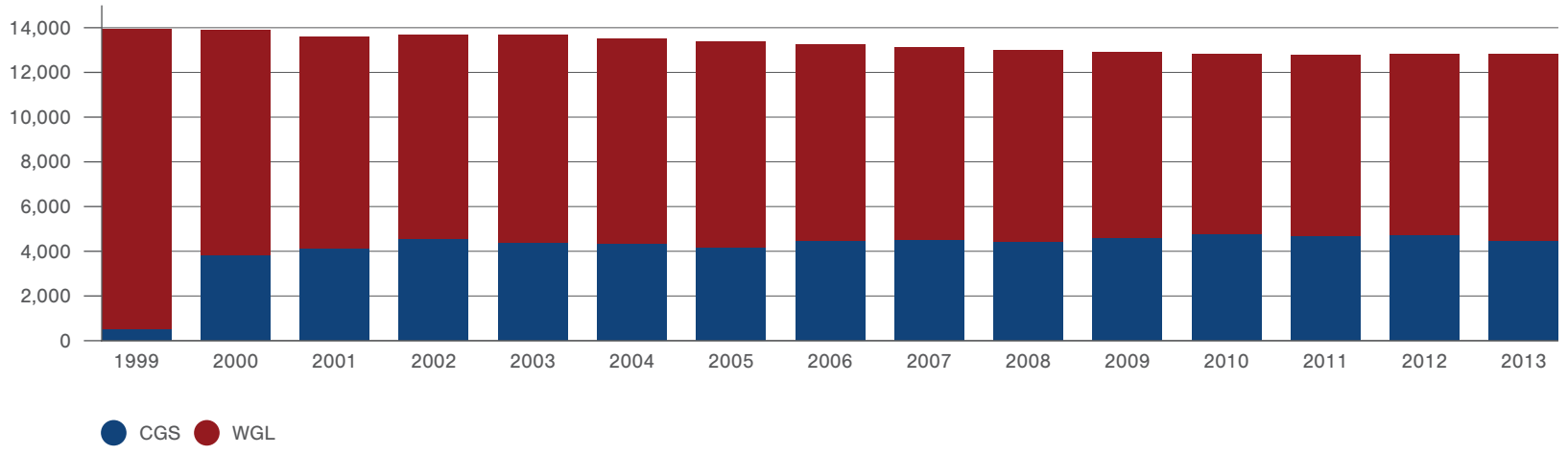


Chart 9.2 - Commercial Natural Gas Customers in a Competitive Environment, 1999–2013



Consumer participation in gas customer choice programs varies with market prices—there are more participants when competitors can beat WGL's PGC than when they cannot. The residential program started at the beginning of 1999 with about 6,500 participants or 5 percent of all residential customers. By the end of 2000, the number of participants had grown to 17,600 (about 14 percent of all residential customers). The number of participants peaked at 27,000 (20 percent of all residential customers) in the first five months of 2003. By the end of 2013, there were 15,000 participants or 11 percent of all residential customers.

The least cost planning programs ended with the introduction of competition, but customer choice did not cause overall rates to fall. The first gas rate case after competition was implemented began in 2000, when OPC filed a complaint that WGL was over-earning. The Commission agreed to open an investigation of the reasonableness of WGL's rates in FC No. 989, given the time that had passed since the last rate case and many changes that had occurred in the industry over the intervening years. WGL filed an application for a $16.3 million rate increase on June 19, 2001. OPC, AOBA, the Consumer Utility Board, Moore Energy Resources, WMATA, and the Watergate Complex Council intervened. The PSC held both formal evidentiary hearings and community hearings. On October 29, 2002, it rendered its decision in Order No. 12589. After granting in part and denying in part several motions for reconsideration in Order No. 12689 issued March 28, 2003, the Commission's decision yielded a $5.3874 million reduction in the revenue requirement per the tariff WGL filed April 1, 2003.

One of the key factors contributing to the reduction was the PSC's lowering of the allowed rate of return from 9.72 percent in FC No. 934 to 8.83 percent. Reduction of the revenue requirement meant the customer charge was reduced from $8.10 for nine months to $7.49 for 12 months. According to the tariff, the new distribution charge was reduced from 39.89 cents per therm to 36.01 cents per therm. However, the distribution charge appearing on customers' bills was lower than the tariffed rates because it included a distribution charge adjustment (DCA), which was negative. The DCA replaced the commodity credit adjustment (CCA) in the restructured environment. The Commission approved the CCA in 1983 in FC No. 787 as an interruptible service credit to firm sales customers. The CCA had been shown as a line item on customers' bills as an interruptible sales credit. In addition, the new PGC, which is set by the market and not by the Commission in a rate case, must be added, and it averaged 73 cents per therm in 2003 when final rates were approved. At an average usage of 75 therms per month for residential heating and cooling customers, WGL's average monthly residential heating and cooling rate was $1.13 per therm.

During the 11-year period, 2003 to 2013, there were three more WGL rate cases (FC Nos. 1016, 1054, and 1093), each of which led to a rate increase although the allowed rate of return was reduced in each case. The rate increase the Commission approved in FC No. 1016 in late 2003 was modest, to $1.15 per therm. For residential heating and cooling customers, the customer charge increased from $7.49 per month to $7.85 per month. The distribution charge increased from 36.01 cents per therm to 38.09 cents per therm.

The next rate increase (FC No. 1054) was approved by the PSC in Order No. 14694 on December 28, 2007. That increase was contained in a settlement agreement. WGL sought a $20 million increase in revenues, and the Commission approved a $1.4 million increase. For heating and cooling customers, the customer charge increased by ten cents per month to $7.95 and the distribution charge barely increased, from 38.09 cents per therm to 38.73 cents per therm. The PGC was relatively high in 2008 (an average of $1.20 per month), the first rate effective period after the decision, so the average rate for heating and cooling customers rose to $1.63 per therm in that year. Average monthly usage was 60 therms.[363]

The last WGL rate case before the end of the PSC's centennial year was FC No. 1093. The Commission opened the investigation of WGL's rates on November 2, 2011, "because of the time that had elapsed since WGL's last base rate case, the Company's earnings level, and an apparent decrease in WGL's depreciation expense."[364] By direction of the Commission, WGL filed an application on February 29, 2012, this time seeking to increase rates by $29 million based on an 8.91 percent allowed rate of return. AOBA and the DC government intervened, and OPC was a party of right. The PSC held formal evidentiary hearings and community hearings. In Order No. 17132, issued May 15, 2013, the Commission approved an $8.38 million revenue increase and a 7.93 percent allowed rate of return. For heating and cooling customers, this meant the monthly customer charge increased to $9.90 and the distribution charge increased to 40.67 cents per therm. Despite the increase, the PGC had fallen considerably by 2013 to a monthly average of 66.7 cents per therm; the total average monthly rate for residential heating and cooling customers fell to $1.16 assuming average monthly consumption of 60 therms.

Trends in nominal and real average monthly residential gas prices are shown in Table 9.1, Figure 9.2, and Figure 9.3. Because the rise in nominal monthly average residential gas rates between 1913 and 2013 did not keep pace with inflation, real rates declined over the entire period, as Figure 9.3 shows. Despite an uptick in prices during the Depression in 1934–35, the trend in real prices was downward until the early 1970s when gas shortages followed by the inflationary period of the 1980s caused real rates to increase substantially. The trend then was downward, until the end of the 1990s. Introduction of competition did not have the intended impact of mitigating price increases. Instead, real prices rose, peaking in 2008, to reflect volatile natural gas market prices at the national level. Real prices have subsided since then, and by 2013, they were almost half of what they were in 1913.

Table 9.2, Figure 9.4, and Figure 9.5 compare the nominal and real average monthly residential rates calculated by the Commission to the DC rates published by the US Department of Energy (DOE). The DOE data are calculated by dividing DC residential revenues by the number of cubic feet of gas (converted to therms) sold. Data from 1956 to 1980 were compiled by the Federal Power Commission, the precursor of the Federal Energy Regulatory Commission; data after 1980 are from the Energy Information Administration (EIA). Both FERC and EIA are part of DOE. Note that PSC-calculated rates track DOE rates closely.

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363 Per Attachment A to Order No. 14694, page 4 of 5, in FC No. 1054.
364 Order No. 17132, p. 1.

Figure 9.2 - PSC-Calculated Average Monthly Nominal WGL Residential Gas Rates in DC, 1913–2013

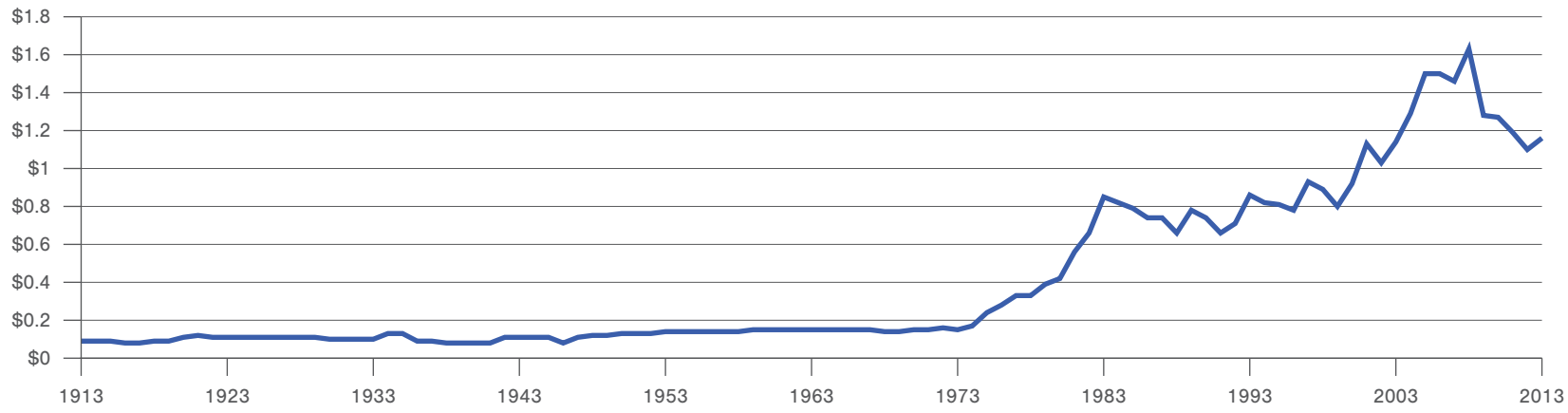
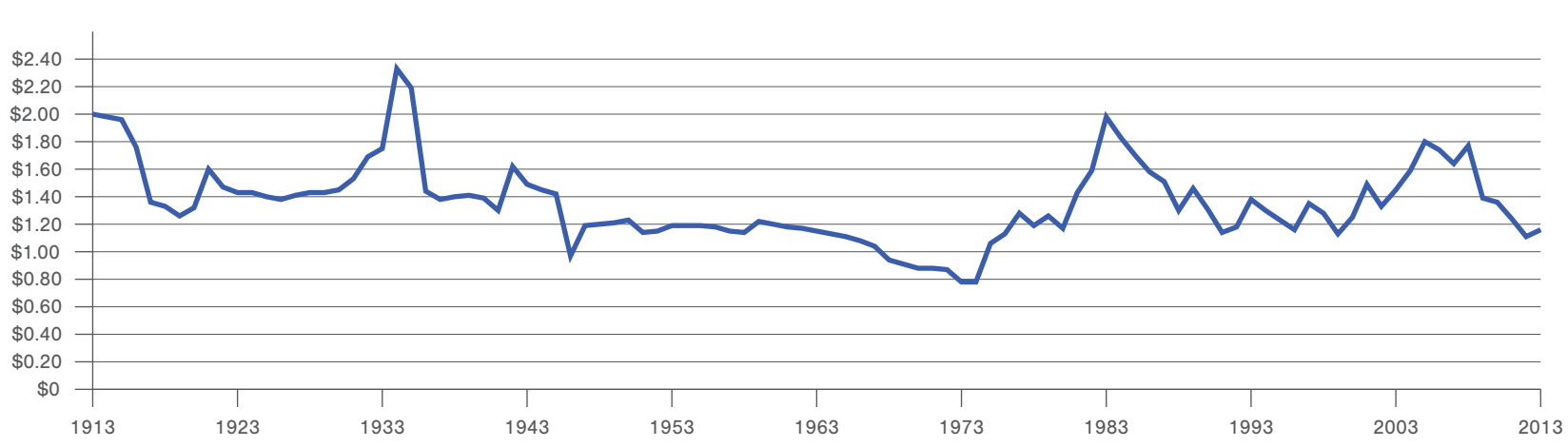


Figure 9.3 - PSC-Calculated Average Monthly Real WGL Residential Gas Rates in DC, 1913–2013



E. Ensuring Safe, Reliable, and Quality Natural Gas Service

From its inception, the Commission has made gas safety a top priority. Inspection of gas facilities and meters remains vital to maintaining public safety by preventing hazardous leaks, fires, and other dangerous events. The Commission established a separate Gas Inspection Bureau[365] (one of four PUC bureaus), tasked with testing and sealing all gas meters installed by the gas light companies; inspecting and testing gas meters upon complaint of consumers; and investigating gas

365 The Commission maintained a separate gas office until a reorganization in 1980. Thereafter, gas inspections, including the Pipeline Safety Program, were overseen by its Office of Engineering.

Figure 9.4 - PSC-Calculated and USDOE Nominal WGL Residential Gas Rates in DC, 1928–2013

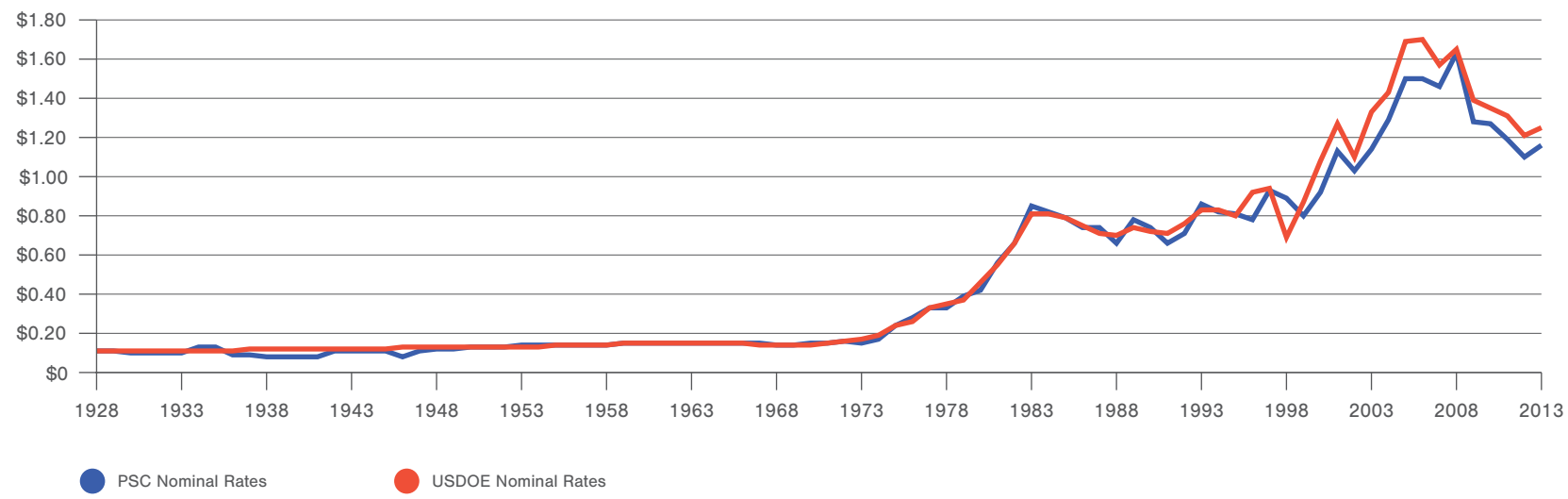
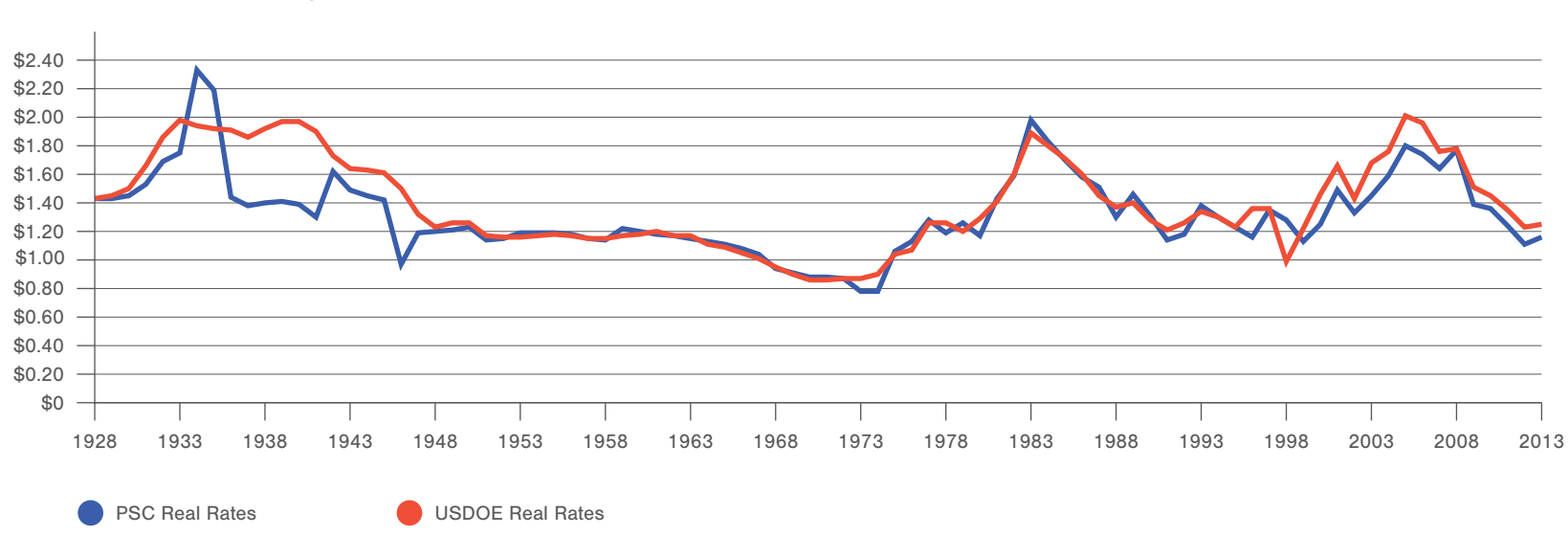


Figure 9.5 - PSC-Calculated and USDOE Real WGL Residential Gas Rates in DC, 1928–2013



quality, purity, and pressure.[366] On July 23, 1914, the Commission issued Order No. 86, which prescribed rules governing the testing of gas meters for heating value, impurities, and pressure, to be effective September 1, 1914. On October 28, 1914, it issued Order No. 119 in PUC No. 213/25 that contained regulations for the extension of gas mains and gas service, including rates to be paid by property owners to the gas companies for installation of gas service. After property owners complained, the PUC reduced the costs beyond a "free limit" in Order No 356 (FC No. 79 on December 10, 1919). The rules and rates were important in facilitating the extension of WGL's gas distribution system in the District, which began in the second half of the 1920s and continued through the 1940s.

PSC engineer, Manmohan Singh, witnessed by PSC Consumer Services staff, Annette Johnson, (in red) explains the meter test to a residential consumer.

In 1928, the Commission conducted a gas pressure survey after receiving complaints of excessive pressure in certain locations; the PUC directed WGL to undertake remedial action (PUC No. 2229).[367] That same proceeding was often used for the Commission's approval of distribution gas pressure gauges, gas pressure alarms, and gas governor vaults. In the early 1930s, the Commission directed the Engineering Bureau to investigate and recommend procedures WGL should follow for installation of service pipes to provide sufficient volumes of gas for heating. At the same time, the Commission approved a separate rate for gas heating. WGL also sold heating equipment to bolster its gas sales. By the late 1930s, McCrea Equipment Company complained to the Commission that WGL's sale of heating equipment was discriminatory.[368] WGL was successful in promoting gas heating sales, and by 1940, 11 percent of DC households used gas as a heating fuel. Coal (65.5 percent of households) and oil (23 percent of households) were the other fuels used for heating.[369]

366 Before the Commission existed, these responsibilities were carried out by a gas inspection office under the jurisdiction of the DC Commissioners. When the Commission was created, the director of the office, his three assistants, and one messenger were transferred to the PUC while still being paid from DC appropriations. The salary of one inspector, which had been paid from the gas companies' deposit for maintenance of the testing station, was paid from the PUC appropriation.

367 Minutes of Commission meetings, 1928–1932 Volume, p. 417.

368 Minutes of Commission meetings, 1937–40 Volume, p. 1705, PUC No. 1005/1.

369 Census of Housing, US Census Bureau.

During World War II, large quantities of gas were diverted to war industries. In 1945, the Office of War Utilities within the War Production Board sent a telegraph to WGL requiring curtailment of gas for theaters, bowling alleys, nightclubs, bars, and other entertainment venues. District officials were urged to curtail gas deliveries to public institutions, such as libraries, museums, and schools. The Commission acted on the request by issuing a press release.[370] By early 1949, the curtailments were lifted.

The energy crisis of the 1970s and early 1980s was a challenging time for both WGL and the Commission. Several formal case proceedings were held to address the reliability of gas service, the first of which was FC No. 571 in 1971. On November 9, 1971, WGL notified the Commission that it faced a critical gas shortage that would cause the company to limit the sale of gas to new customers. Columbia Gas Transmission Co., its principal pipeline supplier, had said that it could provide only half of WGL's total annual requirement for growth and that supply would be delayed until late spring of 1972. Transco, WGL's other pipeline supplier, had been unable to deliver all of the gas it was contracted to provide. WGL asked the Commission to issue an order authorizing the utility to immediately curtail new sales of gas to single-family residences. The Commission decided that large commercial, industrial, and apartment building customers could more readily substitute other fuels than residential single-family customers, so it accorded priority for space heating purposes to both residential single-family and individually metered apartments.[371]

After the Commission held a hearing on the matter (December 10, 1971), in Order No. 5497, issued February 3, 1972, it approved a new priority order: (1) all single-family residential users, including new construction and those being refurbished and restored; (2) existing individually metered apartments exclusive of space heating and water heating; (3) all apartments for cooking and clothes-drying uses; (4) users of pilot gas for oil-fired boilers and users of gas-fueled emergency generators. A provision was made for waiver applications.

On March 1, 1972, WGL notified the Commission that the gas shortage had worsened. The utility asked that it be allowed to stop all further commitments for new gas sales effective that day to assure an adequate supply for all present customers. The Commission held another hearing on March 17, 1972, and approved the request (Order No. 5505 on March 20, 1972).[372] As the shortage continued, the Commission received multiple waiver requests. In late 1974, Greater Southeast Community Hospital asked the Commission to allow it to convert from an interruptible to a firm gas customer because it did not have alternative fuel capability and could not meet certain essential hospital needs after December 15, 1974. After publishing a public notice in the DC Register, to which no comments were received, the Commission

370 Minutes of Commission meetings, 1945–49 Volume, p. 2697.

371 Order No. 5481, issued November 12, 1971, in FC No. 571.

372 The Commission amended Order No. 5505 in Order No. 5829 on October 20, 1976, by also authorizing WGL to provide service, among other things, to locations that had been terminated or abandoned, and particularly in areas impacted by the 1968 riots, to facilitate restoration and rehabilitation of those properties.

approved the request.[373] In 1975, the Commission granted similar requests from the Parent and Child Center on 14th Street, Northwest (its oil furnace was worn out and a gas furnace would be less costly), Children's Hospital (for gas needed in the clinical lab and for a standby generator), and the National Lutheran Home for the Aged (to offset the impact of fuel oil costs).[374]

Individuals also sought and received waivers. In Order No. 5738, issued October 31, 1975, the Commission granted Mr. Samuel Featherstone's request for gas service for space heating purposes in his single-bedroom apartment on Q Street, Southwest. On March 4, 1976, the Commission granted Laura Williams a waiver for gas service to her home on New Jersey Avenue, Northwest, for cooking, heating, and hot water purposes in Order No. 5772. It also granted Dr. William Rumsey's request for gas service at his home on Morgan Street, Northwest, in Order No. 5913 on August 31, 1977. Dr. Rumsey was renovating his property and installing gas equipment.

The second formal case in which the Commission addressed customer needs during the gas shortage was FC No. 667, Emergency Request of Washington Gas Light Company to Curtail Non-Essential Human Needs Customers. On January 28, 1977, WGL asked the PSC to allow it to immediately implement emergency procedures for customers who serve human needs but lack installed alternate fuel capacity. This included all types of residences, hospitals, daycare centers, nursing homes, hotels and motels, restaurants, food processors, prisons, police and fire stations, water and sewage treatment plants, colleges and schools, and communications systems and laboratories with critical temperature requirements. The request followed Columbia Gas's notice to WGL, directing the company to discontinue service to all customers except essential human needs customers to maintain pipeline deliverability in view of predicted severe weather. The emergency was expected to continue through February 1, 1977. The Commission granted the request in Order No. 5853 on January 28, 1977. The Commission also scheduled a hearing for February 1, 1977, to ensure the action was in the public interest. In Order No. 5855, issued February 4, 1977, the Commission affirmed its decision.

Restrictions on gas service to new customers were embodied in General Service Provision (GSP) No. 18 of WGL's tariffs. Commitments of natural gas to the interstate market, coupled with the emergence of other sources such as synthetic natural gas and imported liquefied natural gas, were easing shortages that had persisted for six years. In October 1977, the Commission opened FC No. 687 for the purpose of addressing WGL's request to modify the provisions by enlarging its obligation to deliver gas service beyond its present load (or the addition of about 3,000 customers). WGL asked for authority to serve new residential and commercial customers whose requirements did not exceed 500 therms on an average day in the peak month, and in Order No. 5998, issued May 16, 1978, the PSC approved the request. On October 13, 1978, the Commission issued Order No. 6023 with a notice of intent to amend Order No. 5998, and those amendments were included in a notice of final rulemaking (NOFR) in Order No. 6090 issued June 1, 1979.

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373 Order No. 5681 issued December 17, 1974, in FC No. 571. Modifications were made in Order No. 5737 on October 10, 1975.

374 Order No. 5699 issued March 13, 1975, in FC No. 571.

The fourth proceeding[375] on this topic was opened in 1979 in FC No. 711. In this instance, WGL sought to extend availability of service for both GSP 18 and Schedule No. 3 for interruptible service in a filing dated February 5, 1979. The Commission raised questions in a show cause order on August 2, 1979, and rescinded it the next day while granting the request in a NOFR contained in Order No. 7033. In June 1980, the parties sought the PSC's approval of a WGL-proposed amendment to the stipulation agreement that allowed WGL to satisfy an unfulfilled interruptible service demand in DC from available gas not needed to meet firm customer commitments. In Order No. 7175, issued August 1, 1980, the Commission approved the modification while simultaneously requiring the company to file an annual gas supply report so the Commission could assess WGL's marketing and sales efforts in the residential or firm gas users' market.[376] In Order No. 7883, issued September 14, 1983, the PSC terminated the reporting requirement because the availability of natural gas had improved. The critical gas shortage was over, and the Commission had been willing to modify gas supply rules as changes in availability occurred.

1. Natural Gas Pipeline Safety Program

The PSC works diligently to examine and enforce safety regarding the natural gas pipeline distribution system within the District by participating in the Natural Gas Pipeline Safety Program, a federal/state partnership designed to ensure compliance with federal and state regulations. In 1968, Congress passed the Natural Gas Pipeline Safety Act, which authorized the US Department of Transportation (USDOT) to regulate pipeline transportation of flammable, toxic, and corrosive gases. The Office of Pipeline and Hazardous Materials Safety Administration (PHMSA) within USDOT is responsible for developing and enforcing "regulations for the safe, reliable, and environmentally sound operation of the nation's 2.6 million mile pipeline transportation system and the 1 million daily shipments of hazardous materials by land, sea, and air."[377] PHMSA also is responsible for overseeing the gas pipeline safety programs in every state and the District of Columbia through annual audits.

Like the state programs, the safety program operated by the Commission has gas engineers, certified by PHMSA, who conduct daily on-site inspections of construction activities, pipeline facilities, and operational records undertaken by WGL under the Commission's jurisdiction. The PSC's gas pipeline safety engineers also conduct incident investigations to determine probable

Gas pipeline safety inspections by PSC engineers: Top: Adesina Jaiyeola (red hat), Richard Huriaux (behind him); Middle: Manmohan Singh (black turban) Bottom: James Bell

375 Two other proceedings (FC No. 628 and FC No. 689) related to reliability of gas supply in the 1970s, but no information on them is available. FC No. 628, opened November 15, 1974, was an investigation and proposed rulemaking regarding WGL's gas supply; FC No. 689, opened September 30, 1977, was in response to a WGL application to add a new GSP.

376 Order No.7883 issued September 14, 1983, p. 1.

377 PHMSA website.

causes; implement enforcement actions, including civil penalties; monitor the training of pipeline operators; and design and implement public educational gas pipeline safety programs. The Commission prepares regulations that allow it to issue notices of probable violation (NOPVs) followed by fines and penalties as appropriate whenever violations occur. PHMSA reimburses the Commission for up to 80 percent of the PSC's actual cost for carrying out its pipeline safety program, including the cost of personnel and equipment. The amount of each annual grant depends on the availability of funds and the PSC's performance rating after each audit. Traditionally, the Commission performs well and receives the maximum allowable amount each year.

On August 12, 2011, the Commission published a notice of proposed rulemaking (NOPR) in the DC Register that contained updated rules governing its Natural Gas Pipeline Safety Program in conformance with USDOT's rules.[378] The Commission also sought to establish specific penalties for violations of the rules. After issuing two more NOPRs and considering all comments, on December 20, 2012, the PSC finalized the rules. The rules provide the requirements for the safety of intrastate natural gas transmission and distribution facilities and for the enforcement of those requirements through inspections, investigations, issuances of NOPVs, and imposition of civil penalties. The rules also require WGL to file three reports for monitoring purposes: a monthly report on pressure gauge measurements, an annual report on meter test results, and a report every two months on damage to WGL's pipeline system.

2. The District's Miss Utility/One-Call Program

The District's Miss Utility dates to DC Law 3-129 after approval by the DC Council in December 1980 and signed by the mayor on January 7, 1981. The law aims to reduce damage to underground facilities such as natural gas, electric, water, and telephone lines. All excavators, including homeowners, are required to notify the One-Call center at least two days before digging so owners of underground facilities can mark their location to prevent damage to them. The Commission receives an annual grant (about $45,000) from USDOT, which it uses to fund one inspector who conducts field inspections of underground facility location markings, compares locate requests and responses to determine the extent and timeliness of responses, tests and verifies accuracy of the markings performed by the locators, conducts inspections of excavation sites to ensure excavations are carried out in accordance with federal and District laws, and verifies the accuracy of maps and mapping technology used by locators to perform markings. The inspector conducts inspections each day.

In the last few years, the Commission has provided educational materials on a new 811 abbreviated dialing code that the inspector distributes to all excavators, District residents, and underground facility locators during site visits. The PSC also promotes April National Safe Digging Month by issuing a District-wide bulletin/press release and preparing a declaration and resolution signed by the mayor and DC Council.

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378 See FC No. 1089.

3. Cast Iron Replacement Program

Cast iron replacement inspection

The gas safety record in the District over the last century registers very few incidents. One exception occurred on June 28, 1993, when natural gas leaked from a 12-inch high-pressure cast iron natural gas line at Pennsylvania Avenue and 30th Street, Southeast. Fire, followed by an explosion caused by a spark from a stalled van's starter motor, resulted in one fatality and several injuries. As a result of the incident and investigation conducted jointly by PHMSA and the Commission with WGL, the PSC directed WGL and Commission staff to develop a Cast Iron Replacement Program (CIRP) to rapidly retire eight-inch and 12-inch high-pressure cast iron pipes, which are susceptible to failure. CIRP was implemented as an addition to WGL's existing pipe-replacement program. The Commission monitored the ten-year plan that began in 1994 and was completed on time in 2004. During the program, WGL replaced 15.8 miles of cast iron mains. In its continued efforts to enhance reliability and safety of the natural gas distribution system within the District, WGL also implements a program to replace small-diameter (less than eight inches) cast iron pipes with plastic pipes. Since 1984, WGL has replaced 178 miles of small-diameter cast iron pipes.

4. Investigations of WGL's Gas Distribution System

In 2004, the PSC received two complaints of interruptions in gas service that caused the Commission to open a proceeding (FC No. 1027) and ultimately an investigation of WGL's gas distribution system. On January 13, 2004, OPC filed an emergency petition for the Commission to investigate a spate of natural gas service interruptions near the 100 block of 11th Street, Southeast, that caused "gas furnaces to cut off, meters to freeze, and houses to be without heat and hot water." In the same month, residents of the Shaw community in Northwest DC experienced similar problems. In both cases, the Commission's gas pipeline safety engineers and WGL immediately investigated. Although no immediate danger was found, the Commission ordered WGL to conduct a more thorough investigation and file a report.[379] WGL filed its report on March 8, 2004, with updates on September 21, 2004, and on November 1, 2004. In its report, WGL attributed the cause of the 11th Street problems to low pressure or no pressure caused by water from DC's Water and Sewer Authority entering WGL's distribution system and blocking the flow of gas. WGL made all of the repairs and restored service. The company conducted a leak survey in Shaw that identified 23 leaks, and its September 21, 2004, update report identified the status of the steps for eliminating the leaks.

379 Order No. 13064 issued February 6, 2004.

While the Commission was monitoring these interruptions, a natural-gas-related incident occurred on March 28, 2005, in District Heights, Maryland, that resulted in an explosion and fire at a private residence. By comparing the couplings at the site of the incident with couplings elsewhere in its system, WGL preliminarily determined that dry gas (unblended liquefied natural gas) injected at its Cove Point, Maryland, terminal caused gasket seals on the natural gas pipes to dry out, leading to a leak and ultimately the fire and explosion. Because the Southeast and Northeast quadrants of the District are adjacent to District Heights and use the same type of mechanical couplings, the Commission directed WGL to conduct a special leak survey in DC. Fearing that the impact of a similar leak in the District would be devastating, by Order No. 13735, issued August 11, 2005, the PSC ordered WGL to repair all known Grade 2 leaks associated with mechanical couplings within six months and develop a plan for repairs for Grade 3 leaks, as well as to file monthly reports on coupling-related leaks to help the Commission monitor progress.[380]

WGL began injecting hexane into its system to prevent shrinkage of rubber seals in the mechanical couplings to reduce the likelihood of gas leaks. On February 19, 2006, the company sought recovery of the cost in a gas tariff, GT 06-1. WGL was recovering the cost of hexane injections through the PGC, however, delivery service customers do not pay that charge, hence, WGL asked the Commission to approve a balancing charge to be assessed on all interruptible and delivery service customers. On December 16, 2009, in Order No. 15627, the Commission approved an OPC/WGL settlement agreement, but not until after the Maryland PSC's disposition of a similar WGL request and FERC rendered its decision on the cause(s) of the incident in District Heights. The Commission-approved settlement agreement addressed not only the hexane cost recovery mechanism but also initiated a seven-year vintage mechanical coupling replacement and encapsulation program; imposed a surcharge to be recovered through the PGC for WGL's delivery service customers and a balancing charge for customers of competitive suppliers; and approved provisions for reviewing the program, leak survey filing requirements, reporting requirements, and consumer education requirements. The Commission also required WGL to file monthly natural gas leak reports for purposes of monitoring performance.

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380 There are three classes of gas leaks: Grade 1 leaks are considered hazardous and must be repaired immediately; Grade 2 leaks are considered nonhazardous but require repair; Grade 3 leaks are not hazardous and are expected to remain nonhazardous.

5. Natural Gas Quality of Service Standards

At about the time the Commission opened the natural gas commodity market to competition, it decided that quality of service standards should be developed to ensure that WGL and natural gas service providers operating in the District meet an adequate level of quality, reliability, and safety. On January 28, 1999, the Commission opened FC No. 977 for the purpose of developing these standards. Draft rules in the form of a NOPR were not published until May 11, 2007. The NOPR set out the rules—including rights and responsibilities of consumers, WGL, and competitive energy suppliers—regarding service outages and gas incidents, gas leaks and odor complaints, gas emergencies, reliability standards, low-pressure water infiltration, and underground damage prevention; customer service standards; and billing error notification. After receiving comments, the Commission issued Interim Order No. 14889 on August 15, 2008, which established reporting requirements for all rules components except Section 3705, which covered reliability standards. WGL filed an application for reconsideration of Order No. 14889 on September 10, 2008, and its first annual report on October 31, 2008. The company's principal objections were that proposed response times regarding gas leaks (50 minutes), odor complaints (one hour), and the percentage of all calls that WGL must answer within 30 seconds (70 percent) would lead to operational and safety problems. In Order No. 15129, issued November 6, 2008, the Commission granted WGL's application by clarifying the language with respect to WGL's three areas of concern.

The PSC issued another NOPR on February 27, 2009, that modified reliability standards from previous NOPRs and altered response times for gas leaks to a range of 60 to 95 minutes. The Commission finalized the rules on September 17, 2009 (Order No. 15548) and the NOFR was published in the DC Register on September 25, 2009. WGL next filed requests for waiver, particularly with respect to Section 3702.2 regarding response times for gas leaks, because the company continued to fail to meet the standard. Through 2013, the PSC granted waivers while affirming the standards in its rules.

6. WGL's Accelerated Pipeline Replacement Program

In its November 2, 2011, application to increase rates, docketed as FC No. 1093, WGL sought Commission approval to implement the first five years of a 50-year Accelerated Pipe Replacement Program (APRP) at a cost of $119 million. The company proposed to recover the cost through a plant recovery adjustment (PRA) surcharge that would be billed to customers monthly. As of November 2011, the PRA has been used to recover the costs of replacing mechanical couplings. The APRP would replace 414 miles of main and over 37,000 services, doubling the number of miles of mains and tripling the number of services normally replaced in that time.

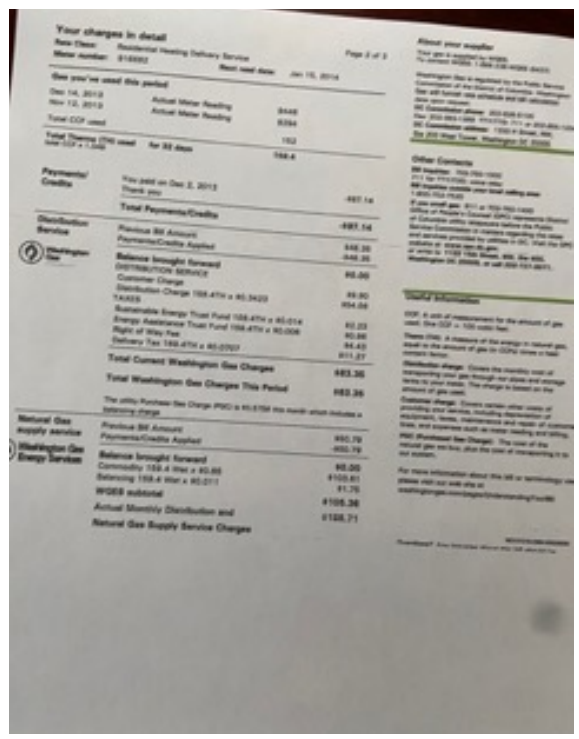
In Order No. 17132, issued May 15, 2013, the Commission found fault with WGL's proposed plan, stating that it was not an "accelerated" program. Under WGL's proposed APRP, the company would replace seven miles of main per year, less than half the average of 15.67 miles of main per year that WGL installed from 1986 to 2001.[381] The Commission required WGL to reassess its risks and priorities and file a revised plan within three months of the date of the order. On August 15, 2013, WGL filed a revised APRP that requested approval of the first five years of a 40-year plan, with the first five years costing $110 million. At the end of 2013, the Commission was receiving comments on the revised plan.

381 Order No. 17132, p. 102.

February-March 1992 showing format of WGL bill.

January 22, 2001, bill right before customer choice.

January 21, 2003, bill right after customer choice was first implemented and customers bought gas supply from WGL.



January 15, 2014, bill shows a customer buying gas supply from WGES rather than WGL.

Tables

Table 9.1: DC Average Monthly WGL Residential Gas Usage and PSC-Calculated Nominal and Real Gas Rates, 1913–2013

Year	Monthly Usage (Therms)	"Nominal Rates ($/Therm)"	CPI	Real Rates ($/Therm)
1913	N/A	$0.0850	4.250	$2.0001
1914	N/A	$0.0850	4.293	$1.9801
1915	N/A	$0.0850	4.336	$1.9605
1916	N/A	$0.0825	4.679	$1.7632
1917	N/A	$0.0750	5.495	$1.3650
1918	N/A	$0.0863	6.482	$1.3306
1919	N/A	$0.0938	7.426	$1.2624
1920	N/A	$0.1137	8.585	$1.3240
1921	N/A	$0.1230	7.684	$1.6008
1922	N/A	$0.1063	7.212	$1.4733
1923	N/A	$0.1050	7.340	$1.4304
1924	N/A	$0.1050	7.340	$1.4304
1925	N/A	$0.1050	7.512	$1.3977
1926	N/A	$0.1050	7.598	$1.3819
1927	N/A	$0.1050	7.469	$1.4058
1928	2.4	$0.1050	7.340	$1.4304
1929	4.5	$0.1050	7.340	$1.4304
1930	6.6	$0.1042	7.169	$1.4531
1931	8.7	$0.1000	6.525	$1.5326
1932	10.7	$0.0995	5.881	$1.6911
1933	12.8	$0.0978	5.580	$1.7528
1934	14.9	$0.1342	5.752	$2.3324
1935	16.9	$0.1289	5.881	$2.1924
1936	19.0	$0.0858	5.967	$1.4378
1937	21.1	$0.0852	6.181	$1.3785
1938	23.1	$0.0848	6.053	$1.4004
1939	25.2	$0.0844	5.967	$1.4139
1940	27.3	$0.0837	6.010	$1.3936
1941	29.3	$0.0823	6.310	$1.3040
1942	31.4	$0.1135	6.997	$1.6216
1943	33.5	$0.1106	7.426	$1.4891
1944	35.6	$0.1096	7.555	$1.4506
1945	37.6	$0.1097	7.727	$1.4194
1946	39.7	$0.0808	8.371	$0.9652
1947	41.8	$0.1143	9.573	$1.1940
1948	43.8	$0.1239	10.345	$1.1973
1949	45.9	$0.1234	10.216	$1.2075
1950	48.0	$0.1274	10.345	$1.2318
1951	50.0	$0.1267	11.161	$1.1352
1952	52.1	$0.1310	11.375	$1.1512
1953	54.2	$0.1366	11.461	$1.1917
1954	56.2	$0.1379	11.547	$1.1945
1955	**58.3**	$0.1372	11.504	$1.1927
1956	**60.4**	$0.1380	11.676	$1.1821
1957	**60.0**	$0.1381	12.062	$1.1453
1958	**66.5**	$0.1417	12.406	$1.1420
1959	**66.9**	$0.1523	12.492	$1.2189
1960	**67.3**	$0.1521	12.706	$1.1973
1961	**67.7**	$0.1520	12.835	$1.1844
1962	**70.2**	$0.1513	12.964	$1.1670
1963	**70.4**	$0.1512	13.135	$1.1513
1964	**72.7**	$0.1506	13.307	$1.1317
1965	**73.1**	$0.1505	13.522	$1.1130
1966	**76.6**	$0.1496	13.908	$1.0758
1967	**79.2**	$0.1490	14.337	$1.0395
1968	**80.0**	$0.1411	14.938	$0.9447
1969	**85.4**	$0.1428	15.754	$0.9067
1970	**85.6**	$0.1466	16.655	$0.8801
1971	**85.2**	$0.1535	17.385	$0.8830
1972	**84.7**	$0.1559	17.943	$0.8689
1973	**81.1**	$0.1487	19.059	$0.7801
1974	**79.2**	$0.1659	21.163	$0.7837

Table 9.1: DC Average Monthly WGL Residential Gas Usage and PSC-Calculated Nominal and Real Gas Rates, 1913–2013 (continued)

Year	Monthly Usage (Therms)	"Nominal Rates ($/Therm)"	CPI	Real Rates ($/Therm)
1975	**79.9**	$0.2439	23.094	$1.0560
1976	**86.6**	$0.2758	24.425	$1.1290
1977	**86.9**	$0.3320	26.013	$1.2762
1978	**87.1**	$0.3318	27.988	$1.1856
1979	87.6	$0.3924	31.165	$1.2591
1980	84.7	$0.4151	35.371	$1.1734
1981	84.4	$0.5585	39.020	$1.4313
1982	81.7	$0.6590	41.424	$1.5908
1983	78.4	$0.8481	42.755	$1.9836
1984	86.1	$0.8179	44.601	$1.8339
1985	74.1	$0.7852	46.189	$1.7000
1986	82.0	$0.7429	47.047	$1.5791
1987	80.5	$0.7366	48.764	$1.5105
1988	82.4	$0.6626	50.782	$1.3047
1989	81.2	$0.7775	53.229	$1.4606
1990	83.5	$0.7352	56.105	$1.3104
1991	85.9	$0.6638	58.466	$1.1353
1992	**88.2**	$0.7126	60.226	$1.1831
1993	**85.9**	$0.8583	62.029	$1.3837
1994	85.0	$0.8245	63.617	$1.2960
1995	**84.1**	$0.8051	65.420	$1.2307
1996	**83.2**	$0.7829	67.351	$1.1623
1997	**82.2**	$0.9332	68.897	$1.3546
1998	**81.3**	$0.8935	69.970	$1.2769
1999	**76.0**	$0.8047	71.515	$1.1253
2000	**81.8**	$0.9227	73.919	$1.2483
2001	**54.1**	$1.1307	76.023	$1.4873
2002	**59.1**	$1.0270	77.225	$1.3299
2003	**74.6**	$1.1442	78.985	$1.4487
2004	**66.5**	$1.2905	81.088	$1.5915
2005	**66.6**	$1.5049	83.835	$1.7951
2006	**56.1**	$1.5018	86.540	$1.7354
2007	**60.5**	$1.4584	89.004	$1.6386
2008	**60.3**	$1.6346	92.422	$1.7686
2009	**61.0**	$1.2824	92.093	$1.3925
2010	**60.7**	$1.2727	93.604	$1.3597
2011	**59.5**	$1.1942	96.558	$1.2368
2012	**49.7**	$1.0983	98.556	$1.1144
2013	**59.6**	$1.1616	100	$1.1616

N/A - Not Available
Usage numbers in bold are actuals; others are estimates.
Sources: Usage - WGL and CPI - US Bureau of Labor Statistics (BLS)

Table 9.2: DC Average Monthly WGL Residential Gas Usage and PSC-Calculated and USDOE Nominal and Real Rates, 1928–2013

Year	Average Monthly Usage (Therms)	PSC- Calculated Nominal Rates ($/Therm)	CPI	PSC- Calculated Real Rates ($/Therm)	USDOE Nominal Rates ($Therm)	CPI	USDOE Real Rates ($/Therm)
1928	2.4	$0.1050	7.340	$1.4304	$0.1050	7.340	$1.4304
1929	4.5	$0.1050	7.340	$1.4304	$0.1061	7.340	$1.4459
1930	6.6	$0.1042	7.169	$1.4531	$0.1073	7.169	$1.4964
1931	8.7	$0.1000	6.525	$1.5326	$0.1084	6.525	$1.6615
1932	10.7	$0.0995	5.881	$1.6911	$0.1095	5.881	$1.8627
1933	12.8	$0.0978	5.580	$1.7528	$0.1107	5.580	$1.9833
1934	14.9	$0.1342	5.752	$2.3324	$0.1118	5.752	$1.9439
1935	16.9	$0.1289	5.881	$2.1924	$0.1130	5.881	$1.9206
1936	19.0	$0.0858	5.967	$1.4378	$0.1141	5.967	$1.9120
1937	21.1	$0.0852	6.181	$1.3785	$0.1152	6.181	$1.8640
1938	23.1	$0.0848	6.053	$1.4004	$0.1164	6.053	$1.9224
1939	25.2	$0.0844	5.967	$1.4139	$0.1175	5.967	$1.9691
1940	27.3	$0.0837	6.010	$1.3936	$0.1186	6.010	$1.9740
1941	29.3	$0.0823	6.310	$1.3040	$0.1198	6.310	$1.8980
1942	31.4	$0.1135	6.997	$1.6216	$0.1209	6.997	$1.7279
1943	33.5	$0.1106	7.426	$1.4891	$0.1220	7.426	$1.6433
1944	35.6	$0.1096	7.555	$1.4506	$0.1232	7.555	$1.6303
1945	37.6	$0.1097	7.727	$1.4194	$0.1243	7.727	$1.6088
1946	39.7	$0.0808	8.371	$0.9652	$0.1254	8.371	$1.4986
1947	41.8	$0.1143	9.573	$1.1940	$0.1266	9.573	$1.3223
1948	43.8	$0.1239	10.345	$1.1973	$0.1277	10.345	$1.2345
1949	45.9	$0.1234	10.216	$1.2075	$0.1289	10.216	$1.2612
1950	48.0	$0.1274	10.345	$1.2318	$0.1300	10.345	$1.2565
1951	50.0	$0.1267	11.161	$1.1352	$0.1311	11.161	$1.1748
1952	52.1	$0.1310	11.375	$1.1512	$0.1323	11.375	$1.1627
1953	54.2	$0.1366	11.461	$1.1917	$0.1334	11.461	$1.1639
1954	56.2	$0.1379	11.547	$1.1945	$0.1345	11.547	$1.1650
1955	58.3	$0.1372	11.504	$1.1927	$0.1357	11.504	$1.1793
1956	**60.4**	$0.1380	11.676	$1.1821	**$0.1368**	11.676	$1.1716
1957	**60.0**	$0.1381	12.062	$1.1453	**$0.1386**	12.062	$1.1490

Table 9.2: DC Average Monthly WGL Residential Gas Usage and PSC-Calculated and USDOE Nominal and Real Rates, 1928–2013 (continued)

Year	Average Monthly Usage (Therms)	PSC- Calculated Nominal Rates ($/Therm)	CPI	PSC- Calculated Real Rates ($/Therm)	USDOE Nominal Rates ($Therm)	CPI	USDOE Real Rates ($/Therm)
1958	**66.5**	$0.1417	12.406	$1.1420	**$0.1427**	12.406	$1.1503
1959	66.9	$0.1523	12.492	$1.2189	$0.1466	12.492	$1.1739
1960	67.3	$0.1521	12.706	$1.1973	$0.1506	12.706	$1.1850
1961	**67.7**	$0.1520	12.835	$1.1844	**$0.1545**	12.835	$1.2037
1962	**70.2**	$0.1513	12.964	$1.1670	**$0.1522**	12.964	$1.1740
1963	**70.4**	$0.1512	13.135	$1.1513	**$0.1541**	13.135	$1.1732
1964	**72.7**	$0.1506	13.307	$1.1317	**$0.1478**	13.307	$1.1107
1965	**73.1**	$0.1505	13.522	$1.1130	**$0.1471**	13.522	$1.0879
1966	**76.6**	$0.1496	13.908	$1.0758	**$0.1464**	13.908	$1.0526
1967	**79.2**	$0.1490	14.337	$1.0395	**$0.1442**	14.337	$1.0058
1968	**80.0**	$0.1411	14.938	$0.9447	**$0.1425**	14.938	$0.9539
1969	**85.4**	$0.1428	15.754	$0.9067	**$0.1416**	15.754	$0.8988
1970	**85.6**	$0.1466	16.655	$0.8801	**$0.1436**	16.655	$0.8622
1971	**85.2**	$0.1535	17.385	$0.8830	**$0.1487**	17.385	$0.8553
1972	**84.7**	$0.1559	17.943	$0.8689	**$0.1555**	17.943	$0.8666
1973	**81.1**	$0.1487	19.059	$0.7801	**$0.1653**	19.059	$0.8673
1974	**79.2**	$0.1659	21.163	$0.7837	**$0.1896**	21.163	$0.8959
1975	**79.9**	$0.2439	23.094	$1.0560	**$0.2404**	23.094	$1.0409
1976	**86.6**	$0.2758	24.425	$1.1290	**$0.2625**	24.425	$1.0747
1977	86.9	$0.3320	26.013	$1.2762	**$0.3267**	26.013	$1.2559
1978	**87.1**	$0.3318	27.988	$1.1856	**$0.3531**	27.988	$1.2616
1979	87.6	$0.3927	31.165	$1.2601	$0.3736	31.165	$1.1988
1980	84.7	$0.4151	35.371	$1.1734	$0.4570	35.371	$1.2920
1981	84.4	$0.5585	39.020	$1.4313	$0.5500	39.020	$1.4095
1982	81.7	$0.6590	41.424	$1.5908	$0.6640	41.424	$1.6029
1983	78.4	$0.8481	42.755	$1.9836	$0.8100	42.755	$1.8945
1984	86.1	$0.8179	44.601	$1.8339	$0.8050	44.601	$1.8049
1985	74.1	$0.7852	46.189	$1.7000	$0.7910	46.189	$1.7125
1986	82.0	$0.7429	47.047	$1.5791	$0.7520	47.047	$1.5984
1987	80.5	$0.7366	48.764	$1.5105	$0.7090	48.764	$1.4539

Table 9.2: DC Average Monthly WGL Residential Gas Usage and PSC-Calculated and USDOE Nominal and Real Rates, 1928–2013 (continued)

Year	Average Monthly Usage (Therms)	PSC- Calculated Nominal Rates ($/Therm)	CPI	PSC- Calculated Real Rates ($/Therm)	USDOE Nominal Rates ($Therm)	CPI	USDOE Real Rates ($/Therm)
1988	82.4	$0.6626	50.782	$1.3047	$0.6960	50.782	$1.3706
1989	81.2	$0.7775	53.229	$1.4606	$0.7440	53.229	$1.3977
1990	83.5	$0.7352	56.105	$1.3104	$0.7180	56.105	$1.2797
1991	85.9	$0.6638	58.466	$1.1353	$0.7070	58.466	$1.2093
1992	**88.2**	$0.7126	60.226	$1.1831	$0.7610	60.226	$1.2636
1993	**85.9**	$0.8583	62.029	$1.3837	$0.8340	62.029	$1.3445
1994	85.0	$0.8245	63.617	$1.2960	$0.8290	63.617	$1.3031
1995	**84.1**	$0.8051	65.420	$1.2307	$0.8030	65.420	$1.2275
1996	**83.2**	$0.7829	67.351	$1.1623	$0.9190	67.351	$1.3645
1997	**82.2**	$0.9332	68.897	$1.3546	$0.9390	68.897	$1.3629
1998	**81.3**	$0.8935	69.970	$1.2769	$0.6910	69.970	$0.9876
1999	**76.0**	$0.8047	71.515	$1.1253	$0.8700	71.515	$1.2165
2000	**81.8**	$0.9227	73.919	$1.2483	$1.0810	73.919	$1.4624
2001	**54.1**	$1.1307	76.023	$1.4873	$1.2650	76.023	$1.6640
2002	**59.1**	$1.0270	77.225	$1.3299	$1.1010	77.225	$1.4257
2003	**74.6**	$1.1442	78.985	$1.4487	$1.3290	78.985	$1.6826
2004	**66.5**	$1.2905	81.088	$1.5915	$1.4310	81.088	$1.7648
2005	**66.6**	$1.5049	83.835	$1.7951	$1.6870	83.835	$2.0123
2006	**56.1**	$1.5018	86.540	$1.7354	$1.6960	86.540	$1.9598
2007	**60.5**	$1.4584	89.004	$1.6386	$1.5670	89.004	$1.7606
2008	**60.3**	$1.6346	92.422	$1.7686	$1.6490	92.422	$1.7842
2009	**61.0**	$1.2824	92.093	$1.3925	$1.3920	92.093	$1.5115
2010	**60.7**	$1.2727	93.604	$1.3597	$1.3530	93.604	$1.4455
2011	**59.5**	$1.1942	96.558	$1.2368	$1.3060	96.558	$1.3526
2012	**49.7**	$1.0983	98.556	$1.1144	$1.2100	98.556	$1.2277
2013	**59.6**	$1.1616	100	$1.1616	$1.2450	100	$1.2450

Red: Interpolated data points
Usage numbers in bold are actuals; others are estimates.
USDOE - US Department of Energy
Sources: Table 9.1, Federal Power Commission Form #2 annual reports for years 1956-1979, and Energy Information Administration (EIA) for years 1980-2013

CHAPTER 10

From Telephones to Telecommunications: The History of Telephone Regulation in the District

A. Introduction

Although the economy of the United States is primarily a competitive, private-enterprise system, there is a class of companies where regulation, rather than the marketplace, is used to protect against unreasonable or discriminatory rates and poor service. These companies, often called natural monopolies, are thought to not be susceptible to marketplace pressures because there are substantial barriers to entry that result in a lack of viable competitors. Although these companies are privately owned, they are often affected by the public interest—their activities are so important to society that they become subject to government regulation. Capital-intensive industries such as electricity, telephone, natural gas, and water have been considered natural monopolies and regulated as "public utilities."

In the case of telecommunications, however, the label natural monopoly has changed. The history of telephone regulation in the United States, and in the District of Columbia, is a story of how technological change has enabled the the introduction of a marketplace with more than one provider.

The path to competition has not been straight—there have been twists and turns, switchbacks, and diversions. While the evolution of telecommunications can generally be said to have progressed in three phases—rate regulation, introduction of competition, and consumer protection—those three phases have often been indistinct. In addition, the actions of the DC PSC do not fit easily into a timeline. As an example, during the rate regulation phase, the Commission considered consumer protection a prime responsibility—the very idea of rate regulation has as its foundation protection of the consumer against predatory monopoly rates. Likewise, competition is in theory a form of consumer protection.

Rotary dial telephones circa 1919 and 1929

Telecommunications infrastructure serves a vital function in the economic development and safety of residents and businesses in the District. Notwithstanding the drive for diminished regulation, the public interest may require regulatory action to ensure that telecommunications infrastructure fulfills its role.

"The telephone has been called our most democratic institution. It is used both by those with unlimited resources and those with only a few nickels. It requires neither signs nor symbols. It talks all languages. It can be used by a little child. It is not beneath the notice of the most intelligent nor beyond the intellectual grasp of the least educated. It fills an important social need and advances business and government. It plays a vital role during emergencies. It reaches out to everyone."[382]

The significance of this quote as it relates to emergencies was tested soon after the March 4, 1913 creation of the Public Utilities Commission of the District of Columbia (PUC) when a fierce storm hit the District on July 30, 1913.

"A combination of wind, hail, and rain swept the city, leaving death and destruction in its wake." Damage was estimated at $1.0 million. Transportation was paralyzed and at least 2,000 trees were damaged or uprooted. There were no reports of power outages because the power grid had not been established, but there were reports that telephone and telegram service was crippled. Most telephone plant damage was caused by falling trees. About 6,500 of the estimated 46,000 telephone stations were out of service, with the most serious damage to the telephone facilities at the main central office because rain had poured in, sweeping over the distributing frame. However, the operators stayed at their boards and worked without interruption. As a result, practically all trouble was cleared by early the next morning.[383]

B. Rate Regulation

Table 10.1: DC Monthly Nominal and Real Residential Single Line Flat Rates in Selected Years, 1913 and 2013[384]

Effective Year	Single Line Flat Rate	Adjusted to 2013 Dollars
1913	$4.00	$94.12
1918	$4.00	$61.71
1923	$5.50	$74.93
1928	$4.75	$64.71
1933	$4.28	$76.70
1938	$4.20	$69.39
1943	$4.20	$56.56
1948	$4.75	$45.91
1953	$5.25	$45.81
1958	$5.75	$46.35
1963	$5.75	$44.77
1968	$5.95	$39.83
1973	$5.95	$31.22
1978	$9.99	$35.69
1983	$7.88	$18.43
1984	$12.49	$28.00
1986	$15.61	$33.18
1988	$14.94	$29.42
1993	$14.60	$23.54
1998	$14.00	$20.01
2003	$12.78	$16.18
2008	$12.78	$13.83
2013	$13.78	$13.78

382 Joseph H. Cromwell, *The C&P Story - Service in Action*, 1981, p. 11.
383 Ibid., pp. 17–18, and *Washington Post* article August 12, 1913.
384 Source: usinflationcalculator.com.

1. Early Local Telephone Rate Regulation in DC

Original C&P logo, introduced in 1914.

The first telephone lines in the District of Columbia were strung by the National Telephone Exchange in 1878 from the Evening Star office to the Senate wing of the Capitol. In 1883, the Chesapeake and Potomac Telephone Company (C&P) was established and consolidated with the successor to the National Telephone Exchange.

On March 30, 1913, just days after creation of the PUC,[385] its general counsel, Edward H. Thomas, determined that telephone and telegraph corporations, including Western Union Telegraph Co., Postal Telegraph-Cable Co., and the Chesapeake and Potomac Telephone Company (C&P) were under the Commission's jurisdiction.[386] C&P was a subsidiary of the American Telephone and Telegraph Company (AT&T),[387] providing local telephone service in the District of Columbia. Over the early period of PUC regulation, C&P's sister subsidiaries, also local operating companies, provided service over most of the United States, while long distance service was provided by another AT&T subsidiary, AT&T Long Lines. Manufacture of telephones and telephone equipment was handled by another AT&T subsidiary, Western Electric, and research into the science of telephony was conducted at yet another subsidiary, Bell Labs.

At the start, Commission regulation of local telephone service focused on valuing the property of C&P, establishing a system of tariffs and rate schedules, determining depreciation rates, and considering changes in rates and services. In compliance with the DC appropriations act that established the PUC, C&P, like the other utility companies, was required to file copies of all schedules of rates and charges, including joint rates in force as of March 4, 1913. Such schedules or tariffs were filed and, in compliance with provisions of the appropriations act, kept open for public inspection.

C&P's tariffed flat rate for residential single line telephone service was $4 per month, equivalent to about $94 in 2013 dollars (see Table 10.1). To alter the existing rate, the Commission had to determine the appropriate methodology that would allow the company an opportunity to earn a return on its investment. To accomplish this, it was necessary to estimate the fair value of the property of the utility used and usefulness in providing service and to fix a fair return on that value. By 1914, the PUC had been unable to establish new rates for telephone service because valuations of C&P's property were incomplete.[388] In 1915, the Commission prescribed payment by all utilities of 5 percent interest on deposits required of customers.

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385 See 37 Stat. 977, ch.150, § 8, March 4, 1913 (the Act).

386 Annual Report of the Public Utilities Commission of the District of Columbia for 1913, p. 9. The focus of this chapter is regulation of the telephone company rather than the telegraph companies.

387 In 1913, AT&T settled its first antitrust suit with a document called the Kingsbury Commitment. It established AT&T as a government-sanctioned monopoly. In return, AT&T agreed to divest its controlling interest in the Western Union telegraph company and to allow noncompeting independent telephone companies to interconnect with AT&T's long distance network.

388 Annual Report of the Public Utilities Commission of the District of Columbia for 1914, p.10.

In 1916, the Commission modified its rules for filing rates and tariffs. Each public utility was required to "file schedules showing tolls and charges which were in effect at the date of filing and all rules and regulations that in any manner affected the rate charged or to be charged for any service. When any rate, tariff, or rules and regulations affecting any rate or tariff of any public utility were changed, the utility was required to file with the Commission, within 10 days after receipt by it of the order or permission to make such change, a revision of all the schedules affected."[389]

The Commission opened a proceeding on May 2, 1917, to determine the value of the property of C&P within the District of Columbia used and useful for the convenience of the public. The PUC noted that hearings in this case lacked historical data principally due to the inability of the Commission's Valuation Bureau to secure details from C&P's records because they had been destroyed by a fire in Baltimore in 1904. The Commission also determined rates of depreciation in this case.

The PUC found the fair value of C&P within the District of Columbia as of July 1, 1914, to be $6,400,000. With net additions of $383,932.48 between July 1, 1914, and December 31, 1916, the value was set at $6,783,932.48 as of December 31, 1916.[390]

On November 30, 1917, the company requested revisions to certain rates and schedules. The PUC held hearings in December, and they continued until July 31, 1918. At that time, President Woodrow Wilson issued a proclamation taking over the telephone and telegraph systems throughout the country and placing them under the jurisdiction of the Postmaster General. This was done under authority of an act of Congress approved July 22, 1918. This emergency action was intended to ensure communications during World War I. After the Armistice, by the provisions of an Act of Congress approved July 11, 1919, the United States relinquished control over telephone companies and the property of the companies was restored to the possession of the owners on August 1, 1919.[391]

While under the control of the Postmaster General, certain increases and changes in C&P's rates and schedules had been made, including an increase in the rate for residential single line flat service to $5 per month. Once the Commission began regulating C&P again, it determined that it should consider whether changes in rates were justified by new conditions.[392] At a hearing held on November 3, 1919, C&P stated that it was not in a position to determine what rates would enable it to earn a fair return until it ascertained what capital expenditures made during the wartime hiatus should be allocated to the federal government and what reimbursement the federal government would make to account for the extraordinary expenses incurred during the war. The PUC agreed to continue existing rates until June 1, 1920.[393]

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389 1916 PUC annual report, p. 33; Order No. 178, PUC No. 1915/1, March 8, 1916.
390 FC No. 57, Order No. 211, May 2, 1917.
391 1917 PUC annual report, p. 8; PUC annual report 1918, p. 9.
392 1920 PUC annual report, p. 8.
393 Ibid., p. 9, Order No. 353, November 26, 1919.

During a subsequent investigation of C&P's rates, tolls, and charges for telephone service, the PUC increased the residential single line flat rate to $5.50 per month. The PUC also noted it had received numerous complaints regarding "failure of the company to install service for prospective subscribers" and inquired about "the plans of the company for extensions of its facilities." The PUC determined that the company was "making every reasonable effort to furnish service…and that it is inadvisable to require the company to extend its lines to those sections where the cost would be approximately $700 per subscriber and the prospect of future business uncertain." In this same proceeding, the PUC noted that in previous cases it had called attention to the large amounts the company was paying for housing and caring for out-of-town operators brought to the city during the war emergency and whose services were retained for a considerable time afterward. Testimony showed that these operators were gone and their jobs were filled by native operators.[394]

On October 26, 1922, C&P filed for a reduction in the rate for residential single line flat rate service from $5.50 to $5 per month. The company sought the reduction because of an increase in the percentage of customers taking party line (versus single line) service. The Commission granted the request, commenting that "the great increase experienced in the number of two-party line subscribers has created a harmful effect upon the quality and dependability of the service rendered by the telephone company".[395] The Commission intended that a rate reduction would encourage consumers to return to more expensive, better quality single line flat rate service from less expensive, lower quality party line service.

A "party line" is a local loop telephone circuit that is shared by several telephone subscribers. Party lines were in use from the earliest days of telephone service and usually were billed at a discount from single line service. In 1956, Southern Bell officials refused to segregate party lines on a racial basis, after receiving requests from a commissioner on the Mississippi Public Utilities Commission. E.K. Lumpkin of the Bell Telephone central Mississippi district said, "A customer to us is just a customer, colored or White. We are a public utility." [396]

In 1925, after prolonged hearings, submission of testimony and data, and exhaustive study, the Commission again determined the fair value of C&P's property.[397] The company appealed the case to the DC Supreme Court, where an argument was made before Chief Justice Walter I. McCoy. The company assailed the valuation made by the Commission, questioning and analyzing each element of the determination. After listening to the argument, the chief justice took the matter under advisement.[398]

On May 13, 1925, the Commission found that C&P's present rates were unjust and unreasonable and approved a reduction in the rates of their two-party line and single line residential service, effective June 10, 1925.[399] The new residential single line flat rate was $4.75 per month.

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394 1922 PUC annual report, p. 62.
395 FC No. 133, Order No. 499, November 28, 1922.
396 *Washington Afro-American,* May 1, 1956, at 20.
397 FC No. 153, Order No. 549, April 15, 1925.
398 1925 PUC annual report, p. 4.
399 FC No. 153, Order No. 551, May 13, 1925.

On May 17, 1927, Chief Justice McCoy decreed that, rates authorized by the PUC's May 13, 1925, Order No. 551 be continued for two years from June 1, 1927, and thereafter until changed or modified, with the valuation side of the case left dormant.[400]

> *The Commission held a formal public hearing December 19, 1928, to consider the practice by utility companies of requiring deposits from consumers before making service connections. Mr. E.C. Riegel requested that C&P install a telephone in the offices of the Consumers Guild, 26 Jackson Place. He refused to make a deposit or give any references; C&P refused to install a telephone. The Commission determined that the action of C&P in refusing to give service to the Consumers Guild because that organization refused to answer any questions or pay a deposit was not unreasonable.*[401]

The first mention of "rate of return" occurred on May 2, 1932, when the PUC notified C&P that it had conducted an investigation of the company's rates and charges and found that sufficient grounds existed to warrant a formal hearing. The Commission noted, "In order to determine whether or not the rates and charges of a utility are fair and just, it is necessary, among other things, to ascertain the rate of return which is the result of such rates and charges." Using its rate of return standard, on September 15, 1932, the Commission ordered a 10 percent discount on all C&P bills rendered for telephone service, except private branch exchange service.[402] A private branch exchange (PBX) is a telephone switching center that serves a private organization. The discount reduced the residential single line flat rate to $4.28 per month.

In 1933, C&P appealed to the DC Supreme Court the 10 percent reduction in telephone rates ordered in 1932.[403] The court sustained the PUC's order as of July 10, 1934; C&P appealed to the US Court of Appeals for the District of Columbia and the PUC entered a cross-appeal. The company and the PUC withdrew their respective appeals and the company acquiesced in the orders of the PUC. Subsequently, all telephone rates were reduced by more than 10 percent.[404]

The next year, Congress passed, and President Franklin D. Roosevelt enacted, the Communications Act of 1934 that transferred regulation of long distance telephone rates and services from the Interstate Commerce Commission (ICC) to the newly created Federal Communications Commission (FCC). The law also codified the explicit goal of universal service.

On January 23, 1942, the PUC initiated an investigation to determine whether all or any part of the charges for local telephone service on the premises of hotels, apartment houses, and clubs were within its jurisdiction and what tariffs, if any, should have been filed with the Commission showing such charges. The FCC issued its own order of investigation on January 9, 1942, in Docket No. 6255, involving the same questions in relation to long distance service. The two commissions conducted joint hearings to determine whether telephone service rendered by hotels, clubs, and apartment

400 1927 PUC annual report, p. 2.
401 FC No. 22, Order No. 741, January 28, 1929.
402 FC No. 238, Order No. 1072, September 15, 1932.
403 Order No. 1230, March 31, 1934, Report to the Supreme Court of the District of Columbia, Equity Case No. 54850.
404 FC No. 238, Order No. 1305, December 10, 1934.

houses, through the instrumentalities and facilities of C&P, constituted public utility service and whether such service was subject to regulation by the PUC or the FCC.[405] In 1944, the PUC ruled that telephone services provided through C&P's facilities located within a guest room or apartment were subject to its jurisdiction and that any charge for local telephone service in excess of the applicable tariff charges for messages from a public pay telephone plus the applicable tariff charge for any equipment installed within any guest room or apartment was unjust, unreasonable, and unduly discriminatory.[406]

By the end of World War II, the number of C&P telephone subscribers had grown substantially and rates were near 1913 levels. The trend in rates, however, would be upward, for varying reasons, at least until the end of the 1980s.

The PUC approved three rate increases between 1948 and 1954. The first increase, to $4.75 per month for residential single line flat rate service, was attributed to a large increase in operating expenses because of rising labor costs after the war.[407] The second increase was in 1950, to $5.25 per month for residential single line flat rate service, because C&P needed to provide major capital infrastructure investments to meet growing demand.[408] The third increase was in 1954, when the rate for residential single line flat rate service rose to $5.75 per month.[409]

In 1949, C&P filed tariff language covering the general rules under which service is furnished. Two consumers, Harry Katz and Bertha Katz, objected. The Commission denied the Katzes' petition but required that C&P give notice to subscribers of their right to apply to the PUC for a determination of the applicability of a tariff provision.

On February 21, 1950, the Commission prescribed rates for annual depreciation accruals for use by C&P, effective January 1, 1950. These rates were the result of cooperative studies by FCC staff and PUC staff after a series of conferences with representatives of C&P.[410] This process would be repeated every three years.

2. Maturing Rate Regulation

By the late 1950s, the telecommunications environment was changing. In 1956, AT&T settled a civil antitrust suit brought by the federal government in 1949. Under the settlement, AT&T and Western Electric were required to grant more patent licenses and to conform to certain accounting standards. Importantly, AT&T and its local operating companies, such as C&P, were enjoined from engaging in any business other than furnishing common carrier communications

405 1942 PUC annual report, p. 9, FC No. 311.
406 FC No. 311, Order No. 2730, February 15, 1944.
407 FC No. 370, Order No. 3295, December 22, 1947.
408 FC No. 393, Order Nos. 3635 and 3640, February 20, 1950, and March 2, 1950.
409 FC No. 430, Order Nos. 4096 and 4103, July 29, 1954, and August 10, 1954.
410 PUC No. 1630/14, Order No. 3637, February 21, 1950.

services and incidental operations (such as directory advertising).[411] In other words, AT&T was prevented from entering the computer and cable TV business.

Another important change involved increased demand fueled by the post–World War II economy. This high demand for services was coupled with significant technological developments, particularly in civilian use of wartime microwave technology. In 1959, the FCC allowed operation of private microwave systems in its Above 890 ruling, heralding the age of competition in the provision of the service.[412]

During this period, rate regulation was maturing. Early in 1962, an agreement was reached between a joint National Association of Regulatory Utility Commissioners (NARUC)–FCC committee, of which the Commission was a member, and the Bell Telephone system, of which C&P was a part. The agreement allowed certain modifications to the manual governing separation of revenues and expenses into local and long distance jurisdictions that transferred approximately $46 million in annual revenue requirements from local to long distance operations nationwide. Of this amount, the portion attributable to the District would approximate $99,040 annually. While all member commissions were urged to reduce intrastate toll rates (local long distance) where appropriate, such a reduction in the District was not possible due to the absence of intrastate toll rates. To conform to the suggested modifications to the separations manual by the NARUC committee, and after several discussions between representatives of the telephone company and the Commission, reductions were effected in local revenues by reducing certain message unit charges within the Washington area and reducing rates for certain telephone equipment. Annual savings to local subscribers was estimated to be $103,000.[413]

On September 27, 1963, C&P filed for an increase in gross revenues of $10.5 million, including increases in monthly rates for residential single line flat rate service from $5.75 to $7 and single line business service from $7 to $8. The hearing in this case was held in two phases: Phase I addressed whether the PUC should grant an increase in rates to increase C&P's revenues and what amount of revenue increase would be considered reasonable, fair, and just. Phase II addressed what increases in rates should be provided for C&P to earn the amount of increased revenues approved by the Commission.

The Commission rendered its decision in Phase I on December 22, 1964. It noted that one of the most important aspects of this proceeding and the most difficult to establish was determination of a reasonable and fair rate of return. The Commission determined that a rate of return of 6.25 percent was fair and reasonable.[414] Rates were approved in Phase II on August 2, 1965, effective August 7, 1965,[415] that included an increase in residential single line flat rate service to $5.95 per month. The PSC justified the rate increases, albeit less than what C&P proposed, on the findings that service

411 Charles F. Phillips Jr., *The Regulation of Public Utilities* (Public Utilities Reports, 1993), p. 757.
412 *In re Allocation of Microwave Technologies Above 890 MHz*, 27 FCC 359 (1959), aff'd on rehearing 29 FCC 825 (1960).
413 1962 PUC annual report, p. 25. (No order found.)
414 PUC No. 3718, FC No. 494, Order No. 4887, December 22, 1964; Amended Order No. 4899, February 18, 1965.
415 PUC No. 3718, FC No. 494, Order No. 4976, August 2, 1965.

had improved over the 10 years since the previous rate increase and high standards had been maintained. In addition, C&P needed to increase its number of employees to serve a growing number of customers. The company was offering new services, and higher wage costs and increased capital expenditures were reducing its rate of return. Despite the increase, C&P appealed the case to the US District Court and US Court of Appeals; both courts upheld the Commission's decision.

In 1964, after 51 years, Congress changed the name Public Utilities Commission to Public Service Commission (PSC). The name change coincided with the addition of new responsibilities regulating business securities in the District of Columbia.

On January 29, 1965, the Classified Directory Subscribers Association complained that C&P was engaged in unreasonable, discriminatory, and preferential practices in rendition of its classified directory (Yellow Pages) services and that the company demanded and received excessive rates for advertising services. C&P challenged the PSC's jurisdiction and the allegations made against it. The PSC determined that it had no jurisdiction over advertising rates as such; its role was to ascertain that there was no undue manipulation of advertising charges (which constituted a substantial portion of C&P's overall revenues) that would thwart the PSC's rate-making powers in areas within its jurisdiction. The PSC dismissed the complaint filed by the Classified Directory Subscribers Association. It ordered that C&P not refuse or discontinue regular telephone service to any subscriber that failed to pay charges fixed by contract for advertising in the classified directory.[416]

During 1967, the most significant of the Commission's activities related to telephone rates arose out of an FCC investigation of long distance rates. The FCC entered an order on July 5, 1967, which, among other things, established new "separations" procedures for the telephone company. The new procedures were detrimental to District customers, and the Commission undertook vigorous efforts to illuminate the impact of the proposal on the DC jurisdiction. As the year ended, the FCC delayed its order due to the impact of its new procedures on DC.[417]

On November 8, 1968, C&P filed a complaint and application for the purpose of obtaining a Commission determination of a fair return for the company's local telephone operations in the District. The company also sought approval of such increases and changes in rates required to produce the approved overall revenue return. C&P had applied for this type of relief only twice in the previous 16 years (in 1954 and in 1964) because the company was over-earning much of that time. The PSC ruled that hearings would be divided into Phases I and II. Phase I would address the company's total local revenue requirements and Phase II would deal with any individual rate changes that might be necessitated by the findings in Phase I. This case, FC No. 538, included an explanation of the Commission's rate-making procedures:

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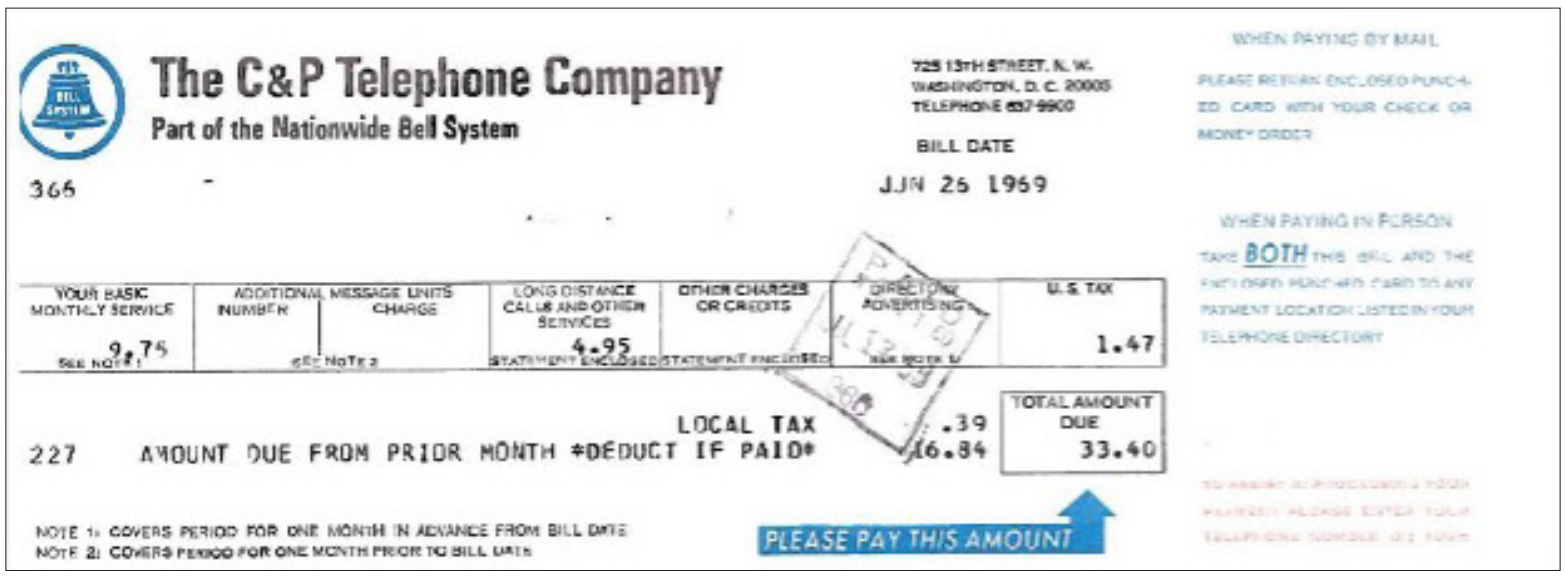
416 FC No. 506, Order No. 5038, February 18, 1966.
417 1967 PSC annual report, p. 2.



The C&P Telephone Company
Part of the Nationwide Bell System

725 13TH STREET, N. W.
WASHINGTON, D. C. 20005
TELEPHONE 637-9900

366

BILL DATE
JUN 25 1959

WHEN PAYING BY MAIL
PLEASE RETURN ENCLOSED PUNCHED CARD WITH YOUR CHECK OR MONEY ORDER

WHEN PAYING IN PERSON
TAKE BOTH THIS BILL AND THE PUNCHED MACHINE CARD TO ANY PAYMENT LOCATION LISTED IN YOUR TELEPHONE DIRECTORY

YOUR BASIC MONTHLY SERVICE	ADDITIONAL MESSAGE UNITS NUMBER	ADDITIONAL MESSAGE UNITS CHARGE	LONG DISTANCE CALLS AND OTHER SERVICES	OTHER CHARGES OR CREDITS	DIRECTORY ADVERTISING	U.S. TAX
9.75 SEE NOTE 1		SEE NOTE 2	4.95 STATEMENT ENCLOSED	STATEMENT ENCLOSED		1.47

227 AMOUNT DUE FROM PRIOR MONTH *DEDUCT IF PAID* 16.84

LOCAL TAX .39

TOTAL AMOUNT DUE 33.40

NOTE 1: COVERS PERIOD FOR ONE MONTH IN ADVANCE FROM BILL DATE
NOTE 2: COVERS PERIOD FOR ONE MONTH PRIOR TO BILL DATE

PLEASE PAY THIS AMOUNT

The Commission concluded that its task was to determine the company's future annual requirements, by analyzing operating results for a test period of actual operations and making necessary adjustments to revenues, expenses, and rate base. Then, a determination would be made of the fair rate of return, which the company should earn. Adjusted test period results would next be compared with the rate of return determined to be appropriate and the revenue requirement would be computed.[418]

No change in rates resulted from this case because of a change in the separations methods C&P used to allocate expenses and plant. The "Ozark" plan the company used benefited DC ratepayers by shifting six percent of costs from local to long distance service. In addition, expiration of a 10 percent income tax surcharge on December 31, 1970, eliminated a substantial ratepayer expense.

Local telephone rates did rise dramatically in 1976. In FC No. 631, the PSC approved a $7.411 million increase in C&P's revenue requirement that yielded a 28 percent increase in service connection charges; a 20-cent monthly fee on unlisted telephone numbers; a 40-cent monthly charge on unpublished telephone numbers; an increase in the per call rate for message rate service from 5 to 6 cents; and a 7 percent increase in monthly business rates. The rate for residential single line flat rate service rose to $9.99 per month or $12.01 if the customer had touch-tone service. Touch-tone phones (see pictures at right) use buttons or keys for dialing telephone numbers.[419]

The PSC gave notice on March 4, 1977, of C&P's application for authority to introduce a tariff imposing a separate charge for directory assistance service. On June 7, 1979, the Commission authorized C&P to charge 10 cents for each call to the directory assistance operator and 20 cents for such requests made to the "0" operator.

418 FC No. 538, Order No. 5460, March 29, 1971.

419 Touch-tone phones added network costs for carriers that still used electric-mechanical switches. By 1976, C&P had installed newer stored-program switches. When connected to the newer switches, touch-tone phones lowered network costs relative to rotary phones.

The Commission implemented a monthly free allowance of six calls per line, an exemption from the charge for disabled persons and coin phones, and a monthly rate reduction of 34 cents per line for basic residential telephone service. It also required monthly reporting of results for the following year. The PSC did not authorize C&P to offer any additional listing service in the printed directory.[420]

3. Rate-Making in a New Era

In November 1981, C&P filed an application for authority to increase its rates and charges for telephone service in the District. The Commission docketed the case as FC No.777. Included in the C&P proposal was an option for local measured service, under which customers would pay a recurring charge that included a monthly calling allowance and an additional charge based on time of day, duration, and distance of the call.[421] The public was opposed, and the Commission rejected C&P's request. In addition, the PSC reduced the rate for residential single line flat rate service to $7.88 per month.

Also in this case, the PSC set out four public policy goals: economic efficiency, equity, fair competition, and universal service. The Commission recognized that these could be competing objectives and that some give and take would be needed to develop a rate structure. The effort to balance these goals would set the stage for future rate proceedings, all in the context of a changing telecommunications environment.

4. Modified Final Judgment (MFJ)

Prompted by dramatic events affecting the entire Bell System, on March 15, 1983, C&P filed an application with the Commission requesting authority to increase its schedule of rates and tariffs for telephone service in the District; the Commission opened FC No. 798 to consider the filing. In 1973, the Department of Justice had filed an antitrust suit alleging that AT&T illegally limited the kinds of connections and services its competitors could get and illegally prevented manufacturers, other than Western Electric, from selling equipment to Bell companies.[422] By 1981, after almost a decade of tumultuous activity in telecommunications, AT&T and the Justice Department agreed on a settlement.

In *United States v. Western Electric Co.*, the Supreme Court gave its final approval to the reorganization plan required by the modified final judgment (MFJ).[423] A major feature of the plan of reorganization and the MFJ was divestiture from AT&T of the Bell Operating Companies, including C&P, to take place January 1, 1984. Another feature of the MFJ was that it freed AT&T to compete in all facets of the marketplace, including computers and computer-related

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420 FC No. 668, Order No. 6095, June 7, 1979.

421 FC No. 777, Application of the Chesapeake and Potomac Telephone Company for Authority to Increase and Restructure Its Schedule of Rates and Tariffs, Order No. 7616, July 20, 1982.

422 Joseph Weber, *The Bell System Divestiture, Background, Implementation and Outcome*, 61 Fed. Comm. Law Journal 21 (December 2008).

423 551 F. Supp. 131 (D.C. 1981) *aff'd sub nom., Maryland v. United States*, 103 S. Ct. 1240 (1983).

and information-services markets. The FCC's Computer II decision separated the provision of telephone service from the sale of telephones and other customer premises equipment, allowing individuals to purchase telephones in a competitive market. The loss of profits associated with telephone sales also contributed to C&P's desire for a rate increase.

In a 1983 application for a rate increase, C&P sought two modes of relief. First, it requested permission to immediately increase its DC rates. The company argued that the increase would restore C&P's financial health before it was divested by its parent, AT&T, so that it could qualify for the same AAA credit rating it had enjoyed for many years. Second, C&P sought authority to increase and restructure its schedule of rates and charges, including the pre-divestiture amount, to earn its allowed cost of capital after divestiture. This case would set rates for C&P post-divestiture and address many divestiture-related questions.[424]

Divestiture resulted in the creation of seven regional Bell Operating Companies, the "Baby Bells." The Baby Bell covering the mid-Atlantic was named Bell Atlantic and consisted of seven companies: New Jersey Bell, Bell of Pennsylvania, Diamond State Telephone, and the four C&P companies representing DC, Maryland, Virginia, and West Virginia. In the mid-1990s, all the operating companies took the Bell Atlantic name and C&P became Bell Atlantic-DC (BA-DC).

HERE'S THE EVIDENCE

District Staff Manager-Revenue Requirements Vince Scott had to get a hand cart to deliver over 100 pounds of material the company provided the Public Service Commission to substantiate the rate request

The PSC determined the amount of revenues C&P should be authorized in Phase I (revenue requirement).[425] In Phase II (rate design), the Commission approved rate schedules to become effective January 7, 1984. The onset of divestiture contributed to a substantial increase in local rates across the board—the rate for residential single line flat rate service, for example, increased by 59 percent from $7.88 to $12.49 per month. Contributing factors for the rate increases were loss of profits from the sale of telephones and an increase in the rate of return due, not only to high interest rates, but also the uncertainty and risk associated with divestiture. The agreement to remove AT&T's long distance service revenues from C&P caused a shift in asset management that increased C&P's rate base and rates. To ensure C&P would not use revenue from its regulated services to subsidize its nonregulated services, the PSC determined that future C&P general rate filings must be accompanied by cost studies based primarily

424 FC No. 798, Order No. 7820, April 29, 1983.
425 FC No. 798, Order No. 7886, October 3, 1983.

on incremental costs and supported with studies of sufficient sophistication and quality to give the Commission a sound basis for adopting the proposed rates.

The FCC had recently rendered several decisions that had an effect on jurisdictional rates and services, including preemption of state and local Commission discretion on depreciation and its adoption of access charges. The Commission deemed it necessary and appropriate to commence an investigation to determine the effect of these actions on local rates. On November 15, 1983, the Commission initiated an investigation in FC No. 814 into the impact of the AT&T divestiture and certain FCC decisions on the rates and services provided to District ratepayers by C&P.[426] On October 12, 1984, the Commission designated the issues to be addressed but, before considering them, took up C&P's request for a rate increase.

The Commission denied any rate relief related to this proceeding but made several findings about the impact of divestiture: It determined that divestiture would increase C&P's revenue requirements, would decrease the number of C&P employees, and might have an impact on District ratepayers because of new business ventures that C&P (and its new parent, Bell Atlantic) might pursue. The PSC also found that various FCC proceedings would have an impact on C&P's revenue requirements.[427] For example, the FCC made several separations changes that reduced interstate costs and caused an increase in intrastate costs. Specifically, the FCC required AT&T to reduce its long distance charges to reflect a reduction in its payments to local service providers.[428] The PSC allowed C&P to recover the consequential increase in local costs through a surcharge implemented over eight years, 1986 to 1994.

With the prospect of rising rates after divestiture, the Commission reconsidered establishing a discount for low-income customers in FC No. 827, which was opened in 1984. The Commission had introduced Economy Service in 1972 at a flat rate of $3.95 (including equipment rental) plus five cents per message unit. The service was directed at low-income or retired fixed-income residents in the District who required only to be reached by telephone, to make important outgoing calls, and to make occasional social calls.[429] In 1985, the Commission changed the name of Economy Service to Economy I Service and introduced Economy II Service, for which customers qualified on the basis of income and age. Economy

426 See, e.g., FCC CC Docket No. 78-72.

427 FC No. 814, Order No. 8229, April 15, 1985.

428 The FCC's switch from Part 67 to Part 36 separations rules and the move to using a general allocator (25 percent) from the Subscriber Plant Factor (SPF) (43.76 percent) substantially increased intrastate costs and reduced interstate costs. See Order No. 8300, p. 140, Subscriber Plant Factor Phase-Down.

429 FC No. 570, Order No. 5523, August 2, 1972.

II Service customers had to qualify under the federal Low Income Heating and Energy Assistance Program (LIHEAP) or Community Energy Assistance Program (CEAP) and register with the DC Energy Office. In the same case, the rate for residential single line flat rate service rose to $15.61 per month.

5. Rate-Making After Divestiture

On December 24, 1986, C&P filed a tariff to establish a Centrex Custom Service Tariff (also known as an individual case basis (ICB) tariff) for the International Bank for Reconstruction and Development (World Bank). In Order No. 9028, the Commission decided that C&P's tariff filing was in the public interest, given that Centrex, because of the large presence of the federal government, accounted for a substantial share of local telephone lines in the District.[430] C&P's central-office-based Centrex lines were facing competition from customer-premises-based PBX systems. The ICB tariffs would allow C&P pricing flexibility in its service offerings so that the company could retain these customers. The PSC was one of the first state regulators to allow pricing flexibility.

On May 20, 1987, the Commission authorized C&P to file ICB custom Centrex tariffs and established a working group to develop an ICB cost manual to be used by C&P when filing such tariffs. On July 6, 1987, C&P filed its proposed manual, which the Commission approved on October 8, 1987.[431] On December 22, 1987, C&P filed a tariff for Centrex custom service for the US Senate. According to C&P, the proposed Senate ICB tariff "conform[ed] to the format contained in the approved ICB Cost Manual." The deep discounts provided in these Centrex contracts, however, had an adverse effect on other local rates. C&P proposed that the residential rate be increased to $23.42; instead, the Commission resolved these pressures by increasing business and residential per-call message rates rather than basic residential rates.[432]

C&P filed an application with the Commission on March 26, 1993, requesting an increase of $39.6 million in revenues (later revised to $35.1 million). The rate increase request, docketed as FC No. 926, was based primarily on increases in public telephone services; business services; custom calling services such as call forwarding, call waiting, speed dialing, and three-way calling; and C&P's IQ services, which include return call, caller ID, and repeat caller services. Increases in residential services rates were not sought because the Commission had ordered a three-year freeze on residential rates in January 1993 (FC No. 814, Phase III) in the effort to consider an alternative regulatory methodology.

With the desire to bring costs under control, the Commission reviewed the rate-making process with the intent to eliminate or reduce unnecessary and costly filing requirements. The PSC recognized that any reduction in regulatory costs would ultimately relieve the financial burden borne by District ratepayers. Accordingly, it eliminated several routine filings

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430 See TT87-4, Order No. 9028, June 3, 1988.
431 FC No, 828, Phase II, Order No. 8871, October 8, 1987.
432 Order No. 9927 in FC No. 850.

no longer essential for rate-making or monitoring functions, and it directed a working group to develop recommendations about other concerns.[433]

6. Alternative Regulation

From 1913 to 1992, the Commission operated under some form of rate base rate-of-return (ROR) regulation. Under ROR regulation, the PSC essentially set telephone rates at a level that would allow a company to recover its prudently incurred costs and pay a Commission-authorized rate of return on its stocks and debt. By 1992, the increasingly market-based environment caused the PSC to reconsider its reliance on this monopoly-era form of regulation. C&P argued that it was difficult to effectively participate in an open market while it was still subject to monopoly-era rules.

On January 15, 1993, the PSC adopted an alternative regulatory plan for C&P in FC No. 814, Phase III. The plan included a three-year freeze on basic services for residential customers, extended pricing flexibility to C&P's high speed private line, Centrex intercommunication, and feature services in all line sizes, and granted C&P the right to make future requests for pricing flexibility under a screening process. The Commission also determined that, because compensation to ratepayers proposed by C&P was inadequate, directory advertising revenues and expenses should not be removed from C&P's regulated earnings.

The PSC adopted four screening criteria to determine whether certain services offered by C&P faced sufficient competition to warrant pricing flexibility. To obtain pricing flexibility, the company had to show that: (1) the service could be duplicated by customer premises equipment or some other technological medium or transmission service, (2) the service was nonessential, (3) the own-price elasticity of demand was high, and (4) the Herfindahl-Hirschman Index of the market in which the service was offered was below 1,800.[434] The PSC's decision did not require that all four criteria be satisfied simultaneously, but it emphasized that the more criteria C&P could meet for a service, the greater the likelihood the Commission would grant flexible pricing for that service.

The Commission believed that adoption of its modified incentive regulation plan would enable C&P to respond expeditiously to competitive pressures in the marketplace. However, it also intended to ensure that the quality of basic services did not deteriorate. To accomplish this, the Commission instituted a Quality of Service Working Group and directed it to establish specific service quality standards, which C&P was required to achieve during the plan, and to determine monitoring and reporting requirements necessary to ensure compliance with those standards. The result was 22 quality of service measures with which the PSC monitored the company's performance over the following years.

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433 1994 PSC annual report, p. 11.

434 FC No 814 (Phase III), *In the Matter of the Impact of the AT&T Divestiture and Decisions of the Federal Communications Commission on the Chesapeake and Potomac Telephone Company Jurisdictional Rates*, Order No. 10147, January 15, 1993, at 35.

7. Price Cap Regulation

In 1994, C&P's name was changed to Bell Atlantic DC or BA-DC. It filed an application on January 31, 1995, for the Commission to consider an alternative regulatory plan with price caps and pricing flexibility to replace the incentive regulation plan adopted in FC No. 814, Phase III. Under the plan, the company proposed to cap rates charged for basic residential services (i.e., essential services) at current levels until January 1, 2000. For other basic services, price increases would be limited to no more than half the rate of inflation. With respect to discretionary (optional) services, BA-DC proposed limiting price increases to no more than 25 percent annually. BA-DC also proposed removing competitive services (services provided by other companies) from traditional ROR regulation.[435]

On February 28, 1996, a non-unanimous settlement agreement including a proposed price cap plan (First Price Cap Plan) was filed by BA-DC, the Office of the People's Counsel (OPC), American Association of Retired Persons (AARP), General Services Administration (GSA), and the Consumer Utility Board (CUB). The parties to the First Price Cap Plan simultaneously filed a joint motion for the Commission to approve the plan. On November 12, 1996, the Commission approved the Second Revised Non-Unanimous Full Settlement Agreement among BA-DC, OPC, CUB, and GSA. The Commission also approved the First Price Cap Plan, including clarifications and requirements adopted in the order to supplant prior regulation of BA-DC as described in FC No. 814, Phase III, Order No. 10147.

Under the terms of the First Price Cap Plan, price caps were adopted but basic exchange and access rates were frozen until the beginning of 2000 (except for a series of mandated rate cuts totaling $25.8 million). Other basic services had caps indexed to gross domestic product (GDP-PI) minus three percent. The rate for residential single line flat rate service was lowered to $12.78; discretionary service rates could rise 15 percent a year; and competitive services and earnings were not regulated. The Second Price Cap Plan included a $4 million[436] contribution to a telecommunications infrastructure trust fund that was used to provide broadband internet access and to train employees in all of the District's 147 public schools and in all libraries at no cost to the District government. The trust fund helped ensure that all District residents had affordable access to the advanced telecommunications technologies that were becoming increasingly important in the District's promotion of education, opportunity, and economic growth. It was also a creative method of addressing the District's needs that might otherwise not have been met because of scarce government resources.[437]

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435 FC No. 814, Phase IV, March 9, 1995, Order No. 10585.

436 BA-DC voluntarily contributed $3 million; $1 million came from the Subscriber Plant Factor (SPF) Refund.

437 FC No. 814, Phase IV, Order No. 10877, November 12, 1996.

In 2000, Bell Atlantic merged with GTE, which operated telecommunications companies across most of the rest of the country that were not already in Bell Atlantic's footprint. The combined company changed its name to Verizon, a portmanteau of veritas (Latin for "truth") and horizon. BA-DC became Verizon-DC.

OPC and BA-DC filed a joint motion and settlement agreement on September 2, 1999, to extend for two years the First Price Cap Plan, which was to expire December 31, 1999. The Commission approved this Second Price Cap Plan in Order No. 1145 issued November 17, 1999. On August 16, 2001, Verizon-DC and OPC jointly filed a petition for approval of their settlement agreement relating to Verizon Price Cap Plan 2002, which was Verizon-DC's third price cap plan. Verizon-DC's Second Price Cap Plan was to expire December 31, 2001. On April 1, 2002, the Commission approved Price Cap Plan 2002, which was set to expire March 31, 2004.

In Price Cap Plan 2002, residential customers received a $2 million "New Year's bonus" credit ($7.66 per household) on bills in January 2003 and January 2004. Other beneficial features of Price Cap Plan 2002 for consumers included $300,000 to implement 211 dialing for the District government's "Answers Please!" system, wiring and equipping of eight recreational centers at a cost of $500,000, and establishment of a technology center for $200,000. The value of all benefits, including rate reductions, was $4 million.[438]

On August 4, 2004, the PSC approved the settlement between Verizon-DC and OPC for Price Cap Plan 2004 (Price Cap 2002 had expired March 31, 2004). As with previous plans, Price Cap Plan 2004 categorized services into basic (residential and business), discretionary, and competitive service baskets. The two basic baskets comprised essential services, and rates for services in those baskets were not increased. The discretionary basket contained services that were neither basic nor competitive. Competitive services included all business services, except those in the basic business basket, "Operators Services Connect Request," which was classified as discretionary, and any other service determined by the Commission to be competitive. Under Price Cap Plan 2004, rate increases for services in the basic basket could not exceed 10 percent a year; rate increases for services in the discretionary basket were limited to no more than 15 percent a year. The company was free to increase rates for competitive services to the extent permitted by market forces[439] and it was allowed to provide customer-specific pricing for any service or combination of services, except those in the basic residential services basket. It also was required to file quarterly reports briefly summarizing these contracts.

438 FC No. 1005, Order No. 12368, April 1, 2002.
439 FC No. 1005, Order No. 13370, September 9, 2004.

On April 27, 2007, Verizon-DC filed its petition for approval of a new price cap plan, Price Cap Plan 2007. That proposal included specific limits for price increases in the basic and discretionary baskets and a provision that Verizon-DC would be free to increase rates for competitive services to the extent permitted by market forces.

Verizon-DC and OPC submitted a settlement agreement March 5, 2008, supplementing it with a joint motion March 13, 2008. The settlement agreement included a new version of the price cap plan. On September 8, 2008, the Commission indicated that several modifications to the settlement agreement would be required for the price cap plan to meet statutory requirements in the District. Verizon-DC and OPC submitted a joint response September 19, 2008, which included a revised version, Price Cap Plan 2008. On September 26, 2008, the PSC approved that plan, which has no expiration date.[440] Basic residential rates were frozen for two years until October 1, 2010, and annual increases thereafter were limited to 10 percent or $1. Accordingly, the rate for residential single line flat rate service was increased to $13.78 in 2010. The rate for Economy II Service has remained the same under all price cap plans since 1993—$1 per month for senior citizens and $3 per month for all others who meet income qualifications.

Price cap regulation had some unintended consequences. For example, it eliminated the relationship between earnings and investment that existed under ROR regulation. Consequently, the company no longer had an incentive to invest in its wireline network infrastructure. This contributed in part to a reduction in its net investment from $635 million in 1996 to $340 million in 2007, and the trend continued after 2007. Intrastate investment alone decreased from $390 million to $211 million over that period.[441]

Figure 10.1 and Figure 10.2, based on annual data for the period 1913–2013 contained in Table 10.2 at the end of this chapter, summarize the trend in nominal (current) dollars and in real (constant) 2013 dollars. When adjusted for inflation, the rise in nominal residential flat telephone rates (Figure 10.1) translates to a continuous decline in real residential flat telephone rates (Figure 10.2).[442] The consequences of this decline, as well as similar declines in real electric and gas rates, are discussed in Chapter 4.

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440 FC No. 1057, Order No. 15071, September 26, 2008.

441 Figures are publicly available in FCC ARMIS reports. Data after 2007 are confidential.

442 See Appendix Table 10.1, Local Telephone Rate Designs, 1913–2013, for Residential DC Only Rates (1972–2013), Residential Single Line Message Rates (1913–2013), and Single Line Business Rates (1913–2013).

Figure 10.1 - DC Average Monthly Nominal Residential Flat Telephone Rates for Single Line Service, 1913–2013

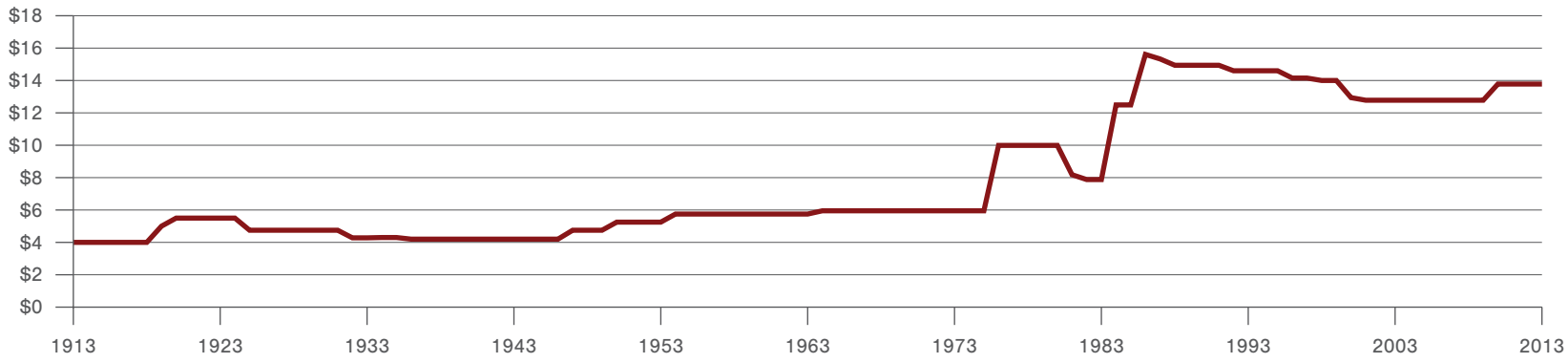
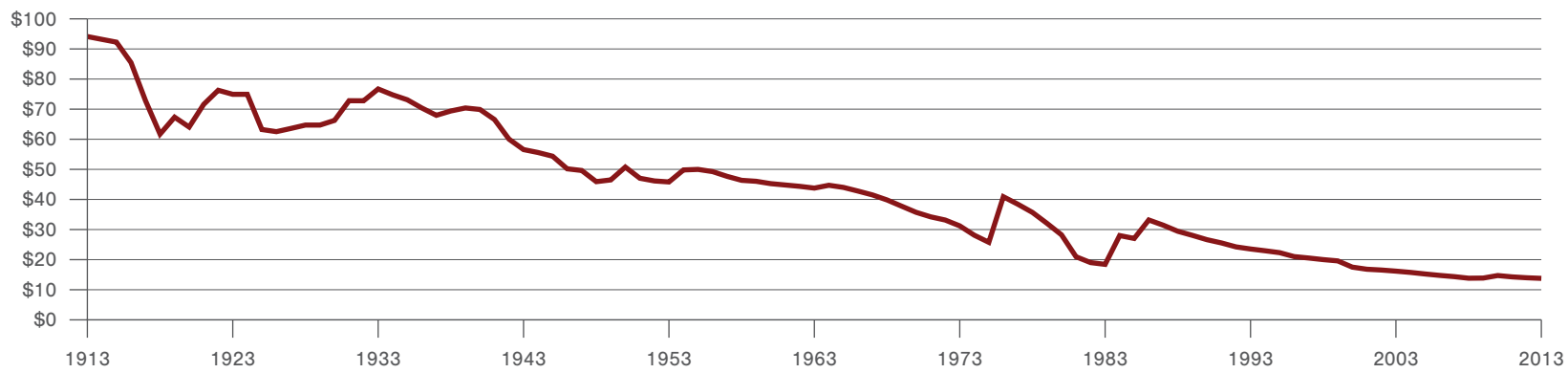


Figure 10.2 - DC Average Monthly Real Residential Flat Telephone Rates for Single Line Service, 1913–2013



C. Introduction of Competition

1. Origins of Telecommunications Competition

The first hint of competition in the provision of telephone service occurred even before the creation of the PUC in 1913. As early as 1896, 20 years after invention of the telephone, Congress was considering legislation to incorporate rivals to C&P in the District.[443] In 1898, the Telephone Subscribers Association of the District of Columbia, with a membership of several hundred, was formed to present to Congress its view that legislation should be enacted to "permit and promote" competition.[444] The petition also asked that conditions be imposed on C&P to prevent "the exorbitant and extortionate charges and unjust and oppressive limitations" suffered by C&P subscribers.[445] Congress did not act to limit C&P's exclusive franchise, and 50 years passed before changes in technology made introduction of competition inevitable.

Technological strides after World War II put competitive pressure on the Bell System. After the Above 890 ruling from the FCC, large companies were able to build private microwave systems for internal communications.[446] FCC decisions that loosened restrictions on interconnection with the AT&T network allowed manufacturers other than Western Electric to sell communications equipment.[447] Another significant factor that brought about competition was the system of regulation that had prevailed for 70 years.

In 1907, Theodore Vail became president of AT&T. A proponent of providing all citizens with basic telephone service, he considered an AT&T monopoly and "universal service" to be two sides of the same coin. Regulators in the early 1900s saw great advantages to the AT&T monopoly, which controlled local telephone service (through local operating companies such as C&P), long distance service (through AT&T's Long Lines department), equipment (through Western Electric), and research and development (through Bell Labs). The monopoly would be regulated by state entities—such as the PUC—for local and long distance service and by the Federal Communications Commission for interstate service. Most importantly, before divestiture, long distance revenues covered a substantial portion of common costs to achieve universal service by keeping local rates relatively low. With a monopoly, everything could work out in the end.[448]

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443 See *Washington Post*, March 26, 1896.

444 See *Washington Post,* February 2, 1898.

445 See *Washington Post*, February 2, 1898.

446 Weber, *Bell System Divestiture,* 23.

447 See *Hush-a-Phone Corp. v. United States*, 238 F. 2d 266 (D.C. Cir 1956); *Use of Carterfone Device in Message Toll Telephone Service*, 13 FCC 2d. 420 (1968).

448 Historically, state utilities commissions, including DC's Commission, set local rates using a residual pricing method where the commission determined the amount of revenue a utility needed to earn a fair rate of return and then subtracted long distance revenue from that amount. The remainder or residual revenue requirement was used to set local rates. Since the amount of revenue derived from long distance service exceeded the cost of the service, the residual pricing method enabled commissions to keep residential service rates below cost and promote universal service. See "Four Approaches to Telecommunications Deregulation and Competition: The U.S., U.K., Australia and New Zealand," by James R. Green and David J. Teece, p. 14.

But in addition to being a classic economic distortion, this approach is an invitation for a competitor to undercut the price of long distance service. That competitor was Microwave Communications Inc., later called MCI. MCI could expand its private line services (made possible by the Above 890 decision) to also provide long distance service, if it could achieve interconnection with local telephone companies. Initially reluctant, the FCC eventually granted MCI interconnection privileges after losing two important court cases.[449] Thus began competition in the provision of long distance services. Within a few years, divestiture of the local operating companies and passage of the Telecommunications Act of 1996 would see competition emerge in the provision of local service as well.

In 1975, MCI introduced Execunet service, calling it a private line communications network offering up to one-third reduction in monthly communications expenses for small and medium-sized businesses. The key element of the service was interconnectivity—a subscriber could access Execunet from any phone and reach any phone in a distant city served by MCI. The fact that a "private line" service had access to the "public switched network" caused considerable angst at the FCC.

2. Early Stages of Competition in the District of Columbia

Even before these events, competition of a sort was emerging in the District. On November 10, 1966, the Commission approved American Radio-Telephone Service's (ARTS) application to operate as a common carrier communications company in the city.[450] On August 9, 1968, Washington Mobile Telephone Company (WMTC) sought permission to provide two-way radio and telephone service to be interconnected with the facilities of the local landline telephone company. On October 11, 1968, ARTS opposed WMTC's application and raised the question of WMTC demonstrating the need for its service. The ARTS petition was denied. The Commission granted WMTC permission to operate a mobile telephone system April 24, 1969. [451] At the time, few people thought that mobile telecommunications could be considered an alternative to local telephone service. Today, mobile telecommunications offered by cellular telephone companies successfully compete to provide local service.

Shown above with Dr. Phylicia Fauntleroy, Director, Office of Economics, D.C. Public Service Commission, are from left to right, Dr. Raymond Lawton, NRRI; Dr. Manley Irwin, University of New Hampshire; Dr. Edythe Miller, former Chairman of Colorado PUC; and Dr. William Shepherd, University of Massachusetts-Amherst.

Some years after the FCC decisions that presaged interconnection of customer-provided equipment, the Commission considered the question. On May 21, 1973, C&P filed

449 See *MCI Telecomm Corp. v. FCC*, 561 F.2d 365 (D.C. Cir. 1977) and *MCI Telecomm Corp. v. FCC*, 580 F.2d 590 (D.C. Cir. 1978). See also MCI Communications Corporate Records, Hagley Digital Archives, www.digital.hagley.org/cdm/ref/collection/p26800/coll28/id/5620.

450 PSC No. CO 1-21, Order No. 5099, November 10, 1966.

451 FC No. 540, Order No. 5211, April 24, 1969.

tariff amendments to establish regulations and rates for new connecting arrangements permitting the interconnection of certain kinds of customer-provided terminal equipment with C&P central office, Centrex, or PBX stations. On March 20, 1974, the company filed a further amendment providing for an additional connecting arrangement related to the provision of service to the District. In FC No. 609, the PSC dealt with the controversial issue of interconnection of customer-provided equipment with the telephone company network.[452]

Throughout the late 1970s and 1980s, many telecommunications policy makers, regulators, and industry participants coalesced around the idea that competition was an attractive alternative to rate regulation.

On October 6, 1988, a working group established in FC No. 814 hosted a symposium at which academicians and officials of state regulatory agencies shared perspectives on competition in, and regulation of, state telephone markets as an alternative to ROR regulation. See photo below.

By 1990, it was clear to the PSC that in addition to competition in peripheral services like pay telephones, competition in the provision of local service was likely. The Commission approved a set of criteria for judging competition for telecommunications service in the District based on traditional industrial organization theory. The first step was to define the relevant market. To that end, C&P was required to address the substitutability of the service in question based on cross-elasticity of demand studies, user surveys, and/or other studies. The second step was to determine the extent of market power. Market share data, studies of economies of scale and scope, and incremental cost studies were performed when possible. Other market criteria to be considered were mobility barriers, price discrimination, cross-subsidization, and tying contracts. The Commission also established a new working group composed of C&P, PSC staff, and OPC to develop methodologies for cost and demand studies.[453]

The Commission established FC No. 892 in 1990 to consider applications for a "Certificate of Public Convenience and Necessity" from Teleport Communications Washington, DC, Metropolitan Fiber Systems of Washington, DC, and the Institutional Communications Company. The three applications concerned proposals to construct and operate data networks in the District.

One of the intended benefits of introducing competition in local telephone markets was innovation that led to many new services. By 1994, the Commission had approved multiple new business and residential services, among them Call Block, Call Forwarding, Call Trace, Call Waiting, Caller ID, Connect Request, the Guardian Plan, Home Intercom, Identa Ring Distinctive Ringing, Intercom Extra, Long Distance Message/Call Restriction, Preferred Telephone Number

452 1974 PSC annual report, p. 1, FC No. 609, Order No. 5637, April 9, 1974.
453 PSC annual report 1990, pp. 26–27, Order No. 9503, FC No. 814, Phase II, June 25, 1990.

Service, Residential Service Variety Packages that bundled several features into one pricing package, Reserved Telephone Service, Speed Calling, Ultra Forward, and 700 and 900 Service Blocking.[454]

3. Telecommunications Act of 1996

Throughout 1995, Congress debated hotly contested national telecommunications legislation. After much discussion and compromise, on February 8, 1996, President Bill Clinton signed into law the Telecommunications Act of 1996 (1996 Act). On April 19, 1996, the FCC published its initial interpretation of key features of the Act.

The 1996 Act imposed general duties upon local exchange carriers to interconnect with other telecommunications carriers and to install network features that permit access to persons with disabilities and that comply with guidelines for coordinated network planning.[455] The 1996 Act also imposed specific duties on all local exchange carriers and the incumbent local exchange carrier.

The 1996 Act codified the distinction between the incumbent local exchange carrier (ILEC) and local exchange carriers, which became known as competitive local exchange carriers (CLECs). In the District, the ILEC was BA-DC. The Commission began to certificate CLECs in 1997, and by the end of 2013, 268 CLECs had been certificated. Of those, 106 have withdrawn certification, leaving 162 authorized CLECs in the District.

The 1996 Act provided for state public service commissions, such as the DCPSC, to regulate the duties of local exchange carriers. Thus, the PSC would provide mediation and arbitration to requesting carriers and would review the terms and conditions, which were generally offered by the incumbent carrier to fulfill its duties.[456] The law also prohibited a state's statute or regulation from prohibiting, or from having the effect of prohibiting, the ability of any entity to provide any interstate or intrastate service.[457] It did, however, preserve states' rights to maintain and advance universal service, protect public safety and welfare, ensure the quality of telecommunications services, and safeguard consumer rights.[458]

The 1996 Act significantly impacted how local state commissions regulated telecommunications service providers. Among other things, it removed barriers that had limited competition in the local and long distance markets and opened the telecommunications market to full competition for new entrants.

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454 Business services that were approved include Integrated Services Digital Network, Frame Relay Service, Audiotex Service, Channel Services, Digital High Capacity Service, Digital Data Service, IntelLiinQ PRI Service, and Switched Multi-megabit Data Service.

455 47 U.S.C. S 251(a).

456 47 U.S.C. §252.

457 47 U.S.C § 253(a).

458 47 U.S.C. § 253(b).

Long distance companies such as AT&T, MCI, and Sprint would now be allowed to compete with BA-DC for local telephone customers. Eventually, local companies such as BA-DC would be able to offer long distance service to District ratepayers. In the interim, both the FCC and local regulatory agencies such as the PSC had to issue rules and determine the details.

The Commission ordered BA-DC on May 13, 1996, to immediately file with the PSC all interconnection agreements between BA-DC and any telecommunications company or carrier, including Bell Atlantic affiliates. This followed a petition filed on April 2, 1996, by AT&T requesting that the PSC direct BA-DC to file all interconnection agreements between BA-DC and all other carriers and telecommunications companies with the Commission. The petition stated that AT&T had sought voluntary production of the agreements as part of its interconnection negotiations with BA-DC but that BA-DC had declined to produce them. The PSC determined that, pursuant to the 1996 Act, any interconnection agreements, including those negotiated before enactment of the law, must be submitted for approval.[459]

The PSC opened a proceeding June 3, 1996, to address issues concerning the responsibilities of the Commission to enforce provisions of the 1996 Act. Certain provisions of the law were designed to open the local exchange telecommunications market to competitive service providers. The Commission was committed to fulfilling its responsibilities under the provisions of the 1996 Act in a manner that would achieve their overall purpose as rapidly as possible. Other provisions of the law gave the Commission certain responsibilities concerning universal service, Bell Atlantic's possible entry into the long distance market, and promotion of advanced telecommunications technology.[460]

On July 15, 1996, BA-DC and AT&T Communications of Washington, DC filed petitions for arbitration of interconnection agreements by the Commission pursuant to section 252 of the 1996 Act. On October 7, 1996, AT&T filed supplemental comments stating that a number of issues would likely require a decision by the PSC. The Commission commended the parties for their continuing efforts to negotiate a resolution of the disputed issues, but time constraints imposed by the 1996 Act required it to act within a specified time. The Commission appointed an arbitrator and adopted a procedural schedule. Six other arbitrations followed. On October 15, the PSC approved a negotiated agreement between BA-DC and MFS Intelenet of Washington, DC, which was submitted to the Commission for approval pursuant to section 252 of the 1996 Act. The Commission soon approved 14 other negotiated agreements.

4. Local Service Competition in DC

On September 9, 1996, the DC Council enacted its own version of the federal law—the District of Columbia Telecommunications Competition Act of 1996.[461] On January 17, 1997, BA-DC filed a statement of generally available

459 FC No. 952, Order No. 10791, May 13, 1996.
460 FC No. 954, Order No. 10806, June 3, 1996.
461 D.C. Law 11-154, 43 D.C. Reg. 3736 (1996).

terms and conditions for interconnection and access to unbundled network elements, ancillary services, and resale of telecommunications services.

On November 25, 1998, BA-DC announced that it would offer end users a local service provider "freeze" to prevent "slamming." Slamming is the unauthorized change in designation of a customer's local exchange carrier. On April 19, 1999, the Commission instituted FC No. 984 to determine whether the BA-DC local service provider freeze policy was just and reasonable. Under the proposed action, BA-DC would not transfer an end user to another local service provider unless that end user had requested the local service provider to remove the local service provider freeze. Several CLECs complained that the BA-DC policy was anticompetitive. The Commission closed FC No. 984 in 2000 without reaching a conclusion about the value of the freeze.

5. Availability of Advanced Telecommunications Services in the District

On March 2, 2000, DC Councilmember Sharon Ambrose referred, to the PSC, a letter she received from a local business customer dissatisfied with BA-DC's explanation of why the company could not connect his business to a competitor's DSL service. That same day, OPC filed a petition requesting that the Commission open a proceeding to determine the availability of BA-DC and other competitive providers' advanced telecommunications services. On April 6, 2000, the Commission opened a proceeding FC 992 to study the availability of these services in the District. To develop strategies to encourage deployment of advanced telecommunications services, it first needed to determine the present state of deployment. The Commission scheduled informational hearings in October 2000.[462] Subsequently, the FCC released several decisions removing broadband issues from the jurisdiction of state commissions and the Commission therefore closed FC No. 992 effective June 15, 2007.

6. Fostering Competition

To facilitate competition, on November 9, 2001, the Commission established service quality standards governing Verizon-DC's operation support systems (OSS) service to competitive carriers that required access to Verizon-DC's network to serve their retail customers. These carrier-to-carrier guidelines, based on New York State guidelines, took into account DC-specific systems and processes. The Commission also created a "change management" procedure for adoption of amendments to the guidelines.[463]

One of the principal ways to foster competition in the local telephone market is to allow potential competitors, such as competitive local exchange carriers (CLECs), to lease elements of Verizon's network at wholesale rates and then combine

462 FC No. 992, Order No. 11722, June 30, 2000; Order No. 11731, July 7, 2000.
463 FC No. 990, Order No. 12230, November 9, 2001.

those elements to offer telephone service to retail residential and business customers. Thus, the Commission had to set the wholesale rates that CLECs would pay Verizon for unbundled network elements (UNEs).

After litigation of multiple issues, on December 6, 2002, the Commission established the resale discount rate, the cost of capital, depreciation rates, and permanent, cost-based recurring and nonrecurring UNE rates in compliance with a methodology mandated by the FCC.[464] Several parties to the proceeding (OPC, Verizon-DC, and AT&T) filed motions for reconsideration. In August 2003, while the Commission considered these motions, the FCC issued a decision in its triennial review order (TRO) that raised the question of whether modifications to the PSC's UNE rates were needed. Parties also filed appeals of the FCC's TRO in the courts. The same month, the Commission requested comments from the parties on the impact of the FCC's decision on UNE rates in the District.[465] As the year ended, the Commission had received the comments and was planning to issue a decision on whether it should proceed with a final order on UNE rates, in light of the motions for reconsideration, or whether the proceeding should be halted until more definitive decisions were made on the FCC's TRO by the courts.

The TRO also required all state public service commissions to make detailed, fact-specific findings as to whether competitors could lease certain portions of a local telephone company's network at reduced prices. The PSC opened a proceeding on September 26, 2003, and on November 17, 2003, ruled that Verizon-DC was not required to lease its local switching facilities to competitors serving the business market.[466]

The DC Court of Appeals vacated several portions of the FCC's TRO in March 2004. In response, the PSC extended a stay of its UNE order and sought comments from the parties on the effect of this decision on UNE rates in the District. On August 20, 2004, the FCC released its interim unbundling order, which froze the rates, terms, and conditions under which local telephone companies such as Verizon-DC offered access to certain UNEs. The same order set a six-month schedule for the FCC to consider and establish permanent unbundling rules.

On September 21, 2004, Verizon asked the Commission to hold its consideration of the pending motions for reconsideration in abeyance on the grounds that the FCC's interim unbundling order constrained the Commission's discretion in the UNE proceeding by imposing a mandatory floor on certain rates. The PSC continued the stay on November 24, 2004, on the grounds that the Commission's rate-setting authority was limited by the rules established by the FCC and that those rules could have an impact on significant portions of the Commission's UNE order.[467]

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464 FC No. 962, Order No. 12610, December 6, 2002.
465 FC No. 962, Order No. 12898, August 27, 2003.
466 FC No. 1024, Order No. 12992, November 17, 2003.
467 FC No. 962, Order No. 13435, November 24, 2004.

Section 271 of the 1996 Act required each state utilities commission to provide a consultative report to the FCC within six months of a request by a local exchange carrier to offer long distance service in the local jurisdiction. On July 12, 2002, Verizon filed a request to be allowed to offer long distance services in the District. OPC and several CLECs participated in the proceeding, which included hearings on November 19 and 20, 2002. The Commission filed its consultative report to the FCC on January 9, 2003. In the report, the Commission found that Verizon-DC had generally met the 14 checklist conditions specified by the FCC. The principal condition was that there was adequate competition in both the residential and business markets in the District, as reflected by competitors providing services "either exclusively or predominantly over their own facilities to residential and business customers." The FCC approved the Verizon-DC request to enter the long distance market.

On October 12, 2006, the Commission requested input from the parties on the next steps for revising the UNE rates.[468] On November 1, 2006, OPC filed its comments. OPC's position was that the PSC should order Verizon-DC to submit new cost studies to determine permanent UNE rates to encourage and facilitate development of robust and effective competition in the District. The CLEC parties filed reply comments on November 21, 2006, recommending that the PSC direct Verizon-DC to implement total element long run incremental cost-based rates for UNEs approved by the Commission. The CLEC parties also recommended that the Commission adopt the "interim" UNE rates offered by Verizon-DC's December 18, 2002, industry letter. Verizon-DC filed reply comments on November 22, 2006, stating that the Commission should vacate Order No. 12610. The stay continued through 2013.

468 Order No. 14086.

7. Current Status of Competition

Between 1998 and 2004, AT&T and MCI were the primary competitors in the residential market. These companies leased local network facilities and bundled local service with their long distance services. Following changes in FCC policy that limited the types of facilities that could be leased and increased rates for some network configurations, AT&T and MCI ceased being active in the local residential market. Moreover, Verizon purchased MCI and Southern Bell Telephone Co. purchased AT&T. Independent CLECs began serving mostly small and medium-sized businesses. These CLECs, for the most part, leased Verizon's copper wires to serve customers. Comcast, by upgrading its network from a one-way video distribution network to a two-way video, voice, and data network, was the major competitive provider of telecommunications service in the District.

Verizon-DC and some CLECs now deploy fiber networks, which can provide both traditional and new services to consumers. Deployment of these networks may lead to the retirement of copper networks, which will change telecommunications competition in the District once again in 2013.

D. Protecting Consumers

The heart of the PSC's mission is consumer protection. Throughout its history, from an early focus on rate regulation through the development of competitive markets, the Commission has encouraged citizen and public participation in its proceedings using a variety of measures. In recent years, the Commission has addressed public concerns regarding service quality, privacy and safety, and specific, transparent universal service while the industry undergoes major infrastructural changes.

In 1915, a special examination was made of telephone company service. The object of the observations and tests was to determine whether the equipment, switchboard capacity, and operating force were sufficient to handle traffic at all times with reasonable facility. Tests were made primarily to show the elapsed time between taking down the receiver by the subscriber and the first answer by the operator. The investigation showed that service compared favorably with that rendered in other large cities.

1. Universal Service

Universal service has long been a goal of the Commission in regulating telephone service in the District. In 1913, there were 46,000 telephones in the city, most of which were likely in businesses rather than homes.[469] According to the FCC, 13.6 percent of DC's population had access to a telephone, a higher percentage than the national average of 9 percent.[470] By 1983, before divestiture, the rate for DC was 94.7 percent and the US average was 91.4 percent.[471]

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469 1913 PUC annual report.

470 FCC, U.S. Telephones and Teledensity by State in 1912, Census of Telephones, 1912, Table 5.

471 See Alexander Belinfante, Industry Analysis Division, Common Carrier Bureau, Federal Communications Commission, "Telephone Subscribership in the United States," released October 1999, p. 5.

> *"The Transmitter, C&P's employee publication, made its initial appearance January 1, 1913…. In one of its first feature articles, The Transmitter described telephone equipment and use in the White House: [President Taft used the telephone sparingly; he did not have one in his bedroom, but in his study adjoining, there was an ordinary desk-set over which he talked occasionally to his most intimate associates.] Only one operator was needed then to operate the White House switchboard; by 1923, three operators were on duty simultaneously during busy hours."*[472]

For several decades (1940s–1960s), the PUC commissioners themselves were responsible for ruling on requests to restore telephone service after it was disconnected, often for alleged illegal activities such as gambling. The minutes of Commission meetings are filled with such examples; several prominent Washington attorneys represented the clients. In one instance in the '60s, PSC Chairman James Washington conducted his own investigation by visiting a residence with the executive secretary before approving restoration of service there.

Universal service, when achieved through cross-subsidies in a monopoly environment, however, was not viable after divestiture. In 1985, the PSC was concerned about a possible reduction in the percentage of District households with telephone service because of the increase in local rates and charges associated with the divestiture of AT&T and the creation of separate Bell Operating Companies. The Commission mandated that C&P provide a discounted local telephone service (Economy II) to qualified low-income District residents. The initial Economy II rate was $4.00 per month with an allowance of 60 free calls, a 50 percent discount on service connection charges, and a reduction in the customer access line charge. The PSC began to track the percentage of District households with a telephone based on the Telephone Penetration Index (TPI) produced three times a year by the US Census Bureau and the FCC for each state and the District of Columbia. The Commission viewed Economy II as a way to keep people "on the network."

The Commission also saved low-income customers money by excluding Economy II participants from paying a newly created subscriber line charge (SLC). The SLC is a federally imposed fee on telephone users that lets local telephone companies partially recover their costs for processing long distance calls through their networks. The FCC implemented the fee in 1984 with the divestiture of the Bell System as a way to reduce long distance rates that previously had subsidized local rates. In 1989, the Commission filed a petition requesting that the FCC reduce the SLC for the District and argued that DC subscribers paid more of the costs of access to the long distance network than was justifiable since the local loops on which the SLC is based are shorter in the District than the national average. C&P then filed a tariff to reduce the SLC in the District from $3.14 to $3.08. The FCC approved the reduction and directed C&P to make other adjustments that further reduced the SLC to $3.04. The Commission and C&P continued to seek and obtain SLCs lower than the national rates.

By the early 1990s, despite the Economy II Service program, the TPI for the District had fallen below 90 percent and below the national average.[473] The Commission, as first proposed by Chairman Howard C. Davenport on the record in

472 Cromwell, *The C&P Story,* p. 16.

473 In 1992, the TPI for DC had fallen to 88.7 percent; well below the national average of 93.8 percent.

FC No. 850, received comments and then approved changes to Economy II that included removing the restriction on the number of calls, establishing a $1.00 monthly rate for customers age 65 and older, and reducing the rate for customers under age 65 to $3.00 per month.[474] Those same rates continued in 2013, more than 20 years later. Customers who recertify annually save $200 a year if they are age 65 and over and $175 a year if they are under age 65.[475]

> *In 1993, during the Commission's proceedings in FC No. 850, a C&P rate case, two children died in an apartment fire in the Mount Pleasant neighborhood when their mother left them alone, locked in the apartment. The fire started because the family's electric and telephone service had been disconnected for nonpayment and the family used candles for lighting. The children could not call for help because there was no telephone service.*[476]

In the Commission's efforts to ensure that all District residents can subscribe to telephone service, in telephone tariff (TT) 94-3, the PSC approved a new service, Message B, which allowed residential telephone customers disconnected or about to be disconnected for nonpayment up to 24 months to pay outstanding telephone charges and retain phone service. Effective June 6, 1994, the monthly rate for the service for non-Economy II customers was $7.47 while Economy II customers paid only the low-income discount rate. All Message B customers received an allowance of 60 free calls, after which they were charged 6.5 cents per call within the Washington, DC Metropolitan area. Participants could not subscribe to long distance service but could make such calls if they had a separate arrangement with a long distance company or purchased cash cards to make the calls. BA-DC proposed the service after a survey of disconnected households and as part of the PSC's efforts to increase the TPI in the District. According to the Commission's 1994 annual report "The initial participation numbers were encouraging. In fact, BA-DC reported that by the end of 1994, 3,759 customers had subscribed to 'B' Service."[477] The Commission discontinued Message B in 2011, finding that the service was no longer necessary after it had barred termination of local exchange service for nonpayment of unregulated services, including long distance service.

The PSC also tasked the three utility companies as well as Commission staff, OPC, and the DC Energy Office with finding ways to increase participation in Economy II Service as well as the similar electric and natural gas low-income discount programs (Residential Aid Discount and Residential Essential Service). Representatives from these stakeholders formed a Multi-Utility Discount (MUD) working group to promote awareness of the three utility discount programs (UDPs). The working group first prepared a joint application form to be distributed at all outreach events so that residents screened for one utility's program could be considered for the other two without having to reapply. In 1991, also during Chairman Davenport's tenure, an unprecedented outreach program called "Take It To The Streets" (both at the Commission and perhaps at utilities commissions in other states) was undertaken to increase awareness of the UDPs as well as the energy conservation programs the Commission had approved. Over the 20-year period through 2011, the MUD working group

474 See FC No. 850, Order No. 9927, January 27, 1992.
475 See Appendix Table 10.2 – Summary of Economy II Rates and Savings, 1986–2014.
476 Hamil R. Harris and Santiago O'Donnell, "Couldn't Save Girls in NW Fire," *Washington Post*, Tuesday, December 7, 1993, p. B3.
477 1994 PSC annual report, pp. 10, 27.

sponsored Joint Utility Discount Days (JUDDs) coupled with extensive radio and print advertising, which became a forum for thousands of District residents to sign up for utility discounts each year and learn how to save energy and money.

On November 21, 2011, the Commission discontinued JUDD. A new UDP Consumer Education Program (CEP) working group, which replaced the MUD working group, was tasked with developing a broader CEP to educate District consumers about the discount programs. The Commission determined that the new CEP would provide more outreach opportunities than what had become a one-day-a-year JUDD event.[478] As such, the PSC approved a yearlong educational program and established deadlines to evaluate current and future CEPs, which were initiated for FY 2012.[479]

The Telecommunications Act of 1996 established a new kind of universal service in which there were only specific and predictable support mechanisms.[480] On May 8, 1997, the FCC issued regulations to implement provisions of the 1996 Act relating to universal service. Beginning on January 1, 1998, only eligible telecommunications carriers, designated by state commissions, could receive federal universal service support, including support for Lifeline and Link Up. The Lifeline program made certain basic services available to qualifying low-income consumers at a reduced rate. Under the Link Up program, qualifying low-income consumers could receive service connection at a reduced charge. State commissions, upon their own motion or upon request, were required to designate a common carrier that met the FCC's eligibility requirements to receive federal universal service support for a service area designated by the commission.[481]

On December 17, 1998, the PSC designated BA-DC as an eligible telecommunications carrier (ETC) and reaffirmed the Commission's approval of BA-DC's advertising and outreach efforts for Economy II and Lifeline Connection Assistance (Link Up) programs.[482]

On January 31, 2000, the PSC opened a proceeding to consider universal service issues. On February 13, 2001, it adopted a universal services issues list and established a Universal Service working group charged with proposing universal service standards and a universal service trust fund.[483] With the advent of competition, a trust fund was necessary so that all local telephone service providers, not just the incumbent exchange carrier, could offer discounted rate programs for low-income residents in the effort to ensure universal service. The fund would also support the provision of telecommunications relay service (TRS) to deaf and hard-of-hearing customers. On January 14, 2002, the PSC established universal service regulations and a universal service trust fund (DCUSTF). The Commission issued a request for proposal to select a fund administrator; after considering the bids, it chose NECA, the National Exchange Carriers Association.[484]

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478 FC No. 988, Order No. 16615, November 21, 2011.
479 FC No. 988, Order No. 16615, November 21, 2011.
480 See 47 U.S.C. § 254.
481 FC No. 962, Order No. 11073, October 16, 1997.
482 FC No. 962, Order No. 11265, December 17, 1998.
483 FC No. 988, Order No. 11916, February 13, 2001.
484 FC No. 988, Order No. 12301, January 14, 2002.

Following the establishment of the DCUSTF, it was necessary to remove the costs of providing low-income (Economy II) service and TRS from Verizon-DC's rates. In April 2005, Verizon-DC submitted its initial proposal to implement this "rate rebalancing." Following comments and reply comments filed by OPC, the Commission rejected Verizon-DC's proposal and ordered the DCUSTF working group to develop a rate rebalancing proposal that followed parameters established by the DCUSTF and Price Cap Plan 2004. The working group submitted its report on November 4, 2005; after reviewing comments, the Commission approved the report on December 20, 2005.[485]

On December 2, 2008, the Commission filed reply comments with the FCC in support of its proposal to expand the federal Lifeline and Link Up telecommunications service programs for low-income consumers to include broadband internet services. The Commission specifically agreed that the proposed $900 million, three-year national pilot program to subsidize monthly broadband service charges and to provide subsidized equipment to access the internet was an important initiative.

2. Consumer Bill of Rights

In 1975, OPC petitioned the PSC to adopt rules to govern standards of conduct and billing practices of the telephone, electric, and gas utility companies within the District. After investigating the need for such rules, the Commission proposed a Consumer Bill of Rights (CBOR) on June 10, 1977. All parties to the case offered extensive comments. The PSC issued its notice of final rulemaking on May 18, 1979. The Commission prepared a handbook for DC residential customers describing utility company practices such as billing payment standards, security deposits, termination and reconnection rules, and service procedures. The CBOR expanded consumers' rights and set up a model for the relationship between the utility company and the ratepayer. It also promulgated uniform rules which govern standards of conduct and billing practices of the gas, electric, and telephone companies in the provision of residential utility service in the District.[486]

The PSC published proposed amendments to the CBOR on December 3, 2004, to broaden its applicability beyond PEPCO, Washington Gas, and Verizon-DC to include competitive electric and gas suppliers and the CLECs serving the District. To facilitate public input, the Commission created a CBOR working group, comprising representatives from OPC, Advisory Neighborhood Commissions (ANCs), civic associations, utility companies, competitive suppliers/providers, and Commission staff. After several years of collaborative effort, the Commission adopted final rules with an effective date of January 1, 2009. After adoption and publication of the new CBOR, the parties filed various motions citing their inability to comply with the effective date. The Commission set a new effective date, September 25, 2009,[487] and the 2009 CBOR remains in effect.

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485 FC No. 988, Order No. 13842, December 20, 2005.

486 1979 PSC annual report, p. 4; FC No. 662, Order No. 6084, May 18, 1979.

487 FC No. 712, Order No. 15128, November 26, 2008.

3. Additional Consumer Protections

The Application of C&P to offer Return Call and Caller ID on October 2, 1989, initiated a policy discussion on the issue of privacy and the telephone network. These services allow the called party to obtain the calling party's telephone number without securing the calling party's permission. To address public privacy concerns, the Commission held hearings and obtained expert testimony and solicited citizens' views at two community hearings.

The Commission approved the implementation of Return Call and Caller ID service within the District on July 20, 1990, on the condition that Caller ID service be offered only with per-call blocking and upon approval by the PSC of rates, terms, and conditions for the per-call blocking feature.[488] The Commission approved Caller ID on January 30, 1990.[489]

In 1991, the Commission directed C&P to reduce rates for residential flat rate service, touch-tone service, and the 911 surcharge. In May of that year, it directed initiation of TRS for deaf and hard-of-hearing DC residents.[490]

The Commission also established a pay telephone consumer complaint process that required owners to post a hotline number to the Commission on their phones and enabled ANCs to testify on the placement and removal or relocation of pay telephones in their communities.

On January 16, 1996, BA-DC announced plans to close its DC payment center at 722 12th Street, Northwest. According to the company, although the single central payment center provided service to a substantial number of business and residential customers, BA-DC planned to provide decentralized payment service options through Travelers Express agents and Crestar Banks located throughout the city. Due to the potential impact on customer service, the PSC instituted an investigation to ensure that the company's contemplated action was in the best interest of DC ratepayers.[491] On June 25, 1996, the Commission approved closing the payment center effective July 19, 1996, provided that Verizon-DC establish other types of payment centers in the city. The Commission continues to monitor the alternative payment centers, which are required to be located in each ward.[492]

4. Quality of Service Standards

With the arrival of local telephone competition, retail quality of service standards needed to cover all providers. After more than a year of deliberations, in May 2005, the Local Exchange Carrier Quality of Service working group

488 FC No. 891, Order No. 9506, July 20, 1990.
489 FC No. 891, Order No. 9644, January 30, 1990.
490 1992 PSC annual report, p. 4.
491 FC No. 950, Order No. 10754, February 1, 1996.
492 FC No. 950, Order No. 10811, June 25, 1996.

filed its report to the Commission with recommendations on types of retail standards the Commission should adopt. The recommended new metrics were adapted from the metrics originally established for BA-DC in FC No. 814. After requesting and receiving comments on the report, on October 19, 2005, the Commission established an initial list of retail quality of service standards that would be applicable to all local telecommunications providers. It also reaffirmed its decision that symmetrical retail quality of service standards protect District consumers by ensuring that all providers offer the same minimum quality of service.[493]

The PSC established retail quality of service standards for Verizon-DC and CLECs on September 5, 2006. The new quality of service standards measure the percentage of installation commitments met, the number of trouble reports per 100 lines, and out-of-service clearing time. They are applicable to all non-Voice over Internet Protocol (VoIP) companies with more than 10,000 access lines in the District. As of the end of 2013, four companies were required to file such reports; two of the companies served residential customers and all four served business customers.[494] These companies must collect monthly data on the three quality of service measures, report results quarterly to the PSC, and, if necessary, provide a remedial plan explaining why particular measures were missed as well as corrective actions taken.

Billing practices are another aspect of service quality. On July 21, 2006, OPC filed a petition requesting the PSC open an investigation into Verizon-DC's billing practices and procedures, alleging that Verizon-DC did not inform either the Commission or OPC of a billing error affecting some of its customers. The Commission determined that it needed to develop rules for telecommunications service providers to inform it and OPC of any billing problems. On May 4, 2007, the Commission issued proposed requirements for billing error reporting and notification, and on November 30, 2007, it adopted "Billing Error Reporting and Notification Requirements for Telecommunications Service Providers Operating in the District."[495]

The Commission initiated an investigation of Verizon-DC's service quality in 2007 after establishing standards in 2006 and requiring the company to file quarterly reports. Over the ensuing years, the Commission required Verizon-DC to file and amend its remedial plans and monitored the company's progress in improving its quality of service performance. Those reports showed significant improvements over time, such that on September 7, 2012, the PSC closed the investigation while continuing to require quarterly reporting and compliance with the remedial plan.[496]

On August 26, 2011, OPC filed a petition to investigate the reliability of Verizon-DC's telecommunications infrastructure. After receiving input from the parties, the Commission opened FC No. 1090 and established an issues list on January 26, 2012.

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493 FC No. 990, Order No. 13789, October 19, 2005.

494 The quality of service standards and requirements are not applicable to Comcast because it provides VoIP-based local telephone service.

495 Order No. 14644.

496 FC No. 990, Order No. 16891, September 7, 2012.

On December 9, 2013, the Commission addressed seven issues related to Verizon-DC's infrastructure reliability. Based on the record in this quasi-legislative and quasi-judicial proceeding, the Commission determined that service degradation for Verizon-DC should be determined using current retail quality of service metrics and that, in applying those metrics, no service degradation existed for Verizon-DC. However, the Commission did find that Verizon-DC was not meeting two of the commitments it made during the Price Cap Plan 2008 proceeding. As a result, the Commission directed Verizon-DC to file remedial plans to improve its performance in reducing repeat problems and trouble repair times. It also concluded that a new retail quality of service rule-making proceeding was warranted to determine whether certain changes in the existing retail quality of service metrics should be made.[497]

On January 17, 2013, the Commission opened a proceeding (FC No. 1102) to investigate Verizon-DC's continued use of its copper infrastructure for the provision of telecommunications services and to determine whether, and under what circumstances, the company planned to transition customers from telecommunications services provided over copper facilities to telecommunications services provided over fiber facilities.[498] Evidentiary hearings on the nine issues in this proceeding were held two years later, on January 22 and 23, 2015. On September 1, 2015, the Commission issued Order No. 17952 describing its findings, among them that Verizon-DC's new fiber network does not provide electric power and that customers are responsible for that power. In cases of power outages, customers must rely on battery backup for telephones connected to the fiber network. The PSC also found that one of the voice services offered over Verizon-DC's fiber network, FiOS Digital Voice, is a VoIP service, which the Commission cannot regulate. In Order No. 17952, the PSC directed Verizon-DC to file new tariffs and update customer service and technician materials to ensure that consumers are provided accurate information should they choose voice service provided over copper facilities. The Commission stressed that consumers who want to retain voice service over copper facilities should be allowed to do so. Verizon-DC and OPC have petitioned for reconsideration of different findings in Order No. 17952. In Order No. 18051, issued December 4, 2015, the PSC clarified some of these findings and once again directed Verizon-DC to file new tariffs and customer service materials.

5. E911 Emergency Service

The E911 (Emergency 911) dialing code allows the public to access the District government's public safety services. Originally, E911 service was classified as a basic service, which required Commission approval of any rate change. As part of a joint settlement between Verizon-DC and OPC in connection with Verizon-DC's 2002 Price Cap Plan, E911 service was moved to the competitive service basket, where no Commission approval of rate changes is required. On May 16, 2002, Verizon-DC filed an E911 service tariff to substantially increase the rate charged to the District government for the service. The District government, which had not participated in the 2002 Price Cap Plan proceeding, countered

497 FC No. 1090, Order No. 17313, December 9, 2013.
498 FC No. 1102, Order No. 17294, November 8, 2013.

that the service was not competitive, because no other company was providing the service and no other company had the technical capability and resources to provide the service. On September 11, 2002, the District government filed a motion to reclassify E911 service back to a basic service. The PSC encouraged Verizon-DC and the District government to negotiate a resolution. After settlement attempts failed, the Commission held a hearing in late 2003.

On June 3, 2005, the Commission determined that Verizon-DC's E911 rate, to be charged to the District government, should be determined through a rate proceeding. The PSC scheduled a pre-hearing conference and directed Verizon-DC and the District government to submit proposed issues and a procedural schedule. The Commission next directed the parties to engage in settlement discussions. On January 3, 2007, the parties filed a report indicating that they had reached an impasse. During March 2009, the Commission held evidentiary hearings. On September 30, 2009, it found that Verizon-DC could charge the District government for two components of E911 service.[499] The Commission approved Verizon-DC's new E911 tariff, incorporating those findings, effective November 12, 2010.[500]

6. Participation in Policy-Making

The Commission has participated in policy-making activities in the service of consumer protection for many years. At the FCC, the Commission has offered comments and proposed solutions in several dockets. These include cases involving the designation of TracFone as an ETC, collection of broadband mapping data, deployment of advanced telecommunications capability, and the methodology for determining universal service contributions. The Commission also has been active in NARUC and the Mid-Atlantic Conference of Regulatory Utility Commissioners (MACRUC) and has sponsored many telecommunications resolutions.

Patricia Worthy (pictured) served as a PSC commissioner from 1981-1984 and as PSC chair from 1984 to 1990. She became the first DC public utilities commissioner to chair a NARUC committee, the Telecommunications Committee. She was an outspoken advocate for the newly created Bell Operating Companies to provide local telephone services through "separate subsidiaries."[501] Through her leadership, the PSC filed multiple comments with the FCC on alternative regulation proposals for AT&T. Her efforts to ensure consumer protections in the dramatic period after divestiture, in testimony and speeches before the FCC and other national policy makers, demonstrated her leadership and the commitment of the PSC.

Patricia Worthy

An important example of the Commission's participation in policy making occurred in 2011. That year, the FCC created an access recovery charge (ARC) in its USF/ICC Transformation Order and FNPRM (released November 18, 2011). The Commission filed a petition for reconsideration of

499 FC No. 1040, Order No. 15563, September 30, 2009.

500 FC No. 1040, Order No. 16049, November 12, 2010.

501 See *For Whom the Bells Toll: The Case for Separate Subsidiaries*, June 1990, which as of 2016 was available on the PSC website.

47 C.F.R. § 51.915(e) (3) on December 29, 2011, objecting to the portion of the rule that permitted price cap local exchange carriers to recover lost inter-carrier compensation revenues on a holding company (instead of study area) basis. Since the ARC is designed to recover lost intrastate access charges, the Commission sought a waiver of this rule for jurisdictions that had no such charges. On February 21, 2012, the Commission filed a reply to oppositions responding to arguments filed by entities that did not support the petition for reconsideration. In the reply, the Commission urged the FCC to change the ARC rule.

Commissioner Lori Murphy Lee, Chairman Betty Anne Kane, Commissioner Richard Morgan

On June 18, 2012, Verizon-DC filed its proposed ARC for 2012 with the FCC. The tariff filing indicated that the residential ARC would not be imposed in Virginia but that it would be imposed in the District. On June 25, 2012, the PSC filed comments on the proposed tariff, raising two arguments: (1) that the FCC should prohibit calculation of the ARC on a holding company basis, as articulated in the December 2011 petition for reconsideration, and (2) that Verizon-DC improperly calculated its ARC by excluding all Virginia residential customers from imposition of the charge. On July 2, 2012, the FCC's Wireline Competition Bureau released a suspension order that suspended for one day and set for investigation ARCs contained in the 2012 annual access charge tariff filings. The order did not address the Commission's argument regarding calculation of the Verizon-DC ARC.

In light of the issues raised by the suspension order, on July 30, 2012, PSC Chairman Betty Ann Kane, Chairman of the Commission acting as an individual commissioner, submitted a petition for suspension of Verizon-DC's ARC tariff, arguing that Verizon-DC's ARC improperly charged District customers while excluding all Virginia residential customers from the same charge. The FCC bureau issued an order on reconsideration on August 1, 2012, permitting Verizon-DC's ARC to become effective. Chairman Kane filed an application for review on August 31, 2012, seeking full FCC review of the decision to approve Verizon-DC's ARC without considering arguments that it was improperly calculated. On September 14, 2012, Verizon-DC opposed the application for review. The staff of the Virginia State Corporation Commission (VSCC) also filed an opposition on September 17, 2012, objecting to any argument that Virginia ratepayers should pay an ARC. On September 24, 2012, Chairman Kane filed a reply to the Verizon-DC and VASCC oppositions, arguing that the application for review correctly noted that the FCC bureau did not decide that Verizon-DC could exclude all Virginia residential customers from paying ARCs. Because of this inaction, Verizon-DC was able to interpret 47 C.F.R. § 51.915(e) (3) in such a way that led to inequitable ARCs in Verizon's other jurisdictions.

On September 20, 2012, the Delaware Public Service Commission filed an ex parte letter in support of the PSC's application for review. The Pennsylvania Public Utilities Commission (PAPUC) filed a petition for clarification in support of the Commission's application. Verizon-DC objected to the PAPUC filing on both procedural and substantive grounds on October 12, 2012. On October 19, 2012, the Maryland Public Service Commission (MDPSC) filed a letter supporting

the Commission's petition for reconsideration and application for review as well as the PAPUC filing, reiterating arguments expressed in those filings.

On December 3, 2012, the FCC denied the application for review. The Commission has monitored Verizon-DC's ARC filings, however, and is satisfied that Verizon-DC is not imposing an ARC on DC residential and single line small business customers. Despite the FCC's denial, this strenuous advocacy demonstrates the Commission's vigilance in protecting DC consumers.

7. Deployment of Verizon's FiOS Service in the District

OPC filed a petition for the Commission to establish a proceeding to monitor deployment of Verizon-DC's FiOS service in the District on May 3, 2010. FiOS is the Verizon brand name for television, voice, internet, and other services provided using a fiber-to-the-premises (FTTP) telecommunications network. Previously, in 1993, Bell Atlantic (now Verizon-DC) promised to invest $11 billion in fiber systems in its 20 largest cities and complete the fiber networks by 2000. In 1994, Verizon-DC won the right to provide cable service in a court case that focused on its first amendment rights.[502] Verizon-DC did not begin building its fiber network in the District until after it negotiated a franchise agreement with the DC Office of Cable Television that became effective in May 2009. Verizon-DC's first proposal would have left portions of Anacostia without fiber service, and after a City Council hearing, Verizon-DC revised that proposal. The delay in deploying fiber and its FiOS service package provided Comcast the opportunity to enter the local telecommunications market in the District and attract a significant number of residential customers.

Verizon-DC's provision of non-telecommunications services over the network is offered pursuant to legislation passed by the DC Council in 2009 and the franchise agreement that became effective that year. OPC argued in its pleading that the FiOS infrastructure would carry basic regulated telephone service in addition to unregulated services and that the PSC should investigate the company's infrastructure because Verizon-DC's regulated telephone service had been substandard. On May 13, 2010, Verizon-DC filed its response to OPC's petition. After denying OPC's allegations, Verizon-DC moved for dismissal of the petition because FiOS is outside of the Commission's jurisdiction. On June 2, 2010, the PSC dismissed OPC's petition. The Commission concluded that nothing in connection with the establishment of FiOS services had undermined the Commission's existing authority over the Verizon-DC FTTP network and that OPC had not provided evidence that Verizon-DC had violated the franchise agreement or deployed FiOS in a way that affected development of a smart grid. The Commission determined that OPC had not demonstrated a need for the PSC to be involved in monitoring the FTTP network.[503]

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502 See *Chesapeake and Potomac Tel. Co. v. United States,* 42.F 3rd 181 (4th Cir. 1994).

503 FC No. 1080, Order No. 15825, June 2, 2010.

8. Disconnect for Nonpayment of Long Distance Service Policy

On February 18, 2010, the Commission determined that the long-standing policy allowing local telephone companies to disconnect basic local service of consumers for nonpayment of other services ("DNP") was not in the public interest and that the practice should be discontinued. Verizon-DC and other affected carriers were required to discontinue the practice within six months. In the same order, the PSC requested comments on how this policy would affect bundled services or combinations of local service with other services, products, and features. On April 2, 2010, the Commission determined that disconnection of local service for nonpayment of other charges is permissible as part of a bundle, provided the consumer has been given a reasonable opportunity to modify service subscriptions to continue local service. The Commission required all affected carriers to report on their progress in implementing the new policy.[504] As of October 29, 2010, Verizon-DC and all other affected carriers had informed the PSC that they had made necessary billing system changes and that they no longer disconnected consumers for nonpayment of long distance charges.

E. Conclusion

For one hundred years, the Commission has sought to ensure that DC consumers are provided with reliable telephone service at reasonable rates. Through the interwoven eras of telecommunications regulation, the Commission has been devoted to certain core values: public safety, universal service, and consumer protection. Today, as the PSC oversees technology changes, it remains committed to those values.

F. A Forward Look

Despite the dramatic decline in the real cost of residential "plain old telephone service" (POTS) over the first century of the Commission's history, in the last decade or more, the number of POTS customers has fallen substantially. Consumers have replaced their landline or wireline service with hand-held and pocket-sized wireless cell phones and smartphones that do more than make and receive calls. They also have bundled their regulated telephone service with unregulated services such as cable TV and internet access. Since the Commission does not regulate this new technology, there is a question as to how long traditional local telephone regulation will continue.

504 FC No. 988, Order No. 15777, April 21, 2010.

Table

Table 10.2: DC Monthly Nominal and Real Residential Flat Telephone Rates for Single Line Service, 1913-2013

Year	Nominal Rates ($)	CPI Value - Base Year 2013	Real Rates ($)
1913	$4.00	4.250	$94.12
1914	$4.00	4.293	$93.18
1915	$4.00	4.336	$92.26
1916	$4.00	4.679	$85.49
1917	$4.00	5.495	$72.80
1918	$4.00	6.482	$61.71
1919	$5.00	7.426	$67.33
1920	$5.50	8.585	$64.06
1921	$5.50	7.684	$71.58
1922	$5.50	7.212	$76.27
1923	$5.50	7.340	$74.93
1924	$5.50	7.340	$74.93
1925	$4.75	7.512	$63.23
1926	$4.75	7.598	$62.52
1927	$4.75	7.469	$63.59
1928	$4.75	7.340	$64.71
1929	$4.75	7.340	$64.71
1930	$4.75	7.169	$66.26
1931	$4.75	6.525	$72.80
1932	$4.28	5.881	$72.78
1933	$4.28	5.580	$76.70
1934	$4.30	5.752	$74.75
1935	$4.30	5.881	$73.12
1936	$4.20	5.967	$70.39
1937	$4.20	6.181	$67.95
1938	$4.20	6.053	$69.39
1939	$4.20	5.967	$70.39
1940	$4.20	6.010	$69.89
1941	$4.20	6.310	$66.56
1942	$4.20	6.997	$60.03
1943	$4.20	7.426	$56.56
1944	$4.20	7.555	$55.59
1945	$4.20	7.727	$54.36
1946	$4.20	8.371	$50.18
1947	$4.75	9.573	$49.62
1948	$4.75	10.345	$45.91
1949	$4.75	10.216	$46.49
1950	$5.25	10.345	$50.75
1951	$5.25	11.161	$47.04
1952	$5.25	11.375	$46.15
1953	$5.25	11.461	$45.81
1954	$5.75	11.547	$49.80
1955	$5.75	11.504	$49.98
1956	$5.75	11.676	$49.25
1957	$5.75	12.062	$47.67
1958	$5.75	12.406	$46.35
1959	$5.75	12.492	$46.03
1960	$5.75	12.706	$45.25
1961	$5.75	12.835	$44.80
1962	$5.75	12.964	$44.35
1963	$5.75	13.135	$43.77
1964	$5.95	13.307	$44.71
1965	$5.95	13.522	$44.00
1966	$5.95	13.908	$42.78
1967	$5.95	14.337	$41.50
1968	$5.95	14.938	$39.83
1969	$5.95	15.754	$37.77
1970	$5.95	16.655	$35.72
1971	$5.95	17.385	$34.22
1972	$5.95	17.943	$33.16
1973	$5.95	19.059	$31.22
1974	$5.95	21.163	$28.12

Table 10.2: DC Monthly Nominal and Real Residential Flat Telephone Rates for Single Line Service, 1913-2013 (continued)

Year	Nominal Rates ($)	CPI Value - Base Year 2013	Real Rates ($)
1975	$5.95	23.094	$25.76
1976	$9.99	24.425	$40.90
1977	$9.99	26.013	$38.40
1978	$9.99	27.988	$35.69
1979	$9.99	31.165	$32.06
1980	$9.99	35.371	$28.24
1981	$8.18	39.020	$20.96
1982	$7.88	41.424	$19.02
1983	$7.88	42.755	$18.43
1984	$12.49	44.601	$28.00
1985	$12.49	46.189	$27.04
1986	$15.61	47.047	$33.18
1987	$15.33	48.764	$31.44
1988	$14.94	50.782	$29.42
1989	$14.94	53.229	$28.07
1990	$14.94	56.105	$26.63
1991	$14.94	58.466	$25.55
1992	$14.60	60.226	$24.24
1993	$14.60	62.029	$23.54
1994	$14.60	63.617	$22.95
1995	$14.60	65.420	$22.32
1996	$14.15	67.351	$21.01
1997	$14.15	68.897	$20.54
1998	$14.00	69.970	$20.01
1999	$14.00	71.515	$19.58
2000	$12.94	73.919	$17.51
2001	$12.78	76.023	$16.81
2002	$12.78	77.225	$16.55
2003	$12.78	78.985	$16.18
2004	$12.78	81.088	$15.76
2005	$12.78	83.835	$15.24
2006	$12.78	86.540	$14.77
2007	$12.78	89.004	$14.36
2008	$12.78	92.422	$13.83
2009	$12.78	92.093	$13.88
2010	$13.78	93.604	$14.72
2011	$13.78	96.558	$14.27
2012	$13.78	98.556	$13.98
2013	$13.78	100.00	$13.78

Sources: PSC orders and tariffs and US Department of Labor, Bureau of Labor Statistics for the US CPI, City Wide Average, converted to 2013 dollars

CHAPTER 11

Econometric Analysis of the Residential Demand for Electric and Gas Service in the District of Columbia

Earlier chapters in this book describe *qualitatively* how gas, electric, and telephone services in the District have transitioned from luxuries to necessities over the last century. This chapter *quantifies* the transition for local electric and gas services.[505]

Economists use the term "price elasticity of demand" to refer to the measure of how responsive usage is to price or, in this case, rate changes. Estimating the price elasticity of demand helps quantify the extent to which electricity and gas services in the District are luxuries (price elasticity of demand is greater than one) or necessities (price elasticity is less than one). Although the results below are not definitive and warrant further analysis, they indicate that both services have become highly price inelastic and are therefore necessities.

A. Theoretical Concepts

The first step in quantifying the relationship between electric and gas rates and their usage is to estimate the residential demand for both services using econometric methods. According to economic theory, the demand for a good or service is a function of at least three factors:

1. Price of the good or service,
2. Price of related goods or services (cross price), and
3. Income of the consumer(s).

Depending on the good or service, other factors—such as stock of equipment or weather—may be relevant.

Mathematically, the demand for a good or service can be depicted as:

D = f (P, CP, Y) where D is quantity demanded, P is the price of the good or service, CP is the price of a related good (cross price), and Y is income.

505 Telephone service was not analyzed because usage data over the 101-year period were unavailable.

For a normal good or service, demand is inversely related to price: as price increases, the quantity demanded falls, and vice versa. This relationship is depicted in a negatively sloped demand curve, a line associating the quantities purchased of a good or service with various price levels.

The relationship between the cross price (quantity demanded for one good or service and the price of another good or service) depends on whether the two goods or services are complements or substitutes. They are *complements* when the price of a good or service increases and its quantity demanded falls and at the same time the quantity demanded of the related good or service falls. In the case of *substitutes,* when the price of the good or service increases and its quantity demanded declines, the quantity demanded of the related good increases because the consumer can switch to it. Complements are negatively correlated, and substitutes are positively correlated. For a normal good, quantity demanded is positively correlated with income: when income increases, quantity demanded increases, and vice versa.

Three concepts that can be quantified by estimating the demand for a good or service using econometric methods are:

1. Price elasticity of demand,
2. Cross price elasticity of demand, and
3. Income elasticity of demand.

Price elasticity of demand is defined as the responsiveness of quantity demanded of a good or service to changes in price. It is represented by the following formula:

$$\frac{\text{Percentage Change in Quantity Demanded of Good or Service 1}}{\text{Percentage Change in Price of Good or Service 1}}$$

If a one percent change in price leads to less than a one percent change in quantity demanded, demand for the good or service is price inelastic. If a one percent change in price leads to a one percent change in quantity demanded, demand for the good or service is of unitary elasticity. If a one percent change in price leads to more than a one percent change in quantity demanded, demand is price elastic.

The price elasticity of demand is useful in determining if a good or service is a necessity or a luxury. For example, if a good or service is a necessity, demand will be price inelastic, meaning that quantity demanded will not be very responsive to price changes. If a good or service is a luxury, the consumer is likely to change usage of the good or service in the event of price changes. In the short run, demand is likely to be less responsive to changes in prices than in the long run.

Formulas for the cross price elasticity of demand and the income elasticity of demand are similar to the price elasticity of demand. The *cross price elasticity of demand* formula is:

$$\frac{\text{Percentage Change in Quantity Demanded of Good or Service 1}}{\text{Percentage Change in Price of Good or Service 2}}$$

The *income elasticity of demand* relates the usage of a good or service to income—that is, how responsive quantity demanded is to changes in income. The formula for income elasticity of demand is:

$$\frac{\text{Percentage Change in Quantity Demanded of Good or Service 1}}{\text{Percentage Change in Income}}$$

In rate-making, price elasticities of demand are useful for end-use modeling and load and sales forecasting. The price elasticity of demand is also related to total revenue[506]—that is, whether a rate increase will lead to an increase in total revenue depends on the price elasticity of demand. If it is elastic (price elasticity of demand is greater than one), the total amount of revenue (rate times quantity) will be lower than before the rate increase. If it is price inelastic, total revenue will be higher with higher rates even though fewer quantities are purchased—the rate increase more than offsets the relatively small decline in quantity demanded.

B. Residential Electricity Demand in the District of Columbia

Appendix Table 11.1 summarizes the results of the estimation of demand for electricity in the District. Five time periods were selected:

1930-2013 – the full period for which there were data on electric and gas rates and income
1930-1949 – the period before rate base rate of return regulation
1950-2013 – the period of rate base rate of return regulation
1930-1969 – the period when nominal rates were generally declining
1970-2013 – the period when nominal rates were generally increasing

The year 1930 is the starting point because that is the first year for which income data were available. Real prices (nominal prices adjusted for inflation) were used, and the equation shown below was estimated in its double logarithmic form such that the coefficients are the price, cross price, and income elasticity estimates.

$$\log EU = a + \beta_1 * \log P_e + \beta_2 * \log P_g + \beta_3 * \log Y$$

506 The first evidence of the concept of price elasticity of demand in a Commission proceeding was in FC No. 424, a Capital Transit rate case. Although the term was not used, the concept is evident in the analysis of the streetcar/bus fare structure in Order No. 4062, pp. 27–32.

where EU is the average monthly electricity usage each year, P_e is the price of electricity or the electricity rates, P_g is the cross price of gas or gas rates, and Y is income.

In this equation, the coefficients β_1 is the price elasticity of demand, β_2 is the cross price elasticity of demand with respect to gas prices, and β_3 is the income elasticity of demand.

Regressions were run for long-run periods (about 20 years or more each) and short-run price elasticities of demand were estimated because the data assume that usage responds immediately to rate changes each year. For example, the short run assumes that customers do not have time to make significant equipment changes or alter the structure of their house, but they can adjust the thermostat and undertake simple load reduction measures.

Chapters 8 and 9 describe two measures of electricity rates and two measures of gas rates. The two measures of electricity rates are the PSC-constructed rates and the traditionally constructed (revenue divided by Kwh sales) US Department of Energy (DOE) rates. Similarly, the two measures of gas rates are the PSC-constructed rates and the DOE rates. Four separate equations were estimated for each of the five time periods, as follows:

Equation 1 – PSC-constructed electric and gas rates (PSCE and PSCG)
Equation 2 – PSC-constructed electricity rates and DOE gas rates (PSCE and DOEG)
Equation 3 – Traditionally constructed electricity rates and PSC-constructed gas rates (DOEE and PSCG)
Equation 4 – Traditionally constructed electricity and gas rates (DOEE and DOEG)

Equations 1 and 3 suffer from electricity usage being on both sides of the equation—as the dependent variable and as a component in the derivation of electricity rates. This could be corrected using a revised reduced form equation, but necessary data were not available. Equation 4 circumvents the problem by using traditionally constructed rates (residential revenue/residential kilowatt hour sales). This approach seems viable since the trend in those rates is very similar to the PSC-constructed electricity rates (see Figure 8.4).

Equation 4, for the periods 1930-1969 and 1970-2013 in Table 11.1, generates the best statistical results that comport with economic theory. The R-squared measures the goodness of fit, in that it shows to what extent the variance in the dependent variable (usage) is explained by the independent variables (electricity and gas rates and income). The R-squared is over 90 percent, meaning the equation explains 90 percent of the variation in electricity usage over the two periods.

Each of the variables is statistically significant at least at the 90 percent confidence level (the relevant t-statistic is above two). The price elasticity of demand for electricity usage has the correct sign (negative), meaning that rate increases contribute to declines in usage and rate decreases contribute to increases in usage. The price elasticity of demand is higher in the earlier period (-.81), when rates were declining, than in the later period, when rates were rising (-.12). These

Table 11.1: Summary Results for Electricity Demand Regressions Before Correction for Serial Correlation, 1930-1969 and 1970-2013

Category	Coefficient	T-Statistic
1930-1969		
R Squared	0.9741753	
Durbin-Watson	0.497993	
Intercept	-7.5307791	-3.5300155
Electricity Rates	-0.8139202	-9.3050513
Gas Rates	0.4658320	2.9874515
Income	1.2902603	7.2827031
1970-2013		
R Squared	0.9297318	
Durbin-Watson	1.510031	
Intercept	0.9132971	2.4668996
Electricity Rates	-0.1222814	-2.8978556
Gas Rates	0.1476494	4.4883811
Income	0.4671221	15.0181505

Table 11.2: Summary Results for Electricity Demand Regressions After Correction for Serial Correlation, 1930-1969 and 1970-2013

Category	Coefficient	T-Statistic
1930-1969		
R Squared	0.9956378	
Durbin-Watson	2.0092707	
Intercept	8.8706791	2.1233423
Electricity Rates	0.0642759	0.4491361
Gas Rates	-0.3320808	-0.6928978
Income	0.2664177	0.1980156
1970-2013		
R Squared	0.9609020	
Durbin-Watson	2.0322224	
Intercept	2.0241648	4.4187445
Electricity Rates	-0.0867541	-2.1907337
Gas Rates	0.0365875	1.0208652
Income	.409129347	11.3505136

values depict how over time electricity has increasingly become a necessity. The gas price and income variables have the expected positive signs. The positive coefficient for gas means it is a substitute for electricity. The positive sign for the income coefficient means that as income increases, electricity usage increases.

These results should be considered preliminary and illustrative rather than definitive. As expected, the time-series equations show signs of serial correlation (measured by the Durbin-Watson statistic, which is less than two). Serial correlation means usage in one year is not independent of usage in the previous year. Thus, the estimators of the coefficients are biased such that the statistical significance of each independent variable (the t-statistic) is unreliable. In other words, an estimated value of a variable might be accepted as statistically significant when it is not significantly different from zero. This is a common problem in estimating time-series data.

Table 11.2 shows results after correcting for serial correlation: Coefficients in the equation for the period 1930-1969 were no longer statistically significant, but results for the 1970-2013 period were promising. Although the cross price elasticity of demand was not statistically significant, the electricity price elasticity of demand at -.087 was statistically significant, as was the income elasticity of demand of .41. These results comport with other economic studies, albeit not for the District of Columbia and for different time periods.

The most famous residential electricity demand elasticity study was conducted by Dr. Hendrik Houthakker in 1951 for the United Kingdom.[507] His equation included income, the marginal prices of electricity and gas, and a measure of electrical equipment stock. The data covered the period 1937-1938. His price elasticity of demand was .89 and his income elasticity of demand was 1.21. Houthakker analyzed an earlier period than the PSC's example, likely resulting in these higher values. Houthakker and Lester Taylor's 1970 study[508] in the United States reported a short-run price elasticity of demand of -.13, very close to the PSC's -.087. The North American Electric Reliability Corporation (NERC) published a paper in the *Journal of Business and Economic Statistics* in 1985 that contains price elasticity and income elasticity estimates for the US.[509] NERC's demand equation contained the electricity price, income, and stock of equipment for two periods, 1951-1973 and 1951-1982. The short-run price elasticities of demand were -.285 and -.19 respectively. The income elasticities of demand were .83 and .75 respectively.

Table 11.3 summarizes a comparison of PSC results with studies presented in testimony before the Commission. None of the studies presented to the Commission included gas rates. In addition, most of the studies were based on monthly pooled cross sectional/time series data obtained from survey and billing data, having been designed for load forecasting, rate design, and marginal cost pricing purposes.

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507 H.S. Houthakker, "Some Calculations of Electricity Consumption in Great Britain," *Journal of the Royal Statistical Society*, 1951, Ser. A, 114, 351–371.

508 H.S. Houthakker and L.D. Taylor, *Consumer Demand in the United States (2nd ed.)* (Cambridge, MA: Harvard University Press, 1970).

509 Charles R. Nelson and Stephen C. Peek, "The NERC Fan: A Retrospective Analysis of the NERC Summary Forecasts," *Journal of Business and Economic Statistics*, Vol. 3, No. 3 (July 1985), 179–187.

Table 11.3: Summary of Short-Run Residential Electricity Price Elasticity of Demand Studies Presented to the PSC, 1989-1994

Formal Case No.	Witness	Date of Study or Testimony	Time Period Covered	Cross Section/ Times Series or Both	Source of Data	Independent Variables	Classes	Price Elasticity of Demand	Cross Price Elasticity of Demand	Income Elasticity of Demand
889	Ed Mayberry (PEPCO H)	Sept. 1989		Both		Weather, income, price of electricity	Residential	-0.33		
							Electric space heating	(-0.9 to - 2.01)		
							No electric space heat or electric water heating	-0.03		
							With electric space heating but no electric water heating	-0.21		
905							With electric space and water heating	-0.42		
912	Ed Mayberry (PEPCO I)	1991-1992				Price of electricity, customer demographics, weather, and other economic variables; monthly data	Residential	-0.05		
929	Ed Mayberry (PEPCO H)	June 1993						Same study as FC No. 889, additional studies did not yield reasonable results		
939		Sept. 1994								

C. Residential Gas Demand in the District of Columbia

Estimating the demand for gas in the District of Columbia was far more difficult and less successful than the electricity estimation. The first step was to identify variables believed to be factors contributing to gas usage. In addition to gas rates, electricity rates, and income, weather is often considered a factor in residential gas usage because usage increases as temperatures drop. As such, the residential gas demand model contains an additional variable, weather, as measured by the number of heating degree days (HDDs) in a year. A trend line was added in cases where variables were missing.

Prior studies presented to the Commission and in econometric studies document the range of short-run gas price elasticity estimates obtained by others, and this range set the benchmark for the PSC estimates. Table 11.4 provides a summary. As was the case with electricity demand, none of the gas demand studies included electricity rates, and the studies were based on pooled cross-sectional data for shorter periods. In most of the studies, price elasticities of demand were estimated based on subsets of the residential class such as heating or heating and cooling, and the studies used monthly rather than annual data. Results for the price elasticity of demand ranged between -.07 and -.59. In the econometric studies, the range was -.05 to -.68.

Table 11.4: Summary of Short-Run Residential Natural Gas Price Elasticity of Demand Studies Presented to the PSC, 1985-2007

Formal Case No.	Witness	Date of Study or Testimony	Time Period Covered	Cross Section/ Times Series or Both	Source of Data	Independent Variables	Classes	Price Elasticity of Demand	Cross Price Elasticity of Demand	Income Elasticity of Demand	Degree Days
Studies presented to the Commission											
840	Franklin Robeson (DCNG F)	Oct. 23, 1984	January 1980-March 1985	Both	Survey and billing data	Customer characteristics, weather, and price of gas	Heating and Cooling - Heating Season	-0.07		0.02	0.75
							Heating and Cooling - Non Heating Season	-0.21		0.39	0.03
							Non Heating and Cooling Customers	-0.07		0.29	0.03
870	Michael Lerner (DCNG I) - contains literature search	January, 19 1988	1982-87	Both	Survey and billing data	Price of gas, type of housing, no. of occupants, degree days, income, and heating oil for cross price in one equation	Residential	(-0.3) - (-0.5) - Short Run	-0.33		

Formal Case No.	Witness	Date of Study or Testimony	Time Period Covered	Cross Section/ Times Series or Both	Source of Data	Independent Variables	Classes	Price Elasticity of Demand	Cross Price Elasticity of Demand	Income Elasticity of Demand	Degree Days
890	J. Edward Smith (DCNG E)	Sept. 20, 1989	1982-1989	Both	Survey and billing data	Same as Lerner	Residential	Used -0.4 - mid-point of Lerner's study			
922	Robert Trost (WG K)	May 27, 1993	1985-1987	Both	Survey and billing data	Price of gas, income, weather, energy equipment and conservation practices					
						Single family households	Space and Water Heating Only	-0.5353			
							Heating	-0.5902			
							Heating and Cooling	-0.5012			
							Non Heating and Cooling	-0.1863			
1016	Paul Raab - (WG G) Conservation Adjustment	Feb. 7, 2003	2000-2002	Both	Survey and billing data	PGC and HDD	Heating	-0.0879			
							Heating and Cooling	-0.1265			
							Non-Heating and Non-Cooling	-0.0371			
Results from Literature Searches											
840	Subodh Mathur (contained in FC 870, DCNG I)	1987					Residential	(-0.15) to (-0.35)			
870	Michael Lerner (DCNG I)	Jan. 19, 1988					Residential	(-0.10) - (-0.34)			
922	Robert Trost (WG K)	May 27, 1993	1985-1987		Survey and billing data	HDD, income, household size, equipment, conservation measured, education	Residential	(-0.05) to (-0.68)			
Not applicable	Frederick Joutz and Robert Trost - national and regional data	March 2007	1980- 2006			Average price of gas, HDD		-0.10			

The first version of the gas usage (GU) model to be estimated is the following equation:

$$log\ GU = a + \beta_1 * log\ P_e + \beta_2 * log\ P_g + \beta_3 * log\ Y + \beta_4 + log\ HDD$$

where the coefficient for HDD, β_4, is weather elasticity. That is, it indicates how responsive gas usage is to changes in weather.

The second version of the model differs from the first because HDD is not logged, as shown below:

$$log\ GU = a + \beta_1 * log\ P_e + \beta_2 * log\ P_g + \beta_3 * log\ Y + \beta_4 * HDD$$

Results were not statistically reliable (see Appendix Tables 11.2 and 11.3).

A test for multicollinearity determined if any of the independent variables in the equations were correlated (the influences of each could not be separated) and thus produced biased results. The correlation coefficients matrix, which provides the test for multicollinearity, is shown below.

Table 11.5: Correlation Coefficient Matrix

Category	Electricity Rates	Gas Rates	Income	Trend	HDD
Electricity Rates	1	0.418256	-0.618085	-0.789563	0.3799308
Gas Rates	0.418256	1	-0.0492251	-0.046969	0.1736667
Income	-0.618085	-0.0492251	1	0.9497279	-0.502512
Trend	-0.789563	-0.046969	0.9497279	1	-0.497505
HDD		0.1736667	-0.502512	-0.497505	1

Because of high correlation between income and the trend line, the regressions were run again, first without the electricity rates and with an income variable, and then without the electricity rates and with a time trend.

Tables 11.6 and 11.7 summarize the results before and after correction for serial correlation. The only period that provided statistically significant results was 1930-2013 and the only specification that was reportable was with the trend line. The price elasticity of demand is -.12, which falls within the range in previous econometric studies. Clearly, more work is needed. Such studies could be conducted by current or future economists at the Commission or by a student seeking a dissertation topic.

Table 11.6: Summary Results for Gas Demand Regressions Before Correction for Serial Correlation, 1930-2013

Category	Coefficient	T-Statistic
R Squared	0.724590834	
Durbin-Watson	0.215493	
Intercept	-0.053841627	-0.01376426
Gas Rates	-1.246344071	-8.407896291
Heating Degree Days	1.138913367	2.419882405
Trend	0.016887779	10.54767611

Red highlights indicate variables that are statistically significant at the 90 percent confidence level or above.

Table 11.7: Summary Results for Gas Demand Regressions After Correction for Serial Correlation, 1930-2013

Category	Coefficient	T-Statistic
R Squared	0.988742433	
Durbin-Watson	1.847245276	
Intercept	7.833776411	2.108208303
Gas Rates	-0.124622623	-2.656446114
Heating Degree Days	0.309	3.545150482
Trend	-0.51354827	-2.19895128

Red highlights indicate variables that are statistically significant at the 90 percent confidence level or above.

Table 11.8: Variables in the Electricity Regressions, 1930-2013

Year	CPI Value - Base Year 2013	Electricity Usage (Kwh)	Nominal Gas Rates (¢/Therm)	Real Gas Rates (¢/Therm)	Nominal USDOE Gas Rates ($/Therm)	Real USDOE Gas Rates (¢/Therm)	Nominal PSC Electricity Rates (¢/Kwh)	Real PSC Electricity Rates (¢/Kwh)	Nominal USDOE Electricity Rates (¢/Kwh)	Real USDOE Electricity Rates (¢/Kwh)	Nominal Per Capita Income	Real Per Capita Income
1930	7.169	53	10.4167¢	145.3075¢	$0.1073	149.6385¢	6.1218¢	85.3962¢	4.6820¢	65.3117¢	$1,314	$18,331
1931	6.525	59	10.0000¢	153.2612¢	$0.1084	166.1461¢	5.4641¢	83.7437¢	4.1700¢	63.9099¢	$1,253	$19,206
1932	5.881	67	9.9455¢	169.1146¢	$0.1095	186.2684¢	5.0211¢	85.3803¢	3.7960¢	64.5478¢	$1,107	$18,818
1933	5.580	72	9.7813¢	175.2777¢	$0.1107	198.3334¢	4.8653¢	87.1854¢	3.5680¢	63.9377¢	$945	$16,933
1934	5.752	72	13.4161¢	233.2370¢	$0.1118	194.3875¢	4.7594¢	82.7414¢	3.3670¢	58.5348¢	$963	$16,741
1935	5.881	84	12.8935¢	219.2430¢	$0.1130	192.0620¢	4.4785¢	76.1540¢	3.2510¢	55.2805¢	$1,031	$17,529
1936	5.967	89	8.5789¢	143.7788¢	$0.1141	191.2019¢	4.3091¢	72.2190¢	3.2250¢	54.0494¢	$1,143	$19,155
1937	6.181	90	8.5213¢	137.8544¢	$0.1152	186.4003¢	4.0383¢	65.3291¢	3.0100¢	48.6945¢	$1,210	$19,579
1938	6.053	95	8.4762¢	140.0417¢	$0.1164	192.2426¢	3.7062¢	61.2335¢	2.7530¢	45.4844¢	$1,141	$18,859
1939	5.967	101	8.4365¢	141.3916¢	$0.1175	196.9121¢	3.4574¢	57.9444¢	2.6380¢	44.2116¢	$1,164	$19,511
1940	6.010	107	8.3748¢	139.3557¢	$0.1186	197.3954¢	3.2612¢	54.2659¢	2.5100¢	41.7659¢	$1,220	$20,309
1941	6.310	112	8.2287¢	130.4031¢	$0.1198	189.7954¢	3.1503¢	49.9236¢	2.4900¢	39.4601¢	$1,271	$20,143
1942	6.997	115	11.3461¢	162.1563¢	$0.1209	172.7884¢	3.1144¢	44.5100¢	2.4280¢	34.7006¢	$1,474	$21,063
1943	7.426	122	11.0587¢	148.9135¢	$0.1220	164.3299¢	3.0049¢	40.4638¢	2.3630¢	31.8195¢	$1,630	$21,950
1944	7.555	123	10.9592¢	145.0578¢	$0.1232	163.0321¢	2.9934¢	39.6218¢	2.3970¢	31.7272¢	$1,670	$22,099
1945	7.727	130	10.9674¢	141.9404¢	$0.1243	160.8790¢	2.9298¢	37.9177¢	2.2970¢	29.7279¢	$1,753	$22,693
1946	8.371	135	8.0796¢	96.5230¢	$0.1254	149.8605¢	2.8875¢	34.4954¢	2.2690¢	27.1066¢	$1,827	$21,831
1947	9.573	140	11.4293¢	119.3963¢	$0.1266	132.2303¢	2.8482¢	29.7540¢	2.2400¢	23.4002¢	$1,879	$19,631
1948	10.345	145	12.3863¢	119.7293¢	$0.1277	123.4520¢	2.7013¢	26.1115¢	2.2920¢	22.1551¢	$2,126	$20,554
1949	10.216	150	12.3369¢	120.7547¢	$0.1289	126.1198¢	2.4609¢	24.0880¢	2.3930¢	23.4229¢	$2,295	$22,462
1950	10.345	155	12.7438¢	123.1845¢	$0.1300	125.6476¢	2.4427¢	23.6115¢	2.3620¢	22.8317¢	$2,431	$23,497
1951	11.161	160	12.6700¢	113.5217¢	$0.1311	117.4833¢	2.9194¢	26.1571¢	2.3950¢	21.4589¢	$2,550	$22,852
1952	11.375	165	13.0951¢	115.1168¢	$0.1323	116.2650¢	3.1297¢	27.5124¢	2.3970¢	21.0716¢	$2,693	$23,672
1953	11.461	170	13.6581¢	119.1666¢	$0.1334	116.3850¢	3.0953¢	27.0061¢	2.3680¢	20.6608¢	$2,598	$22,664
1954	11.547	175	13.7929¢	119.4479¢	$0.1345	116.5032¢	3.0628¢	26.5245¢	2.3530¢	20.3772¢	$2,617	$22,664
1955	11.504	180	13.7211¢	119.2696¢	$0.1357	117.9252¢	3.2619¢	28.3534¢	2.4050¢	20.9053¢	$2,616	$22,739
1956	11.676	187	13.8025¢	118.2125¢	$0.1368	117.1637¢	3.3334¢	28.5490¢	2.4300¢	20.8120¢	$2,831	$24,247
1957	12.062	196	13.8148¢	114.5288¢	$0.1386	114.9033¢	3.2822¢	27.2107¢	2.3970¢	19.8718¢	$2,929	$24,286
1958	12.406	203	14.1677¢	114.2029¢	$0.1427	115.0276¢	3.2456¢	26.1622¢	2.3670¢	19.0799¢	$3,017	$24,319
1959	12.492	222	15.2259¢	121.8892¢	$0.1466	117.3858¢	3.3211¢	26.5864¢	2.4250¢	19.4131¢	$3,090	$24,736

Table 11.8: Variables in the Electricity Regressions, 1930-2013 (continued)

Year	CPI Value - Base Year 2013	Electricity Usage (Kwh)	Nominal Gas Rates (¢/Therm)	Real Gas Rates (¢/Therm)	Nominal USDOE Gas Rates ($/Therm)	Real USDOE Gas Rates (¢/Therm)	Nominal PSC Electricity Rates (¢/Kwh)	Real PSC Electricity Rates (¢/Kwh)	Nominal USDOE Electricity Rates (¢/Kwh)	Real USDOE Electricity Rates (¢/Kwh)	Nominal Per Capita Income	Real Per Capita Income
1960	12.706	222	15.2135¢	119.7331¢	$0.1506	118.4985¢	3.4377¢	27.0549¢	2.4790¢	19.5101¢	$3,110	$24,479
1961	12.835	239	15.2013¢	118.4366¢	$0.1545	120.3741¢	3.3624¢	26.1974¢	2.4340¢	18.9638¢	$3,216	$25,059
1962	12.964	244	15.1282¢	116.6961¢	$0.1522	117.4042¢	3.3423¢	25.7818¢	2.4260¢	18.7137¢	$3,415	$26,345
1963	13.135	257	15.1226¢	115.1278¢	$0.1541	117.3159¢	3.2819¢	24.9854¢	2.3890¢	18.1874¢	$3,585	$27,290
1964	13.307	275	15.0601¢	113.1729¢	$0.1478	111.0679¢	3.1902¢	23.9734¢	2.3140¢	17.3891¢	$3,803	$28,576
1965	13.522	295	15.0497¢	111.2991¢	$0.1471	108.7872¢	3.1353¢	23.1866¢	2.2790¢	16.8543¢	$4,102	$30,334
1966	13.908	318	14.9628¢	107.5828¢	$0.1464	105.2621¢	2.9967¢	21.5464¢	2.2010¢	15.8253¢	$4,310	$30,988
1967	14.337	324	14.9032¢	103.9463¢	$0.1442	100.5760¢	2.9043¢	20.2569¢	2.1320¢	14.8702¢	$4,612	$32,165
1968	14.938	360	14.1120¢	94.4681¢	$0.1425	95.3919¢	2.7939¢	18.7028¢	2.0800¢	13.9239¢	$4,922	$32,949
1969	15.754	390	14.2836¢	90.6668¢	$0.1416	89.8820¢	2.7174¢	17.2492¢	2.0510¢	13.0189¢	$4,888	$31,029
1970	16.655	424	14.6580¢	88.0073¢	$0.1436	86.2181¢	2.6192¢	15.7258¢	2.2000¢	13.2089¢	$5,469	$32,835
1971	17.385	437	15.3508¢	88.2984¢	$0.1487	85.5265¢	2.5819¢	14.8511¢	2.3650¢	13.6035¢	$6,124	$35,228
1972	17.943	441	15.5910¢	86.8905¢	$0.1555	86.6622¢	2.7511¢	15.3325¢	2.4760¢	13.7991¢	$6,710	$37,394
1973	19.059	492	14.8689¢	78.0140¢	$0.1653	86.7293¢	2.9499¢	15.4777¢	2.6310¢	13.8043¢	$7,158	$37,555
1974	21.163	458	16.5859¢	78.3732¢	$0.1896	89.5916¢	3.0079¢	14.2134¢	3.6710¢	17.3466¢	$7,904	$37,351
1975	23.094	472	24.3888¢	105.6049¢	$0.2404	104.0945¢	2.9946¢	12.9668¢	3.9500¢	17.1037¢	$8,710	$37,713
1976	24.425	482	27.5752¢	112.8970¢	$0.2625	107.4714¢	3.0036¢	12.2971¢	4.1600¢	17.0317¢	$9,404	$38,500
1977	26.013	496	33.1978¢	127.6182¢	$0.3267	125.5892¢	4.0970¢	15.7494¢	4.6500¢	17.8754¢	$10,311	$39,638
1978	27.988	500	33.1820¢	118.5578¢	$0.3531	126.1612¢	4.1063¢	14.6718¢	4.9400¢	17.6504¢	$11,177	$39,934
1979	31.165	497	39.2384¢	125.9073¢	$0.3736	119.8798¢	4.4104¢	14.1518¢	5.2300¢	16.7819¢	$12,055	$38,680
1980	35.371	533	41.5051¢	117.3411¢	$0.4570	129.2007¢	4.8281¢	13.6499¢	5.5200¢	15.6059¢	$13,082	$36,983
1981	39.020	526	55.8502¢	143.1319¢	$0.5500	140.9531¢	5.6950¢	14.5950¢	6.2000¢	15.8893¢	$14,078	$36,078
1982	41.424	528	65.8984¢	159.0829¢	$0.6640	160.2937¢	5.8777¢	14.1891¢	6.6900¢	16.1501¢	$15,080	$36,405
1983	42.755	516	84.8064¢	198.3558¢	$0.8100	189.4530¢	7.0465¢	16.4813¢	6.7290¢	15.7386¢	$15,772	$36,890
1984	44.601	512	81.7916¢	183.3872¢	$0.8050	180.4912¢	6.5904¢	14.7764¢	6.4260¢	14.4079¢	$17,204	$38,574
1985	46.189	513	78.5209¢	169.9998¢	$0.7910	171.2537¢	7.0971¢	15.3654¢	6.8110¢	14.7460¢	$18,196	$39,394
1986	47.047	534	74.2941¢	157.9137¢	$0.7520	159.8391¢	7.1329¢	15.1611¢	6.8140¢	14.4833¢	$19,006	$40,397
1987	48.764	560	73.6591¢	151.0511¢	$0.7090	145.3931¢	7.3288¢	15.0291¢	6.4440¢	13.2146¢	$20,064	$41,145
1988	50.782	572	66.2551¢	130.4699¢	$0.6960	137.0567¢	7.1633¢	14.1061¢	6.3170¢	12.4395¢	$22,268	$43,850
1989	53.229	566	77.7453¢	146.0590¢	$0.7440	139.7742¢	6.4016¢	12.0266¢	6.5310¢	12.2697¢	$23,971	$45,033

Table 11.8: Variables in the Electricity Regressions, 1930-2013 (continued)

Year	CPI Value - Base Year 2013	Electricity Usage (Kwh)	Nominal Gas Rates (¢/Therm)	Real Gas Rates (¢/Therm)	Nominal USDOE Gas Rates ($/Therm)	Real USDOE Gas Rates (¢/Therm)	Nominal PSC Electricity Rates (¢/Kwh)	Real PSC Electricity Rates (¢/Kwh)	Nominal USDOE Electricity Rates (¢/Kwh)	Real USDOE Electricity Rates (¢/Kwh)	Nominal Per Capita Income	Real Per Capita Income
1990	56.105	568	73.5184¢	131.0377¢	$0.7180	127.9748¢	6.4662¢	11.5252¢	6.3930¢	11.3948¢	$25,716	$45,836
1991	58.466	615	66.3783¢	113.5337¢	$0.7070	120.9255¢	7.6339¢	13.0570¢	6.9360¢	11.8634¢	$27,068	$46,298
1992	60.226	561	71.2560¢	118.3148¢	$0.7610	126.3580¢	6.4952¢	10.7848¢	7.0450¢	11.6977¢	$28,752	$47,740
1993	62.029	624	85.8264¢	138.3658¢	$0.8340	134.4541¢	7.7948¢	12.5665¢	7.5090¢	12.1057¢	$30,075	$48,486
1994	63.617	604	82.4466¢	129.5986¢	$0.8290	130.3113¢	7.7328¢	12.1553¢	7.9800¢	12.5438¢	$31,078	$48,852
1995	65.420	624	80.5127¢	123.0708¢	$0.8030	122.7457¢	8.3006¢	12.6881¢	8.1030¢	12.3862¢	$31,735	$48,510
1996	67.351	615	78.2854¢	116.2342¢	$0.9190	136.4484¢	7.9221¢	11.7624¢	7.9790¢	11.8468¢	$33,509	$49,752
1997	68.897	606	93.3250¢	135.4561¢	$0.9390	136.2907¢	8.0555¢	11.6922¢	8.1060¢	11.7654¢	$35,571	$51,629
1998	69.970	628	89.3464¢	127.6924¢	$0.6910	98.7566¢	9.0603¢	12.9488¢	8.2330¢	11.7665¢	$37,963	$54,256
1999	71.515	633	80.4739¢	112.5268¢	$0.8700	121.6522¢	8.9622¢	12.5318¢	8.3600¢	11.6898¢	$39,391	$55,081
2000	73.919	616	92.2724¢	124.8286¢	$1.0810	146.2407¢	7.7444¢	10.4769¢	8.0680¢	10.9146¢	$43,206	$58,450
2001	76.023	643	113.0677¢	148.7291¢	$1.2650	166.3979¢	7.6283¢	10.0342¢	7.5380¢	9.9155¢	$45,274	$59,554
2002	77.225	700	102.7035¢	132.9934¢	$1.1010	142.5712¢	8.4672¢	10.9644¢	7.3840¢	9.5617¢	$46,151	$59,761
2003	78.985	668	114.4249¢	144.8700¢	$1.3290	168.2608¢	7.4944¢	9.4884¢	7.0680¢	8.9486¢	$48,440	$61,328
2004	81.088	699	129.0480¢	159.1457¢	$1.4310	176.4751¢	7.7866¢	9.6026¢	7.7000¢	9.4959¢	$52,009	$64,139
2005	83.835	743	150.4942¢	179.5119¢	$1.6870	201.2281¢	10.1045¢	12.0528¢	9.0060¢	10.7425¢	$56,100	$66,917
2006	86.540	710	150.1770¢	173.5357¢	$1.6960	195.9797¢	10.9064¢	12.6028¢	11.1320¢	12.8635¢	$60,679	$70,117
2007	89.004	739	145.8401¢	163.8572¢	$1.5670	176.0587¢	12.1938¢	13.7003¢	12.7940¢	14.3746¢	$64,579	$72,557
2008	92.422	699	163.4592¢	176.8622¢	$1.6490	178.4212¢	16.0966¢	17.4165¢	14.7530¢	15.9627¢	$70,144	$75,895
2009	92.093	686	128.2416¢	139.2523¢	$1.3920	151.1516¢	16.5633¢	17.9854¢	14.4680¢	15.7102¢	$68,008	$73,847
2010	93.604	734	127.2702¢	135.9673¢	$1.3530	144.5458¢	15.9089¢	16.9960¢	14.2090¢	15.1800¢	$69,769	$74,536
2011	96.558	718	119.4235¢	123.6804¢	$1.3060	135.2553¢	14.8513¢	15.3807¢	12.4400¢	12.8834¢	$74,480	$77,135
2012	98.556	695	109.8343¢	111.4431¢	$1.2100	122.7724¢	13.9385¢	14.1427¢	11.1990¢	11.3630¢	$74,773	$75,868
2013	100	697	116.1650¢	116.1650¢	$1.2450	124.5000¢	13.4374¢	13.4374¢	12.5600¢	12.5600¢	$74,513	$74,513

Blue: Usage is estimated by PSC staff from 1913 to 1955.
Red: No PGA data are available for 1954 to 1967.

Table 11.9 Variables in the Gas Regressions, 1930-2013

Year	CPI Value - Base Year 2013	Gas Usage (Therms)	Nominal Gas Rates (¢/Therm)	Real Gas Rates (¢/Therm)	Nominal USDOE Gas Rates ($/Therm)	Real USDOE Gas Rates (¢/Therm)	Nominal PSC Electric Rates (¢/Kwh)	Real PSC Electric Rates (¢/Kwh)	Nominal USDOE Electric Rates (¢/Kwh)	Real USDOE Electric Rates (¢/Kwh)	Heating Degree Days	Nominal Per Capita Income	Real Per Capita Income
1930	7.169	6.6	10.4167¢	145.3075¢	$0.1073	149.6385¢	6.1218¢	85.3962¢	4.6820¢	65.3117¢	4361	$1,314	$18,331
1931	6.525	8.7	10.0000¢	153.2612¢	$0.1084	166.1461¢	5.4641¢	83.7437¢	4.1700¢	63.9099¢	3941	$1,253	$19,206
1932	5.881	10.7	9.9455¢	169.1146¢	$0.1095	186.2684¢	5.0211¢	85.3803¢	3.7960¢	64.5478¢	4126	$1,107	$18,818
1933	5.580	12.8	9.7813¢	175.2777¢	$0.1107	198.3334¢	4.8653¢	87.1854¢	3.5680¢	63.9377¢	4217	$945	$16,933
1934	5.752	14.9	13.4161¢	233.2370¢	$0.1118	194.3875¢	4.7594¢	82.7414¢	3.3670¢	58.5348¢	4691	$963	$16,741
1935	5.881	16.9	12.8935¢	219.2430¢	$0.1130	192.0620¢	4.4785¢	76.1540¢	3.2510¢	55.2805¢	4560	$1,031	$17,529
1936	5.967	19.0	8.5789¢	143.7788¢	$0.1141	191.2019¢	4.3091¢	72.2190¢	3.2250¢	54.0494¢	4636	$1,143	$19,155
1937	6.181	21.1	8.5213¢	137.8544¢	$0.1152	186.4003¢	4.0383¢	65.3291¢	3.0100¢	48.6945¢	4402	$1,210	$19,579
1938	6.053	23.1	8.4762¢	140.0417¢	$0.1164	192.2426¢	3.7062¢	61.2335¢	2.7530¢	45.4844¢	4016	$1,141	$18,859
1939	5.967	25.2	8.4365¢	141.3916¢	$0.1175	196.9121¢	3.4574¢	57.9444¢	2.6380¢	44.2116¢	4155	$1,164	$19,511
1940	6.010	27.3	8.3748¢	139.3557¢	$0.1186	197.3954¢	3.2612¢	54.2659¢	2.5100¢	41.7659¢	4896	$1,220	$20,309
1941	6.310	29.3	8.2287¢	130.4031¢	$0.1198	189.7954¢	3.1503¢	49.9236¢	2.4900¢	39.4601¢	4222	$1,271	$20,143
1942	6.997	31.4	11.3461¢	162.1563¢	$0.1209	172.7884¢	3.1144¢	44.5100¢	2.4280¢	34.7006¢	4343	$1,474	$21,063
1943	7.426	33.5	11.0587¢	148.9135¢	$0.1220	164.3299¢	3.0049¢	40.4638¢	2.3630¢	31.8195¢	4545	$1,630	$21,950
1944	7.555	35.6	10.9592¢	145.0578¢	$0.1232	163.0321¢	2.9934¢	39.6218¢	2.3970¢	31.7272¢	4498	$1,670	$22,099
1945	7.727	37.6	10.9674¢	141.9404¢	$0.1243	160.8790¢	2.9298¢	37.9177¢	2.2970¢	29.7279¢	4230	$1,753	$22,693
1946	8.371	39.7	8.0796¢	96.5230¢	$0.1254	149.8605¢	2.8875¢	34.4954¢	2.2690¢	27.1066¢	3625	$1,827	$21,831
1947	9.573	41.8	11.4293¢	119.3963¢	$0.1266	132.2303¢	2.8482¢	29.7540¢	2.2400¢	23.4002¢	4445	$1,879	$19,631
1948	10.345	43.8	12.3863¢	119.7293¢	$0.1277	123.4520¢	2.7013¢	26.1115¢	2.2920¢	22.1551¢	4353	$2,126	$20,554
1949	10.216	45.9	12.3369¢	120.7547¢	$0.1289	126.1198¢	2.4609¢	24.0880¢	2.3930¢	23.4229¢	3629	$2,295	$22,462
1950	10.345	48.0	12.7438¢	123.1845¢	$0.1300	125.6476¢	2.4427¢	23.6115¢	2.3620¢	22.8317¢	4057	$2,431	$23,497
1951	11.161	50.0	12.6700¢	113.5217¢	$0.1311	117.4833¢	2.9194¢	26.1571¢	2.3950¢	21.4589¢	4007	$2,550	$22,852
1952	11.375	52.1	13.0951¢	115.1168¢	$0.1323	116.2650¢	3.1297¢	27.5124¢	2.3970¢	21.0716¢	4060	$2,693	$23,672
1953	11.461	54.2	13.6581¢	119.1666¢	$0.1334	116.3850¢	3.0953¢	27.0061¢	2.3680¢	20.6608¢	3617	$2,598	$22,664
1954	11.547	56.2	13.7929¢	119.4479¢	$0.1345	116.5032¢	3.0628¢	26.5245¢	2.3530¢	20.3772¢	4118	$2,617	$22,664
1955	11.504	58.3	13.7211¢	119.2696¢	$0.1357	117.9252¢	3.2619¢	28.3534¢	2.4050¢	20.9053¢	4230	$2,616	$22,739
1956	11.676	60.4	13.8025¢	118.2125¢	$0.1368	117.1637¢	3.3334¢	28.5490¢	2.4300¢	20.8120¢	4261	$2,831	$24,247
1957	12.062	60.0	13.8148¢	114.5288¢	$0.1386	114.9033¢	3.2822¢	27.2107¢	2.3970¢	19.8718¢	4057	$2,929	$24,286
1958	12.406	66.5	14.1677¢	114.2029¢	$0.1427	115.0276¢	3.2456¢	26.1622¢	2.3670¢	19.0799¢	4587	$3,017	$24,319
1959	12.492	66.9	15.2259¢	121.8892¢	$0.1466	117.3858¢	3.3211¢	26.5864¢	2.4250¢	19.4131¢	3989	$3,090	$24,736

Table 11.9 Variables in the Gas Regressions, 1930-2013 (continued)

Year	CPI Value - Base Year 2013	Gas Usage (Therms)	Nominal Gas Rates (¢/Therm)	Real Gas Rates (¢/Therm)	Nominal USDOE Gas Rates ($/Therm)	Real USDOE Gas Rates (¢/Therm)	Nominal PSC Electric Rates (¢/Kwh)	Real PSC Electric Rates (¢/Kwh)	Nominal USDOE Electric Rates (¢/Kwh)	Real USDOE Electric Rates (¢/Kwh)	Heating Degree Days	Nominal Per Capita Income	Real Per Capita Income
1960	12.706	67.3	15.2135¢	119.7331¢	$0.1506	118.4985¢	3.4377¢	27.0549¢	2.4790¢	19.5101¢	4554	$3,110	$24,479
1961	12.835	67.7	15.2013¢	118.4366¢	$0.1545	120.3741¢	3.3624¢	26.1974¢	2.4340¢	18.9638¢	4423	$3,216	$25,059
1962	12.964	70.2	15.1282¢	116.6961¢	$0.1522	117.4042¢	3.3423¢	25.7818¢	2.4260¢	18.7137¢	4605	$3,415	$26,345
1963	13.135	70.4	15.1226¢	115.1278¢	$0.1541	117.3159¢	3.2819¢	24.9854¢	2.3890¢	18.1874¢	4508	$3,585	$27,290
1964	13.307	72.7	15.0601¢	113.1729¢	$0.1478	111.0679¢	3.1902¢	23.9734¢	2.3140¢	17.3891¢	4140	$3,803	$28,576
1965	13.522	73.1	15.0497¢	111.2991¢	$0.1471	108.7872¢	3.1353¢	23.1866¢	2.2790¢	16.8543¢	4365	$4,102	$30,334
1966	13.908	76.6	14.9628¢	107.5828¢	$0.1464	105.2621¢	2.9967¢	21.5464¢	2.2010¢	15.8253¢	4412	$4,310	$30,988
1967	14.337	79.2	14.9032¢	103.9463¢	$0.1442	100.5760¢	2.9043¢	20.2569¢	2.1320¢	14.8702¢	4274	$4,612	$32,165
1968	14.938	80.0	14.1120¢	94.4681¢	$0.1425	95.3919¢	2.7939¢	18.7028¢	2.0800¢	13.9239¢	4175	$4,922	$32,949
1969	15.754	85.4	14.2836¢	90.6668¢	$0.1416	89.8820¢	2.7174¢	17.2492¢	2.0510¢	13.0189¢	4300	$4,888	$31,029
1970	16.655	85.6	14.6580¢	88.0073¢	$0.1436	86.2181¢	2.6192¢	15.7258¢	2.2000¢	13.2089¢	4302	$5,469	$32,835
1971	17.385	85.2	15.3508¢	88.2984¢	$0.1487	85.5265¢	2.5819¢	14.8511¢	2.3650¢	13.6035¢	3995	$6,124	$35,228
1972	17.943	84.7	15.5910¢	86.8905¢	$0.1555	86.6622¢	2.7511¢	15.3325¢	2.4760¢	13.7991¢	4117	$6,710	$37,394
1973	19.059	81.1	14.8689¢	78.0140¢	$0.1653	86.7293¢	2.9499¢	15.4777¢	2.6310¢	13.8043¢	3652	$7,158	$37,555
1974	21.163	79.2	16.5859¢	78.3732¢	$0.1896	89.5916¢	3.0079¢	14.2134¢	3.6710¢	17.3466¢	3596	$7,904	$37,351
1975	23.094	79.9	24.3888¢	105.6049¢	$0.2404	104.0945¢	2.9946¢	12.9668¢	3.9500¢	17.1037¢	3596	$8,710	$37,713
1976	24.425	86.6	27.5752¢	112.8970¢	$0.2625	107.4714¢	3.0036¢	12.2971¢	4.1600¢	17.0317¢	4087	$9,404	$38,500
1977	26.013	86.9	33.1978¢	127.6182¢	$0.3267	125.5892¢	4.0970¢	15.7494¢	4.6500¢	17.8754¢	3994	$10,311	$39,638
1978	27.988	87.1	33.1820¢	118.5578¢	$0.3531	126.1612¢	4.1063¢	14.6718¢	4.9400¢	17.6504¢	4122	$11,177	$39,934
1979	31.165	87.6	39.2384¢	125.9073¢	$0.3736	119.8798¢	4.4104¢	14.1518¢	5.2300¢	16.7819¢	3868	$12,055	$38,680
1980	35.371	84.7	41.5051¢	117.3411¢	$0.4570	129.2007¢	4.8281¢	13.6499¢	5.5200¢	15.6059¢	3891	$13,082	$36,983
1981	39.020	84.4	55.8502¢	143.1319¢	$0.5500	140.9531¢	5.6950¢	14.5950¢	6.2000¢	15.8893¢	3775	$14,078	$36,078
1982	41.424	81.7	65.8984¢	159.0829¢	$0.6640	160.2937¢	5.8777¢	14.1891¢	6.6900¢	16.1501¢	4023	$15,080	$36,405
1983	42.755	78.4	84.8064¢	198.3558¢	$0.8100	189.4530¢	7.0465¢	16.4813¢	6.7290¢	15.7386¢	4028	$15,772	$36,890
1984	44.601	86.1	81.7916¢	183.3872¢	$0.8050	180.4912¢	6.5904¢	14.7764¢	6.4260¢	14.4079¢	3998	$17,204	$38,574
1985	46.189	74.1	78.5209¢	169.9998¢	$0.7910	171.2537¢	7.0971¢	15.3654¢	6.8110¢	14.7460¢	3905	$18,196	$39,394
1986	47.047	82.0	74.2941¢	157.9137¢	$0.7520	159.8391¢	7.1329¢	15.1611¢	6.8140¢	14.4833¢	4146	$19,006	$40,397
1987	48.764	80.5	73.6591¢	151.0511¢	$0.7090	145.3931¢	7.3288¢	15.0291¢	6.4440¢	13.2146¢	4103	$20,064	$41,145
1988	50.782	82.4	66.2551¢	130.4699¢	$0.6960	137.0567¢	7.1633¢	14.1061¢	6.3170¢	12.4395¢	4395	$22,268	$43,850
1989	53.229	81.2	77.7453¢	146.0590¢	$0.7440	139.7742¢	6.4016¢	12.0266¢	6.5310¢	12.2697¢	4384	$23,971	$45,033

Table 11.9 Variables in the Gas Regressions, 1930-2013 (continued)

Year	CPI Value - Base Year 2013	Gas Usage (Therms)	Nominal Gas Rates (¢/Therm)	Real Gas Rates (¢/Therm)	Nominal USDOE Gas Rates ($/Therm)	Real USDOE Gas Rates (¢/Therm)	Nominal PSC Electric Rates (¢/Kwh)	Real PSC Electric Rates (¢/Kwh)	Nominal USDOE Electric Rates (¢/Kwh)	Real USDOE Electric Rates (¢/Kwh)	Heating Degree Days	Nominal Per Capita Income	Real Per Capita Income
1990	56.105	83.5	73.5184¢	131.0377¢	$0.7180	127.9748¢	6.4662¢	11.5252¢	6.3930¢	11.3948¢	3242	$25,716	$45,836
1991	58.466	85.9	66.3783¢	113.5337¢	$0.7070	120.9255¢	7.6339¢	13.0570¢	6.9360¢	11.8634¢	3563	$27,068	$46,298
1992	60.226	88.2	71.2560¢	118.3148¢	$0.7610	126.3580¢	6.4952¢	10.7848¢	7.0450¢	11.6977¢	4134	$28,752	$47,740
1993	62.029	85.9	85.8264¢	138.3658¢	$0.8340	134.4541¢	7.7948¢	12.5665¢	7.5090¢	12.1057¢	4238	$30,075	$48,486
1994	63.617	85.0	82.4466¢	129.5986¢	$0.8290	130.3113¢	7.7328¢	12.1553¢	7.9800¢	12.5438¢	3959	$31,078	$48,852
1995	65.420	84.1	80.5127¢	123.0708¢	$0.8030	122.7457¢	8.3006¢	12.6881¢	8.1030¢	12.3862¢	4179	$31,735	$48,510
1996	67.351	83.2	78.2854¢	116.2342¢	$0.9190	136.4484¢	7.9221¢	11.7624¢	7.9790¢	11.8468¢	4350	$33,509	$49,752
1997	68.897	82.2	93.3250¢	135.4561¢	$0.9390	136.2907¢	8.0555¢	11.6922¢	8.1060¢	11.7654¢	3926	$35,571	$51,629
1998	69.970	81.3	89.3464¢	127.6924¢	$0.6910	98.7566¢	9.0603¢	12.9488¢	8.2330¢	11.7665¢	3369	$37,963	$54,256
1999	71.515	76.0	80.4739¢	112.5268¢	$0.8700	121.6522¢	8.9622¢	12.5318¢	8.3600¢	11.6898¢	3726	$39,391	$55,081
2000	73.919	81.8	92.2724¢	124.8286¢	$1.0810	146.2407¢	7.7444¢	10.4769¢	8.0680¢	10.9146¢	4081	$43,206	$58,450
2001	76.023	54.1	113.0677¢	148.7291¢	$1.2650	166.3979¢	7.6283¢	10.0342¢	7.5380¢	9.9155¢	3687	$45,274	$59,554
2002	77.225	59.1	102.7035¢	132.9934¢	$1.1010	142.5712¢	8.4672¢	10.9644¢	7.3840¢	9.5617¢	3840	$46,151	$59,761
2003	78.985	74.6	114.4249¢	144.8700¢	$1.3290	168.2608¢	7.4944¢	9.4884¢	7.0680¢	8.9486¢	4314	$48,440	$61,328
2004	81.088	66.5	129.0480¢	159.1457¢	$1.4310	176.4751¢	7.7866¢	9.6026¢	7.7000¢	9.4959¢	4029	$52,009	$64,139
2005	83.835	66.6	150.4942¢	179.5119¢	$1.6870	201.2281¢	10.1045¢	12.0528¢	9.0060¢	10.7425¢	4133	$56,100	$66,917
2006	86.540	56.1	150.1770¢	173.5357¢	$1.6960	195.9797¢	10.9064¢	12.6028¢	11.1320¢	12.8635¢	3513	$60,679	$70,117
2007	89.004	60.5	145.8401¢	163.8572¢	$1.5670	176.0587¢	12.1938¢	13.7003¢	12.7940¢	14.3746¢	3888	$64,579	$72,557
2008	92.422	60.3	163.4592¢	176.8622¢	$1.6490	178.4212¢	16.0966¢	17.4165¢	14.7530¢	15.9627¢	3744	$70,144	$75,895
2009	92.093	61.0	128.2416¢	139.2523¢	$1.3920	151.1516¢	16.5633¢	17.9854¢	14.4680¢	15.7102¢	4108	$68,008	$73,847
2010	93.604	60.7	127.2702¢	135.9673¢	$1.3530	144.5458¢	15.9089¢	16.9960¢	14.2090¢	15.1800¢	3911	$69,769	$74,536
2011	96.558	59.5	119.4235¢	123.6804¢	$1.3060	135.2553¢	14.8513¢	15.3807¢	12.4400¢	12.8834¢	3688	$74,480	$77,135
2012	98.556	49.7	109.8343¢	111.4431¢	$1.2100	122.7724¢	13.9385¢	14.1427¢	11.1990¢	11.3630¢	3151	$74,773	$75,868
2013	100	59.6	116.1650¢	116.1650¢	$1.2450	124.5000¢	13.4374¢	13.4374¢	12.5600¢	12.5600¢	3855	$74,513	$74,513

Blue: Usage is estimated by PSC staff from 1913 to 1955.
Red: No PGA data are available for 1954 to 1967.

Table 11.10: Regression Results Using Real USDOE Gas Rates and No Electricity Rates, 1930-2013, 1950-2013, 1970-2013, 1930-1949, and 1930-1969

Category	Coefficient	T-Statistic
1930-2013		
R Squared	0.649	
Durbin-Watson	0.172	
Intercept	-6.750	-1.341
Gas Rates	-1.316	-7.871
Heating Degree Days	1.025	1.901
Income	0.834	8.370
1950-2013		
R Squared	0.134	
Durbin-Watson	0.196	
Intercept	-1.100	-0.391
Gas Rates	-0.305	-2.566
Heating Degree Days	0.617	2.062
Income	0.164	2.208
1970-2013		
R Squared	0.730	
Durbin-Watson	1.013	
Intercept	5.224	3.011
Gas Rates	-0.096	-1.417
Income	-0.425	-7.203
Heating Degree Days	0.503	2.716

Category	Coefficient	T-Statistic
1930-1949		
R Squared	0.567	
Durbin-Watson	0.494	
Intercept	-48.572	-2.652
Gas Rates	-0.416	-0.568
Heating Degree Days	1.061	0.815
Income	4.545	3.716
1930-1969		
R Squared	0.758	
Durbin-Watson	0.166	
Intercept	-13.683	-1.454
Gas Rates	-1.042	-2.229
Heating Degree Days	0.298	0.354
Income	1.992	3.177

Red highlights indicate variables that are statistically significant at the 90 percent confidence level or above.

Appendices

List of Acronyms in Alphabetical Order

AARP	American Association of Retired Persons
ACA	Actual Cost Adjustment
ACR	Annual Consolidated Report
AES	AES New Energy
AMI	Advanced Metering Infrastructure
ANC	Advisory Neighborhood Commission
AOBA	Apartment and Office Building Association
APRP	Accelerated Pipeline Replacement Program
ARC	Access Recovery Charge
ARRA	American Recovery and Reinvestment Act
ARTS	American Radio-Telephone Service
AT&T	American Telephone and Telegraph Company
BA-DC	Bell Atlantic-DC
BG&E	Baltimore Gas and Electric
BRIC	Biennial Regulatory Information Conference
BSA	Bill Stabilization Adjustment
CA	Civil Action
CAA	Clean Air Act
CAEA	Clean and Affordable Energy Act
CAIDI	Customer Average Interruption Duration Index
C&P	Chesapeake and Potomac Telephone Company
CBOR	Consumer Bill of Rights
CCA	Commodity Credit Adjustment
CDDs	Cooling Degree Days
CEAP	Community Energy Assistance Programs
CEP	Consumer Education Program
CIRP	Cast Iron Replacement Program
CLEC	Competitive Local Exchange Carrier
COCOT	Customer Owned Coin Operated Telephone
CORE	Congress of Racial Equality
CPCN	Certificate of Public Convenience
CPI	Consumer Price Index
CPP	Critical Peak Pricing
CPR	Critical Peak Rebate
CPR	Cardiopulmonary Resuscitation
CT	Combustion Turbine
CUB	Consumer Utility Board
CWA	Communications Workers of America
CWIP	Construction Work in Progress
DAS	DC Department of Administrative Services
DCA	Distribution Charge Adjustment
DCEO	DC Energy Office
DCFCA	DC Federation of Civic Associations
DCMR	DC Municipal Regulations
DCNG	District of Columbia Natural Gas (name of the DC segment of WGL in the 1990s)
DCPSC	District of Columbia Public Service Commission (also referred to as the Commission or PSC)
DCSUN	DC Solar United Neighborhoods
DCUSTF	DC Universal Service Trust Fund
DEPSC	Delaware Public Service Commission
DNP	Disconnect for Nonpayment

List of Acronyms in Alphabetical Order (continued)

DOS	Disk Operating System
DS	District Service
DSM	Demand Side Management
EATF	Energy Assistance Trust Fund
ECCR	Environmental Cost Recovery Rider
EEO	Equal Employment Opportunity
EEOC	Equal Employment Opportunity Commission
EIA	United States Energy Information Administration
EMF	Electromagnetic Fields
EPA	United States Environmental Protection Agency
EQSS	Electric Quality of Service Standards
ERAM	Electric Rate Adjustment Mechanism
ET	Electric Tariff
ETC	Eligible Telecommunications Carriers
EUM	Energy Use Management
E911	Enhanced 911
FAC	Fuel Adjustment Clause
FCA	Federation of Citizens' Associations
FC	Formal Case
FCC	Federal Communications Commission
FERC	Federal Energy Regulatory Commission
FTTP	Fiber to the Premises
FPC	Federal Power Commission (former name of FERC)
FTE	Full-Time Equivalent
FY	Fiscal Year
GD	General Docket
GDP-PI	Gross Domestic Product - Personal Income approach
GPA	Gas Procurement Report
GPWG	Gas Procurement Working Group
GRT	Gross Receipts Tax
GS	General Service
GSA	US General Services Administration
GandT	Generation and Transmission
GT	Gas Tariff
IEEE	Institute of Electrical and Electronics Engineers
HDDs	Heating Degree Days
HP	Hourly Pricing
HVAC	Heating, Ventilation, and Air Conditioning
IBEW	International Brotherhood of Electrical Workers
IBRD	International Bank for Reconstruction and Development (World Bank)
ICB	Individual Case Basis
ICC	Interstate Commerce Commission
IEEE	Institute of Electrical and Electronics Engineers
IPP	Independent Power Producer
IRP	Integrated Resource Planning
IT	Information Technology
IUGW	International Union of Gas Workers
JUDD	Joint Utility Discount Day
LAN	Local Area Network
LCP	Least Cost Planning
LDCs	Local Distribution Companies

List of Acronyms in Alphabetical Order (continued)

LIHEAP	Low Income Home Energy Assistance Program
LPF	Least Performing Feeder
LRIC	Long Run Incremental Cost
MACRUC	Mid-Atlantic Conference of Regulatory Utilities Commissioners
MAREC	Mid-Atlantic Renewable Energy Coalition
MCI	Microwave Communications, Inc.
MDPSC	Maryland Public Service Commission
MDV-SEIA	Maryland District Virginia Solar Energy Industries Association
MEDs	Major Event Days
MFJ	Modified Final Judgment
MMA	Master Metered Apartments
MOU	Memorandum of Understanding
MPD	Metropolitan Police Department
MSS	Management Supervisory Service
MTF	Miscellaneous Trust Fund
MUDWG	Multi-Utility Discount Working Group
NAACP	National Association for the Advancement of Colored People
NARA	National Archives and Records Administration
NARUC	National Association of Regulatory Utility Commissioners
NECPA	National Energy Conservation Policies Act
NERC	North American Electric Reliability Corporation
NOEPR	Notice of Emergency and Proposed Rulemaking
NOFR	Notice of Final Rulemaking
NOI	Notice of Inquiry
NOPR	Notice of Proposed Rulemaking
NOPV	Notice of Probable Violation
NOVEC	Northern Virginia Electric Cooperative
NRRI	National Regulatory Research Institute
NUG	Non-Utility Generator
OAG	DC Office of the Attornery General (formerly DC Corporation Counsel)
OCMS	Office of Commission Secretary
OCS	Office of Consumer Services
ODEDAM	Office of the Deputy Executive Director for Administrative Matters
OGC	Office of the General Counsel
OHR	Office of Human Resources
OIG	Office of Inspector General
OMS	Outage Management System
OPC	Office of the People's Counsel
OPEB	Post Retirement Benefits Other Than Pensions
OPEIU	Office and Professional Employees International Union Local 2
OPM	DC Office of Property Management (formerly DAS)
OTRA	Office of Technical and Regulatory Analysis
PAPSC	Pennsylvania Public Service Commission
PBX	Private Branch Exchange
PC	Personal Computer
PCA	Petworth Citizens Association
PEPCO	Potomac Electric Power Company
PES	PEPCO Energy Services
PIP	Productivity Improvement Plan

List of Acronyms in Alphabetical Order (continued)

PGA	Purchased Gas Adjustment
PGC	Purchased Gas Charge
PHMSA	Pipeline and Hazardous Materials Safety Administration
PIWG	Productivity Improvement Working Group
PJM	Pennsylvania-New Jersey-Maryland Interconnection (mid-Atlantic region power pool)
POTS	Plain Old Telephone Service
PPA	Power Purchase Agreement
PPP	Potowmack Power Partners
PRA	Plant Recovery Adjustment
PSC	Public Service Commission
PSP	Payphone Service Provider
PUC	Public Utilities Commission of the District of Columbia
PURPA	Public Utility Regulatory Policies Act
QF	Qualifying Facility
RAC	Research Advisory Committee
RAD	Residential Aid Discount (Name of PEPCO's low-income discount program beginning in the 1990s)
RAR	Residential Aid Rider (Original name of PEPCO's low-income discount program)
RPS	Renewable Portfolio Standard
RCS	Residential Conservation Service
REC	Renewable Energy Credit
REPS	Renewable Energy Portfolio Standards
RES	Residential Essential Service (WGL's low-income discount program)
RETF	Reliable Energy Trust Fund
ROE	Return on Equity
ROR	Rate of Return
RR	Revenue Requirement
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SandP	Standard and Poor's
SBA	US Small Business Administration
SBC	SBC Communications
SEC	Securities and Exchange Commission
SERP	Supplemental Executive Retirement Plan
SETF	Sustainable Energy Trust Fund
SEU	Sustainable Energy Utility
SHOCK	Students Hot on Conserving Kilowatts
SLC	Subscriber Line Charge
SMPPI	Smart Meter Pilot Program, Inc.
SMD	Single Member District
SOS	Standard Offer Service
SPF	Subscriber Plant Factor
S&W	Stone and Webster Engineering Company
T&D	Transmission and Distribution
TELRIC	Total Element Long-Run Incremental Cost
TESL	Teaching English as a Second Language
TIA	Telecommunications Interconnection Agreement
TOD	Time-of-Day
TPI	Telephone Penetration Index
TRANSCO	Transcontinental Gas Pipeline Corporation

List of Acronyms in Alphabetical Order (continued)

TRO	Triennial Review Order
TRS	Telecommunications Relay Service
TT	Telephone Tariff
UDP	Utility Discount Program
UMW	United Mine Workers
UNE	Unbundled Network Element
UPO	United Planning Organization
USAID	United States Agency for International Development
USDOT	United States Department of Transportation
VASCC	Virginia State Corporation Commission
VoIP	Voice over Internet Protocol
WASA	DC Water and Sewer Authority
WGES	Washington Gas Energy Services
WGL	Washington Gas Light Company
WMATA	Washington Metropolitan Area Transit Authority
WMATC	Washington Metropolitan Area Transit Commission
WMTC	Washington Mobile Telephone Company
WRECO	Washington Railway and Electric Company
WRT	Washington Rapid Transit

Tables

Appendix Table 8.1: PEPCO's PUC/PSC-Approved Residential Rate Designs, 1899-2014 (Per Kwh)

Effective Dates	3/3/1899	1914	8/1/1917	9/13/1920	4/1/1921	9/1/1921	4/1/1922	4/1/1923
FC No.			61	85	94	99	112	135
Order No.			223	388	418	430	464	509
Date Order Issued			7/13/1917	9/3/1920	3/28/1921	7/29/1921	3/29/1922	4/1/1923
Minimum Monthly Charge	$1.0000	$1.0000	75.0000¢	75.0000¢	75.0000¢	75.0000¢	75.0000¢	75.0000¢
First 60 Kwh	10.0000¢	10.0000¢	8.0000¢	8.5000¢	8.5000¢	8.0750¢	7.6713¢	7.6000¢
Next 60 Kwh	10.0000¢	10.0000¢	5.0000¢	5.5000¢	5.5000¢	5.2250¢	4.9638¢	4.9000¢
>120 Kwh	10.0000¢	5.0000¢	5.0000¢	5.5000¢	5.5000¢	5.2250¢	4.9638¢	4.9000¢
Comments - 1899-1931 rates were in Schedule A, primarily for residential electric lighting.)	US Congress set the rates; a flat rate structure	Per 1937 Annual Report, p. 74; declining tail block	Unit added to Benning Road station and coal prices rose however those increases were offset by allocation of costs to WRECO so overall rates decreased; Declining block after first 60 Kwh	Increase due to rising coal prices	No change	5% discount on energy charge	5% discount	Rates simplified.

Effective Dates	1/1/1925	1/1/1926	1/1/1927	1/1/1928	1/1/1929	1/1/1930	1/1/1931
FC No.	DC Supreme Court Consent Decree	152	152	152	152	PUC No. 2708/9	220
Order No.		588	656	694	737	818	892
Date Order Issued	12/2/1924	12/19/1925	2/21/1926	12/29/1927	12/31/1928	12/9/1929	12/31/1930
Minimum Monthly Charge	75.0000¢	75.0000¢	75.0000¢	75.0000¢	75.0000¢	75.0000¢	75.0000¢
First 60 Kwh	7.5000¢	7.0000¢	6.2500¢	5.9000¢	5.2000¢	4.7000¢	4.2000¢
Next 60 Kwh	7.5000¢	7.0000¢	6.2500¢	5.9000¢	5.2000¢	4.7000¢	4.2000¢
>120 Kwh	4.5000¢	4.5000¢	4.5000¢	4.5000¢	5.2000¢	4.7000¢	4.2000¢
Comments - 1899-1931 rates were in Schedule A, primarily for residential electric lighting.)	Residential rates above the national average; rates reduced using sliding scale and 7% ROR; Declining block after 120 Kwh				Flat rate energy charge		

Red - Rate decreased
Blue - Rate increased
Green - Rate class changed

Appendix Table 8.1a: PEPCO's PUC-Approved Residential Rate Designs (Schedule A), 1932–1938 (Per Kwh)

Effective Dates	2/1/1932	2/20/1933	2/1/1934	1/30/1935	2/1/1936	2/1/1937	2/2/1938
FC No.	233	243	245	251	261	270	275
Order No.	992	1115	1219	1316	1476	1566	1650
Date Order Issued	1/29/1932	2/18/1933	1/24/1934	1/30/1935	2/5/1936	1/28/1937	2/1/1938
Minimum Monthly Charge	75.0000¢	75.0000¢	75.0000¢	75.0000¢	75.0000¢	75.0000¢	75.0000¢
First 50 Kwh	3.9000¢	3.9000¢	3.9000¢	3.9000¢	3.9000¢	3.9000¢	3.9000¢
Next 50 Kwh	3.8000¢	3.6000¢	3.3000¢	3.1000¢	2.9000¢	2.3000¢	1.8000¢
Next 50 Kwh	3.0000¢	2.9000¢	2.0000¢	1.9000¢	1.9000¢	1.8000¢	1.5000¢
Next 50 Kwh	3.0000¢	2.0000¢	2.0000¢	1.9000¢	1.9000¢	1.8000¢	1.5000¢
>200 Kwh	3.0000¢	2.0000¢	1.5000¢	1.5000¢	1.5000¢	1.5000¢	1.5000¢

Red - Rate decreased
Blue - Rate increased
Green - Rate class changed

Appendix Table 8.1b: PEPCO's PUC-Approved Residential Rate Designs (Schedule A and Schedule R), 1939–1948 (Per Kwh)

Effective Dates	2/1/1939	1/1/1940		2/1/1941		3/1/1943		7/21/1948	
FC No.	281	FC No.	289	FC No.	296	FC No.	326	FC No.	379
Order No.	1747	Order No.	1851	Order No.	2000	Order No.	2564	Order No.	3397 and 3402
Date Order Issued	2/2/1939	Date Order Issued	3/2/1940	Date Order Issued	2/4/1941	Date Order Issued	4/26/1943	Date Order Issued	7/8/1948 and 7/19/1948
Minimum Monthly Charge	75.0000¢	Minimum Monthly Charge	75.0000¢	Minimum Monthly Charge	75.0000¢	Minimum Monthly Charge	75.0000¢	Minimum (includes first 20 Kwh)	80.0000¢
First 46 Kwh	3.9000¢	First 40 Kwh	3.9000¢	First 36 Kwh	3.9000¢	First 34 Kwh	3.9000¢	Next 20 Kwh	4.0000¢
Next 80 Kwh	1.7000¢	Next 90 Kwh	1.7500¢	Next 100 Kwh	1.8000¢	Next 102 Kwh	1.8000¢	Next 160 Kwh	1.9000¢
>126 Kwh	1.5000¢	>130 Kwh	1.5000¢	>136 Kwh	1.5000¢	>136 Kwh	1.5000¢	>200 Kwh	1.6000¢
Comments			PUC changed the accounting treatment of electric plant retirement in order to comply with the Federal Power Commission Order 45. This increased the amount available for rate reductions.		Overall rate reduction		Hankins dissent 9/18/42		Rate increase due to higher coal prices. Residential rates increased 8.7% compared to overall increase of 12%. Creation of R class.

Red - Rate decreased
Blue - Rate increased
Green - Rate class changed

Appendix Table 8.1c: PEPCO's PUC-Approved Residential Rate Designs (Schedule R), 1951–1955 (Per Kwh)

Effective Dates	4/20/1951	5/6/1955
FC No.	402	438
Order No.	3702 and 3774	4182 and 4184
Dates Order Issued	2/12/1951 and 3/20/1951	4/27/1955
Minimum Monthly Charge	$1.0000	$1.2500
First 40 Kwh	4.2500¢	4.3000¢
Next 210 Kwh	1.9700¢	2.2200¢
>250 Kwh	1.6200¢	1.7000¢

Appendix Table 8.1d: PEPCO's PUC/PSC-Approved Residential Rate Designs (Schedule R), 1959–1966 (Per Kwh)

Effective Dates	4/22/1959	10/1/1963	8/2/1966
FC No.	464	PUC No. 3720	511
Order Nos.	4525	4842	5062 and 5072
Dates Orders Issued	4/10/1959	10/16/1963	7/22/1966 and 7/28/1966
Minimum Monthly Charge	$1.5000	$1.5000	$1.5000
First 40 Kwh	4.5000¢	4.2000¢	4.2000¢
Next 260 Kwh	2.3800¢	2.3800¢	2.2300¢
Next 1,200 Kwh	1.8200¢	1.8000¢	1.8000¢
>1,500 Kwh	1.8200¢	1.8000¢	1.5000¢

Red - Rate decreased
Blue - Rate increased
Green - Rate class changed

Appendix Table 8.1e: PEPCO's PSC-Approved Residential Rate Designs (Schedule R), 1970 (Per Kwh)

Effective Dates	2/2/1970	Effective Dates	7/1/1970
FC No.	541	FC No.	541
Order No.	5419	Order No.	5429 and 5436
Date Order Issued	1/30/1970	Dates Orders Issued	4/15/1970 and 6/29/1970
Winter (Usage October-April)			
Minimum Monthly Charge	$1.5000	Minimum (includes 1st 30 Kwh)	$1.5000
First 40 Kwh	4.2000¢	Next 20 Kwh	3.0500¢
Next 260 Kwh	2.2300¢	Next 250 Kwh	2.4800¢
Next 1,200 Kwh	1.8000¢	Next 500 Kwh	2.1700¢
1,500 Kwh	1.5000¢	>800 Kwh	1.2000¢
Summer (Usage May-September)			
Minimum Monthly Charge	$1.5000	Minimum (includes 1st 30 Kwh)	$1.5000
First 40 Kwh	4.2000¢	Next 20 Kwh	3.0500¢
Next 260 Kwh	2.2300¢	Next 250 Kwh	2.4800¢
Next 1,200 Kwh	1.8000¢	Next 500 Kwh	2.1700¢
>1,500 Kwh	1.5000¢	>800 Kwh	1.9000¢

Red - Rate decreased
Blue - Rate increased
Green - Rate class changed

Appendix Table 8.1f: PEPCO's PSC-Approved Residential Rate Designs (Schedule R), 1972–1973 (Per Kwh)

Effective Dates	8/1/1972	Effective Dates	12/8/1973
FC No.	568	FC No.	596
Order Nos.	5509 and 5521	Order No.	5614, 5616, and 5617
Dates Orders Issued	5/9/1972 and 7/28/1972	Date Order Issued	11/17/1973, 11/30/1973, and 12/3/1973
Winter (Usage October-April)			
Minimum (includes first 30 Kwh)	$2.0000	Minimum (includes first 30 Kwh)	$2.0000
Next 20 Kwh	3.9000¢	Next 20 Kwh	4.0000¢
Next 150 Kwh	2.8500¢	Next 150 Kwh	2.8800¢
Next 200 Kwh	2.5500¢	Next 600 Kwh	2.5800¢
Next 400 Kwh	1.9000¢	Next 700 Kwh	1.8000¢
>800 Kwh	1.3500¢	>1500 Kwh	1.5500¢
Summer (Usage May-September)			
Minimum (includes first 30 Kwh)	$2.0000	Minimum (includes first 30 Kwh)	$2.0000
Next 20 Kwh	3.9000¢	Next 20 Kwh	4.0000¢
Next 150 Kwh	2.8500¢	Next 150 Kwh	2.8800¢
Next 200 Kwh	2.5500¢	Next 200 Kwh	2.5800¢
Next 400 Kwh	2.3000¢	>400 Kwh	2.7700¢
>800 Kwh	2.1500¢		

First inverted tailblock rate in summer of 1973
Red - Rate decreased
Blue - Rate increased
Green - Rate class changed

Appendix Table 8.1g: PEPCO's PSC-Approved Residential Rate Designs (Schedule R), 1975–1979 (Per Kwh)

Effective Dates	12/13/1975	12/16/1976	3/1/1977	7/24/1979
FC No.	630	651	651	685
Order No.	5739 and 5748	5831 and 5849	5867	6096, 7000, and 7011
Date Order Issued	11/12/1975 and 12/12/1975	10/26/1976 and 12/16/1976	3/1/1977	6/14/1979, 7/18/1979, and 7/24/1979
Winter (Usage October-April)				
Minimum (includes first 30 Kwh)	$2.0000	$2.0000	$2.0000	$2.05
Next 20 Kwh	4.0000¢	3.5500¢	3.5500¢	3.6700¢
Next 150 Kwh	2.8800¢	2.3800¢	2.3800¢	2.4600¢
Next 250 Kwh	2.5800¢	2.0900¢	2.0900¢	2.1700¢
>450 Kwh	2.4100¢	2.5000¢	2.5000¢	2.5800¢
Summer (Usage May-September)				
Minimum (includes first 30 Kwh)	$2.0000	$2.0000	$2.0000	$2.05
Next 20 Kwh	4.0000¢	3.5500¢	3.5500¢	3.6700¢
Next 150 Kwh	2.8800¢	2.3800¢	2.3800¢	2.4600¢
Next 250 Kwh	2.5800¢	2.0900¢	2.0900¢	2.1700¢
>450 Kwh	3.4300¢	3.6400¢	3.6700¢	3.7800¢

1976 - Inverted tailblock in winter and summer per FC 651
Red - Rate decreased
Blue - Rate increased
Green - Rate class changed

Appendix Table 8.1h: PEPCO's PSC-Approved Residential Rate Designs (Schedule R), 1980–1981 (Per Kwh)

Effective Dates	5/31/1980	12/31/1981
FC No.	715	748
Order No.	7135 and 7143	7457 and 7458
Dates Orders Issued	5/15/1980 and 5/31/1980	12/30/1981
Winter (Usage October-April)		
Minimum (includes first 30 Kwh)	$2.2500	$2.2500
Next 420 Kwh	2.8650¢	5.4230¢
>450 Kwh	3.0730¢	6.0140¢
Summer (Usage May-September)		
Minimum (includes first 30 Kwh)	$2.2500	$2.2500
Next 420 Kwh	2.8650¢	5.4230¢
>450 Kwh	4.4070¢	7.5090¢

Red - Rate decreased
Blue - Rate increased
Green - Rate class changed

Appendix Table 8.1i: PEPCO's PSC-Approved Residential Rate Designs (Schedule R), 1982-2000 (Per Kwh)

Effective Dates	12/31/1982	7/3/1984	10/1/1984	11/23/1984	4/2/1985	1/1/1987	1/1/1988	3/4/1989
FC No.	785	813, Phase 1	813, Phase 2	813	813	852	852	869
Order No.	7716	8056	8056	8127	8223	8696	8914	9216
Date Order Issued	12/29/1982	7/12/1984	7/12/1984	11/20/1984	4/1/1985	1/1/1987	12/30/1987	3/3/1989
Winter (Usage October-April)								
Minimum (includes first 30 Kwh)	$2.2500	$2.2500	$2.2500	$2.4000	$2.4000	$2.3300	$2.2700	$2.0300
Next 370 Kwh	5.4230¢	5.4630¢	5.4630¢	5.4630¢	5.4630¢	5.2970¢	5.1710¢	4.6180¢
>400 Kwh	7.1630¢	8.0050¢	8.1510¢	8.2300¢	8.2750¢	8.0240¢	7.8330¢	6.9920¢
Summer (Usage May-September)								
Minimum (includes first 30 Kwh)	$2.2500	$2.2500	$2.2500	$2.4000	$2.4000	$2.3300	$2.2700	$2.0300
Next 370 Kwh	5.4230¢	5.4630¢	5.4630¢	5.4630¢	5.4630¢	5.2970¢	5.1710¢	4.6150¢
>400 Kwh	8.8040¢	9.8390¢	10.0190¢	10.1160¢	10.1690¢	9.8600¢	9.6250¢	8.5920¢

Effective Dates	8/2/1990	10/29/1991	7/7/1992	3/16/1994	6/5/1994	7/11/1995	7/1/2000	8/4/2000
FC No.	889	905	912	929	929	939	945	945
Order No.	9509	9868	10044	10387	10423	10646	11576	11576
Date Order Issued	7/24/1990	10/23/1991	6/26/1992	3/4/1994	5/4/1994	6/30/1995	12/30/1999	12/30/1999
Winter (Usage October-April)								
Minimum (includes first 30 Kwh)	$2.0500	$2.0500	$2.0500	$2.0500	$2.0500	$2.2500	$2.2200	$2.0000
Next 370 Kwh	4.6770¢	4.6770¢	4.6770¢	4.7240¢	4.7360¢	5.2290¢	5.1510¢	4.6360¢
>400 Kwh	6.9170¢	7.1110¢	7.9070¢	8.1320¢	8.1860¢	9.0080¢	8.8730¢	7.9860¢
Summer (Usage May-September)								
Minimum (includes first 30 Kwh)	$2.0500	$2.0500	$2.0500	$2.0500	$2.0500	$2.2500	$2.2200	$2.0000
Next 370 Kwh	4.6770¢	4.6770¢	4.6770¢	4.7240¢	4.7360¢	5.2290¢	5.1510¢	4.6360¢
>400 Kwh	8.9170¢	9.6980¢	10.7810¢	11.0840¢	11.1590¢	12.4290¢	12.2430¢	11.0190¢

Red - Rate decreased
Blue - Rate increased
Green - Rate class changed

Appendix Table 8.1j: PEPCO's PSC-Approved Residential Rate Designs for Standard Offer Service (SOS) Customers (Schedule R), 2001–2009 (Per Kwh)

Effective Dates	1/1/2001	2/8/2001	2/8/2005	6/1/2006	6/1/2007	2008 (D-2/20/2008, T - 12/19/2008, G-6/1/2008)	2009 (D - 11/1/2009, G-6/1/2009)
FC Nos.	945	945	945	1017	1017	D-1053, T-1002, G-1017	D-1053, G-1017
Order Nos.	11845	PEPCO rate schedule	13493	G-none	G-none	D-14712, T-15136, G-none	D-15579, G-none
Dates Orders Issued	12/5/2000	1/29/2001	1/25/2005	G-none	G-none	D-1/30/2008, T-12/11/2008, G-none	D-10/16/2009, G-none
Distribution Rates (D)							
Winter (Usage October-April)							
Minimum	56.0000¢	47.0000¢	47.0000¢	47.0000¢	47.0000¢	$2.000	$2.000
Next 370 Kwh	1.2460¢	0.9450¢	0.9450¢	0.9450¢	0.9450¢	0.945¢	0.881¢
>400 Kwh	2.2430¢	1.9420¢	1.9420¢	1.9420¢	1.9420¢	1.942¢	1.878¢
Summer (Usage May-September)							
Minimum	56.0000¢	47.0000¢	47.0000¢	47.0000¢	47.0000¢	$2.000	$2.000
Next 370 Kwh	1.2460¢	0.9450¢	0.9450¢	0.9450¢	0.9450¢	0.945¢	0.881¢
>400 Kwh	3.1460¢	2.8450¢	2.8450¢	2.8450¢	2.8450¢	2.796¢	2.732¢
Transmission Rates (T)							
Winter (Usage October-April)							
Minimum	15.0000¢	15.0000¢	12.0000¢	12.0000¢	12.0000¢	12.000¢	12.000¢
Next 370 Kwh	0.5210¢	0.5210¢	0.4130¢	0.4130¢	0.4130¢	0.332¢	0.332¢
>400 Kwh	0.5210¢	0.5210¢	0.4130¢	0.4130¢	0.4130¢	0.332¢	0.332¢
Summer (Usage May-September)							
Minimum	15.0000¢	15.0000¢	12.0000¢	12.0000¢	12.0000¢	12.000¢	12.000¢
Next 370 Kwh	0.5210¢	0.5210¢	0.4130¢	0.4130¢	0.4130¢	0.332¢	0.332¢
>400 Kwh	0.5210¢	0.5210¢	0.4130¢	0.4130¢	0.4130¢	0.332¢	0.332¢
Generation Rates (G)							
Winter (Usage October-April)							
Minimum	$1.2900	$1.3600	$1.8700	$2.1900	2.5500¢	$3.120	$3.230
Next 370 Kwh	2.8690¢	3.1160¢	6.2450¢	7.2930¢	8.5120¢	10.404¢	10.761¢
>400 Kwh	5.2220¢	5.4690¢	6.2450¢	7.2930¢	8.5120¢	10.404¢	10.761¢
Summer (Usage May-September)							
Minimum	$1.2900	$1.3600	$1.9900	$2.3800	$2.7200	$3.240	$3.370
Next 370 Kwh	2.8690¢	3.1160¢	6.6370¢	7.9230¢	9.0710¢	10.815¢	11.236¢
>400 Kwh	7.3520¢	7.5990¢	6.6370¢	7.9230¢	9.0710¢	10.815¢	11.236¢

Minimum includes the 1st 30 Kwh
Red - Rate decreased
Blue - Rate increased
Green - Rate Class changed

Appendix Table 8.1k: PEPCO's PSC-Approved Residential Rate Designs for Standard Offer Service (SOS) Customers
(Schedule R), 2010–2014 (Per Kwh)

Effective Dates	1st half 2010 (D - 3/23/2010, T - 1/1/2010, G - 6/1/2010)	2nd half 2010 (D - 7/21/2010, T - 12/1/2010)	2011 (D - 12/1/2011, G - 6/1/2011)	2012 (D - 10/18/2012, G - 6/1/2012)	2013 (T - 1/11/2013, G - 6/1/2013)	2014 (D - 4/16/2014, T - 2/1/2014, G - 6/1/2014)
FC Nos.	D - 1076, T - 1002, G - 1017	D - 1076, T - 1017	T and G - 1017	D- 1087, G - 1017	T and G - 1017	D - 1103, T - 1017, G - 1017
Order Nos.	D - 15710, T - 15612, G - 15709	D - 15864, T - 16038	T - 16618, G - 16248	D - 16930, G - 16719	T - 17028, G - 17097	D - 17424, T - 17345, G - 17386
Dates Orders Issued	D - 3/2/2010, T - 11/25/2009, G - 3/1/2010	D - 6/23/2010, T - 11/2/2010	T - 11/21/2011, G - 3/11/2011	D - 9/27/2012, G - 3/1/2012	T - 1/4/213, G - 3/15/2013	D - 3/26/2014, T - 1/10/2014, G - 2/24/2014
Distribution Rates (D)						
Winter (Usage October-April)						
Customer Charge	$6.650	$6.650	$6.650	$9.250	$9.250	$13.00
First 400 Kwh	0.730¢	0.737¢	0.737¢	0.737¢	0.737¢	0.759¢
>400 Kwh	1.473¢	1.490¢	1.490¢	1.490¢	1.490¢	1.512¢
Summer (Usage May-September)						
Customer Charge	$6.650	$6.650	$6.650	$9.250	$9.250	$13.00
First 400 Kwh	0.730¢	0.737¢	0.737¢	0.737¢	0.737¢	0.759¢
>400 Kwh	2.120¢	2.144¢	2.144¢	2.144¢	2.144¢	2.166¢
Transmission Rates (T)						
Winter (Usage October-April)						
Minimum	12.000¢	12.000¢	12.000¢	12.000¢	12.000¢	12.000¢
Next 370 Kwh	0.344¢	0.479¢	0.454¢	0.454¢	0.620¢	0.685¢
>400 Kwh	0.344¢	0.479¢	0.454¢	0.454¢	0.620¢	0.685¢

Red - Rate decreased
Blue - Rate increased
Green - Rate Class changed

Appendix Table 8.1k: PEPCO's PSC-Approved Residential Rate Designs for Standard Offer Service (SOS) Customers (Schedule R), 2010–2014 (Per Kwh) (continued)

Effective Dates	1st half 2010 (D - 3/23/2010, T - 1/1/2010, G - 6/1/2010)	2nd half 2010 (D - 7/21/2010, T - 12/1/2010)	2011 (D - 12/1/2011, G - 6/1/2011)	2012 (D - 10/18/2012, G - 6/1/2012)	2013 (T - 1/11/2013, G - 6/1/2013)	2014 (D - 4/16/2014, T - 2/1/2014, G - 6/1/2014)
Summer (Usage May-September)						
Minimum	12.000¢	12.000¢	12.000¢	12.000¢	12.000¢	12.000¢
Next 370 Kwh	0.344¢	0.479¢	0.454¢	0.454¢	0.620¢	0.685¢
>400 Kwh	0.344¢	0.479¢	0.454¢	0.454¢	0.620¢	0.685¢
Generation Rates (G)						
Winter (Usage October-April)						
Minimum	$3.340	$3.340	$2.750	$2.570	$2.720	$2.250
Next 370 Kwh	10.581¢	10.581¢	9.154¢	8.571¢	9.078¢	7.104¢
>400 Kwh	10.581¢	10.581¢	9.154¢	8.571¢	9.078¢	7.104¢
Summer (Usage May-September)						
Minimum	$3.340	$3.340	$2.870	$2.610	$2.700	$2.280
Next 370 Kwh	11.147¢	11.147¢	9.567¢	8.687¢	8.990¢	7.207¢
>400 Kwh	11.147¢	11.147¢	9.567¢	8.687¢	8.990¢	7.207¢

Minimum includes the 1st 30 Kwh
Red - Rate decreased
Blue - Rate increased
Green - Rate Class changed

Appendix Table 8.2: Calculation of PEPCO's Residential Rates, 1913-2013

Year	Season	Average Monthly Usage	Months Effective in Year	Rate Type	Minimum or Customer Charge	Minimum Charge Kwh Included	Monthly Calculation	Yearly Average of Monthly Cost	Reported Cost ($/Kwh)	Reported Cost (cents/Kwh)
1913		14.7	12		$1.00	0	$2.472308	$2.472308	$0.167921	16.7921
1914		15.8	12		$1.00	0	$2.580315	$2.580315	$0.163279	16.3279
1915		17.0	12		$1.00	0	$2.696244	$2.696244	$0.158954	15.8954
1916		18.2	12		$1.00	0	$2.820678	$2.820678	$0.154925	15.4925
1917		19.5	7		$1.00	0	$1.723307	$2.687221	$0.137507	13.7507
		19.5	5		$0.75	0	$0.963914			
1918		21.0	12		$0.75	0	$2.428081	$2.428081	$0.115755	11.5755
1919		22.5	12		$0.75	0	$2.551183	$2.551183	$0.113311	11.3311
1920		24.2	8		$0.75	0	$1.788877	$2.723592	$0.112701	11.2701
		24.2	4		$0.75	0	$0.934716			
1921		25.9	8		$0.75	0	$1.969891	$2.918089	$0.112497	11.2497
		25.9	4		$0.75	0	$0.948198			
1922		27.8	3		$0.75	0	$0.749563	$2.913952	$0.104660	10.4660
		27.8	9		$0.75	0	$2.164389			
1923		29.9	3		$0.75	0	$0.760634	$3.026555	$0.101275	10.1275
		29.9	9		$0.75	0	$2.265921			
1924		32.1	12		$0.75	0	$3.187842	$3.187842	$0.099381	9.9381
1925		34.4	12		$0.75	0	$3.332249	$3.332249	$0.096783	9.6783
1926		37.0	12		$0.75	0	$3.336900	$3.336900	$0.090295	9.0295
1927		39.7	12		$0.75	0	$3.229171	$3.229171	$0.081408	8.1408
1928		42.6	12		$0.75	0	$3.262022	$3.262022	$0.076615	7.6615
1929		45.7	12		$0.75	0	$3.126400	$3.126400	$0.068411	6.8411
1930		52.8	12		$0.75	0	$3.229250	$3.229250	$0.061218	6.1218
1931		59.3	12		$0.75	0	$3.241860	$3.241860	$0.054641	5.4641
1932		67.0	1		$0.75	0	$0.297000	$3.364167	$0.050211	5.0211
		67.0	11		$0.75	0	$3.067167			
1933		71.7	2		$0.75	0	$0.587433	$3.488433	$0.048653	4.8653
		71.7	10		$0.75	0	$2.901000			
1934		72.3	1		$0.75	0	$0.291990	$3.442473	$0.047594	4.7594
		72.3	11		$0.75	0	$3.150483			
1935		83.8	1		$0.75	0	$0.318033	$3.754368	$0.044785	4.4785
		83.8	11		$0.75	0	$3.436336			

D = Distribution Rates
T = Transmission Rates
G = Generation Rates

Appendix Table 8.2: Calculation of PEPCO's Residential Rates, 1913-2013 (continued)

Year	Season	Average Monthly Usage	Months Effective in Year	Rate Type	Minimum or Customer Charge	Minimum Charge Kwh Included	Monthly Calculation	Yearly Average of Monthly Cost	Reported Cost ($/Kwh)	Reported Cost (cents/Kwh)
1936		89.2	1		$0.75	0	$0.326189	$3.842458	$0.043091	4.3091
		89.2	11		$0.75	0	$3.516269			
1937		90.3	1		$0.75	0	$0.322464	$3.647755	$0.040383	4.0383
		90.3	11		$0.75	0	$3.325291			
1938		95.4	1		$0.75	0	$0.312055	$3.536485	$0.037062	3.7062
		95.4	11		$0.75	0	$3.224430			
1939		100.9	1		$0.75	0	$0.301380	$3.489217	$0.034574	3.4574
		100.9	11		$0.75	0	$3.187837			
1940		107.1	1		$0.75	0	$0.298530	$3.492105	$0.032612	3.2612
		107.1	11		$0.75	0	$3.193575			
1941		111.8	1		$0.75	0	$0.297252	$3.522947	$0.031503	3.1503
		111.8	11		$0.75	0	$3.225695			
1942		114.6	12		$0.75	0	$3.568440	$3.568440	$0.031144	3.1144
1943		122.1	2		$0.75	0	$0.617240	$3.668440	$0.030049	3.0049
		122.1	10		$0.75	0	$3.051200			
1944		122.7	12		$0.75	0	$3.672060	$3.672060	$0.029934	2.9934
1945		129.6	12		$0.75	0	$3.796440	$3.796440	$0.029298	2.9298
1946		134.6	12		$0.75	0	$3.887196	$3.887196	$0.028875	2.8875
1947		139.7	12		$0.75	0	$3.977952	$3.977952	$0.028482	2.8482
1948		144.7	8		$0.75	0	$2.712472	$3.908943	$0.027013	2.7013
		144.7	4		$0.80	20	$1.196471			
1949		149.7	12		$0.80	20	$3.685212	$3.685212	$0.024609	2.4609
1950		154.8	12		$0.80	20	$3.781010	$3.781010	$0.024427	2.4427
1951		159.8	4		$0.80	20	$1.292269	$4.666063	$0.029194	2.9194
		159.8	8		$1.00	0	$3.373794			
1952		164.9	12		$1.00	0	$5.160018	$5.160018	$0.031297	3.1297
1953		169.9	12		$1.00	0	$5.259345	$5.259345	$0.030953	3.0953
1954		175.0	12		$1.00	0	$5.358673	$5.358673	$0.030628	3.0628
1955		180.0	4		$1.00	0	$1.819333	$5.871333	$0.032619	3.2619
		180	8		$1.25	0	$4.052000			
1956		187	12		$1.25	0	$6.233400	$6.233400	$0.033334	3.3334
1957		196	12		$1.25	0	$6.433200	$6.433200	$0.032822	3.2822

D = Distribution Rates
T = Transmission Rates
G = Generation Rates

Appendix Table 8.2: Calculation of PEPCO's Residential Rates, 1913-2013 (continued)

Year	Season	Average Monthly Usage	Months Effective in Year	Rate Type	Minimum or Customer Charge	Minimum Charge Kwh Included	Monthly Calculation	Yearly Average of Monthly Cost	Reported Cost ($/Kwh)	Reported Cost (cents/Kwh)
1958		203	12		$1.25	0	$6.588600	$6.588600	$0.032456	3.2456
1959		222	5		$1.25	0	$2.921000	$7.372767	$0.033211	3.3211
		222	7		$1.50	0	$4.451767			
1960		222	12		$1.50	0	$7.631600	$7.631600	$0.034377	3.4377
1961		239	12		$1.50	0	$8.036200	$8.036200	$0.033624	3.3624
1962		244	12		$1.50	0	$8.155200	$8.155200	$0.033423	3.3423
1963		257	9		$1.50	0	$6.348450	$8.434600	$0.032819	3.2819
		257	3		$1.50	0	$2.086150			
1964		275	12		$1.50	0	$8.773000	$8.773000	$0.031902	3.1902
1965		295	12		$1.50	0	$9.249000	$9.249000	$0.031353	3.1353
1966		318	7		$1.50	0	$5.653667	$9.529500	$0.029967	2.9967
		318	5		$1.50	0	$3.875833			
1967		324	12		$1.50	0	$9.410000	$9.410000	$0.029043	2.9043
1968		360	12		$1.50	0	$10.058000	$10.058000	$0.027939	2.7939
1969		390	12		$1.50	0	$10.598000	$10.598000	$0.027174	2.7174
1970		424	1		$1.50	0	$0.934167	$11.105400	$0.026192	2.6192
	Winter	424	5		$1.50	0	$2.802500			
	Summer	424			$1.50	0	$1.868333			
	Winter	424	6		$1.50	30	$2.750200			
	Summer	424			$1.50	30	$2.750200			
1971	Winter	437	12		$1.50	30	$6.581692	$11.282900	$0.025819	2.5819
	Summer	437			$1.50	30	$4.701208			
1972	Winter	441	7		$1.50	30	$3.789900	$12.132533	$0.027511	2.7511
	Summer	441			$1.50	30	$2.842425			
	Winter	441	5		$2.00	30	$3.300125			
	Summer	441			$2.00	30	$2.200083			
1973	Winter	492	11		$2.00	30	$7.250500	$14.513717	$0.029499	2.9499
	Summer	492			$2.00	30	$6.042083			
	Winter	492	1		$2.00	30	$1.221133			
	Summer	492			$2.00	30	$0.000000			

D = Distribution Rates
T = Transmission Rates
G = Generation Rates

Appendix Table 8.2: Calculation of PEPCO's Residential Rates, 1913-2013 (continued)

Year	Season	Average Monthly Usage	Months Effective in Year	Rate Type	Minimum or Customer Charge	Minimum Charge Kwh Included	Monthly Calculation	Yearly Average of Monthly Cost	Reported Cost ($/Kwh)	Reported Cost (cents/Kwh)
1974	Winter	458	12		$2.00	30	$8.036233	$13.776400	$0.030079	3.0079
	Summer	458			$2.00	30	$5.740167			
1975	Winter	472	11		$2.00	30	$7.068800	$14.134483	$0.029946	2.9946
	Summer	472			$2.00	30	$5.890667			
	Winter	472	1		$2.00	30	$1.175017			
	Summer	472			$2.00	30	$0.000000			
1976	Winter	482	12		$2.00	30	$8.365700	$14.477200	$0.030036	3.0036
	Summer	482			$2.00	30	$6.111500			
1977	Winter	496	2		$2.00	30	$2.109167	$20.320936	$0.040970	4.0970
	Summer	496			$2.00	30	$0.000000			
	Winter	496	10		$2.00	30	$5.272917			
	Summer	496			$2.00	30	$5.497167			
1978	Winter	500	12		$2.00	30	$7.440417	$20.531700	$0.041063	4.1063
	Summer	500			$2.00	30	$5.558333			
1979	Winter	497	7		$2.00	30	$4.226667	$21.919470	$0.044104	4.4104
	Summer	497			$2.00	30	$3.307475			
	Winter	497	5		$2.05	30	$3.277900			
	Summer	497			$2.05	30	$2.279267			
1980	Winter	533	5		$2.05	30	$4.680133	$25.733956	$0.048281	4.8281
	Summer	533			$2.05	30	$1.253033			
	Winter	533	7		$2.25	30	$4.208398			
	Summer	533			$2.25	30	$5.980270			
1981	Winter	526	12		$2.25	30	$9.694113	$29.955581	$0.056950	5.6950
	Summer	526			$2.25	30	$7.346800			
1982	Winter	528	12		$2.25	30	$17.335220	$31.034150	$0.058777	5.8777
	Summer	528			$2.25	30	$12.868175			
1983	Winter	441	12		$2.25	30	$14.730293	$31.075197	$0.070465	7.0465
	Summer	621			$2.25	30	$17.404975			

D = Distribution Rates
T = Transmission Rates
G = Generation Rates

Appendix Table 8.2: Calculation of PEPCO's Residential Rates, 1913-2013 (continued)

Year	Season	Average Monthly Usage	Months Effective in Year	Rate Type	Minimum or Customer Charge	Minimum Charge Kwh Included	Monthly Calculation	Yearly Average of Monthly Cost	Reported Cost ($/Kwh)	Reported Cost (cents/Kwh)
1984	Winter	466	6		$2.25	30	$9.014227	$30.711076	$0.065904	6.5904
	Summer	576			$2.25	30	$6.301690			
	Winter	466	3		$2.25	30	$0.000000			
	Summer	576			$2.25	30	$9.944935			
	Winter	466	2		$2.25	30	$4.640460			
	Summer	576			$2.25	30	$0.000000			
	Winter	466	1		$2.40	30	$2.337075			
	Summer	576			$2.40	30	$0.000000			
1985	Winter	465	3		$2.40	30	$6.990650	$33.001560	$0.070971	7.0971
	Summer	580			$2.40	30	$0.000000			
	Winter	465	9		$2.40	30	$9.330617			
	Summer	580			$2.40	30	$17.048875			
1986	Winter	477	12		$2.40	30	$16.907829	$34.023917	$0.071329	7.1329
	Summer	614			$2.40	30	$18.489483			
1987	Winter	471	12		$2.33	30	$16.115132	$34.518765	$0.073288	7.3288
	Summer	685			$2.33	30	$20.845792			
1988	Winter	482	12		$2.27	30	$16.231693	$34.527327	$0.071633	7.1633
	Summer	698			$2.27	30	$20.868833			
1989	Winter	497	2		$2.27	30	$4.833452	$31.815878	$0.064016	6.4016
	Summer	662			$2.27	30	$0.000000			
	Winter	497	10		$2.03	30	$10.791183			
	Summer	662			$2.03	30	$17.340225			
1990	Winter	506	7		$2.03	30	$8.839007	$32.718848	$0.064662	6.4662
	Summer	654			$2.03	30	$10.232295			
	Winter	506	5		$2.05	30	$6.671730			
	Summer	654			$2.05	30	$7.000680			
1991	Winter	501	10		$2.05	30	$10.975446	$38.245811	$0.076339	7.6339
	Summer	774			$2.05	30	$21.960200			
	Winter	501	2		$2.05	30	$4.422835			
	Summer	774			$2.05	30	$0.000000			

D = Distribution Rates
T = Transmission Rates
G = Generation Rates

Appendix Table 8.2: Calculation of PEPCO's Residential Rates, 1913-2013 (continued)

Year	Season	Average Monthly Usage	Months Effective in Year	Rate Type	Minimum or Customer Charge	Minimum Charge Kwh Included	Monthly Calculation	Yearly Average of Monthly Cost	Reported Cost ($/Kwh)	Reported Cost (cents/Kwh)
1992	Winter	517	6		$2.05	30	$9.224923	$33.580364	$0.064952	6.4952
	Summer	622			$2.05	30	$6.814077			
	Winter	517	6		$2.05	30	$7.151523			
	Summer	622			$2.05	30	$10.822180			
1993	Winter	528	12		$2.05	30	$17.194252	$41.156585	$0.077948	7.7948
	Summer	759			$2.05	30	$24.191121			
1994	Winter	530	3		$2.05	30	$7.408500	$40.983833	$0.077328	7.7328
	Summer	708			$2.05	30	$0.000000			
	Winter	530	2		$2.05	30	$2.508367			
	Summer	708			$2.05	30	$4.472293			
	Winter	530	7		$2.05	30	$7.553750			
	Summer	708			$2.05	30	$17.980973			
1995	Winter	528	6		$2.05	30	$10.017093	$43.826937	$0.083006	8.3006
	Summer	758			$2.05	30	$9.920403			
	Winter	528	6		$2.25	30	$8.281885			
	Summer	758			$2.25	30	$16.523280			
1996	Winter	555	12		$2.25	30	$20.743158	$43.967877	$0.079221	7.9221
	Summer	700			$2.25	30	$24.535125			
1997	Winter	539	12		$2.25	30	$19.902412	$43.419408	$0.080555	8.0555
	Summer	699			$2.25	30	$24.483338			
1998	Winter	515	12		$2.25	30	$18.641292	$46.660513	$0.090603	9.0603
	Summer	786			$2.25	30	$28.988850			
1999	Winter	527	12		$2.25	30	$19.271852	$47.230580	$0.089622	8.9622
	Summer	782			$2.25	30	$28.781700			
2000	Winter	557	6		$2.25	30	$11.913287	$43.136534	$0.077444	7.7444
	Summer	699			$2.25	30	$9.793335			
	Winter	557	1		$2.22	30	$0.000000			
	Summer	699			$2.22	30	$4.823773			
	Winter	557	5		$2.00	30	$7.922805			
	Summer	699			$2.00	30	$8.683335			

D = Distribution Rates
T = Transmission Rates
G = Generation Rates

Appendix Table 8.2: Calculation of PEPCO's Residential Rates, 1913-2013 (continued)

Year	Season	Average Monthly Usage	Months Effective in Year	Rate Type	Minimum or Customer Charge	Minimum Charge Kwh Included	Monthly Calculation	Yearly Average of Monthly Cost	Reported Cost ($/Kwh)	Reported Cost (cents/Kwh)
2001	Winter	560	1	D	$0.56	30	$0.729917	$42.718242	$0.076283	7.6283
		560		T	$0.15	30	$0.242608			
		560		G	$1.29	30	$1.688375			
	Summer	758		D	$0.56	30	$0.000000			
		758		T	$0.15	30	$0.000000			
		758		G	$1.29	30	$0.000000			
	Winter	560	11	D	$0.47	30	$3.536850			
		560		T	$0.15	30	$1.455650			
		560		G	$1.36	30	$10.819800			
	Summer	758		D	$0.47	30	$5.896500			
		758		T	$0.15	30	$1.642867			
		758		G	$1.36	30	$16.705675			
2002	Winter	575	12	D	$0.47	30	$4.296250	$48.686525	$0.084672	8.4672
		575		T	$0.15	30	$1.743846			
		575		G	$1.36	30	$13.101638			
	Summer	874		D	$0.47	30	$7.271583			
		874		T	$0.15	30	$1.894683			
		874		G	$1.36	30	$20.378525			
2003	Winter	598	12	D	$0.47	30	$4.556802	$44.816485	$0.074944	7.4944
		598		T	$0.15	30	$1.813747			
		598		G	$1.36	30	$13.835395			
	Summer	766		D	$0.47	30	$5.991333			
		766		T	$0.15	30	$1.660233			
		766		G	$1.36	30	$16.958975			
2004	Winter	615	12	D	$0.47	30	$4.749383	$47.887450	$0.077866	7.7866
		615		T	$0.15	30	$1.865413			
		615		G	$1.36	30	$14.377738			
	Summer	816		D	$0.47	30	$6.584042			
		816		T	$0.15	30	$1.768775			
		816		G	$1.36	30	$18.542100			

D = Distribution Rates
T = Transmission Rates
G = Generation Rates

Appendix Table 8.2: Calculation of PEPCO's Residential Rates, 1913-2013 (continued)

Year	Season	Average Monthly Usage	Months Effective in Year	Rate Type	Minimum or Customer Charge	Minimum Charge Kwh Included	Monthly Calculation	Yearly Average of Monthly Cost	Reported Cost ($/Kwh)	Reported Cost (cents/Kwh)
2005	Winter	618	1	D	$0.47	30	$0.683338	$62.445647	$0.101045	10.1045
		618		T	$0.15	30	$0.267790			
		618		G	$1.36	30	$2.067635			
	Summer	918		D	$0.47	30	$0.000000			
		918		T	$0.15	30	$0.000000			
		918		G	$1.36	30	$0.000000			
	Winter	618	11	D	$0.47	30	$4.100030			
		618		T	$0.12	30	$1.274220			
		618		G	$1.87	30	$19.295300			
	Summer	918		D	$0.47	30	$7.793167			
		918		T	$0.12	30	$1.578100			
		918		G	$1.99	30	$25.386067			
2006	Winter	602	5	D	$0.47	30	$2.629780	$65.656606	$0.109064	10.9064
		602		T	$0.12	30	$0.827453			
		602		G	$1.87	30	$12.530467			
	Summer	861		D	$0.47	30	$1.423496			
		861		T	$0.12	30	$0.296003			
		861		G	$1.99	30	$4.761956			
	Winter	602	7	D	$0.47	30	$1.972335			
		602		T	$0.12	30	$0.620590			
		602		G	$2.19	30	$10.976490			
	Summer	861		D	$0.47	30	$5.693983			
		861		T	$0.12	30	$1.184010			
		861		G	$2.38	30	$22.740043			

D = Distribution Rates
T = Transmission Rates
G = Generation Rates

Appendix Table 8.2: Calculation of PEPCO's Residential Rates, 1913-2013 (continued)

Year	Season	Average Monthly Usage	Months Effective in Year	Rate Type	Minimum or Customer Charge	Minimum Charge Kwh Included	Monthly Calculation	Yearly Average of Monthly Cost	Reported Cost ($/Kwh)	Reported Cost (cents/Kwh)
2007	Winter	631	5	D	$0.47	30	$2.817507	$76.943072	$0.121938	12.1938
		631		T	$0.12	30	$0.867377			
		631		G	$2.19	30	$15.340310			
	Summer	889		D	$0.47	30	$1.489879			
		889		T	$0.12	30	$0.305639			
		889		G	$2.38	30	$5.869881			
	Winter	631	7	D	$0.47	30	$2.113130			
		631		T	$0.12	30	$0.650533			
		631		G	$2.55	30	$13.426780			
	Summer	889		D	$0.47	30	$5.959517			
		889		T	$0.12	30	$1.222557			
		889		G	$2.72	30	$26.879963			
2008	Winter	614	2	D	$0.47	30	$1.353730	$98.833260	$0.160966	16.0966
		614		T	$0.12	30	$0.421987			
		614		G	$2.55	30	$8.710013			
	Summer	817		D	$0.47	30	$0.000000			
		817		T	$0.12	30	$0.000000			
		817		G	$2.72	30	$0.000000			
	Winter	614	3	D	$2.00	0	$1.655980			
		614		T	$0.12	30	$0.421987			
		614		G	$2.55	30	$8.710013			
	Summer	817		D	$2.00	0	$4.288277			
		817		T	$0.12	30	$0.280859			
		817		G	$2.72	30	$6.175731			
	Winter	614	7	D	$2.00	0	$2.483970			
		614		T	$0.12	30	$0.632980			
		614		G	$3.12	30	$15.969840			
	Summer	817		D	$2.00	0	$17.153107			
		817		T	$0.12	30	$1.123437			
		817		G	$3.24	30	$29.451350			

D = Distribution Rates
T = Transmission Rates
G = Generation Rates

Appendix Table 8.2: Calculation of PEPCO's Residential Rates, 1913-2013 (continued)

Year	Season	Average Monthly Usage	Months Effective in Year	Rate Type	Minimum or Customer Charge	Minimum Charge Kwh Included	Monthly Calculation	Yearly Average of Monthly Cost	Reported Cost ($/Kwh)	Reported Cost (cents/Kwh)
2009	Winter	624	5	D	$2.00	0	$3.376693	$103.355087	$0.165633	16.5633
		624		T	$0.12	30	$0.697360			
		624		G	$3.12	30	$21.639920			
	Summer	772		D	$2.00	0	$4.183427			
		772		T	$0.12	30	$0.215287			
		772		G	$3.24	30	$6.957275			
	Winter	624	5	D	$2.00	0	$0.844173			
		624		T	$0.12	30	$0.174340			
		624		G	$3.23	30	$5.595862			
	Summer	772		D	$2.00	0	$16.733707			
		772		T	$0.12	30	$0.861147			
		772		G	$3.37	30	$28.913707			
	Winter	624	2	D	$2.00	0	$1.621787			
		624		T	$0.12	30	$0.348680			
		624		G	$3.23	30	$11.191723			
	Summer	772		D	$2.00	0	$0.000000			
		772		T	$0.12	30	$0.000000			
		772		G	$3.37	30	$0.000000			

D = Distribution Rates
T = Transmission Rates
G = Generation Rates

Appendix Table 8.2: Calculation of PEPCO's Residential Rates, 1913–2013 (continued)

Year	Season	Average Monthly Usage	Months Effective in Year	Rate Type	Minimum or Customer Charge	Minimum Charge Kwh Included	Monthly Calculation	Yearly Average of Monthly Cost	Reported Cost ($/Kwh)	Reported Cost (cents/Kwh)
2010	Winter	616	3	D	$2.00	0	$2.395120	$97.998743	$0.159089	15.9089
		616		T	$0.12	30	$0.533960			
		616		G	$3.23	30	$16.572365			
	Summer	900		D	$2.00	0	$0.000000			
		900		T	$0.12	30	$0.000000			
		900		G	$3.37	30	$0.000000			
	Winter	616	2	D	$6.65	0	$1.062640			
		616		T	$0.12	30	$0.177987			
		616		G	$3.23	30	$5.524122			
	Summer	900		D	$6.65	0	$1.680833			
		900		T	$0.12	30	$0.259400			
		900		G	$3.37	30	$8.426933			
	Winter	616	2	D	$6.65	0	$0.000000			
		616		T	$0.12	30	$0.000000			
		616		G	$3.34	30	$0.000000			
	Summer	900		D	$6.65	0	$3.361667			
		900		T	$0.12	30	$0.518800			
		900		G	$3.34	30	$16.719817			
	Winter	616	4	D	$6.65	0	$2.136067			
		616		T	$0.12	30	$0.355973			
		616		G	$3.34	30	$10.890777			
	Summer	900		D	$6.65	0	$3.386333			
		900		T	$0.12	30	$0.518800			
		900		G	$3.34	30	$16.719817			
	Winter	616	1	D	$6.65	0	$1.068033			
		616		T	$0.12	30	$0.243912			
		616		G	$3.34	30	$5.445388			
	Summer	900		D	$6.65	0	$0.000000			
		900		T	$0.12	30	$0.000000			
		900		G	$3.34	30	$0.000000			

D = Distribution Rates
T = Transmission Rates
G = Generation Rates

Appendix Table 8.2: Calculation of PEPCO's Residential Rates, 1913–2013 (continued)

Year	Season	Average Monthly Usage	Months Effective in Year	Rate Type	Minimum or Customer Charge	Minimum Charge Kwh Included	Monthly Calculation	Yearly Average of Monthly Cost	Reported Cost ($/Kwh)	Reported Cost (cents/Kwh)
2011	Winter	608	5	D	$6.65	0	$4.232400	$90.296052	$0.148513	14.8513
		608		T	$0.12	30	$0.962873			
		608		G	$3.34	30	$21.499393			
	Summer	871		D	$6.65	0	$1.641353			
		871		T	$0.12	30	$0.345699			
		871		G	$3.34	30	$8.090523			
	Winter	608	6	D	$6.65	0	$2.116200			
		608		T	$0.12	30	$0.481437			
		608		G	$2.75	30	$9.276687			
	Summer	871		D	$6.65	0	$6.565413			
		871		T	$0.12	30	$1.382797			
		871		G	$2.87	30	$27.776157			
	Winter	608	1	D	$6.65	0	$1.058100			
		608		T	$0.12	30	$0.228677			
		608		G	$2.75	30	$4.638343			
	Summer	871		D	$6.65	0	$0.000000			
		871		T	$0.12	30	$0.000000			
		871		G	$2.87	30	$0.000000			

D = Distribution Rates
T = Transmission Rates
G = Generation Rates

Appendix Table 8.2: Calculation of PEPCO's Residential Rates, 1913–2013 (continued)

Year	Season	Average Monthly Usage	Months Effective in Year	Rate Type	Minimum or Customer Charge	Minimum Charge Kwh Included	Monthly Calculation	Yearly Average of Monthly Cost	Reported Cost ($/Kwh)	Reported Cost (cents/Kwh)
2012	Winter	578	5	D	$6.65	0	$4.083400	$80.564518	$0.139385	13.9385
		578		T	$0.12	30	$0.869307			
		578		G	$2.75	30	$17.637973			
	Summer	859		D	$6.65	0	$1.619913			
		859		T	$0.12	30	$0.323638			
		859		G	$2.87	30	$6.848369			
	Winter	578	5	D	$6.65	0	$1.020850			
		578		T	$0.12	30	$0.217327			
		578		G	$2.57	30	$4.128257			
	Summer	859		D	$6.65	0	$6.479653			
		859		T	$0.12	30	$1.294553			
		859		G	$2.61	30	$24.875077			
	Winter	578	2	D	$9.25	0	$2.475033			
		578		T	$0.12	30	$0.434653			
		578		G	$2.57	30	$8.256513			
	Summer	859		D	$9.25	0	$0.000000			
		859		T	$0.12	30	$0.000000			
		859		G	$2.61	30	$0.000000			
2013	Winter	623	5	D	$9.25	0	$5.173567	$83.714951	$0.134374	13.4374
		623		T	$0.12	30	$1.265533			
		623		G	$2.57	30	$17.798677			
	Summer	801		D	$9.25	0	$1.732953			
		801		T	$0.12	30	$0.408350			
		801		G	$2.61	30	$5.798898			
	Winter	623	7	D	$9.25	0	$3.880175			
		623		T	$0.12	30	$0.949150			
		623		G	$2.72	30	$14.138135			
	Summer	801		D	$9.25	0	$6.931813			
		801		T	$0.12	30	$1.633400			
		801		G	$2.70	30	$24.004300			

D = Distribution Rates
T = Transmission Rates
G = Generation Rates

Note: Usage Block data are omitted from this table to allow the table to fit on the page.

Appendix Table 8.3: PEPCO's PSC-Approved Residential All Electric (AE) Rate Designs, 1975–2014 (Per Kwh)

Effective Dates	12/13/1975	Effective Dates	12/16/1976	3/1/1977	7/24/1979
FC No.	630	FC No.	651	651	685
Order No.	5739 and 5748	Order No.	5831 and 5849	5867	6096, 7000, and 7011
Date Order Issued	11/12/1975 and 12/12/1975	Date Order Issued	10/26/1976 and 12/16/1976	3/1/1977	6/14/1979, 7/18/1979, and 7/24/1979
Winter (Usage October-April)					
Minimum (includes first 30 Kwh)	$2.00	Minimum (includes first 30 Kwh)	$2.00	$2.00	$2.05
Next 370 Kwh	4.00¢	Next 20 Kwh	3.55¢	3.55¢	3.67¢
Next 150 Kwh	2.88¢	Next 150 Kwh	2.38¢	2.38¢	2.46¢
Next 250 Kwh	2.58¢	Next 250 Kwh	2.09¢	2.09¢	2.17¢
Next 440 Kwh	2.41¢	Next 440 Kwh	2.50¢	2.50¢	2.58¢
>1,000 Kwh	1.80¢	>750 Kwh	1.80¢	1.82¢	1.88¢
Summer (Usage May-September)					
Minimum (includes first 30 Kwh)	$2.00	Minimum (includes first 30 Kwh)	$2.00	$2.00	$2.05
Next 20 Kwh	4.00¢	Next 20 Kwh	3.55¢	3.55¢	3.67¢
Next 150 Kwh	2.88¢	Next 150 Kwh	2.38¢	2.38¢	2.46¢
Next 250 Kwh	2.58¢	Next 250 Kwh	2.09¢	2.09¢	2.17¢
>450 Kwh	3.43¢	>450 Kwh	3.64¢	3.67¢	3.78¢

Appendix Table 8.3a: PEPCO's PSC-Approved Residential All Electric (AE) Rate Designs, 1980–1981 (Per Kwh)

Effective Dates	5/31/1980	Effective Dates	12/31/1981
FC No.	715	FC No.	748
Order No.	7135 and 7143	Order No.	7457 and 7458
Dates Orders Issued	5/15/1980 and 5/31/1980	Dates Orders Issued	12/30/1981
Winter (Usage October-April)			
Minimum (includes first 30 Kwh)	$2.25	Minimum (includes first 30 Kwh)	$2.25
Next 420 Kwh	2.8650¢	Next 420 Kwh	5.4230¢
Next 300 Kwh	3.0730¢	>450 Kwh	4.5730¢
>750 Kwh	2.2500¢		
Summer (Usage May-September)			
Minimum (includes first 30 Kwh)	$2.25	Minimum (includes first 30 Kwh)	$2.25
Next 420 Kwh	2.8600¢	Next 420 Kwh	5.4230¢
>450 Kwh	4.4070¢	>450 Kwh	7.5090¢

Red - Rate decreased
Blue - Rate increased
Green - Rate Class changed

Appendix Table 8.3b: PEPCO's PSC-Approved Residential All Electric (AE) Rate Designs, 1982–2000 (Per Kwh)

Effective Dates	12/31/1982	7/3/1984	10/1/1984	11/23/1984	4/2/1985	1/1/1987	1/1/1988	3/4/1989
FC No.	785	813, Phase 1	813, Phase 2	813	813	852	852	869
Order No.	7716	8056	8056	8127	8223	8696	8914	9216
Date Order Issued	12/29/1982	7/12/1984	7/12/1984	11/20/1984	4/1/1985	1/1/1987	12/30/1987	3/3/1989
Winter (Usage October-April)								
Minimum (includes first 30 Kwh)	$2.25	$2.25	$2.25	$2.40	$2.40	$2.33	$2.27	$2.03
Next 370 Kwh	5.4230¢	5.4630¢	5.4630¢	5.4630¢	5.4630¢	5.2970¢	5.1710¢	4.6180¢
>400 Kwh	5.5260¢	6.1740¢	6.2860¢	6.3450¢	6.3820¢	6.1880¢	6.0410¢	5.4920¢
Summer (Usage May-September)								
Minimum (includes first 30 Kwh)	$2.25	$2.25	$2.25	$2.40	$2.40	$2.33	$2.27	$2.03
Next 370 Kwh	5.4230¢	5.4630¢	5.4630¢	5.4630¢	5.4630¢	5.2970¢	5.1710¢	4.6150¢
>400 Kwh	8.8040¢	9.8390¢	10.0190¢	10.1160¢	10.1690¢	9.8600¢	9.6250¢	8.5920¢

Effective Dates	8/2/1990	10/29/1991	7/7/1992	3/16/1994	6/5/1994	7/11/1995	7/1/2000	8/4/2000
FC No.	889	905	912	929	929	939	945	945
Order No.	9509	9868	10044	10387	10423	10646	11576	11576
Date Order Issued	7/24/1990	10/23/1991	6/26/1992	3/4/1994	5/4/1994	6/30/1995	12/30/1999	12/30/1999
Winter (Usage October-April)								
Minimum (includes first 30 Kwh)	$2.05	$2.05	$2.05	$2.05	$2.05	$2.25	$2.22	$2.00
Next 370 Kwh	4.6770¢	4.6770¢	4.6770¢	4.7240¢	4.7360¢	5.2290¢	5.1510¢	4.6360¢
>400 Kwh	5.4170¢	5.6110¢	6.2360¢	6.4190¢	6.4610¢	7.5320¢	7.4190¢	6.6770¢
Summer (Usage May-September)								
Minimum (includes first 30 Kwh)	$2.05	$2.05	$2.05	$2.05	$2.05	$2.25	$2.22	$2.00
Next 370 Kwh	4.6770¢	4.6770¢	4.6770¢	4.7240¢	4.7360¢	5.2290¢	5.1510¢	4.6360¢
>400 Kwh	8.9170¢	9.6980¢	10.7810¢	11.0840¢	11.1590¢	12.4290¢	12.2430¢	11.0190¢

Red - Rate decreased
Blue - Rate increased
Green - Rate Class changed

Appendix Table 8.3c: PEPCO's PSC-Approved Residential All Electric (AE) Rate Designs for Standard Offer Service (SOS) Customers, 2001–2009 (Per Kwh)

PEPCO's PSC-Approved Residential All Electric (AE) Rate Designs for Standard Offer Service (SOS) Customers, 2001-2009 (per Kwh)							
Effective Dates	1/1/2001	2/8/2001	2/8/2005	6/1/2006	6/1/2007	2008 (D-2/20/2008, T-12/19/2008, G-6/1/2008)	2009 (D-11/1/2009, G-6/1/2009)
FC Nos.	945	945	945	1017	1017	D-1053, T-1002, G-1017	D-1053, G-1017
Order Nos.	11845	Pepco rate schedule	13493	G-none	G-none	D-14712, T-15136, G-none	D-15579, G-none
Dates Orders Issued	12/5/2000	1/29/2001	1/25/2005	G-none	G-none	D-1/30/2008, T-12/11/2008, G-none	D-10/16/2009, G-none
Distribution Rates (D)							
Winter (Usage October-April)							
Minimum	56.000¢	47.000¢	47.000¢	47.000¢	47.000¢	$2.000	$2.000
Next 370 Kwh	1.246¢	0.945¢	0.945¢	0.945¢	0.945¢	0.945¢	0.881¢
>400 Kwh	1.853¢	1.552¢	1.552¢	1.552¢	1.552¢	1.552¢	1.488¢
Summer (Usage May-September)							
Minimum	56.000¢	47.000¢	47.000¢	47.000¢	47.000¢	$2.000	$2.000
Next 370 Kwh	1.246¢	0.945¢	0.945¢	0.945¢	0.945¢	0.945¢	0.881¢
>400 Kwh	3.146¢	2.845¢	2.845¢	2.845¢	2.845¢	2.796¢	2.732¢
Transmission Rates (T)							
Winter (Usage October-April)							
Minimum	15.000¢	15.000¢	12.000¢	12.000¢	12.000¢	12.000¢	12.000¢

Minimum includes the first 30 Kwh
Red - Rate decreased
Blue - Rate increased

Appendix Table 8.3c: PEPCO's PSC-Approved Residential All Electric (AE) Rate Designs for Standard Offer Service (SOS) Customers, 2001–2009 (Per Kwh) (continued)

Next 370 Kwh	0.521¢	0.521¢	0.413¢	0.413¢	0.413¢	0.250¢	0.250¢
>400 Kwh	0.521¢	0.521¢	0.413¢	0.413¢	0.413¢	0.250¢	0.250¢
Summer (Usage May-September)							
Minimum	15.000¢	15.000¢	12.000¢	12.000¢	12.000¢	12.000¢	12.000¢
Next 370 Kwh	0.521¢	0.521¢	0.413¢	0.413¢	0.413¢	0.250¢	0.250¢
>400 Kwh	0.521¢	0.521¢	0.413¢	0.413¢	0.413¢	0.250¢	0.250¢
Generation Rates (G)							
Winter (Usage October-April)							
Minimum	$1.290	$1.360	$1.890	$2.230	$2.590	$3.070	$3.140
Next 370 Kwh	2.869¢	3.116¢	6.309¢	7.424¢	8.626¢	10.232¢	10.470¢
>400 Kwh	4.303¢	4.550¢	6.309¢	7.424¢	8.626¢	10.232¢	10.470¢
Summer (Usage May-September)							
Minimum	$1.290	$1.360	$1.980	$2.370	$2.730	$3.240	$3.350
Next 370 Kwh	2.869¢	3.116¢	6.610¢	7.896¢	9.102¢	10.760¢	11.151¢
>400 Kwh	7.352¢	7.599¢	6.610¢	7.896¢	9.102¢	10.760¢	11.151¢

Minimum includes the first 30 Kwh
Red - Rate decreased
Blue - Rate increased

Appendix Table 8.3d: PEPCO's PSC-Approved Residential All Electric Rate (AE) Designs for Standard Offer Service (SOS) Customers, 2010–2014 (Per Kwh)

Effective Dates	1st half 2010 (D-3/23/2010, T-1/1/2010, G-6/1/2010)	2nd half 2010 (D-7/21/2010, T-12/1/2010)	2011 (D-12/1/2011, G-6/1/2011)	2012 (D-10/18/2012, G-6/1/2012)	2013 (T-1/11/2013, G-6/1/2013)	2014 (D-4/16/2014, T-2/1/2014, G-6/1/2014)
FC Nos.	D-1076, T-1002, G-1017	D-1076, T-1017	T and G-1017	D-1087, G-1017	T and G-1017	D-1103, T-1017, G-1017
Order Nos.	D-1 5710, T-15612, G-15709	D-15864, T-16038	T-16618, G-16248	D-16930, G-16719	T-17028, G-17097	D-17424, T-17345, G-17386
Dates Orders Issued	D-3/2/2010, T-11/25/2009, G-3z/1/2010	D-6/23/2010, T-11/2/2010	T-11/21/2011, G-3/11/2011	D-9/27/2012, G-3/1/2012	T-1/4/213, G-3/15/2013	D-3/26/2014, T-1/10/2014, G-2/24/2014
Distribution Rates (D)						
Winter (Usage October-April)						
Customer Charge	$6.6500	$6.6500	$6.6500	$9.2500	$9.2500	$13.0000
First 400 Kwh	0.7960¢	0.7990¢	0.7990¢	0.8020¢	0.8020¢	0.8240¢
>400 Kwh	1.3060¢	1.3150¢	1.3150¢	1.3190¢	1.3190¢	1.3410¢
Summer (Usage May-September)						
Customer Charge	$6.6500	$6.6500	$6.6500	$9.2500	$9.2500	$13.0000
First 400 Kwh	0.7960¢	0.7990¢	0.7990¢	0.8020¢	0.8020¢	0.8240¢
>400 Kwh	2.3530¢	2.3680¢	2.3680¢	2.3760¢	2.3760¢	2.3980¢
Transmission Rates (T)						
Winter (Usage October-April)						
Minimum	12.0000¢	12.0000¢	12.0000¢	12.0000¢	12.0000¢	12.0000¢
Next 370 Kwh	0.2200¢	0.3230¢	0.3110¢	0.3110¢	0.4260¢	0.4930¢
>400 Kwh	0.2200¢	0.3230¢	0.3110¢	0.3110¢	0.4260¢	0.4930¢
Summer (Usage May-September)						
Minimum	12.0000¢	12.0000¢	12.0000¢	12.0000¢	12.0000¢	12.0000¢
Next 370 Kwh	0.2200¢	0.3230¢	0.3110¢	0.3110¢	0.4260¢	0.4930¢
>400 Kwh	0.2200¢	0.3230¢	0.3110¢	0.3110¢	0.4260¢	0.4930¢

Minimum includes the first 30 Kwh
Red - Rate decreased
Blue - Rate increased

Appendix Table 8.3d: PEPCO's PSC-Approved Residential All Electric Rate (AE) Designs for Standard Offer Service (SOS) Customers, 2010–2014 (Per Kwh) (continued)

Effective Dates	1st half 2010 (D-3/23/2010, T-1/1/2010, G-6/1/2010)	2nd half 2010 (D-7/21/2010, T-12/1/2010)	2011 (D-12/1/2011, G-6/1/2011)	2012 (D-10/18/2012, G-6/1/2012)	2013 (T-1/11/2013, G-6/1/2013)	2014 (D-4/16/2014, T-2/1/2014, G-6/1/2014)
Generation Rates (G)						
Winter (Usage October-April)						
Minimum	$3.0400	$3.0400	$2.6800	$2.4700	$2.6300	$2.2000
Next 370 Kwh	10.1190¢	10.1190¢	8.9410¢	8.2480¢	8.7690¢	7.3000¢
>400 Kwh	10.1190¢	10.1190¢	8.9410¢	8.2480¢	8.7690¢	7.3000¢
Summer (Usage May-September)						
Minimum	$3.2900	$3.2900	$2.8400	$2.5700	$2.6800	$2.2600
Next 370 Kwh	10.9600¢	10.9600¢	9.4820¢	8.5680¢	8.9240¢	7.5350¢
>400 Kwh	10.9600¢	10.9600¢	9.4820¢	8.5680¢	8.9240¢	7.5350¢

Minimum includes the first 30 Kwh
Red - Rate decreased
Blue - Rate increased

Appendix Table 8.4: PEPCO's PSC-Approved Low-Income Residential Aid Rider/Aid Discount (RAR/RAD) Rate Designs for Standard Offer (SOS) Customers, 2001-2014 (Per Kwh)

Effective Dates	1/1/2001	2/8/2001	6/11/2001	2/8/2005	6/1/2006	2/8/2007	6/1/2007
FC Nos.	945	945	945	945	1017	945	1017
Order Nos.	11845	PEPCO rate schedule	letter re RETF surcharge	13493	G-none	T-..., G-...	G-none
Dates Orders Issued	12/5/2000	1/29/2001	6/5/2001	1/25/2005	G-none	G-none	G-none
Distribution Rates (D)							
Winter (Usage October-April)							
Minimum	40.00000¢	31.00000¢	19.00000¢	19.00000¢	19.00000¢	19.00000¢	19.00000¢
Next 370 Kwh	0.89300¢	0.59700¢	0.57800¢	0.57800¢	0.57800¢	0.57800¢	0.57800¢
>400 Kwh	2.24300¢	1.94700¢	1.94700¢	1.94700¢	1.94700¢	1.94700¢	1.94700¢
Summer (Usage May-September)							
Minimum	40.00000¢	31.00000¢	19.00000¢	19.00000¢	19.00000¢	19.00000¢	19.00000¢
Next 370 Kwh	0.89300¢	0.59700¢	0.15100¢	0.15100¢	0.15100¢	0.15100¢	0.15100¢
>400 Kwh	3.14600¢	2.85000¢	2.85000¢	2.85000¢	2.85000¢	2.85000¢	2.85000¢
Transmission Rates (T)							
Winter (Usage October-April)							
Minimum	11.00000¢	11.00000¢	8.00000¢	8.00000¢	8.00000¢	5.00000¢	5.00000¢
Next 370 Kwh	0.37300¢	0.37300¢	0.36500¢	0.36500¢	0.36500¢	0.25700¢	0.25700¢
>400 Kwh	0.52100¢	0.52100¢	0.52100¢	0.52100¢	0.52100¢	0.41300¢	0.41300¢
Summer (Usage May-September)							
Minimum	11.00000¢	11.00000¢	8.00000¢	8.00000¢	8.00000¢	5.00000¢	5.00000¢
Next 370 Kwh	0.37300¢	0.37300¢	0.18700¢	0.18700¢	0.18700¢	0.07900¢	0.07900¢
>400 Kwh	0.52100¢	0.52100¢	0.52100¢	0.52100¢	0.52100¢	0.41300¢	0.41300¢
Generation Rates (G)							
Winter (Usage October-April)							
Minimum	92.00000¢	99.00000¢	71.00000¢	71.00000¢	71.00000¢	83.00000¢	$1.20000
Next 370 Kwh	2.05600¢	2.30300¢	2.26000¢	2.26000¢	2.26000¢	2.65900¢	3.89300¢
>400 Kwh	5.22200¢	5.46900¢	5.46900¢	5.46900¢	5.46900¢	6.22300¢	7.45700¢
Summer (Usage May-September)							
Minimum	92.00000¢	99.00000¢	71.00000¢	71.00000¢	71.00000¢	83.00000¢	$1.17000
Next 370 Kwh	2.05600¢	2.30300¢	1.27600¢	1.27600¢	1.27600¢	1.55600¢	2.71300¢
>400 Kwh	7.35200¢	7.59900¢	7.59900¢	7.59900¢	7.59900¢	8.58100¢	9.10900¢

Red - Rate decreased
Blue - Rate increased

Appendix Table 8.4: PEPCO's PSC-Approved Low-Income Residential Aid Rider/Aid Discount (RAR/RAD) Rate Designs for Standard Offer (SOS) Customers, 2001-2014 (Per Kwh) (continued)

Effective Dates	2008 (D-2/20/2008, T - 12/19/2008, G-6/1/2008)	2009 (D-11/1/2009, G-6/1/2009)	1st half 2010 (D-3/23/2010, T-1/1/2010, G-6/1/2010)	2nd half 2010 (D-7/21/2010, T-12/1/2010)	2011 (D-12/1/2011, G-6/1/2011)	2012 (D-10/18/2012, G-6/1/2012)	2013 (T-1/11/2013, G-6/1/2013)	2014 (D-4/16/2014, T-2/1/2014, G-6/1/2014
FC Nos.	D-1053, T-1002, G-1017	D-1053, G-1017	D-1076, T-1002, G-1017	D-1076, T-1017	T-1017, G-1017	D-1087, G-1017	T-1017, G-1017	D -1103, T-1017, G-1017
Order Nos.	D-14712, T-15136, G-none	D-15579, G-none	D-15710, T-15612, G-15709	D-15864, T-16038	T-16618, G-16248	D-16930, G-16719	T-17028, G-17097	D-17424, T-17345, G-17386
Dates Orders Issued	D-1/30/2008, T-12/11/2008, G- none	D-10/16/2009, G-none	D-3/2/2010, T-11/25/2009, G-3/1/2010	D-6/23/2010, T-11/2/2010	T-11/21/2011, G-3/11/2011	D-9/27/2012, G-3/1/2012	T-1/4/2013, G-3/15/2013	D-3/26/2014, T-1/10/2014, G-2/24/2014
Distribution Rates (D)								
Winter (Usage October-April)								
Minimum	19.00000¢	19.00000¢	$2.50000	$2.50000	$2.50000	$5.10000	$5.10000	$8.85000
Next 370 Kwh	0.57800¢	0.51400¢	0.73000¢	0.73700¢	0.73700¢	0.73700¢	0.73700¢	0.75900¢
>400 Kwh	1.94700¢	1.88300¢	1.47300¢	1.49000¢	1.49000¢	1.49000¢	1.49000¢	1.51200¢
Summer (Usage May-September)								
Minimum	19.00000¢	19.00000¢	250.00000¢	$2.50000	$2.50000	$5.10000	$5.10000	$8.85000
Next 370 Kwh	0.15100¢	0.08700¢	0.73000¢	0.73700¢	0.73700¢	0.73700¢	0.73700¢	0.75900¢
>400 Kwh	2.85000¢	2.78600¢	2.12000¢	2.14400¢	2.14400¢	2.14400¢	2.14400¢	2.16600¢
Transmission Rates (T)								
Winter (Usage October-April)								
Minimum	5.00000¢	5.00000¢	5.00000¢	5.00000¢	5.00000¢	5.00000¢	5.00000¢	5.00000¢
Next 370 Kwh	0.26400¢	0.26400¢	0.29000¢	0.49400¢	0.35600¢	0.35600¢	0.53200¢	0.78900¢
>400 Kwh	0.42100¢	0.42100¢	0.44600¢	0.65000¢	0.51200¢	0.51200¢	0.68800¢	0.94500¢
Summer (Usage May-September)								
Minimum	5.00000¢	5.00000¢	5.00000¢	5.00000¢	5.00000¢	5.00000¢	5.00000¢	5.00000¢
Next 370 Kwh	0.08700¢	0.08700¢	0.11200¢	0.17300¢	0.17800¢	0.17800¢	0.35400¢	0.61100¢
>400 Kwh	0.42100¢	0.42100¢	0.44600¢	0.35500¢	0.51200¢	0.51200¢	0.68800¢	0.94500¢
Generation Rates (G)								
Winter (Usage October-April)								
Minimum	$1.75000	$1.86000	$1.80000	$1.80000	$1.39000	$1.20000	$1.35000	$0.87000
Next 370 Kwh	5.73700¢	6.08000¢	5.88900¢	5.88900¢	4.51600¢	3.90000¢	4.39200¢	2.80200¢
>400 Kwh	9.29600¢	9.63900¢	9.44800¢	9.44800¢	8.07500¢	7.45900¢	7.95100¢	6.36100¢
Summer (Usage May-September)								
Minimum	$1.69000	$1.81000	$1.78000	$1.78000	$1.32000	$1.05000	$1.13000	$0.72000
Next 370 Kwh	4.42900¢	4.84500¢	4.74100¢	4.74100¢	3.19000¢	2.29000¢	2.57100¢	0.11910¢
>400 Kwh	10.82500¢	11.24100¢	11.13700¢	11.13700¢	9.58600¢	8.68600¢	8.96700¢	7.58700¢

Minimum includes the first 30 Kwh
Red - Rate decreased
Blue - Rate increased

Appendix Table 8.4a: PEPCO's PSC-Approved Residential Aid Rider/Aid Discount (RAR/RAD) Rate Designs for SOS Customers, 2001-2009 (Per Kwh)

Effective Dates	1/1/2001	2/8/2001	6/11/2001	2/8/2005	6/1/2006	2/8/2007	6/1/2007	2008 (D-2/20/2008, T-12/19/2008, G-6/1/2008)	2009 (D-11/1/2009, G-6/1/2009)
FC Nos.	945	945	945	945	1017	945	1017	D-1053, T-1002, G-1017	D-1053, G-1017
Order Nos.	11845	PEPCO rate schedule	letter re RETF surcharge	13493	G-none	T-..., G-...	G-none	D-14712, T-15136, G-none	D-15579, G-none
Dates Orders Issued	12/5/2000	1/29/2001	6/5/2001	1/25/2005	G-none		G-none	D-1/30/2008, T-12/11/2008, G- none	D-10/16/2009, G-none
Distribution Rates (D)									
Winter (Usage October-April)									
Minimum	40.0000¢	31.0000¢	19.0000¢	19.0000¢	19.0000¢	19.0000¢	19.0000¢	19.0000¢	19.0000¢
Next 370 Kwh	0.8930¢	0.5970¢	0.5780¢	0.5780¢	0.5780¢	0.5780¢	0.5780¢	0.5780¢	0.5140¢
401-700 Kwh	2.2430¢	1.9470¢	1.9470¢	1.9470¢	1.9470¢	1.9470¢	1.9470¢	1.9470¢	1.8830¢
>700 Kwh	2.2430¢	1.9470¢	1.9470¢	1.9470¢	1.9470¢	1.9470¢	1.9470¢	1.9470¢	1.8830¢
Summer (Usage May-September)									
Minimum	40.0000¢	31.0000¢	19.0000¢	19.0000¢	19.0000¢	19.0000¢	19.0000¢	19.0000¢	19.0000¢
Next 370 Kwh	0.8930¢	0.5970¢	0.1510¢	0.1510¢	0.1510¢	0.1510¢	0.1510¢	0.1510¢	0.0870¢
401-700 Kwh	3.1460¢	2.8500¢	2.8500¢	2.8500¢	2.8500¢	2.8500¢	2.8500¢	2.8500¢	2.7860¢
>700 Kwh	3.1460¢	2.8500¢	2.8500¢	2.8500¢	2.8500¢	2.8500¢	2.8500¢	2.8500¢	2.7860¢
Transmission Rates (T)									
Winter (Usage October-April)									
Minimum	11.0000¢	11.0000¢	8.0000¢	8.0000¢	8.0000¢	5.0000¢	5.0000¢	5.0000¢	5.0000¢
Next 370 Kwh	0.3730¢	0.3730¢	0.3650¢	0.3650¢	0.3650¢	0.2570¢	0.2570¢	0.2640¢	0.2640¢
401-700 Kwh	0.5210¢	0.5210¢	0.5210¢	0.5210¢	0.5210¢	0.4130¢	0.4130¢	0.4210¢	0.4210¢
>700 Kwh	0.5210¢	0.5210¢	0.5210¢	0.5210¢	0.5210¢	0.4130¢	0.4130¢	0.4210¢	0.4210¢
Summer (Usage May-September)									
Minimum	11.0000¢	11.0000¢	8.0000¢	8.0000¢	8.0000¢	5.0000¢	5.0000¢	5.0000¢	5.0000¢
Next 370 Kwh	0.3730¢	0.3730¢	0.1870¢	0.1870¢	0.1870¢	0.0790¢	0.0790¢	0.0870¢	0.0870¢
401-700 Kwh	0.5210¢	0.5210¢	0.5210¢	0.5210¢	0.5210¢	0.4130¢	0.4130¢	0.4210¢	0.4210¢
>700 Kwh	0.5210¢	0.5210¢	0.5210¢	0.5210¢	0.5210¢	0.4130¢	0.4130¢	0.4210¢	0.4210¢

Minimum includes the first 30 Kwh
Red - Rate decreased
Blue - Rate increased

Appendix Table 8.4a: PEPCO's PSC-Approved Residential Aid Rider/Aid Discount (RAR/RAD) Rate Designs for SOS Customers, 2001-2009 (Per Kwh)

Effective Dates	1/1/2001	2/8/2001	6/11/2001	2/8/2005	6/1/2006	2/8/2007	6/1/2007	2008 (D-2/20/2008, T-12/19/2008, G-6/1/2008)	2009 (D-11/1/2009, G-6/1/2009)
Generation Rates (G)									
Winter (Usage October-April)									
Minimum	92.0000¢	99.0000¢	71.0000¢	71.0000¢	71.0000¢	83.0000¢	$1.2000	$1.7500	$1.8600
Next 370 Kwh	2.0560¢	2.3030¢	2.2600¢	2.2600¢	2.2600¢	2.6590¢	3.8930¢	5.7370¢	6.0800¢
401-700 Kwh	5.2220¢	5.4690¢	5.4690¢	5.4690¢	5.4690¢	6.2230¢	7.4570¢	9.2960¢	9.6390¢
>700 Kwh	5.2220¢	5.4690¢	5.4690¢	5.4690¢	5.4690¢	6.2230¢	7.4570¢	9.2960¢	9.6390¢
Summer (Usage May-September)									
Minimum	92.0000¢	99.0000¢	71.0000¢	71.0000¢	71.0000¢	83.0000¢	$1.1700	$1.6900	$1.8100
Next 370 Kwh	2.0560¢	2.3030¢	1.2760¢	1.2760¢	1.2760¢	1.5560¢	2.7130¢	4.4290¢	4.8450¢
401-700 Kwh	7.3520¢	7.5990¢	7.5990¢	7.5990¢	7.5990¢	8.5810¢	9.1090¢	10.8250¢	11.2410¢
>700 Kwh	7.3520¢	7.5990¢	7.5990¢	7.5990¢	7.5990¢	8.5810¢	9.1090¢	10.8250¢	11.2410¢

Minimum includes the first 30 Kwh
Red - Rate decreased
Blue - Rate increased

Appendix Table 8.4b: PEPCO's PSC-Approved Residential Aid Rider/Aid Discount (RAR/RAD) Rate Designs for SOS Customers, 2010-2014 (Per Kwh)

Effective Dates	1st half 2010 (D-3/23/2010, T-1/1/2010, G-6/1/2010)	2nd half 2010 (D - 7/21/2010, T-12/1/2010)	2011 (D - 12/1/2011, G - 6/1/2011)	2012 (D - 10/18/2012, G - 6/1/2012)	2013 (T - 1/11/2013, G - 6/1/2013)	2014 (D-4/16/2014, T-2/1/2014, G-6/1/2014
FC Nos.	D - 1076, T - 1002, G - 1017	D - 1076, T - 1017	T - 1017, G - 1017	D - 1087, G - 1017	T - 1017, G - 1017	D - 1103, T - 1017, G - 1017
Order Nos.	D - 15710, T - 15612, G - 15709	D - 15864, T - 16038	T - 16618, G - 16248	D - 16930, G - 16719	T - 17028, G - 17097	D - 17424, T - 17345, G - 17386
Dates Orders Issued	D - 3/2/2010, T - 11/25/2009, G - 3/1/2010	D - 6/23/2010, T - 11/2/2010	T - 11/21/2011, G - 3/11/2011	D - 9/27/2012, G - 3/1/2012	T - 1/4/213, G - 3/15/2013	D - 3/26/2014, T - 1/10/2014, G - 2/24/2014
Distribution Rates (D)						
Winter (Usage October-April)						
Customer Charge	$2.50000	$2.50000	$2.50000	$5.10000	$5.10000	$8.85000
First 400 Kwh	0.73000¢	0.73700¢	0.73700¢	0.73700¢	0.73700¢	0.75900¢
>400 Kwh	1.47300¢	1.49000¢	1.49000¢	1.49000¢	1.49000¢	1.51200¢
Summer (Usage May-September)						
Customer Charge	250.00000¢	$2.50000	$2.50000	$5.10000	$5.10000	$8.85000
First 400 Kwh	0.73000¢	0.73700¢	0.73700¢	0.73700¢	0.73700¢	0.75900¢
>400 Kwh	2.12000¢	2.14400¢	2.14400¢	2.14400¢	2.14400¢	2.16600¢
Transmission Rates (T)						
Winter (Usage October-April)						
Minimum	5.00000¢	5.00000¢	5.00000¢	5.00000¢	5.00000¢	5.00000¢
Next 370 Kwh	0.29000¢	0.49400¢	0.35600¢	0.35600¢	0.53200¢	0.78900¢
>400 Kwh	0.44600¢	0.65000¢	0.51200¢	0.51200¢	0.68800¢	0.94500¢
Summer (Usage May-September)						
Minimum	5.00000¢	5.00000¢	5.00000¢	5.00000¢	5.00000¢	5.00000¢
Next 370 Kwh	0.11200¢	0.17300¢	0.17800¢	0.17800¢	0.35400¢	0.61100¢
>400 Kwh	0.44600¢	0.35500¢	0.51200¢	0.51200¢	0.68800¢	0.94500¢

Red - Rate decreased
Blue - Rate increased
Green - Rate Class changed

Appendix Table 8.4b: PEPCO's PSC-Approved Residential Aid Rider/Aid Discount (RAR/RAD) Rate Designs for SOS Customers, 2010-2014 (Per Kwh)

Effective Dates	1st half 2010 (D-3/23/2010, T-1/1/2010, G-6/1/2010)	2nd half 2010 (D - 7/21/2010, T-12/1/2010)	2011 (D - 12/1/2011, G - 6/1/2011)	2012 (D - 10/18/2012, G - 6/1/2012)	2013 (T - 1/11/2013, G - 6/1/2013)	2014 (D-4/16/2014, T-2/1/2014, G-6/1/2014
Generation Rates (G)						
Winter (Usage October-April)						
Minimum	$1.80000	$1.80000	$1.39000	$1.20000	$1.35000	$0.87000
Next 370 Kwh	5.88900¢	5.88900¢	4.51600¢	3.90000¢	4.39200¢	2.80200¢
>400 Kwh	9.44800¢	9.44800¢	8.07500¢	7.45900¢	7.95100¢	6.36100¢
Summer (Usage May-September)						
Minimum	$1.78000	$1.78000	$1.32000	$1.05000	$1.13000	$0.72000
Next 370 Kwh	4.74100¢	4.74100¢	3.19000¢	2.29000¢	2.57100¢	0.11910¢
>400 Kwh	11.13700¢	11.13700¢	9.58600¢	8.68600¢	8.96700¢	7.58700¢

Minimum includes the first 30 Kwh
Red - Rate decreased
Blue - Rate increased

Appendix Table 8.5: PEPCO's PSC-Approved Low-Income All Electric Residential Aid Rider/Aid Discount (RAR-AE/RAD-AE)
Rate Designs, 1982-2014 (Per Kwh)

Effective Dates	12/31/1982	7/3/1984	10/1/1984	11/23/1984	4/2/1985	1/1/1987	1/1/1988	3/4/1989
FC No.	785	813, Phase 1	813, Phase 2	813	813	852	852	869
Order No.	7716	8056	8056	8127	8223	8696	8914	9216
Date Order Issued	12/29/1982	7/12/1984	7/12/1984	11/20/1984	4/1/1985	1/1/1987	12/30/1987	3/3/1989
Winter (Usage October-April)								
Minimum (includes first 30 Kwh)	$2.25	$2.25	$2.25	$2.25	$2.25	$2.25	$2.25	$1.52
Next 370 Kwh	5.4230¢	5.4630¢	5.4630¢	5.4630¢	5.4630¢	5.4630¢	5.4630¢	3.4640¢
Next 50 Kwh	5.4230¢	5.4630¢	5.4630¢	5.4630¢	5.4630¢	5.4630¢	5.4630¢	5.4920¢
>450 Kwh	4.5730¢	4.6140¢	4.6140¢	4.6140¢	4.6140¢	4.6140¢	4.6140¢	5.4920¢
Summer (Usage May-September)								
Minimum (includes first 30 Kwh)	$2.25	$2.25	$2.25	$2.25	$2.25	$2.18	$2.13	$1.52
Next 370 Kwh	5.4230¢	5.4630¢	5.4630¢	5.4630¢	5.4630¢	5.2970¢	5.1710¢	3.4610¢
Next 50 Kwh	5.4230¢	5.4630¢	5.4630¢	5.4630¢	5.4630¢	5.2970¢	5.1710¢	8.5920¢
>450 Kwh	7.5090¢	7.5750¢	7.5750¢	7.5750¢	7.5750¢	7.3450¢	7.1700¢	8.5920¢

Red - Rate decreased
Blue - Rate increased

Appendix Table 8.5: PEPCO's PSC-Approved Low-Income All Electric Residential Aid Rider/Aid Discount (RAR-AE/RAD-AE)
Rate Designs, 1982-2014 (Per Kwh) (continued)

Effective Dates	8/2/1990	10/29/1991	7/7/1992	3/16/1994	6/5/1994	7/11/1995	7/1/2000	8/4/2000
FC No.	889	905	912	929	929	939	945	945
Order No.	9509	9868	10044	10387	10423	10646	11576	11576
Date Order Issued	7/24/1990	10/23/1991	6/26/1992	3/4/1994	5/4/1994	6/30/1995	12/30/1999	12/30/1999
Winter (Usage October-April)								
Minimum (includes first 30 Kwh)	$1.54	$1.54	$1.54	$1.51	$1.51	$1.63	$1.61	$1.45
Next 370 Kwh	3.5080¢	3.5080¢	3.5080¢	3.4080¢	3.4080¢	3.7420¢	3.6860¢	3.3170¢
Next 50 Kwh	5.4170¢	5.6110¢	6.2360¢	6.4190¢	6.4610¢	7.5320¢	7.4190¢	6.6770¢
>450 Kwh	5.4170¢	5.6110¢	6.2360¢	6.4190¢	6.4610¢	7.5320¢	7.4190¢	6.6770¢
Summer (Usage May-September)								
Minimum (includes first 30 Kwh)	$1.54	$1.54	$1.54	$1.51	$1.51	$2.25	$1.61	$1.45
Next 370 Kwh	3.5080¢	3.5080¢	3.5080¢	3.4080¢	3.4080¢	3.7420¢	3.6860¢	3.3170¢
Next 50 Kwh	8.9170¢	9.6980¢	10.7810¢	11.0840¢	11.1590¢	12.4290¢	12.2430¢	11.0190¢
>450 Kwh	8.9170¢	9.6980¢	10.7810¢	11.0840¢	11.1590¢	12.4290¢	12.2430¢	11.0190¢

Red - Rate decreased
Blue - Rate increased

Appendix Table 8.5a: PEPCO's PSC-Approved Residential Aid Rider/Aid Discount All Electric (RAR-AE/RAD-AE) Rate Designs, 1982-1988 (Per Kwh)

Effective Dates	12/31/1982	7/3/1984	10/1/1984	11/23/1984	4/2/1985	1/1/1987	1/1/1988
FC No.	785	813, Phase 1	813, Phase 2	813	813	852	852
Order No.	7716	8056	8056	8127	8223	8696	8914
Date Order Issued	12/29/1982	7/12/1984	7/12/1984	11/20/1984	4/1/1985	1/1/1987	12/30/1987
Winter (Usage October-April)							
Minimum (including first 30 Kwh)	$2.25	$2.25	$2.25	$2.25	$2.25	$2.25	$2.25
Next 370 Kwh	5.4230¢	5.4630¢	5.4630¢	5.4630¢	5.4630¢	5.4630¢	5.4630¢
Next 50 Kwh	5.4230¢	5.4630¢	5.4630¢	5.4630¢	5.4630¢	5.4630¢	5.4630¢
>450 Kwh	4.5730¢	4.6140¢	4.6140¢	4.6140¢	4.6140¢	4.6140¢	4.6140¢
Summer (Usage May-September)							
Minimum (including first 30 Kwh)	$2.25	$2.25	$2.25	$2.25	$2.25	$2.18	$2.13
Next 370 Kwh	5.4230¢	5.4630¢	5.4630¢	5.4630¢	5.4630¢	5.2970¢	5.1710¢
Next 50 Kwh	5.4230¢	5.4630¢	5.4630¢	5.4630¢	5.4630¢	5.2970¢	5.1710¢
>450 Kwh	7.5090¢	7.5750¢	7.5750¢	7.5750¢	7.5750¢	7.3450¢	7.1700¢

Red - Rate decreased
Blue - Rate increased

Appendix Table 8.5b: PEPCO's PSC-ApprovedResidential Aid Rider/Aid Discount All Electric (RAR-AE/RAD-AE) Rate Designs, 1989-2000 (Per Kwh)

Effective Dates	3/4/1989	8/2/1990	10/29/1991	7/7/1992	3/16/1994	6/5/1994	7/11/1995	7/1/2000	8/4/2000
FC No.	869	889	905	912	929	929	939	945	945
Order No.	9216	9509	9868	10044	10387	10423	10646	11576	11576
Date Order Issued	3/3/1989	7/24/1990	10/23/1991	6/26/1992	3/4/1994	5/4/1994	6/30/1995	12/30/1999	12/30/1999
Winter (Usage October-April)									
Minimum (including first 30 Kwh)	$1.52	$1.54	$1.54	$1.54	$1.51	$1.51	$1.63	$1.61	$1.45
Next 370 Kwh	3.4640¢	3.5080¢	3.5080¢	3.5080¢	3.4080¢	3.4080¢	3.7420¢	3.6860¢	3.3170¢
>400 Kwh	5.4920¢	5.4170¢	5.6110¢	6.2360¢	6.4190¢	6.4610¢	7.5320¢	7.4190¢	6.6770¢
Summer (Usage May-September)									
Minimum (including first 30 Kwh)	$1.52	$1.54	$1.54	$1.54	$1.51	$1.51	$2.25	$1.61	$1.45
Next 370 Kwh	3.4610¢	3.5080¢	3.5080¢	3.5080¢	3.4080¢	3.4080¢	3.7420¢	3.6860¢	3.3170¢
>400 Kwh	8.5920¢	8.9170¢	9.6980¢	10.7810¢	11.0840¢	11.1590¢	12.4290¢	12.2430¢	11.0190¢

Red - Rate decreased
Blue - Rate increased

Appendix Table 8.5c: PEPCO's PSC-Approved Low-Income All Electric Residential Aid Rider/Aid Discount (RAR-AE/RAD-AE)
Rate Designs for Standard Offer Service (SOS) Customers, 2001-2014 (Per Kwh)

Effective Dates	1/1/2001	2/8/2001	6/11/2001	2/8/2005	6/1/2006	2/8/2007	6/1/2007	2008 (D-2/20/2008, T-12/19/2008, G-6/1/2008)
FC Nos.	945	945	945	945	1017	945	1017	D-1053, T-1002, G-1017
Order Nos.	11845	PEPCO rate schedule	letter re RETF surcharge	13493	G-none	T-..., G-...	G-none	D-14712, T-15136, G-none
Dates Orders Issued	12/5/2000	1/29/2001	6/5/2001	1/25/2005	G-none		G-none	D-1/30/2008, T-12/11/2008, G-none
Distribution Rates (D)								
Winter (Usage October-April)								
Minimum	40.00¢	19.00¢	19.00¢	19.00¢	19.00¢	19.00¢	19.00¢	19.00¢
Next 370 Kwh	0.8930¢	0.1880¢	0.1880¢	0.1880¢	0.1880¢	0.1880¢	0.1880¢	0.1880¢
401-700 Kwh	1.8530¢	0.7700¢	0.7700¢	0.7700¢	0.7700¢	0.7700¢	0.7700¢	0.7700¢
> 700 Kwh	1.8530¢	1.5570¢	1.5570¢	1.5570¢	1.5570¢	1.5570¢	1.5570¢	1.5570¢
Summer (Usage May-September)								
Minimum	40.00¢	19.00¢	19.00¢	19.00¢	19.00¢	19.00¢	19.00¢	19.00¢
Next 370 Kwh	0.8930¢	0.1880¢	0.1880¢	0.1880¢	0.1880¢	0.1880¢	0.1880¢	0.1880¢
401-700 Kwh	3.1460¢	2.0400¢	2.0400¢	2.0400¢	2.0400¢	2.0400¢	2.0400¢	2.0400¢
> 700 Kwh	3.1460¢	2.8500¢	2.8500¢	2.8500¢	2.8500¢	2.8500¢	2.8500¢	2.8500¢
Transmission Rates (T)								
Winter (Usage October-April)								
Minimum	11.00¢	8.00¢	8.00¢	8.00¢	8.00¢	5.00¢	5.00¢	5.00¢
Next 370 Kwh	0.3730¢	0.2020¢	0.2020¢	0.2020¢	0.2020¢	0.0940¢	0.0940¢	0.0400¢
401-700 Kwh	0.5210¢	0.3000¢	0.3000¢	0.3000¢	0.3000¢	0.1920¢	0.1920¢	0.1370¢
> 700 Kwh	0.5210¢	0.5210¢	0.5210¢	0.5210¢	0.5210¢	0.4130¢	0.4130¢	0.3580¢
Summer (Usage May-September)								
Minimum	11.00¢	8.00¢	8.00¢	8.00¢	8.00¢	5.00¢	5.00¢	5.00¢
Next 370 Kwh	0.3730¢	0.2020¢	0.2020¢	0.2020¢	0.2020¢	0.0940¢	0.0940¢	0.0400¢
401-700 Kwh	0.5210¢	0.3870¢	0.3870¢	0.3870¢	0.3870¢	0.2790¢	0.2790¢	0.2240¢
> 700 Kwh	0.5210¢	0.5210¢	0.5210¢	0.5210¢	0.5210¢	0.4130¢	0.4130¢	0.3580¢
Generation Rates (G)								
Winter (Usage October-April)								
Minimum	92.00¢	71.00¢	71.00¢	71.00¢	71.00¢	83.00¢	$1.19	$1.65
Next 370 Kwh	2.0560¢	1.3610¢	1.3610¢	1.3610¢	1.3610¢	1.6510¢	2.8600¢	4.3880¢
401-700 Kwh	4.3030¢	2.7220¢	2.7220¢	5.7070¢	5.7070¢	3.1650¢	4.3740¢	5.9020¢
> 700 Kwh	4.3030¢	4.5500¢	4.5500¢	4.5500¢	4.5500¢	5.2060¢	6.4150¢	7.9430¢
Summer (Usage May-September)								
Minimum	92.00¢	71.00¢	71.00¢	71.00¢	71.00¢	83.00¢	$1.19	$1.65
Next 370 Kwh	2.0560¢	1.3160¢	1.3160¢	1.3610¢	1.3610¢	1.6510¢	2.8630¢	4.4120¢
401-700 Kwh	7.3520¢	5.7070¢	5.7070¢	5.7070¢	5.7070¢	6.4760¢	7.6880¢	9.2370¢
> 700 Kwh	7.3520¢	7.5990¢	7.5990¢	4.5500¢	4.5500¢	8.5810¢	9.0870¢	10.6360¢

Red - Rate decreased
Blue - Rate increased

Appendix Table 8.5c: PEPCO's PSC-Approved Low-Income All Electric Residential Aid Rider/Aid Discount (RAR-AE/RAD-AE)
Rate Designs for Standard Offer Service (SOS) Customers, 2001-2014 (Per Kwh) (continued)

Effective Dates	2009 (D-11/1/2009, G-6/1/2009)	1st half 2010 (D- 3/23/2010, T-1/1/2010, G - 6/1/2010)	2nd half 2010 (D-7/21/2010, T-12/1/2010)	2011 (D-12/1/2011, G-6/1/2011)	2012 (D-10/18/2012, G-6/1/2012)	2013 (T-1/11/2013, G-6/1/2013)	2014 (D-4/16/2014, T-2/1/2014, G-6/1/2014
FC Nos.	D-1053, G-1017	D-1076, T-1002, G-1017	D-1076, T-1017	T and G-1017	D-1087, G-1017	T and G-1017	D-1103, T-1017, G-1017
Order Nos.	D-15579, G-none	D-15710, T -15612, G-15709	D-15864, T-16038	T-16618, G-16248	D-16930, G-16719	T-17028, G-17097	D-17424, T-17345, G-17386
Dates Orders Issued	D-10/16/2009, G-none	D-3/2/2010, T-11/25/2009, G-3/1/2010	D-6/23/2010, T-11/2/2010	T-11/21/2011, G-3/11/2011	D-9/27/2012, G-3/1/2012	T-1/4/213, G-3/15/2013	D-3/26/2014, T-1/10/2014, G-2/24/2014
Distribution Rates (D)							
Winter (Usage October-April)							
Minimum	19.00¢	$2.50	$2.50	$2.50	$5.10	$5.10	$5.10
Next 370 Kwh	0.1240¢	0.2630¢	0.2810¢	0.2810¢	0.2810¢	0.2810¢	0.2810¢
401-700 Kwh	0.7060¢	1.3060¢	1.3150¢	1.3150¢	1.3150¢	1.3150¢	1.3150¢
> 700 Kwh	1.4930¢	1.3060¢	1.3150¢	1.3150¢	1.3150¢	1.3150¢	1.3150¢
Summer (Usage May-September)							
Minimum	19.00¢	$2.50	$2.50	$2.50	$5.10	$5.10	$5.10
Next 370 Kwh	0.1240¢	0.2630¢	0.2810¢	0.2810¢	0.2810¢	0.2810¢	0.2810¢
401-700 Kwh	1.9760¢	2.3530¢	2.3680¢	2.3680¢	2.3680¢	2.3680¢	2.3680¢
> 700 Kwh	2.7860¢	2.3530¢	2.3680¢	2.3680¢	2.3680¢	2.3680¢	2.3680¢
Transmission Rates (T)							
Winter (Usage October-April)							
Minimum	5.00¢	5.00¢	5.00¢	5.00¢	5.00¢	5.00¢	5.00¢
Next 370 Kwh	0.0400¢	0.0320¢	0.1730¢	0.0960¢	0.0960¢	0.2060¢	0.3840¢
401-700 Kwh	0.1370¢	0.1280¢	0.2680¢	0.1900¢	0.1900¢	0.3000¢	0.4780¢
> 700 Kwh	0.3580¢	0.3490¢	0.4890¢	0.4110¢	0.4110¢	0.5210¢	0.6990¢
Summer (Usage May-September)							
Minimum	5.00¢	5.00¢	5.00¢	5.00¢	5.00¢	5.00¢	5.00¢
Next 370 Kwh	0.0400¢	0.0320¢	0.1730¢	0.0960¢	0.0960¢	0.2060¢	0.3840¢
401-700 Kwh	0.2240¢	0.2150¢	0.2680¢	0.2770¢	0.2770¢	0.3870¢	0.5650¢
> 700 Kwh	0.3580¢	0.3490¢	0.4890¢	0.4110¢	0.4110¢	0.5210¢	0.6990¢
Generation Rates (G)							
Winter (Usage October-April)							
Minimum	$1.71	$1.61	$1.61	$1.28	$1.07	$1.21	$0.79
Next 370 Kwh	4.6020¢	4.2660¢	4.2660¢	3.1600¢	2.4480¢	2.9420¢	1.5280¢
401-700 Kwh	6.1160¢	5.7800¢	5.7800¢	4.6740¢	3.9620¢	4.4560¢	3.0420¢
> 700 Kwh	8.1570¢	7.8210¢	7.8210¢	6.7150¢	6.0030¢	6.4970¢	5.0830¢
Summer (Usage May-September)							
Minimum	$1.71	$1.61	$1.61	$1.28	$1.07	$1.21	$0.73
Next 370 Kwh	4.7870¢	4.5880¢	4.5880¢	3.2480¢	2.3180¢	2.6640¢	1.3040¢
401-700 Kwh	9.6120¢	9.4130¢	9.4130¢	8.0730¢	7.1430¢	7.4890¢	6.1290¢
> 700 Kwh	11.0110¢	10.8120¢	10.8120¢	9.4720¢	8.5420¢	8.8880¢	7.5280¢

Minimum includes the 1st 30 Kwh
Red - Rate decreased
Blue - Rate increased

Appendix Table 9.1: Competitive Average Annual Residential Natural Gas Rates, by Company, 1999-2015 (Cents Per Therm)

Table 9.1. Trend in Natural Gas Charges or Rates (Cents per therm) Since October - December 19981				
Prices Without Balancing Charge (Cents Per Therm) ******	Prices With Balancing Charge (Cents Per Therm) ******			
	Variable Prices		Fixed Prices	
Date	Washington Gas - PGC	Gateway Energy Services	Pepco Energy Services	WGES - w/o electric service
Jan-99	42.03	-	-	38.15
Feb-99	37.67	-	-	38.15
Mar-99	32.47	-	-	38.15
Apr-99	30.29	-	-	38.15
May-99	33.92	-	-	38.15
Jun-99	38.91	-	-	38.15
Jul-99	38.91	-	-	38.15
Aug-99	38.91	-	-	38.15
Sep-99	48.99	-	-	38.15
Oct-99	48.99	-	-	39.05
Nov-99	48.35	-	-	39.93
Dec-99	40.17	-	-	39.93
AVG	39.97			38.52
Jan-00	40.17	-	39.03	41.93
Feb-00	41.64	-	39.03	41.93
Mar-00	41.99	-	39.03	41.93
Apr-00	41.99	-	39.03	41.93
May-00	36.99	-	39.03	41.93
Jun-00	37.63	-	39.03	41.93
Jul-00	47.29	-	48.03	41.93
Aug-00	47.29	-	48.03	41.93
Sep-00	59.29	-	48.03	41.93
Oct-00	64.00	-	58.08	68.53
Nov-00	64.00	-	63.53	63.53 - 68.93
Dec-00	69.74	-	64.61	70.31 - 81.91
AVG	49.34		47.04	49.02
Jan-01	84.92	-	None	None
Feb-01	82.20	-	None	None
Mar-01	76.83	-	75.91	80.31
Apr-01	79.77	-	81.91	71.92

Table 9.1. Trend in Natural Gas Charges or Rates (Cents per therm) Since October - December 19981				
Date	Washington Gas - PGC	Gateway Energy Services	Pepco Energy Services	WGES - w/o electric service
May-01	79.77	-	69.92	73.92
Jun-01	65.84	-	69.92	73.32
Jul-01	65.84	-	60.92	60.32
Aug-01	65.84	-	60.92	60.32
Sep-01	53.52	45.42	60.92	60.32
Oct-01	53.52	44.42	50.92	56.32
Nov-01	53.52	45.03	53.50	54.50
Dec-01	59.16	51.15	55.00	52.35
AVG	68.39	46.51	63.98	64.36
Jan-02	59.16	53.45	55.00	51.35
Feb-02	50.16	45.24	52.45	48.35
Mar-02	51.13	46.45	49.35	48.35
Apr-02	60.16	46.45	54.50	49.35
May-02	60.16	55.16	54.50	57.90
Jun-02	63.77	60.22	54.50	59.35
Jul-02	63.77	57.66	54.50	58.35
Aug-02	63.77	56.50	54.50	56.35
Sept. 02	58.98	54.00	54.50	57.35
Oct. 02	58.98	54.00	55.50	57.35
Nov. 02	62.63	57.85	59.50	58.35
Dec. 02	57.43	56.50	59.50	60.95
AVG	59.17	53.62	54.86	55.28
Jan-03	54.47	54.40	59.90	68.69
Feb-03	60.27	65.36	59.90	71.69
Mar-03	98.03	98.00	69.90	71.69
Apr-03	76.33	72.50	82.50	74.04
May-03	70.79	70.00	82.50	80.04
Jun-03	81.89	78.50	-	88.04
Jul-03	75.95	71.72	-	80.64
Aug. 03	75.95	71.94	79.90	74.04
Sept. 03	69.47	66.47	82.50	74.04
Oct-03	69.47	65.47	-	72.04
Nov. 03	69.47	65.97	-	73.04
Dec. 03	71.36	68.00	-	72.79
AVG	72.79	70.69	73.87	75.06
Jan. 04	78.05	74.68	-	79.79
Feb-04	82.55	No price quote	-	76.79
Mar-04	67.78	67.60	-	77.11
Apr-04	75.57	67.60	-	77.11
May-04	84.72	82.40		81.45
Jun-04	91.16	91.00		86.45
Jul-04	88.17	88.00		86.45
Aug-04	88.17	86.50		86.05

Table 9.1. Trend in Natural Gas Charges or Rates (Cents per therm) Since October - December 19981				
Date	Washington Gas - PGC	Gateway Energy Services	Pepco Energy Services	WGES - w/o electric service
Sep-04	78.19	75.00		86.05
Oct-04	78.19	81.00		97.05
Nov-04	95.31	105.00		97.05
Dec-04	91.36	89.90		98.27
AVG	83.27	83.40		85.80
Jan-05	95.05	100.00		90.27
Feb-05	94.02	105.37		87.27
Mar-05	83.17	100.90		90.80
Apr-05	97.33	100.90		101.80
May-05	97.33	100.90		103.40
Jun-05	89.65	92.90		97.80
Jul-05	98.33	93.00		100.40
Aug-05	98.33	105.11		107.40
Sep-05	110.53	137.63		115.90
Oct-05	139.48	164.00		153.90
Nov-05	139.48	169.00		150.90
Dec-05	127.82	140.80		143.05
AVG	105.88	117.54		111.91
Jan-06	150.07	149.00		148.95
Feb-06	140.29	118.10		133.95
Mar-06	117.03	108.86		126.22
Apr-06	117.37	106.40		116.22
May-06	97.01	99.05		127.22
Jun-06	79.03	84.72		121.22
Jul-06	79.03	93.68		111.22
Aug-06	77.30	97.75		111.22
Sep-06	87.68	87.70		118.22
Oct-06	88.52	72.40		116.22
Nov-06	97.41	94.43		105.22
Dec-06	112.48	111.30		106.72
AVG	103.60	101.95		120.22
Jan-07	112.48	108.80		108.72
Feb-07	112.48	106.80		108.72
Mar-07	102.31	96.96		111.68
Apr-07	102.31	98.47		110.68
May-07	102.31	100.48		117.68
Jun-07	103.79	102.52		116.68
Jul-07	98.25	100.48		118.68
Aug-07	88.97	88.87		118.68
Sep-07	99.96	98.48		120.36
Oct-07	94.12	92.24		106.68
Nov-07	101.51	99.51		106.68
Dec-07	109.49	107.49		106.49

Table 9.1. Trend in Natural Gas Charges or Rates (Cents per therm) Since October - December 19981				
Date	Washington Gas - PGC	Gateway Energy Services	Pepco Energy Services	WGES - w/o electric service
AVG	102.33	100.09		112.64
Jan-08	105.03	99.68		107.49
Feb-08	110.00	109.00		107.49
Mar-08	110.18	109.18		112.56
Apr-08	104.11	109.11		127.56
May-08	124.92	124.42		144.56
Jun-08	134.86	141.13		155.56
Jul-08	162.91	163.91		155.56
Aug-08	134.15	133.28		155.56
Sep-08	113.33	111.19		138.56
Oct-08	113.33	109.33		120.56
Nov-08	106.82	101.82		116.56
Dec-08	119.05	116.05		116.57
AVG	119.89	119.01		129.88
Jan-09	107.02	106.02		112.57
Feb-09	99.05	98.55		101.57
Mar-09	63.78	63.28		100.92
Apr-09	93.05	92.55		74.92
May-09	78.66	78.66		71.92
Jun-09	77.58	77.08		74.92
Jul-09	77.15	75.15		75.92
Aug-09	77.15	76.15		74.92
Sep-09	77.38	75.38		74.92
Oct-09	79.40	77.40		76.92
Nov-09	84.18	84.18		78.92
Dec-09	75.34	74.34		77.72
AVG	82.48	81.56		83.01
Jan-10	83.64	83.14		75.72
Feb-10	87.43	86.93		86.72
Mar-10	81.05	90.05		86.08
Apr-10	73.91	72.91		77.08
May-10	73.91	72.91		78.08
Jun-10	80.10	79.60		74.08
Jul-10	102.09	102.90		78.08
Aug-10	102.09	101.09		77.08
Sep-10	76.25	76.25		76.08
Oct-10	76.25	76.25		72.08
Nov-10	76.25	76.25		72.08
Dec-10	71.65	71.65		72.98
AVG	82.05	82.49		77.18
Jan-11	75.56	75.56		74.98
Feb-11	76.88	76.78		75.98
Mar-11	78.09	77.59		75.61

Table 9.1. Trend in Natural Gas Charges or Rates (Cents per therm) Since October - December 19981				
Date	Washington Gas - PGC	Gateway Energy Services	Pepco Energy Services	WGES - w/o electric service
Apr-11	72.09	71.09		71.61
May-11	72.09	71.34		75.61
Jun-11	75.45	85.45		74.61
Jul-11	78.20	83.20		77.61
Aug-11	82.64	79.90		73.61
Sep-11	69.74	79.90		71.61
Oct-11	69.74	79.90		71.61
Nov-11	69.74	79.90		69.61
Dec-11	76.53	79.90		68.22
AVG	74.73	78.38		73.39
Jan-12	74.16	79.90		65.22
Feb-12	66.29	79.90		65.22
Mar-12	55.68	79.90		66.83
Apr-12	64.62	79.90		58.83
May-12	55.53	79.90		57.83
Jun-12	64.84	79.90		57.83
Jul-12	64.84	79.90		57.83
Aug-12	70.61	79.90		59.83
Sep-12	54.70	79.90		59.83
Oct-12	54.70	79.90		65.83
Nov-12	60.00	79.90		64.83
Dec-12	61.31	79.90		66.96
AVG	62.27	79.90		62.24
Jan-13	62.55	59.90		66.96
Feb-13	66.41	89.90		62.96
Mar-13	62.97	89.90		65.70
Apr-13	75.61	89.90		66.70
May-13	79.66	89.90		68.70
Jun-13	76.09	89.90		66.70
Jul-13	69.01	89.90		64.70
Aug-13	57.18	89.90		62.70
Sep-13	60.32	89.90		58.70
Oct-13	64.50	88.90		63.70
Nov-13	64.50	81.90		63.70
Dec-13	57.56	81.90		61.10
AVG	66.36	85.98		64.36
Jan-14	60.56	81.90		65.10
Feb-14	65.76	83.90		66.10
Mar-14	93.98	76.90		74.47
Apr-14	82.82	76.90		73.47
May-14	73.24	76.90		74.47
Jun-14	70.51	76.90		74.47
Jul-14	70.51	76.90		72.37

Table 9.1. Trend in Natural Gas Charges or Rates (Cents per therm) Since October - December 19981				
Date	Washington Gas - PGC	Gateway Energy Services	Pepco Energy Services	WGES - w/o electric service
Aug-14	54.20	79.90		72.37
Sep-14	55.42	79.90		67.47
Oct-14	55.42	89.90		69.47
Nov-14	55.42	89.90		69.47
Dec-14	58.66	89.90		66.13
AVG	66.38	81.65		70.45
Jan-15	58.66	89.90		66.13
Feb-15	50.66	89.90		62.03
Mar-15	63.91	89.90		60.17
Apr-15	63.91	89.90		57.17
May-15	63.91	89.90		57.17
Jun-15	57.42	89.90		55.17
Jul-15	46.01	89.90		56.17
AVG	**57.78**	**89.90**		**59.14**

Appendix Table 9.2: WGL's PUC/PSC-Approved Rate Designs, 1913-2013

Appendix Table 9.2						
WGL's PUC/PSC-Approved Rate Designs, 1913-2013						
Effective Dates	1913	10/1/1916	3/20/1918	3/20/1919	9/20/1919	4/2/1920
Date Case Opened			12/1/1917	11/21/1918		
FC No.			13	70		
Order No.			254	314	341	369
Date Order Issued			3/15/1918	3/15/1919	9/19/1919	3/25/1920
Cents per 000 Cubic Feet (cf)	8.5	7.5	9.0	9.5	9.5	9.5
Cents per Therm (pt)	8.5	7.5	9.0	9.5	9.5	9.5
Comments						
1913-1920 rates were flat.	Rate fixed by Congress.	Rate fixed by Congress during WWI.				

* Non-government rates
Red - Rate decreased
Blue - Rate increased

Appendix Table 9.2a: WGL's PUC-Approved Declining Block Rate Designs, 1920-1930

Effective Dates	6/1/1920	9/1/1920	11/1/1920	Effective Dates	3/18/1921	Effective Dates	9/18/1921	3/18/1922	11/18/1923
13.2	5/20/1920	8/10/1920	10/7/1920	Date Case Opened	2/26/1920	Date Case Opened	7/22/1921	2/17/1922	10/23/1923
FC No.	83	86	88	F.C. No.	93	F.C. No.	101	111	142
Order No.	378	387	393	Order No.	415	Order No.	431	463	526
Date Order Issued	5/29/1920	8/30/1920	10/29/1920	Date Order Issued	3/17/1921	Date Order Issued	7/29/1921	3/13/1922	11/8/1923
< 1,000 Therms - Cents per Therm	12.5	12.5	13.2	< 500 Therms - Cents per Therm	12.5	< 500 Therms - Cents per Therm	11.0	11.0	11.0
1,000-3,000 Therms - Cents per Therm	12.0	12.0	12.7	500-2,500 Therms - Cents per Therm	12.0	500-2,500 Therms - Cents per Therm	11.0	10.0	10.0
3,000-5,000 Therms - Cents per Therm	11.5	11.5	12.2	2,500-5,000 Therms - Cents per Therm	11.5	2,500-5,000 Therms - Cents per Therm	10.0	10.0	10.0
5,000-7,500 Therms - Cents per Therm	11.0	11.0	11.7	5,000-7,500 Therms - Cents per Therm	11.0	5,000-8,000 Therms - Cents per Therm	10.0	9.0	9.0
7,500-10,000 Therms - Cents per Therm	10.5	10.5	11.2	7,500-10,000 Therms - Cents per Therm	10.5	> 8,000 Therms - Cents per Therm	9.0	9.0	9.0
> 10,000 Therms - Cents per Therm	10.0	10.0	10.7	> 10,000 Therms - Cents per Therm	10.0				
Comments									
	On 9/1/1920, the rates were to revert to 9.5 cents per therm.	On 11/1/1920, the rates were to revert to 9.5 cents per therm.	Beginning with meter readings on 3/18/1921, the rates were to revert to 9.5 cents per therm.		Beginning with meter readings on 9/18/1921, the rates were to revert to 9.5 cents per therm.		Beginning with meter readings on 3/18/1922, the rates were to revert to 9.5 cents per therm.		

Red - Rate decreased
Blue - Rate increased

Appendix Table 9.2b: WGL's PUC-Approved Declining Block Non-Heating Rate Design, 1930-1935

Effective Dates	10/1/1930	Effective Dates	3/1/1932
Date Case Opened	9/25/1930	Date Case Opened	2/26/1932
FC No.	218	F.C. No.	234
Order No.	871	Order No.	995
Date Order Issued	9/25/1930	Date Order Issued	2/26/1932
First 15 Therms Cents per Therm	10.0	First 10 Therms Cents per Therm	10.0
> 15 Therms Cents per Therm	9.0	Next 20 Therms Cents per Therm	9.0
		> 30 Therms Cents per Therm	9.0
Comments	PUC approved creation of 3 classes, Domestic Service, General House and Building Heating Service, and Commercial and industrial Service.		Domestic Service called Schedule A; Space Heating called Schedule B; CandI class divided into 2 Schedules C and D. New Schedule E for seasonal off-peak rate covering water heating, space cooling or generation of power and Schedule F for master metered apartments.

Note: In 1930, a new Commercial and Industrial (CandI) class was also created. In 1932, the CandI class was split into Schedules C and D and a Seasonal Off-Peak Rate (Schedule E) and Wholesale Apartment House Service Class (Schedule F) were created.
Red - Rate decreased
Blue - Rate increased

Appendix Table 9.2c: WGL's PUC-Approved Fixed/Variable Space Heating Rate Design, 1930-1942

Effective Dates	10/1/1930	3/1/1932	12/16/1935
Date Case Opened	9/25/1930	2/26/1932	1/9/1935
FC No.	218	234	255
Order No.	871	995	1458
Date Order Issued	9/25/1930	2/26/1932	12/13/1935
Maximum Use Charge per Therm for 7 months, April - October	$2.00	$2.00	75 cents minimum bill
Consumption Charge - Cents per Therm	6.0	6.0	6.0
Comments	Called General House and Building Heating Service	Called Schedule B	These rates did not change until Schedule B was eliminated in 1942.

Appendix Table 9.2d: WGL's PUC-Approved Schedule A Fixed/Variable Declining Block Non-Heating Rate Designs, 1935-1939

Effective Dates	12/16/1935	Effective Dates	9/1/1936	9/1/1937	9/1/1938	Effective Dates	9/1/1939
Date Case Opened	1/9/1935	Date Case Opened	5/4/1936	3/11/1937	2/17/1938	Date Case Opened	1/9/1939
FC No.	255	FC No.	265	272	276	FC No.	285
Order No.	1458	Order No.	1527	1626 and 1633	1711	Order No.	1813
Date Order Issued	12/13/1935	Date Order Issued	8/11/1936	9/8/1937 and 10/25/1937	8/15/1938	Date Order Issued	8/11/1939
First 8 Therms - Cents	75.0	First 8 Therms - Cents	75.0	75.0	75.0	First 8 Therms - Cents	75.0
Next 32 Therms Cents per Therm	8.0	Next 27 Therms Cents per Therm	8.0	8.0	8.0	Next 22 Therms Cents per Therm	8.0
Next 40 Therms Cents per Therm	7.0	Next 45 Therms Cents per Therm	7.0	7.0	7.0	Next 30 Therms Cents per Therm	7.0
> 80 Therms Cents per Therm	6.6	> 80 Therms Cents per Therm	6.6	6.6	6.6	> 60 Therms Cents per Therm	6.3
Comments Rates based on sliding scale arrangement approved by the PUC. Schedule D eliminated.							

Red - Rate decreased
Blue - Rate increased

Appendix Table 9.2e: WGL's PUC-Approved Declining Block Rate Designs, Schedule A, 1940-1946

Effective Dates	9/1/1940	9/1/1942	9/1/1943	9/1/1944	9/1/1945	9/1/1946
Date Case Opened	1/5/1940	3/20/1942	4/2/1943	5/16/1944	3/16/1945	6/12/1946
FC No.	292	316	334	334 and 340	345	352
Order No.	1921	2401	2682	2827	2944	3106
Date Order Issued	8/23/1940	10/13/1942	11/8/1943	8/31/1944	8/29/1945	10/29/1946
First 8 Therms - Cents	75.0	75.0	75.0	75.0	75.0	75.0
Next 17 Therms - Cents per Therm	8.0	8.0	7.9	8.0	8.0	8.0
Next 35	7.0	7.2	7.0	7.2	7.2	7.2
> 60 Therms - Cents per Therm	6.1	6.2	6.0	6.2	6.2	6.2
Comments			Schedules A and B merged.	Rates reverted to those approved in Order No. 2401.		

Red - Rate decreased
Blue - Rate increased

Appendix Table 9.2f: WGL's PUC-Approved Schedule A Fixed/Variable Declining Block Rate Designs, 1947-1953

Effective Dates	4/1/1947		Effective Dates	11/16/1949	6/8/1952	Effective Dates	5/29/1953
Date Case Opened	11/27/1946	6/11/1947	Date Case Opened	7/14/1949	11/28/1951	Date Case Opened	11/21/1952
FC No.	361	368	FC No.	389	414	FC No.	422
Order No.	3155	3271	Order No.	3600	3876 and 3879	Order No.	3989 and 3992
Date Order Issued	3/6/1947	10/24/1947	Date Order Issued	11/9/1949	3/27/1952 and 4/8/1952	Date Order Issued	4/20/1953 and 4/29/1953
First 4.8 Therms - Cents	75.0	75.0	First 5 Therms	$1.00	$1.00	First 4.8 Therms	$1.00
Next 10.2 Therms - Cents per Therm	13.2	13.2	Next 10 Therms - Cents per Therm	13.4	15.0	Next 10.2 Therms - Cents per Therm	15.6
Next 21 Therms - Cents per Therm	12.0	12.0	Next 15 Therms - Cents per Therm	12.1	13.4	Next 15 Therms - Cents per Therm	14.0
>36 Therms - Cents per Therm	10.3	10.3	Next 570 Therms - Cents per Therm	0.1	11.3	Next 570 Therms - Cents per Therm	11.8
			Next 5,400 Therms - Cents per Therm	9.0	9.0	Next 5,400 Therms - Cents per Therm	9.5
			>6,000 Therms - Cents per Therm	8.0	8.0	>6,000 Therms - Cents per Therm	8.5
Comments							
PUC approved WGL request to shift to straight natural gas and to convert units of measure to therms.			Schedules C and F combined in Schedule A so there are only two Schedules - A and E.				

Red - Rate decreased
Blue - Rate increased

Appendix Table 9.2g: WGL's PUC/PSC-Approved Schedule A Fixed/Variable Declining Block Rate Designs, 1954-1976

Effective Dates	7/1/1954	9/1/1958	Effective Dates	8/1/1959	11/17/1972	Effective Dates	2/1/1975	4/1/1975	7/14/1976
Date Case Opened	5/16/1954	11/29/1957	Date Case Opened	6/19/1959	10/30/1972	Date Case Opened	1/11/1974		4/9/1976
FC No.	436	456	FC No.	456	584	FC No.	610		655
Order No.	4088	4468 and 4473	Order No.	4554	5548	Order No.	5686	5708	5808
Date Order Issued	6/30/1954	7/28/1958 and 7/31/1958	Date Order Issued	7/15/1959	11/16/1972	Date Order Issued	1/31/1975	4/7/1975	7/9/1976
First 5 Therms		$1.50	First 5 Therms	$1.50		First 5 Therms	$2.50	$2.50	
Next 10 Therms - Cents per Therm		16.0	Next 10 Therms - Cents per Therm	16.0		Next 10 Therms - Cents per Therm	21.2	20.5	
Next 15 Therms - Cents per Therm		14.6	Next 15 Therms - Cents per Therm	14.6		Next 15 Therms - Cents per Therm	19.5	19.1	
Next 570 Therms - Cents per Therm		13.0	Next 570 Therms - Cents per Therm	13.0		Next 570 Therms - Cents per Therm	17.6	17.5	
Next 5,400 Therms - Cents per Therm		10.6	Next 5,400 Therms - Cents per Therm	10.6		Next 5,400 Therms - Cents per Therm	14.8	15.0	
>6,000 Therms - Cents per Therm		9.5	Next 94,000 Therms Cents per Therm	9.5		>6,000 Therms - Cents per Therm	13.4	13.8	
			Next 100,000 Therms - Cents per Therm	9.0					
			>200,000 Therms - Cents per Therm	8.5					
Comments									
	PUC approved a volumetric Purchased Gas Adjustment (PGA) that was added to rates. The PGA varied from month to month and could be negative or positive.		PUC approved a new air condiitoning class and rate - Schedule A-C; rate is reduced for > 100,000 therms of usage.		PSC approved 1.0526% surcharge as increase in GRT on public utilities on all rates per the DC Teachers Salary Act Amendments of 1972, P.L. 92-518.			New Interruptible and Watergate steam chilled water service and rates were approved.	PSC approved a 1.0638% surcharge on all rates due to increase in the DC GRT from 5% to 6%.

Red - Rate decreased
Blue - Rate increased

Appendix Table 9.2h: WGL's PSC-Approved Residential Fixed/Variable Rate Designs, 1976-1983

Effective Dates	11/1/1976	2/23/1979	10/18/1980	1/26/1981	4/7/1981	2/12/1982	3/5/1983
Date Case Opened	9/30/1975	10/1/1977	6/29/1979		3/6/1981	4/24/1981	4/14/1982
FC No.	647	686	722		763	768	787
Order No.	5833	6051 and 6060	7204	7249	7289	7469 and 7484	7753
Date Order Issued	10/29/1976	2/13/1979 and 3/16/1979	10/17/1980	1/21/1981	4/3/1981	2/9/1982 and 2/12/1982	3/4/1983
Heating/Cooling							
System/Customer Charge - per Month	$8.00 (9 mos.)	$5.00 (9 mos.)	$5.00 (9 mos.)	$5.35 (9 mos.)	$5.35 (9 mos.)	$5.50 (9 mos.)	$6.60 (9 mos.)
Commodity Charge - Cents per Therm	21.00	32.55	36.85	46.29	46.09	53.30	78.95
Other Uses							
System/Customer Charge - per Month	$3.75 (12 mos.)	$2.50 (12 mos.)	$2.50 (12 mos.)	$3.75 (12 mos.)	$3.75 (12 mos.)	$3.35 (12 mos.)	$4.00 (12 mos.)
Commodity Charge - Cents per Therm	21.00	32.55	36.85	46.29	46.09	53.30	78.95
Nonheating and/or Cooling IMAs							
System/Customer Charge - per Month				$2.75 (12 mos.)	$2.75 (12 mos.)	$2.80 (12 mos.)	$3.35 (12 mos.)
Commodity Charge - Cents per Therm				46.29	46.09	53.30	78.95
Comments	The 9 mos. covers usage in the months of September through May or billing months of October through June.	Changed the name of the system charge to customer charge.		New Individually Metered Apartments class added. PSC approved a settlement agreement that contained the above rates.	PSC approved rate reduction requested by WGL. GSA became an interruptible customer so revenues were higher than anticipated.		

Red - Rate decreased
Blue - Rate increased

Appendix Table 9.2i: WGL's PSC-Approved Residential Fixed/Variable Rate Designs, 1986-1994

Effective Dates	9/13/1986	10/29/1988	3/11/1989	6/1/1990	10/19/1993	8/1/1994
Date Case Opened	10/23/1985	1/22/1988		9/22/1989	12/18/1992	1/4/1984
FC No.	840	870	870	890	922	934
Order No.	8569	9146	9230	9482	10307	10464
Date Order Issued	9/5/1986	10/28/1988	3/7/1989	5/31/1990	10/8/1993	8/1/1994
Heating/Cooling						
Customer Charge - per Month	$7.05 (9 mos.)	$7.45 (9 mos.)	$7.45 (9 mos.)	$7.70 (9 mos.)	$8.10 (9 mos.)	$8.10 (9 mos.)
Commodity Charge - Cents per Therm	79.13	74.25	73.93	80.68	77.90	84.04
Other Uses						
Customer Charge - per Month	$4.25 (12 mos.)	$4.50 (12 mos.)	$4.50 (12 mos.)	$4.60 (12 mos.)	$4.85 (12 mos.)	$4.95 (12 mos.)
Commodity Charge - Cents per Therm	79.13	74.25	73.93	80.68	77.90	84.04
Nonheating and/or Cooling IMAs						
Customer Charge - per Month	$3.60 (12 mos.)	$3.80 (12 mos.)	$3.80 (12 mos.)	$3.90 (12 mos.)	$4.10 (12 mos.)	$4.20 (12 mos.)
Commodity Charge - Cents per Therm	79.13	74.25	73.93	80.68	77.90	84.04
Comments				PSC approved a settlement agreement		PSC approved a settlement agreement.

Red - Rate decreased
Blue - Rate increased

Appendix Table 9.2j: WGL's PSC-Approved Residential Fixed/Variable Rate Designs, 1999-2013

Effective Dates	1/1/1999	4/9/2003	11/24/2003	12/31/2007	6/4/2013
Date Case Opened	4/1/1996	2/17/2000	2/7/2003	12/21/2006	11/2/2011
FC No.	GT 96-3	989	1016	1054	1093
Order No.	11153 and 11235	12589 and 12689	12986	14694	17132
Date Order Issued	4/2/1998 and 9/23/1998	10/29/2002 and 3/28/2003	11/10/2003	12/28/2007	5/15/2013
Heating/Cooling					
Customer Charge - per Month	$7.49 (9 mos,)	$7.49 (12 mos.)	$7.85 (12 mos.)	$7.95 (12 mos.)	$9.90 (12 mos.)
Distribution Charge - Cents per Therm	39.89	36.10	38.09	38.73	40.67
Other Uses					
Customer Charge - per Month	$4.47 (12 mos.)	$4.47 (12 mos.)	$4.75 (12 mos.)	$4.85 (12 mos.)	$6.30 (12 mos.)
Distribution Charge - Cents per Therm	39.89	39.89	41.97	42.60	44.34
Nonheating and/or Cooling IMAs					
Customer Charge - per Month	$3.79 (12 mos.)	$3.79 (12 mos.)	$4.00 (12 mos.)	$4.10 cents pt	$5.30 (12 mos.)
Distribution Charge - Cents per Therm	39.89	39.89	41.97	42.60	44.34
Comments					
Introduction of competition caused a change in the distribution of costs between the commodity charge and the PGA. As a result, the PGA was replaced with the higher Purchased Gas Charge (PGC) and the commodity charge was replaced with a smaller Distribution Charge. The decision is a rate increase when the PGC is added to the above rate design.	See tariff filings issued 4/20/1998 and 10/13/1998.			PSC approved a settlement agreement.	PSC initiated the proceeding. WGL filed its application on 2/29/2012.

Red - Rate decreased
Blue - Rate increased

Appendix Table 9.3: Calculation of WGL's DC Average Monthly Residential Gas Rates, without Adjustments,1913-2013

Calculation of WGL's DC Average Monthly Residential Gas Rates, Without Adjustments, 1913-2013 (Units in Therms)														
Year	Average Monthly Usage (Therms)	Months Effective in Year	Minimum OR Customer Charge	Minimum Charge (Therms Included)	Usage Block 1 Range	Usage Block 1 Cost	Usage Block 2 Range	Usage Block 2 Cost	Usage Block 3 Range	Usage Block 3 Cost	Monthly Calculation	Yearly Average of Monthly Cost	Reported Cost ($ / Therm)	Reported Cost (¢ / Therm)
1913	N/A	12	-	-	-	$0.085	-	-	-	-	-	-	$0.085	-
1914	N/A	12	-	-	-	$0.085	-	-	-	-	-	-	$0.085	-
1915	N/A	12	-	-	-	$0.085	-	-	-	-	-	-	$0.085	-
1916	N/A	9	-	-	-	$0.085	-	-	-	-	-	-	$0.083	-
	N/A	3	-	-	-	$0.075	-	-	-	-	-	-	-	-
1917	N/A	12	-	-	-	$0.075	-	-	-	-	-	-	$0.075	-
1918	N/A	3	-	-	-	$0.075	-	-	-	-	-	-	$0.086	-
	N/A	9	-	-	-	$0.090	-	-	-	-	-	-	-	-
1919	N/A	3	-	-	-	$0.090	-	-	-	-	-	-	$0.094	-
	N/A	9	-	-	-	$0.095	-	-	-	-	-	-	-	-
1920	N/A	5	-	-		$0.095	-	-	-	-	-	-	$0.114	-
	N/A	5	-	-	<1,000	$0.125	-	-	-	-	-	-	-	-
	N/A	2	-	-	<1,000	$0.132	-	-	-	-	-	-	-	-
1921	N/A	3	-	-	<1,000	$0.132	-	-	-	-	-	-	$0.123	-
	N/A	6	-	-	<500	$0.125	-	-	-	-	-	-	-	-
	N/A	3	-	-	<500	$0.110	-	-	-	-	-	-	-	-
1922	N/A	3	-	-	<500	$0.110	-	-	-	-	-	-	$0.106	-
	N/A	9	-	-	<500	$0.105	-	-	-	-	-	-	-	-
1923	N/A	12	-	-	<500	$0.105	-	-	-	-	-	-	$0.105	-
1924	N/A	12	-	-	<500	$0.105	-	-	-	-	-	-	$0.105	-
1925	N/A	12	-	-	<500	$0.105	-	-	-	-	-	-	$0.105	-
1926	N/A	12	-	-	<500	$0.105	-	-	-	-	-	-	$0.105	-
1927	N/A	12	-	-	<500	$0.105	-	-	-	-	-	-	$0.105	-
1928	2.4	12	-	-	<500	$0.105	-	-	-	-	$0.252	$0.252	$0.105	10.50 ¢
1929	4.5	12	-	-	<500	$0.105	-	-	-	-	$0.473	$0.473	$0.105	10.50 ¢
1930	6.6	10	-	-	<500	$0.105	-	-	-	-	$0.578	$0.688	$0.104	10.42 ¢
	-	2	-	-	<15	$0.100	>15	$0.090	-	-	$0.110	-	-	-
1931	8.7	12	-	-	<15	$0.100	>15	$0.090	-	-	$0.870	$0.870	$0.100	10.00 ¢
1932	10.7	2	-	-	<15	$0.100	>15	$0.090	-	-	$0.178	$1.064	$0.099	9.95 ¢
	-	10	-	-	<10	$0.100	>10	$0.090	-	-	$0.886	-	-	-

Appendix Table 9.3: Calculation of WGL's DC Average Monthly Residential Gas Rates, without Adjustments, 1913-2013 (continued)

Calculation of WGL's DC Average Monthly Residential Gas Rates, Without Adjustments, 1913-2013 (Units in Therms)														
Year	Average Monthly Usage (Therms)	Months Effective in Year	Minimum OR Customer Charge	Minimum Charge (Therms Included)	Usage Block 1 Range	Usage Block 1 Cost	Usage Block 2 Range	Usage Block 2 Cost	Usage Block 3 Range	Usage Block 3 Cost	Monthly Calculation	Yearly Average of Monthly Cost	Reported Cost ($ / Therm)	Reported Cost (¢ / Therm)
1933	12.8	12	-	-	<10	$0.100	>10	$0.090	-	-	$1.252	$1.252	$0.098	9.78 ¢
1934	14.9	12	-	-	<10	$0.100	>10	$0.090	-	-	$1.999	$1.999	$0.134	13.42 ¢
1935	16.9	12	-	-	<10	$0.100	>10	$0.090	-	-	$2.179	$2.179	$0.129	12.89 ¢
1936	19.0	9	$0.75	8	9-40	$0.080	41-80	$0.070	-	-	$1.223	$1.630	$0.086	8.58 ¢
	-	3	$0.75	8	9-35	$0.080	36-80	$0.070	-	-	$0.408	-	-	-
1937	21.1	12	$0.75	8	9-35	$0.080	36-80	$0.070	-	-	$1.798	$1.798	$0.085	8.52 ¢
1938	23.1	12	$0.75	8	9-35	$0.080	36-80	$0.070	-	-	$1.958	$1.958	$0.085	8.48 ¢
1939	25.2	8	$0.75	8	9-35	$0.080	36-80	$0.070	-	-	$1.417	$2.126	$0.084	8.44 ¢
	-	4	$0.75	8	9-30	$0.080	31-60	$0.070	-	-	$0.709	-	-	-
1940	27.3	8	$0.75	8	9-35	$0.080	31-60	$0.070	-	-	$1.529	$2.286	$0.084	8.37 ¢
	-	4	$0.75	8	9-25	$0.080	26-60	$0.070	-	-	$0.757	-	-	-
1941	29.3	12	$0.75	8	9-25	$0.080	26-60	$0.070	-	-	$2.411	$2.411	$0.082	8.23 ¢
1942	31.4	8	$0.75	8	9-25	$0.080	26-60	$0.070	-	-	$1.748	$3.563	$0.113	11.35 ¢
	-	4	$0.75	8	9-25	$0.080	26-60	$0.072	-	-	$0.874	-	-	-
1943	33.5	8	$0.75	8	9-25	$0.080	26-60	$0.072	-	-	$1.815	$3.705	$0.111	11.06 ¢
	-	4	$0.75	8	9-25	$0.079	26-60	$0.070	-	-	$0.922	-	-	-
1944	35.6	8	$0.75	8	9-25	$0.079	26-60	$0.070	-	-	$1.890	$3.901	$0.110	10.96 ¢
	-	4	$0.75	8	9-25	$0.080	26-60	$0.072	-	-	$0.986	-	-	-
1945	37.6	8	$0.75	8	9-25	$0.080	26-60	$0.072	-	-	$2.011	$4.124	$0.110	10.97 ¢
	-	4	$0.75	8	9-25	$0.080	26-60	$0.072	-	-	$1.039	-	-	-
1946	39.7	8	$0.75	8	9-25	$0.080	26-60	$0.072	-	-	$2.112	$3.208	$0.081	8.08 ¢
	-	4	$0.75	8	9-25	$0.080	26-60	$0.072	-	-	$1.095	-	-	-
1947	41.8	3	$0.75	8	9-25	$0.080	26-60	$0.072		-	$0.863	$4.777	$0.114	11.43 ¢
	-	9	$0.75	4.8	4.8-15	$0.132	16-36	$0.120	>36	$0.103	$3.914	-	-	-
1948	43.8	12	$0.75	4.8	4.8-15	$0.132	16-36	$0.120	>36	$0.103	$5.425	$5.425	$0.124	12.39 ¢
1949	45.9	11	$0.75	4.8	4.8-15	$0.132	16-36	$0.120	>36	$0.103	$5.172	$5.663	$0.123	12.34 ¢
	-	1	$1.00	5	5-15	$0.134	16-30	$0.121	>30	$0.109	$0.491	-	-	-
1950	48.0	12	$1.00	5	5-15	$0.134	16-30	$0.121	>30	$0.109	$6.117	$6.117	$0.127	12.74 ¢
1951	50.0	12	$1.00	5	5-15	$0.134	16-30	$0.121	>30	$0.109	$6.335	$6.335	$0.127	12.67 ¢

Appendix Table 9.3: Calculation of WGL's DC Average Monthly Residential Gas Rates, without Adjustments, 1913-2013 (continued)

Calculation of WGL's DC Average Monthly Residential Gas Rates, Without Adjustments, 1913-2013 (Units in Therms)														
Year	Average Monthly Usage (Therms)	Months Effective in Year	Minimum OR Customer Charge	Minimum Charge (Therms Included)	Usage Block 1 Range	Usage Block 1 Cost	Usage Block 2 Range	Usage Block 2 Cost	Usage Block 3 Range	Usage Block 3 Cost	Monthly Calculation	Yearly Average of Monthly Cost	Reported Cost ($ / Therm)	Reported Cost (¢ / Therm)
1952	52.1	5	$1.00	5	5-15	$0.134	16-30	$0.121	>30	$0.109	$2.735	$6.823	$0.131	13.10 ¢
	-	7	$1.00	5	5-15	$0.150	16-30	$0.134	>30	$0.113	$4.088	-	-	-
1953	54.2	5	$1.00	5	5-15	$0.150	16-30	$0.134	>30	$0.113	$3.019	$7.403	$0.137	13.66 ¢
	-	7	$1.00	5	5-15	$0.156	16-30	$0.140	>30	$0.118	$4.384	-	-	-
1954	56.2	12	$1.00	5	5-15	$0.156	16-30	$0.140	>30	$0.118	$7.752	$7.752	$0.138	13.79 ¢
1955	58.3	12	$1.00	5	5-15	$0.156	16-30	$0.140	>30	$0.118	$7.999	$7.999	$0.137	13.72 ¢
1956	60.4	12	$1.00	5	5-15	$0.156	16-30	$0.140	>30	$0.118	$8.247	$8.247	$0.137	13.65 ¢
1957	60.0	12	$1.00	5	5-15	$0.156	16-30	$0.140	>30	$0.118	$8.200	$8.200	$0.137	13.67 ¢
1958	66.5	8	$1.00	5	5-15	$0.156	16-30	$0.140	>30	$0.118	$5.978	$9.323	$0.140	14.02 ¢
	-	4	$1.50	5	5-15	$0.160	16-30	$0.146	>30	$0.130	$3.345	-	-	-
1959	66.9	12	$1.50	5	5-15	$0.160	16-30	$0.146	>30	$0.130	$10.087	$10.087	$0.151	15.08 ¢
1960	67.3	12	$1.50	5	5-15	$0.160	16-30	$0.146	>30	$0.130	$10.139	$10.139	$0.151	15.07 ¢
1961	67.7	12	$1.50	5	5-15	$0.160	16-30	$0.146	>30	$0.130	$10.191	$10.191	$0.151	15.05 ¢
1962	70.2	12	$1.50	5	5-15	$0.160	16-30	$0.146	>30	$0.130	$10.516	$10.516	$0.150	14.98 ¢
1963	70.4	12	$1.50	5	5-15	$0.160	16-30	$0.146	>30	$0.130	$10.542	$10.542	$0.150	14.97 ¢
1964	72.7	12	$1.50	5	5-15	$0.160	16-30	$0.146	>30	$0.130	$10.841	$10.841	$0.149	14.91 ¢
1965	73.1	12	$1.50	5	5-15	$0.160	16-30	$0.146	>30	$0.130	$10.893	$10.893	$0.149	14.90 ¢
1966	76.6	12	$1.50	5	5-15	$0.160	16-30	$0.146	>30	$0.130	$11.348	$11.348	$0.148	14.81 ¢
1967	79.2	12	$1.50	5	5-15	$0.160	16-30	$0.146	>30	$0.130	$11.686	$11.686	$0.148	14.76 ¢
1968	80.0	12	$1.50	5	5-15	$0.160	16-30	$0.146	>30	$0.130	$11.790	$11.790	$0.147	14.74 ¢
1969	85.4	12	$1.50	5	5-15	$0.160	16-30	$0.146	>30	$0.130	$12.492	$12.492	$0.146	14.63 ¢
1970	85.6	12	$1.50	5	5-15	$0.160	16-30	$0.146	>30	$0.130	$12.518	$12.518	$0.146	14.62 ¢
1971	85.2	12	$1.50	5	5-15	$0.160	16-30	$0.146	>30	$0.130	$12.466	$12.466	$0.146	14.63 ¢
1972	84.7	12	$1.50	5	5-15	$0.160	16-30	$0.146	>30	$0.130	$12.401	$12.401	$0.146	14.64 ¢
1973	81.1	12	$1.50	5	5-15	$0.160	16-30	$0.146	>30	$0.130	$11.933	$11.933	$0.147	14.71 ¢
1974	79.2	12	$1.50	5	5-15	$0.160	16-30	$0.146	>30	$0.130	$11.686	$11.686	$0.148	14.76 ¢
1975	79.9	1	$1.50	5	5-15	$0.160	16-30	$0.146	>30	$0.130	$0.981	$15.804	$0.198	19.78 ¢
	-	2	$2.50	5	5-15	$0.212	16-30	$0.195	>30	$0.176	$2.720	-	-	-
	-	9	$2.50	5	5-15	$0.205	16-30	$0.191	>30	$0.175	$12.102	-	-	-
1976	86.6	10	$2.50	5	5-15	$0.205	16-30	$0.191	>30	$0.175	$14.422	$18.786	$0.217	21.69 ¢
	-	2	$8.00	0	>0	$0.210	-	-	-	-	$4.364	-	-	-

Appendix Table 9.3: Calculation of WGL's DC Average Monthly Residential Gas Rates, without Adjustments, 1913-2013 (continued)

Calculation of WGL's DC Average Monthly Residential Gas Rates, Without Adjustments, 1913-2013 (Units in Therms)														
Year	Average Monthly Usage (Therms)	Months Effective in Year	Minimum OR Customer Charge	Minimum Charge (Therms Included)	Usage Block 1 Range	Usage Block 1 Cost	Usage Block 2 Range	Usage Block 2 Cost	Usage Block 3 Range	Usage Block 3 Cost	Monthly Calculation	Yearly Average of Monthly Cost	Reported Cost ($ / Therm)	Reported Cost (¢ / Therm)
1977	86.9	12	$8.00	0	>0	$0.210	-	-	-	-	$24.249	$24.249	$0.279	27.90 ¢
1978	87.1	12	$8.00	0	>0	$0.210	-	-	-	-	$24.291	$24.291	$0.279	27.89 ¢
1979	87.6	2	$8.00	0	>0	$0.210	-	-	-	-	$4.398	$31.067	$0.355	35.48 ¢
	-	10	$5.00	0	>0	$0.326	-	-	-	-	$26.669	-	-	-
1980	84.7	10	$5.00	0	>0	$0.326	-	-	-	-	$25.886	$31.920	$0.377	37.70 ¢
	-	2	$5.00	0	>0	$0.369	-	-	-	-	$6.034	-	-	-
1981	84.4	1	$5.00	0	>0	$0.369	-	-	-	-	$3.007	$42.243	$0.501	50.08 ¢
	-	2	$5.35	0	>0	$0.463	-	-	-	-	$7.400	-	-	-
	-	9	$5.35	0	>0	$0.461	-	-	-	-	$31.836	-	-	-
1982	81.7	1	$5.35	0	>0	$0.461	-	-	-	-	$3.583	$47.162	$0.577	57.73 ¢
	-	11	$5.50	0	>0	$0.533	-	-	-	-	$43.579	-	-	-
1983	78.4	2	$5.50	0	>0	$0.533	-	-	-	-	$7.878	$63.282	$0.808	80.76 ¢
	-	10	$6.60	0	>0	$0.790	-	-	-	-	$55.404	-	-	-
1984	86.1	12	$6.60	0	>0	$0.790	-	-	-	-	$72.886	$72.886	$0.847	84.70 ¢
1985	74.1	12	$6.60	0	>0	$0.790	-	-	-	-	$63.468	$63.468	$0.856	85.63 ¢
1986	82.0	8	$6.60	0	>0	$0.790	-	-	-	-	$45.883	$69.849	$0.852	85.23 ¢
	-	4	$7.05	0	>0	$0.791	-	-	-	-	$23.966	-	-	-
1987	80.5	12	$7.05	0	>0	$0.791	-	-	-	-	$70.734	$70.734	$0.879	87.89 ¢
1988	82.4	10	$7.05	0	>0	$0.791	-	-	-	-	$58.422	$69.856	$0.848	84.82 ¢
	-	2	$7.45	0	>0	$0.743	-	-	-	-	$11.434	-	-	-
1989	81.2	2	$7.45	0	>0	$0.743	-	-	-	-	$11.289	$65.655	$0.809	80.87 ¢
	-	10	$7.45	0	>0	$0.739	-	-	-	-	$54.366	-	-	-
1990	83.5	5	$7.45	0	>0	$0.739	-	-	-	-	$28.834	$70.711	$0.847	84.66 ¢
	-	7	$7.70	0	>0	$0.807	-	-	-	-	$41.877	-	-	-
1991	85.9	12	$7.70	0	>0	$0.807	-	-	-	-	$75.050	$75.050	$0.874	87.41 ¢
1992	88.2	12	$7.70	0	>0	$0.807	-	-	-	-	$76.935	$76.935	$0.872	87.23 ¢
1993	85.9	10	$7.70	0	>0	$0.807	-	-	-	-	$62.245	$74.748	$0.870	87.02 ¢
	-	2	$8.10	0	>0	$0.779	-	-	-	-	$12.503	-	-	-
1994	85.0	7	$8.10	0	>0	$0.779	-	-	-	-	$41.994	$74.453	$0.876	87.61 ¢
	-	5	$8.10	0	>0	$0.840	-	-	-	-	$32.459	-	-	-

Appendix Table 9.3: Calculation of WGL's DC Average Monthly Residential Gas Rates, without Adjustments, 1913-2013 (continued)

Calculation of WGL's DC Average Monthly Residential Gas Rates, Without Adjustments, 1913-2013 (Units in Therms)														
Year	Average Monthly Usage (Therms)	Months Effective in Year	Minimum OR Customer Charge	Minimum Charge (Therms Included)	Usage Block 1 Range	Usage Block 1 Cost	Usage Block 2 Range	Usage Block 2 Cost	Usage Block 3 Range	Usage Block 3 Cost	Monthly Calculation	Yearly Average of Monthly Cost	Reported Cost ($ / Therm)	Reported Cost (¢ / Therm)
1995	84.1	12	$8.10	0	>0	$0.840	-	-	-	-	$76.729	$76.729	$0.913	91.27 ¢
1996	83.2	12	$8.10	0	>0	$0.840	-	-	-	-	$75.960	$75.960	$0.913	91.35 ¢
1997	82.2	12	$8.10	0	>0	$0.840	-	-	-	-	$75.192	$75.192	$0.914	91.43 ¢
1998	81.3	12	$8.10	0	>0	$0.840	-	-	-	-	$74.424	$74.424	$0.915	91.51 ¢
1999	76.0	12	$7.49	0	>0	$0.399	-	-	-	-	$35.934	$35.934	$0.473	47.28 ¢
2000	81.8	12	$7.49	0	>0	$0.399	-	-	-	-	$38.248	$38.248	$0.468	46.76 ¢
2001	54.1	12	$7.49	0	>0	$0.399	-	-	-	-	$27.198	$27.198	$0.503	50.27 ¢
2002	59.1	12	$7.49	0	>0	$0.399	-	-	-	-	$29.200	$29.200	$0.494	49.39 ¢
2003	74.6	3	7.49	0	>0	$0.399	-	-	-	-	$9.313	$35.240	$0.472	47.23 ¢
	-	8	7.49	0	>0	$0.360	-	-	-	-	$22.905	-	-	-
	-	1	$7.85	0	>0	$0.381	-	-	-	-	$3.022	-	-	-
2004	66.5	12	$7.85	0	>0	$0.381	-	-	-	-	$33.176	$33.176	$0.499	49.90 ¢
2005	66.6	12	$7.85	0	>0	$0.381	-	-	-	-	$33.222	$33.222	$0.499	49.88 ¢
2006	56.1	12	$7.85	0	>0	$0.381	-	-	-	-	$29.215	$29.215	$0.521	52.09 ¢
2007	60.5	12	$7.85	0	>0	$0.381	-	-	-	-	$30.875	$30.875	$0.511	51.08 ¢
2008	60.3	12	$7.95	0	>0	$0.387	-	-	-	-	$31.285	$31.285	$0.519	51.93 ¢
2009	61.0	12	$7.95	0	>0	$0.387	-	-	-	-	$31.571	$31.571	$0.518	51.76 ¢
2010	60.7	12	$7.95	0	>0	$0.387	-	-	-	-	$31.455	$31.455	$0.518	51.83 ¢
2011	59.5	12	$7.95	0	>0	$0.387	-	-	-	-	$31.002	$31.002	$0.521	52.09 ¢
2012	49.7	12	$7.95	0	>0	$0.387	-	-	-	-	$27.199	$27.199	$0.547	54.73 ¢
2013	59.6	5	$7.95	0	>0	$0.387	-	-	-	-	$12.930	$32.845	$0.551	55.11 ¢
	-	7	$9.90	0	>0	$0.407	-	-	-	-	$19.915	-	-	-

N/A - Not Available

Appendix Table 9.4: Calculation of WGL's DC Average Monthly Residential Gas Rates, with Adjustments, 1913-2013

Calculation of WGL's DC Average Monthly Residential Gas Rates, With Adjustments, 1913-2013 (Units in Therms)										
Year	Average Monthly Usage (Therms)	Monthly Cost per Therm	CCA (1983-1998)	DCA (1999-2013)	Cost per Therm plus CCA/DCA	PGA (1956-1998)	PGC (1999-2013)	PRA (2012-2013)	Reported Cost ($/Therm)	Reported Cost (¢/Therm)
1913	N/A	$0.085	-		$0.085	-	-	-	$0.085	8.50 ¢
1914	N/A	$0.085	-	-	$0.085	-	-	-	$0.085	8.50 ¢
1915	N/A	$0.085	-	-	$0.085	-	-	-	$0.085	8.50 ¢
1916	N/A	$0.083	-	-	$0.083	-	-	-	$0.083	8.25 ¢
1917	N/A	$0.075	-	-	$0.075	-	-	-	$0.075	7.50 ¢
1918	N/A	$0.086	-	-	$0.086	-	-	-	$0.086	8.63 ¢
1919	N/A	$0.094	-	-	$0.094	-	-	-	$0.094	9.38 ¢
1920	N/A	$0.114	-	-	$0.114	-	-	-	$0.114	11.37 ¢
1921	N/A	$0.123	-	-	$0.123	-	-	-	$0.123	12.30 ¢
1922	N/A	$0.106	-	-	$0.106	-	-	-	$0.106	10.63 ¢
1923	N/A	$0.105	-	-	$0.105	-	-	-	$0.105	10.50 ¢
1924	N/A	$0.105	-	-	$0.105	-	-	-	$0.105	10.50 ¢
1925	N/A	$0.105	-	-	$0.105	-	-	-	$0.105	10.50 ¢
1926	N/A	$0.105	-	-	$0.105	-	-	-	$0.105	10.50 ¢
1927	N/A	$0.105	-	-	$0.105	-	-	-	$0.105	10.50 ¢
1928	2.4	$0.105	-	-	$0.105	-	-	-	$0.105	10.50 ¢
1929	4.5	$0.105	-	-	$0.105	-	-	-	$0.105	10.50 ¢
1930	6.6	$0.104	-	-	$0.104	-	-	-	$0.104	10.42 ¢
1931	8.7	$0.100	-	-	$0.100	-	-	-	$0.100	10.00 ¢
1932	10.7	$0.099	-	-	$0.099	-	-	-	$0.099	9.95 ¢
1933	12.8	$0.098	-	-	$0.098	-	-	-	$0.098	9.78 ¢
1934	14.9	$0.134	-	-	$0.134	-	-	-	$0.134	13.42 ¢
1935	16.9	$0.129	-	-	$0.129	-	-	-	$0.129	12.89 ¢
1936	19.0	$0.086	-	-	$0.086	-	-	-	$0.086	8.58 ¢
1937	21.1	$0.085	-	-	$0.085	-	-	-	$0.085	8.52 ¢
1938	23.1	$0.085	-	-	$0.085	-	-	-	$0.085	8.48 ¢
1939	25.2	$0.084	-	-	$0.084	-	-	-	$0.084	8.44 ¢
1940	27.3	$0.084	-	-	$0.084	-	-	-	$0.084	8.37 ¢
1941	29.3	$0.082	-	-	$0.082	-	-	-	$0.082	8.23 ¢
1942	31.4	$0.113	-	-	$0.113	-	-	-	$0.113	11.35 ¢

Appendix Table 9.4: Calculation of WGL's DC Average Monthly Residential Gas Rates, with Adjustments, 1913-2013 (continued)

Calculation of WGL's DC Average Monthly Residential Gas Rates, With Adjustments, 1913-2013 (Units in Therms)										
Year	Average Monthly Usage (Therms)	Monthly Cost per Therm	CCA (1983-1998)	DCA (1999-2013)	Cost per Therm plus CCA/DCA	PGA (1956-1998)	PGC (1999-2013)	PRA (2012-2013)	Reported Cost ($/Therm)	Reported Cost (¢/Therm)
1943	33.5	$0.111	-	-	$0.111	-	-	-	$0.111	11.06 ¢
1944	35.6	$0.110	-	-	$0.110	-	-	-	$0.110	10.96 ¢
1945	37.6	$0.110	-	-	$0.110	-	-	-	$0.110	10.97 ¢
1946	39.7	$0.081	-	-	$0.081	-	-	-	$0.081	8.08 ¢
1947	41.8	$0.114	-	-	$0.114	-	-	-	$0.114	11.43 ¢
1948	43.8	$0.124	-	-	$0.124	-	-	-	$0.124	12.39 ¢
1949	45.9	$0.123	-	-	$0.123	-	-	-	$0.123	12.34 ¢
1950	48.0	$0.127	-	-	$0.127	-	-	-	$0.127	12.74 ¢
1951	50.0	$0.127	-	-	$0.127	-	-	-	$0.127	12.67 ¢
1952	52.1	$0.131	-	-	$0.131	-	-	-	$0.131	13.10 ¢
1953	54.2	$0.137	-	-	$0.137	-	-	-	$0.137	13.66 ¢
1954	56.2	$0.138	-	-	$0.138	-	-	-	$0.138	13.79 ¢
1955	58.3	$0.137	-	-	$0.137	-	-	-	$0.137	13.72 ¢
1956	60.4	$0.137	-	-	$0.137	$0.001			$0.138	13.80 ¢
1957	60.0	$0.137	-	-	$0.137	$0.001			$0.138	13.81 ¢
1958	66.5	$0.140	-	-	$0.140	$0.001			$0.142	14.17 ¢
1959	66.9	$0.151	-	-	$0.151	$0.001			$0.152	15.23 ¢
1960	67.3	$0.151	-	-	$0.151	$0.001	-	-	$0.152	15.21 ¢
1961	67.7	$0.151	-	-	$0.151	$0.001	-	-	$0.152	15.20 ¢
1962	70.2	$0.150	-	-	$0.150	$0.001	-	-	$0.151	15.13 ¢
1963	70.4	$0.150	-	-	$0.150	$0.001	-	-	$0.151	15.12 ¢
1964	72.7	$0.149	-	-	$0.149	$0.001	-	-	$0.151	15.06 ¢
1965	73.1	$0.149	-	-	$0.149	$0.001	-	-	$0.150	15.05 ¢
1966	76.6	$0.148	-	-	$0.148	$0.001	-	-	$0.150	14.96 ¢
1967	79.2	$0.148	-	-	$0.148	$0.001	-	-	$0.149	14.90 ¢
1968	80.0	$0.147	-	-	$0.147	-$0.006	-	-	$0.141	14.11 ¢
1969	85.4	$0.146	-	-	$0.146	-$0.003	-	-	$0.143	14.28 ¢
1970	85.6	$0.146	-	-	$0.146	$0.000	-	-	$0.147	14.66 ¢
1971	85.2	$0.146	-	-	$0.146	$0.007	-	-	$0.154	15.35 ¢
1972	84.7	$0.146	-	-	$0.146	$0.009	-	-	$0.156	15.59 ¢

Appendix Table 9.4: Calculation of WGL's DC Average Monthly Residential Gas Rates, with Adjustments, 1913-2013 (continued)

Calculation of WGL's DC Average Monthly Residential Gas Rates, With Adjustments, 1913-2013 (Units in Therms)										
Year	Average Monthly Usage (Therms)	Monthly Cost per Therm	CCA (1983-1998)	DCA (1999-2013)	Cost per Therm plus CCA/DCA	PGA (1956-1998)	PGC (1999-2013)	PRA (2012-2013)	Reported Cost ($/Therm)	Reported Cost (¢/Therm)
1973	81.1	$0.147	-	-	$0.147	$0.002	-	-	$0.149	14.87 ¢
1974	79.2	$0.148	-	-	$0.148	$0.018	-	-	$0.166	16.59 ¢
1975	79.9	$0.198	-	-	$0.198	$0.046	-	-	$0.244	24.39 ¢
1976	86.6	$0.217	-	-	$0.217	$0.059	-	-	$0.276	27.58 ¢
1977	86.9	$0.279	-	-	$0.279	$0.053	-	-	$0.332	33.20 ¢
1978	87.1	$0.279	-	-	$0.279	$0.053	-	-	$0.332	33.18 ¢
1979	87.6	$0.355	-	-	$0.355	$0.038	-	-	$0.392	39.24 ¢
1980	84.7	$0.377	-	-	$0.377	$0.038	-	-	$0.415	41.51 ¢
1981	84.4	$0.501	-	-	$0.501	$0.058	-	-	$0.559	55.85 ¢
1982	81.7	$0.577	-	-	$0.577	$0.082	-	-	$0.659	65.90 ¢
1983	78.4	$0.808	-$0.023	-	$0.784	$0.064	-	-	$0.848	84.81 ¢
1984	86.1	$0.847	-$0.038	-	$0.809	$0.009	-	-	$0.818	81.79 ¢
1985	74.1	$0.856	-$0.025	-	$0.831	-$0.046	-	-	$0.785	78.52 ¢
1986	82.0	$0.852	-$0.025	-	$0.828	-$0.085	-	-	$0.743	74.29 ¢
1987	80.5	$0.879	-$0.054	-	$0.825	-$0.089	-	-	$0.737	73.66 ¢
1988	82.4	$0.848	-$0.042	-	$0.806	-$0.143	-	-	$0.663	66.26 ¢
1989	81.2	$0.809	$0.000	-	$0.809	-$0.031	-	-	$0.777	77.75 ¢
1990	83.5	$0.847	-$0.051	-	$0.795	-$0.060	-	-	$0.735	73.52 ¢
1991	85.9	$0.874	-$0.073	-	$0.801	-$0.137	-	-	$0.664	66.38 ¢
1992	88.2	$0.872	-$0.059	-	$0.814	-$0.101	-	-	$0.713	71.26 ¢
1993	85.9	$0.870	-$0.018	-	$0.852	$0.006	-	-	$0.858	85.83 ¢
1994	85.0	$0.876	-$0.044	-	$0.832	-$0.008	-	-	$0.824	82.45 ¢
1995	84.1	$0.913	-$0.041	-	$0.871	-$0.066	-	-	$0.805	80.51 ¢
1996	83.2	$0.913	-$0.067	-	$0.847	-$0.064	-	-	$0.783	78.29 ¢
1997	82.2	$0.914	-$0.020	-	$0.894	$0.039	-	-	$0.933	93.32 ¢
1998	81.3	$0.915	-$0.049	-	$0.866	$0.028	-	-	$0.893	89.35 ¢
1999	76.0	$0.473	-	-$0.068	$0.405	-	$0.400	-	$0.805	80.47 ¢
2000	81.8	$0.468	-	-$0.038	$0.429	-	$0.493	-	$0.923	92.27 ¢
2001	54.1	$0.503	-	-$0.056	$0.447	-	$0.684	-	$1.131	113.07 ¢
2002	59.1	$0.494	-	-$0.056	$0.438	-	$0.589	-	$1.027	102.70 ¢

Appendix Table 9.4: Calculation of WGL's DC Average Monthly Residential Gas Rates, with Adjustments, 1913-2013 (continued)

Calculation of WGL's DC Average Monthly Residential Gas Rates, With Adjustments, 1913-2013 (Units in Therms)										
Year	Average Monthly Usage (Therms)	Monthly Cost per Therm	CCA (1983-1998)	DCA (1999-2013)	Cost per Therm plus CCA/DCA	PGA (1956-1998)	PGC (1999-2013)	PRA (2012-2013)	Reported Cost ($/Therm)	Reported Cost (¢/Therm)
2003	74.6	$0.472	-	-$0.057	$0.415	-	$0.729	-	$1.144	114.42 ¢
2004	66.5	$0.499	-	-$0.041	$0.458	-	$0.833	-	$1.290	129.05 ¢
2005	66.6	$0.499	-	-$0.041	$0.458	-	$1.047	-	$1.505	150.49 ¢
2006	56.1	$0.521	-	-$0.055	$0.466	-	$1.036	-	$1.502	150.18 ¢
2007	60.5	$0.511	-	-$0.080	$0.430	-	$1.028	-	$1.458	145.84 ¢
2008	60.3	$0.519	-	-$0.084	$0.436	-	$1.199	-	$1.635	163.46 ¢
2009	61.0	$0.518	-	-$0.060	$0.458	-	$0.825	-	$1.282	128.24 ¢
2010	60.7	$0.518	-	-$0.066	$0.452	-	$0.821	-	$1.273	127.27 ¢
2011	59.5	$0.521	-	-$0.074	$0.447	-	$0.747	-	$1.194	119.42 ¢
2012	49.7	$0.547	-	-$0.066	$0.482	-	$0.616	$0.001	$1.098	109.83 ¢
2013	59.6	$0.551	-	-$0.058	$0.493	-	$0.667	$0.002	$1.162	116.16 ¢

N/A - Not Available
Sources: Table 9.2 and WGL for CCA/PGA/PRA data.

Appendix Table 10.1: PUC and PSC-Approved Local Telephone Rate Designs, 1913–2013

PUC and PSC-Approved Local Telephone Rate Designs, 1913-2013											
RESIDENTIAL - Flat Rates											
Effective Dates	Formal Case No.	Date Case Opened	Order Number	Date Order Issued	Basic Charge	E911 Fee Per Line	Universal Service Fund	Subscriber Line Charge	Gross Receipts Tax %	Excise Tax	Rights of Way Fee
12/2/1917					$4.00	-	-	$0.00	-	-	-
11/27/1923	1	12/1/1921	353	11/27/1923	$5.00	-	-	$0.00	-	-	-
5/27/1924	82	4/18/1924	377	5/27/1924	$5.50	-	-	$0.00	-	-	-
11/29/1926	133	10/29/1926	499	11/29/1926	$5.00	-	-	$0.00	-	-	-
5/4/1929	153	9/11/1928	551	5/14/1929	$4.75	-	-	$0.00	-	-	-
9/16/1936	238	5/3/1936	1072	9/16/1936	$4.28	-	-	$0.00	-	-	-
12/2/1938	238	7/11/1938	1305	12/11/1938	$4.30	-	-	$0.00	-	-	-
9/2/1940	3185	6/11/1940	1529	8/27/1940	$4.20	-	-	$0.00	-	-	-
12/23/1951	370	9/30/1951	3295	12/23/1951	$4.75	-	-	$0.00	-	-	-
2/21/1954	393	9/17/1953	3635, 3640	2/20/1950, 3/2/1950	$5.25	-	-	$0.00	-	-	-
7/30/1958	430	7/30/1958	4096, 4103	7/29/1954, 8/10/1954	$5.75	-	-	$0.00	-	-	-
12/23/1968	494	9/8/1967	4887, 4899, 4976	6/18/1964, 12/22/1964, 2/18/1965	$5.95	-	-	$0.00	-	-	-
5/18/1980	631	1/3/1979	5790, 5796	5/17/1976, 5/28/1976	$9.99 Dial Tone $12.01 Touch Tone	-	-	$0.00	-	-	-
5/29/1985	729	10/25/1983	7323, 7345	5/28/1981, 6/19/1981	$8.18	-	-	$0.00	-	-	-
7/21/1986	777	11/13/1985	7616, 7642	7/20/1982, 8/619/82	$7.88; Touch Tone $.85 extra	-	-	$0.00	-	-	-
1/6/1988	798	3/16/1987	7886, 7924	10/3/1983, 11/10/1983	$12.49 Unlimited Metro; $6.38 Unlimited DC	-	-	$0.00	-	-	-
1/8/1988	798	3/16/1987	7886, 7954	10/3/1983, 1/5/1984	$12.49	-	-	$0.00	-	-	-
6/2/1989					$12.49	-	-	$1.00	-	-	-
1/2/1990	827	10/20/1988	8300, 8374	8/13/1985, 12/31/1985	$15.61	-	-	$1.00	-	-	-
5/2/1990					$15.61	$0.16	-	$1.00	-	-	-
6/2/1990					$15.61	$0.16	-	$2.00	-	-	-
PUC and PSC-Approved Local Telephone Rate Designs, 1913-2013											

Appendix Table 10.1: PUC and PSC-Approved Local Telephone Rate Designs, 1913–2013 (continued)

PUC and PSC-Approved Local Telephone Rate Designs, 1913-2013											
RESIDENTIAL - Flat Rates											
Effective Dates	Formal Case No.	Date Case Opened	Order Number	Date Order Issued	Basic Charge	E911 Fee Per Line	Universal Service Fund	Subscriber Line Charge	Gross Receipts Tax %	Excise Tax	Rights of Way Fee
8/2/1991	854	1/23/1991	8811	7/3/1991	$15.33	$0.16	-	n/a	-	-	-
1/2/1992		7/3/1991	8867, 8916	9/27/87, 12/31/87	$14.94	$0.16	-	$2.60	-	-	-
12/2/1992					$14.94	$0.16	-	$3.20	-	-	-
4/2/1993					$14.94	$0.16	-	$3.14	-	-	-
8/2/1993					$14.94	$0.16	-	$3.04	-	-	-
1/2/1994					$14.94	$0.16	-	$2.85	-	-	-
4/2/1994					$14.94	$0.16	-	$2.94	-	-	-
7/2/1994					$14.94	$0.16	-	$2.76	-	-	-
1/2/1995					$14.94	$0.16	-	$2.72	-	-	-
7/2/1995					$14.94	$0.16	-	$2.49	3.322%	-	-
3/15/1996	850	9/10/1990	9927	1/28/1996	$14.60	In Basic Rates	-	$2.49	3.322%	-	-
7/2/1996					$14.60	In Basic Rates	-	$2.43	3.322%	-	-
7/2/1997					$14.60	In Basic Rates	-	$2.56	3.322%	-	-
1/2/1998					$14.60	In Basic Rates	-	$2.56	3.322%	3%	-
6/2/1998					$14.60	In Basic Rates	-	$2.56	3.667%	3%	-
7/2/1998					$14.60	In Basic Rates	-	$2.53	3.667%	3%	-
7/2/1999					$14.60	In Basic Rates	-	$2.09	3.667%	3%	-
1/2/2000	814 IV First Price Cap Plan GDP PI 3%	2/1/1999	10595	3/29/1999	$14.15	In Basic Rates	-	$2.09	3.667%	3%	-
7/2/2000					$14.15	In Basic Rates	-	$2.95	3.667%	3%	-
7/2/2001					$14.15	In Basic Rates	-	$2.49	11.111%	3%	-
1/2/2002					$14.15	In Basic Rates	-	$3.24	11.111%	3%	-
7/2/2002					$14.00	In Basic Rates	-	$3.24	11.111%	3%	-
10/2/2002					$14.00	In Basic Rates	-	$3.24	10%	3%	-
11/2/2003					$14.00	In Basic Rates	-	$3.32	10%	3%	-

Appendix Table 10.1: PUC and PSC-Approved Local Telephone Rate Designs, 1913–2013 (continued)

PUC and PSC-Approved Local Telephone Rate Designs, 1913-2013											
RESIDENTIAL - Flat Rates											
Effective Dates	Formal Case No.	Date Case Opened	Order Number	Date Order Issued	Basic Charge	E911 Fee Per Line	Universal Service Fund	Subscriber Line Charge	Gross Receipts Tax %	Excise Tax	Rights of Way Fee
7/2/2004	814 IV Second Price Cap Plan	10/16/2003	11537	11/9/2003	$12.94	In Basic Rates	$0.35	$3.80	10%	3%	-
10/2/2004		9/3/2003	11545	11/18/2003	$12.78	$0.56	$0.36	$3.80	10%	3%	-
11/2/2004					$12.78	$0.56	$0.36	$3.80	10%	3%	$0.68
1/3/2005					$12.78	$0.56	$0.43	$3.80	10%	3%	$0.68
4/4/2005					$12.78	$0.56	$0.45	$3.80	10%	3%	$0.68
7/4/2005					$12.78	$0.56	$0.55	$3.81	10%	3%	$0.68
10/2/2005					$12.78	$0.56	$0.53	$3.81	10%	3%	$0.68
1/2/2006					$12.78	$0.56	$0.54	$3.81	10%	3%	$0.68
4/3/2006	1005 Third Price Cap Plan	8/17/2005	12157	9/11/2005	$12.78	$0.56	$0.60	$3.81	10%	3%	$0.68
7/3/2006					$12.78	$0.56	$0.57	$3.82	10%	3%	$0.68
7/14/2006					$12.78	$0.56	$0.57	$3.86	10%	3%	$0.68
10/10/2006					$12.78	$0.56	$0.58	$3.86	10%	3%	$0.68
1/2/2007					$12.78	$0.76	$0.62	$3.86	11%	3%	$0.68
4/2/2007					$12.78	$0.76	$0.38	$3.86	11%	3%	$0.68
7/2/2007					$12.78	$0.76	$0.39	$3.87	11%	3%	$1.66
10/2/2007					$12.78	$0.76	$0.38	$3.87	11%	3%	$1.66
1/2/2008					$12.78	$0.76	$0.36	$3.87	11%	3%	$1.66
4/2/2008					$12.78	$0.76	$0.34	$3.87	11%	3%	$1.66
7/2/2008					$12.78	$0.76	$0.35	$3.84	11%	3%	$1.07
9/10/2008	1005 Fourth Price Cap Plan	2/18/2008	13263	8/5/2008	$12.78	$0.76	$0.37	$3.84	11%	3%	$1.07
1/2/2009					$12.78	$0.76	$0.44	$3.84	11%	3%	$1.07
3/2/2009					$12.78	$0.76	$0.42	$3.84	11%	3%	$1.07
4/2/2009					$12.78	$0.76	$0.43	$3.84	10%	3%	$1.07
7/2/2009					$12.78	$0.76	$0.40	$3.85	10%	3%	$1.22
4/2/2010					$12.78	$0.76	$0.42	$3.85	10%	3%	$1.22
7/2/2010					$12.78	$0.76	$0.41	$3.85	10%	3%	$1.22
10/2/2012	1057 Price Cap Plan 2008	12/5/2010	14219	2/23/2011	$12.78	$0.76	$0.39	$3.85	10%	3%	$1.91
9/19/2014		2/27/2012	578, 580	5/26/2010, 6/8/2010	$13.78	$0.76	$0.59	$3.86	10%	3%	$2.27

Appendix Table 10.2: Summary of Economy II Rates and Savings, 1986–2014

Summary of Economy II Rates and Savings, 1986-2014									
Monthy and Yearly Savings Over Residential Rates									
Effective Dates	Year	Residential Rate	Subscriber Line Charge	Economy II			Economy II Senior Citizens		
				Rate	Monthly Savings	Annual Savings	Rate	Monthly Savings	Annual Savings
1/2/1990	1986	$15.61	$1.00	$4.00	$12.61	$151.32	$4.00	$12.61	$151.32
5/2/1990	1986	$15.61	$1.00	$4.00	$12.61	$151.32	$4.00	$12.61	$151.32
6/2/1990	1986	$15.61	$2.00	$4.00	$13.61	$163.32	$4.00	$13.61	$163.32
1/10/1991	1987	$15.61	$2.00	$4.00	$13.61	$163.32	$4.00	$13.61	$163.32
7/3/1991	1987	$15.33	$2.00	$3.93	$13.40	$160.80	$3.93	$13.40	$160.80
1/2/1992	1988	$14.94	$2.60	$3.83	$13.71	$164.52	$3.83	$13.71	$164.52
12/2/1992	1988	$14.94	$3.20	$3.83	$14.31	$171.72	$3.83	$14.31	$171.72
4/2/1993	1989	$14.94	$3.14	$3.83	$14.25	$171.00	$3.83	$14.25	$171.00
8/2/1993	1989	$14.94	$3.04	$3.83	$14.15	$169.80	$3.83	$14.15	$169.80
1/2/1994	1990	$14.94	$2.85	$3.83	$13.96	$167.52	$3.83	$13.96	$167.52
4/2/1994	1990	$14.94	$2.94	$3.83	$14.05	$168.60	$3.83	$14.05	$168.60
7/2/1994	1990	$14.94	$2.76	$3.83	$13.87	$166.44	$3.83	$13.87	$166.44
1/2/1995	1991	$14.94	$2.72	$3.83	$13.83	$165.96	$3.83	$13.83	$165.96
7/2/1995	1991	$14.94	$2.49	$3.83	$13.60	$163.20	$3.83	$13.60	$163.20
1/2/1996	1992	$14.94	$2.49	$3.83	$13.60	$163.20	$3.83	$13.60	$163.20
3/15/1996	1992	$14.60	$2.49	$1.00	$16.09	$193.08	$1.00	$16.09	$193.08
7/2/1996	1992	$14.60	$2.43	$1.00	$16.03	$192.36	$1.00	$16.03	$192.36
3/15/1997	1993	$14.60	$2.43	$3.00	$14.03	$168.36	$1.00	$16.03	$192.36
7/2/1997	1993	$14.60	$2.56	$3.00	$14.16	$169.92	$1.00	$16.16	$193.92
1/2/1998	1994	$14.60	$2.56	$3.00	$14.16	$169.92	$1.00	$16.16	$193.92
5/14/1998	1994	$14.60	$2.56	$3.00	$14.16	$169.92	$1.00	$16.16	$193.92
6/2/1998	1994	$14.60	$2.56	$3.00	$14.16	$169.92	$1.00	$16.16	$193.92
7/2/1998	1994	$14.60	$2.53	$3.00	$14.13	$169.56	$1.00	$16.13	$193.56
10/2/1998	1994	$14.60	$2.53	$3.00	$14.13	$169.56	$1.00	$16.13	$193.56
7/2/1999	1995	$14.60	$2.09	$3.00	$13.69	$164.28	$1.00	$15.69	$188.28
12/2/1999	1995	$14.60	$2.09	$3.00	$13.69	$164.28	$1.00	$15.69	$188.28

Appendix Table 10.2: Summary of Economy II Rates and Savings, 1986–2014 (continued)

Summary of Economy II Rates and Savings, 1986-2014									
Monthy and Yearly Savings Over Residential Rates									
Effective Dates	Year	Residential Rate	Subscriber Line Charge	Economy II			Economy II Senior Citizens		
				Rate	Monthly Savings	Annual Savings	Rate	Monthly Savings	Annual Savings
1/2/2000	1996	$14.15	$2.09	$3.00	$13.24	$158.88	$1.00	$15.24	$182.88
7/2/2000	1996	$14.15	$2.95	$3.00	$14.10	$169.20	$1.00	$16.10	$193.20
12/2/2000	1996	$14.15	$2.95	$3.00	$14.10	$169.20	$1.00	$16.10	$193.20
1/2/2001	1997	$14.15	$2.95	$3.00	$14.10	$169.20	$1.00	$16.10	$193.20
7/2/2001	1997	$14.15	$2.49	$3.00	$13.64	$163.68	$1.00	$15.64	$187.68
1/2/2002	1998	$14.15	$3.24	$3.00	$14.39	$172.68	$1.00	$16.39	$196.68
7/2/2002	1998	$14.00	$3.24	$3.00	$14.24	$170.88	$1.00	$16.24	$194.88
10/2/2002	1998	$14.00	$3.24	$3.00	$14.24	$170.88	$1.00	$16.24	$194.88
12/2/2002	1998	$14.00	$3.24	$3.00	$14.24	$170.88	$1.00	$16.24	$194.88
3/18/2003	1999	$14.00	$3.24	$3.00	$14.24	$170.88	$1.00	$16.24	$194.88
7/2/2003	1999	$14.00	$3.24	$3.00	$14.24	$170.88	$1.00	$16.24	$194.88
11/2/2003	1999	$14.00	$3.32	$3.00	$14.32	$171.84	$1.00	$16.32	$195.84
1/2/2004	2000	$14.00	$3.32	$3.00	$14.32	$171.84	$1.00	$16.32	$195.84
7/2/2004	2000	$12.94	$3.80	$3.00	$13.74	$164.88	$1.00	$15.74	$188.88
10/2/2004	2000	$12.78	$3.80	$3.00	$13.58	$162.96	$1.00	$15.58	$186.96
11/2/2004	2000	$12.78	$3.80	$3.00	$13.58	$162.96	$1.00	$15.58	$186.96
1/3/2005	2001	$12.78	$3.80	$3.00	$13.58	$162.96	$1.00	$15.58	$186.96
4/4/2005	2001	$12.78	$3.80	$3.00	$13.58	$162.96	$1.00	$15.58	$186.96
7/2/2005	2001	$12.78	$3.80	$3.00	$13.58	$162.96	$1.00	$15.58	$186.96
7/4/2005	2001	$12.78	$3.81	$3.00	$13.59	$163.08	$1.00	$15.59	$187.08
10/2/2005	2001	$12.78	$3.81	$3.00	$13.59	$163.08	$1.00	$15.59	$187.08
1/2/2006	2002	$12.78	$3.81	$3.00	$13.59	$163.08	$1.00	$15.59	$187.08
4/3/2006	2002	$12.78	$3.81	$3.00	$13.59	$163.08	$1.00	$15.59	$187.08
7/3/2006	2002	$12.78	$3.82	$3.00	$13.60	$163.20	$1.00	$15.60	$187.20
7/14/2006	2002	$12.78	$3.86	$3.00	$13.64	$163.68	$1.00	$15.64	$187.68
7/27/2006	2002	$12.78	$3.86	$3.00	$13.64	$163.68	$1.00	$15.64	$187.68
10/3/2006	2002	$12.78	$3.86	$3.00	$13.64	$163.68	$1.00	$15.64	$187.68

Appendix Table 10.2: Summary of Economy II Rates and Savings, 1986–2014 (continued)

Summary of Economy II Rates and Savings, 1986-2014									
Monthy and Yearly Savings Over Residential Rates									
Effective Dates	Year	Residential Rate	Subscriber Line Charge	Economy II			Economy II Senior Citizens		
				Rate	Monthly Savings	Annual Savings	Rate	Monthly Savings	Annual Savings
10/10/2006	2002	$12.78	$3.86	$3.00	$13.64	$163.68	$1.00	$15.64	$187.68
1/2/2007	2003	$12.78	$3.86	$3.00	$13.64	$163.68	$1.00	$15.64	$187.68
4/2/2007	2003	$12.78	$3.86	$3.00	$13.64	$163.68	$1.00	$15.64	$187.68
7/2/2007	2003	$12.78	$3.87	$3.00	$13.65	$163.80	$1.00	$15.65	$187.80
10/2/2007	2003	$12.78	$3.87	$3.00	$13.65	$163.80	$1.00	$15.65	$187.80
10/31/2007	2003	$12.78	$3.87	$3.00	$13.65	$163.80	$1.00	$15.65	$187.80
1/2/2008	2004	$12.78	$3.87	$3.00	$13.65	$163.80	$1.00	$15.65	$187.80
4/2/2008	2004	$12.78	$3.87	$3.00	$13.65	$163.80	$1.00	$15.65	$187.80
7/2/2008	2004	$12.78	$3.84	$3.00	$13.62	$163.44	$1.00	$15.62	$187.44
9/10/2008	2004	$12.78	$3.84	$3.00	$13.62	$163.44	$1.00	$15.62	$187.44
1/2/2009	2005	$12.78	$3.84	$3.00	$13.62	$163.44	$1.00	$15.62	$187.44
3/2/2009	2005	$12.78	$3.84	$3.00	$13.62	$163.44	$1.00	$15.62	$187.44
4/2/2009	2005	$12.78	$3.84	$3.00	$13.62	$163.44	$1.00	$15.62	$187.44
7/2/2009	2005	$12.78	$3.85	$3.00	$13.63	$163.56	$1.00	$15.63	$187.56
4/2/2010	2006	$12.78	$3.85	$3.00	$13.63	$163.56	$1.00	$15.63	$187.56
7/2/2010	2006	$12.78	$3.85	$3.00	$13.63	$163.56	$1.00	$15.63	$187.56
10/2/2012	2008	$12.78	$3.85	$3.00	$13.63	$163.56	$1.00	$15.63	$187.56
9/19/2014	2010	$13.78	$3.86	$3.00	$14.64	$175.68	$1.00	$16.64	$199.68
2/2011	2011	$13.78	$3.84	$3.00	$14.62	$175.44	$1.00	$16.62	$199.44
2/2012	2012	$13.78	$3.86	$3.00	$14.64	$175.68	$1.00	$16.64	$199.68
2/2013	2013	$13.78	$3.86	$3.00	$14.64	$175.68	$1.00	$16.64	$199.68
2/2014	2014	$13.78	$3.87	$3.00	$14.65	$175.80	$1.00	$16.65	$199.80

Appendix Table 11.1: Summary of Preliminary Results for Residential Electricity Demand Regressions

Summary of Preliminary Results for Residential Electricity Demand Regressions								
Category	PSCE/PSCG		PSCE/DOEG		DOEE/PSCG		DOEE/DOEG	
	Coefficient	T-Statistic	Coefficient	T-Statistic	Coefficient	T-Statistic	Coefficient	T-Statistic
1930-2013								
R Squared	0.970075778		0.970205249		0.956501819		0.95648778	
Durbin-Watson	0.421929		0.403445		0.16484		0.160289	
Intercept	0.184993459	0.237493222	0.124754218	0.159467254	-1.173803161	-1.30485396	-1.243466987	-1.3663699
Gas Prices	0.034071575	0.412245356	-0.057916139	-0.719942791	0.05246603	0.508581928	-0.049659778	-0.482452143
Electricity Prices	-0.760588183	-14.34240883	-0.724921975	-12.62368517	-0.800745306	-10.79575067	-0.754162282	-9.159621773
Income	0.738183276	10.61172531	0.77663561	10.71498915	0.8613697	10.70616121	0.90279853	10.61387893
1930-1949								
R Squared	0.885666545		0.986942814		0.913247727		0.985027507	
Durbin-Watson	0.368081		0.87953		0.530485		1.216715	
Intercept	3.919092188	0.706881129	5.763184112	3.369021772	3.845968058	0.809378649	4.099452132	2.298120957
Gas Prices	0.14095007	0.759990485	1.016651773	11.36482928	0.136120033	0.847443185	0.80206334	8.992600341
Electricity Prices	-0.685944713	-6.342781343	-1.010894829	-21.78385354	-0.784441255	-7.622885133	-1.031569551	-20.29251224
Income	0.27177899	0.542421229	-0.241088447	-1.45732551	0.300955827	0.705457945	0.020299736	0.12061714
1950-2013								
R Squared	0.93028322		0.930270823		0.87967769		0.879385586	
Durbin-Watson	0.460631		0.451427		0.120345		0.117578	
Intercept	0.182750181	0.191697173	0.290378871	0.307598422	-2.207815269	-1.703385869	-2.150310928	-1.663643998
Gas Prices	0.037114648	0.407519142	-0.036003441	-0.394176739	0.051193051	0.423351761	-0.022196989	-0.182988293
Electricity Prices	-0.687978396	-8.327010689	-0.682599162	-8.265746267	-0.57817816	-3.865393239	-0.563238034	-3.766348876
Income	0.719447826	9.658393888	0.741224033	9.636202747	0.904419426	9.236440146	0.928642506	9.129437025

Orange indicates variables that are statistically significant at the 90 percent confidence level or above.

Appendix Table 11.1: Summary of Preliminary Results for Residential Electricity Demand Regressions (continued)

Summary of Preliminary Results for Residential Electricity Demand Regressions								
Category	PSCE/PSCG		PSCE/DOEG		DOEE/PSCG		DOEE/DOEG	
	Coefficient	T-Statistic	Coefficient	T-Statistic	Coefficient	T-Statistic	Coefficient	T-Statistic
1930-1969								
R Squared	0.952751384		0.95172222		0.970901787		0.974174534	
Durbin-Watson	0.561857		0.524226		0.600688		0.497993	
Intercept	-10.59750178	-3.975248346	-10.470105	-3.691104699	-6.611254929	-2.949721691	-7.53077908	-3.530015532
Gas Prices	0.241751461	1.345318912	0.206469615	1.001932788	0.270764764	1.967754463	0.465832025	2.987451505
Electricity Prices	-0.551199315	-6.258352366	-0.559657299	-5.438238776	-0.702745793	-9.276496666	-0.813920177	-9.305051307
Income	1.635910266	7.502938113	1.641823869	7.230995995	1.259678697	6.700989944	1.290260333	7.282703128
1970-2013								
R Squared	0.926646635		0.924203614		0.931226264		0.929731757	
Durbin-Watson	1.721783		1.662596		1.521887		1.510031	
Intercept	0.466208637	1.399755308	0.580905458	1.736142977	0.786182474	2.131447504	0.91329707	2.466899578
Gas Prices	0.142106927	4.32715191	0.140627226	4.102618812	0.147497101	4.631692434	0.147649383	4.488381095
Electricity Prices	-0.115981114	-2.589161195	-0.100796548	-2.206293939	-0.130961572	-3.132690403	-0.122281356	-2.897855613
Income	0.510106373	18.44369986	0.496048718	16.79374485	0.481515536	16.2977064	0.467122139	15.01815053

Orange indicates variables that are statistically significant at the 90 percent confidence level or above.

Appendix Table 11.2: Summary of Preliminary Results for Residential Gas Demand Regressions – Version 1

Category	PSCE/PSCG		PSCE/DOEG		DOEE/PSCG		DOEE/DOEG	
	Coefficient	T-Statistic	Coefficient	T-Statistic	Coefficient	T-Statistic	Coefficient	T-Statistic
1930-2013								
R Squared	0.882603031		0.886955403		0.869477899		0.871365188	
Durbin-Watson	0.494508169		0.471972527		0.315648355		0.317810602	
Intercept	12.93943484	10.07698381	12.47453719	9.787775327	12.87314186	9.432314247	12.51738751	9.034870784
Gas Prices	-0.341992366	-2.737158218	-0.391485627	-3.28969556	-0.193812391	-1.402106042	-0.242561299	-1.775896129
Electricity Prices	-1.150170022	-14.55545318	-1.091265267	-12.96751501	-1.318998155	-13.5134227	-1.26774661	-11.75592221
Heating Degree Days	0.000230268	2.90310319	0.000228556	2.951096596	8.19131E-05	0.969904827	8.75128E-05	1.046183014
Income	-0.449120498	-4.149043785	-0.396157091	-3.585881415	-0.42104685	-3.689213539	-0.379600498	-3.174225769
1930-1949								
R Squared	0.852697322		0.985943463		0.880983009		0.987287246	
Durbin-Watson	0.517527259		0.640878931		0.551338873		0.7993911	
Intercept	0.784989683	0.065649123	5.180734622	1.504691925	0.936934068	0.088470776	3.115197752	0.969131188
Gas Prices	0.163327547	0.373323916	2.216348796	11.98540859	0.238559725	0.603544008	1.884399578	11.35079192
Electricity Prices	-1.234757468	-5.276522678	-1.957283177	-21.11089459	-1.430117875	-6.166318775	-2.030156878	-22.23430441
Heating Degree Days	0.000242463	1.229646312	6.16301E-05	1.055433832	0.000153364	0.857285751	-1.72583E-05	-0.307004882
Income	0.544750165	0.504119353	-0.599665325	-1.800369389	0.571765735	0.601349849	-0.207189042	-0.681918006
1950-2013								
R Squared	0.518416948		0.560973357		0.221413143		0.256907332	
Durbin-Watson	0.566904708		0.570153324		0.268064013		0.26266379	
Intercept	8.974961251	9.045226538	8.86721906	9.417025359	7.229410207	5.151115878	6.997982946	5.086644729
Gas Prices	-0.149701436	-1.696188128	-0.253563234	-2.979096583	-0.128678229	-1.129485484	-0.229273641	-2.038341943
Electricity Prices	-0.584179358	-7.337144887	-0.579443857	-7.62760245	-0.46355787	-3.285051758	-0.440894389	-3.198642585
Heating Degree Days	0.000161087	2.814021147	0.000177144	3.217819321	9.59225E-05	1.3029383	0.000112846	1.555503724
Income	-0.28259181	-3.795687913	-0.231974497	-3.140542323	-0.138705502	-1.382775096	-0.082790854	-0.807183838

Orange indicates variables that are statistically significant at the 90 percent confidence level or above.

Appendix Table 11.2: Summary of Preliminary Results for Residential Gas Demand Regressions – Version 1 (continued)

Category	PSCE/PSCG		PSCE/DOEG		DOEE/PSCG		DOEE/DOEG	
	Coefficient	T-Statistic	Coefficient	T-Statistic	Coefficient	T-Statistic	Coefficient	T-Statistic
1930-1969								
R Squared	0.93005479		0.947632264		0.221413143		0.985791458	
Durbin-Watson	0.507084845		0.449967014		0.268064013		0.47311374	
Intercept	4.393051366	0.990791785	-1.854451471	-0.46931197	7.229410207	5.151115878	3.288100726	1.562946216
Gas Prices	0.190161465	0.616788912	1.002242846	3.500861862	-0.128678229	-1.129485484	1.482420801	9.44183497
Electricity Prices	-1.318834475	-9.333048666	-1.596083779	-11.25718151	-0.46355787	-3.285051758	-2.022762153	-23.68668044
Heating Degree Days	0.000228193	1.956543657	0.000198633	2.08075436	9.59225E-05	1.3029383	4.31956E-05	0.873058009
Income	0.208413704	0.568424659	0.542431171	1.684542135	-0.138705502	-1.382775096	-0.042117384	-0.239215116
1970-2013								
R Squared	0.744062537		0.754936282		0.728406075		0.736815771	
Durbin-Watson	1.140883657		1.138992726		1.067819426		1.059958708	
Intercept	9.618714386	13.58784998	9.549921646	13.81262379	9.469660991	11.36388883	9.370884745	11.38450098
Gas Prices	-0.050925147	-0.7954325951	-0.100944985	-1.546369877	-0.0481477	-0.72744538	-0.09053379	-1.338759961
Electricity Prices	-0.154653323	-1.808280781	-0.163494631	-1.950885701	-0.07805179	-0.912778878	-0.077805763	-0.926671532
Heating Degree Days	0.000113959	2.412089055	0.000125754	2.680426562	0.000115453	2.355707703	0.000126051	2.572521402
Income	-0.471521227	-8.553058288	-0.444444546	-7.738700111	-0.478004188	-7.571306796	-0.453373768	-6.91073415

Orange indicates variables that are statistically significant at the 90 percent confidence level or above.

Appendix Table 11.3: Summary of Preliminary Results for Residential Gas Demand Regressions – Version 2

Category	PSCE/PSCG		PSCE/DOEG		DOEE/PSCG		DOEE/DOEG	
	Coefficient	T-Statistic	Coefficient	T-Statistic	Coefficient	T-Statistic	Coefficient	T-Statistic
1930-2013								
R Squared	0.8826030		0.8869554		0.8694779		0.8713652	
Durbin-Watson	0.4945082		0.4719725		0.3156484		0.3178106	
Intercept	12.9394348	10.07698381	12.4745372	9.7877753	12.8731419	9.4323142	12.5173875	9.0348708
Gas Prices	-0.3419924	-2.737158218	-0.3914856	-3.2896956	-0.1938124	-1.4021060	-0.2425613	-1.7758961
Electricity Prices	-1.1501700	-14.55545318	-1.0912653	-12.9675150	-1.3189982	-13.5134227	-1.2677466	-11.7559222
Heating Degree Days	0.0002303	2.90310319	0.0002286	2.9510966	0.0000819	0.9699048	0.0000875	1.0461830
Income	-0.4491205	-4.149043785	-0.3961571	-3.5858814	-0.4210469	-3.6892135	-0.3796005	-3.1742258
1930-1949								
R Squared	0.8526973		0.9859435		0.8809830		0.9872872	
Durbin-Watson	0.5175273		0.6408789		0.5513389		0.7993911	
Intercept	0.7849897	0.06564912323	5.1807346	1.5046919	0.9369341	0.0884708	3.1151978	0.9691312
Gas Prices	0.1633275	0.3733239162	2.2163488	11.9854086	0.2385597	0.6035440	1.8843996	11.3507919
Electricity Prices	-1.2347575	-5.276522678	-1.9572832	-21.1108946	-1.4301179	-6.1663188	-2.0301569	-22.2343044
Heating Degree Days	0.0002425	1.229646312	0.0000616	1.0554338	0.0001534	0.8572858	-0.0000173	-0.3070049
Income	0.5447502	0.5041193527	-0.5996653	-1.8003694	0.5717657	0.6013498	-0.2071890	-0.6819180
1950-2013								
R Squared	0.5184169		0.5609734		0.2214131		0.2569073	
Durbin-Watson	0.5669047		0.5701533		0.2680640		0.2626638	
Intercept	8.9749613	9.045226538	8.8672191	9.4170254	7.2294102	5.1511159	6.9979829	5.0866447
Gas Prices	-0.1497014	-1.696188128	-0.2535632	-2.9790966	-0.1286782	-1.1294855	-0.2292736	-2.0383419
Electricity Prices	-0.5841794	-7.337144887	-0.5794439	-7.6276025	-0.4635579	-3.2850518	-0.4408944	-3.1986426
Heating Degree Days	0.0001611	2.814021147	0.0001771	3.2178193	0.0000959	1.3029383	0.0001128	1.5555037
Income	-0.2825918	-3.795687913	-0.2319745	-3.1405423	-0.1387055	-1.3827751	-0.0827909	-0.8071838

Orange indicates variables that are statistically significant at the 90 percent confidence level or above.

Appendix Table 11.3: Summary of Preliminary Results for Residential Gas Demand Regressions – Version 2 (continued)

Category	PSCE/PSCG		PSCE/DOEG		DOEE/PSCG		DOEE/DOEG	
	Coefficient	T-Statistic	Coefficient	T-Statistic	Coefficient	T-Statistic	Coefficient	T-Statistic
1930-1969								
R Squared	0.9300548		0.9476323		0.2214131		0.9857915	
Durbin-Watson	0.5070848		0.4499670		0.2680640		0.4731137	
Intercept	4.3930514	0.9907917851	-1.8544515	-0.4693120	7.2294102	5.1511159	3.2881007	1.5629462
Gas Prices	0.1901615	0.6167889122	1.0022428	3.5008619	-0.1286782	-1.1294855	1.4824208	9.4418350
Electricity Prices	-1.3188345	-9.333048666	-1.5960838	-11.2571815	-0.4635579	-3.2850518	-2.0227622	-23.6866804
Heating Degree Days	0.0002282	1.956543657	0.0001986	2.0807544	0.0000959	1.3029383	0.0000432	0.8730580
Income	0.2084137	0.5684246588	0.5424312	1.6845421	-0.1387055	-1.3827751	-0.0421174	-0.2392151
1970-2013								
R Squared	0.7440625		0.7549363		0.7284061		0.7368158	
Durbin-Watson	1.1408837		1.1389927		1.0678194		1.0599587	
Intercept	9.6187144	13.5878500	9.5499216	13.8126238	9.4696610	11.3638888	9.3708847	11.3845010
Gas Prices	-0.0509251	-0.7954326	-0.1009450	-1.5463699	-0.0481477	-0.7274454	-0.0905338	-1.3387600
Electricity Prices	-0.1546533	-1.8082808	-0.1634946	-1.9508857	-0.0780518	-0.9127789	-0.0778058	-0.9266715
Heating Degree Days	0.0001140	2.4120891	0.0001258	2.6804266	0.0001155	2.3557077	0.0001261	2.5725214
Income	-0.4715212	-8.5530583	-0.4444445	-7.7387001	-0.4780042	-7.5713068	-0.4533738	-6.9107342

Orange indicates variables that are statistically significant at the 90 percent confidence level or above.

Appendix Table P1: Nominal Streetcar and Bus Fares, 1913–1963 (Cents)

Nominal Streetcar and Bus Fares (Cents), 1913-1963						
Year	Company	Formal Case No.	Order No.	Date of Order	Effective Date	
1870-1913	-					
1914	-	-	-	-	-	
1915	-	-	-	-	-	
1916	-	-	-	-	-	
1917	-	-	-	-	-	
1918	WRECO	66	289	10/26/1918	10/26/1918	
	Capital Traction	67	290			
	East Washington Heights Traction Railroad Co., Washington and Maryland Railway Co., Washington-Virginia Railway Co., Washington and Old Dominion Railway, Capital Traction, WRECO	P.U.C. No. 2421	291			
1919	WRECO, Capital Traction	77	344	10/18/1919	11/1/1919	
1920	WRECO	81	373	4/15/1920	5/1/1920	
1921	East Washington Heights Traction Railroad Co., Washington and Maryland Railway Co., Washington-Virginia Railway Co., Capital Traction, WRECO	98	429	7/29/1921	9/1/1921	
1922	East Washington Heights Traction Railroad Co., Washington and Maryland Railway Co., Washington-Virginia Railway Co., Capital Traction, WRECO	109	462	2/27/1922	3/1/1922	
1923	-	-	-	-	-	
1924	Washington Rapid Transit Co.	146	532	4/19/1924	5/1/1924	
1925	Washington Rapid Transit Co.	154	539	12/4/1924	2/1/1925	
1926	Washington Rapid Transit Co.	172	589	12/30/1925	11/1/1926	
1927	Washington Rapid Transit Co.	187	673	6/27/1927	6/27/1927	
1928	-	-	-	-	-	
1929	-	-	-	-	-	
1930	-	-	-	-	-	
1931	ALL COMPANIES	221	898	3/3/1931	3/10/1931	
1932	-	-	-	-	-	
1933	-	-	-	-	-	

	Cash Fare (cents)		Group Rate (cents)		Weekly Pass (cents)		Schoolchildren Fare (cents)		Transfers (cents)	
	Requested	Approved	Requested	Approved	Requested	Approved	Requested	Approved	Requested	Approved
		5.00	-	4.17	-	-	-	NA	-	NA
	-	5.00	-	4.17	-	-	-	NA	-	NA
	-	5.00	-	4.17	-	-	-	NA	-	NA
	-	5.00	-	4.17	-	-	-	NA	-	NA
	-	5.00	-	4.17	-	-	-	NA	-	NA
	5.00	5.00	-	5.00	-	-	-	NA	-	NA
	(asked for unspecified increase)	7.00	(asked for unspecified increase)	6.25	-	-	-	NA	2.00	2.00
	8.00	8.00	-	7.50	-	-	-	NA	1.00	1.00
		8.00	-	7.00	-	-	-	NA	1.00	1.00
		8.00	-	6.67	-	-	-	NA	1.00	1.00
	-	8.00	-	6.67	-	-	-	NA	1.00	1.00
	10.00	10.00	-	8.33	-	-	-	NA	1.00	1.00
	-	10.00	-	9.00	-	-	-	NA	1.00	1.00
	-	10.00	8.33 (requested by F.C.A.)	8.33	-	-	-	NA	F.C.A. requested free transfers	1.00
	10.00	10.00	-	8.33	-	-	-	NA	-	1.00
	-	10.00	-	8.33	-	-	-	NA	-	1.00
	-	10.00	-	8.33	-	-	-	NA	-	1.00
	-	10.00	-	7.50	-	-	-	NA	-	1.00
		10.00	-	7.50	-	-	-	3.00	-	1.00
	-	10.00	-	7.50	-	-	-	3.00	-	1.00
	-	10.00	-	7.50	-	-	-	3.00	-	1.00

Appendix Table P1: Nominal Streetcar and Bus Fares, 1913–1963 (Cents) (continued)

Nominal Streetcar and Bus Fares (Cents), 1913-1963						
Year	Company	Formal Case No.	Order No.	Date of Order	Effective Date	
1934	-	-	-	-	-	
1935	-	-	-	-	-	
1936	-	-	-	-	-	
1937	Capital Transit Co.	247	1634	11/3/1937	11/4/1937	
1938	-	-	-	-	-	
1939	-	-	-	-	-	
1940	-	-	-	-	-	
1941	-	-	-	-	-	
1942	-	-	-	-	-	
1943	Capital Transit Co.	309	2484	1/22/1943	1/31/1943	
1944	-	-	-	-	-	
1945	Capital Transit Co.	336	2935	7/18/1945	1/1/1945	
1946	-	-	-	-	-	
1947	-	-	-	-	-	
1948	Capital Transit Co.	380	3422	10/1/1948	10/31/1948	
1949						
1950	Capital Transit Co.	396	3688	6/28/1950	7/16/1950	
1951	Capital Transit Co.	413	3855	1/4/1952	1/20/1952	
1952	Capital Transit Co.	417	3913	9/21/1952	8/31/1952	

	Cash Fare (cents)		Group Rate (cents)		Weekly Pass (cents)		Schoolchildren Fare (cents)		Transfers (cents)	
	Requested	Approved	Requested	Approved	Requested	Approved	Requested	Approved	Requested	Approved
	-	10.00	-	7.50	-	-	-	3.00	-	1.00
	-	10.00	-	7.50	-	-	-	3.00	-	1.00
	-	10.00	-	7.50	-	-	-	3.00	-	1.00
	10.00	10.00	8.75	8.33	125.00	125.00	3.00	3.00	-	free (company requested withdrawal)
	-	10.00	-	8.33	-	125.00	-	3.00	-	-
	-	10.00	-	8.33	-	125.00	-	3.00	-	-
	-	10.00	-	8.33	-	125.00	-	3.00	-	-
	-	10.00	-	8.33	-	125.00	-	3.00	-	-
	-	10.00	-	8.33	-	125.00	-	3.00	-	-
	(F.C.A. requested the fares be reviewed)	10.00	-	8.33	-	125.00	-	3.00	-	-
	-	10.00	-	8.33	-	125.00	-	3.00	-	-
		10.00	-	8.33	-	125.00	-	3.00	-	-
	-	10.00	-	8.33	-	125.00	-	3.00	-	-
	-	10.00	-	8.33	-	125.00	-	3.00	-	-
	15.00	13.00	12.50	11.67	185.00	175.00	3.00	3.00	-	-
		13.00	-	11.67	-	175.00		3.00	-	-
	15.00	15.00	13.33	13.33	(company requested elimination)	200.00	-	3.00	-	-
	15.00	15.00	13.33	13.33	225.00	210.00	-	3.00	-	-
	17.00	17.00	(requested elimination)	15.00	(requested elimination)	240.00	3.00	3.00	-	-

* See pp. 3992-3994 of Minutes of PSC Meetings, August 20 and 21, 1955.

Appendix Table P1: Nominal Streetcar and Bus Fares, 1913–1963 (Cents) (continued)

Nominal Streetcar and Bus Fares (Cents), 1913-1963						
Year	Company	Formal Case No.	Order No.	Date of Order	Effective Date	
1953	-	-	-	-	-	
1954	Capital Transit Co.	424	4052	1/20/1954	1/31/1954	
1955	Capital Transit Co.	445 -Set by DC Commissioners. They asked for PUC recommen-dation, which was lower. They then asked PUC's opinion re somewhat higher fares, and the PUC said it was in the zone of reasonableness. Commissioner Weston dis-sented in both cases *	None		8/21/1955	
				8/26/1955	9/6/1955	
1956	WMA Transit Co.	450	4326	11/28/1956	12/30/1956	
1957	-	-	-	-	-	
1958	D.C. Transit System Inc.	460	4480	8/28/1958	9/1/1958	
1959	D.C. Transit System Inc.	471	4585	11/9/1959	(notice of hearing)	
1960	D.C. Transit System Inc.	P.U.C. No. 3628	4631	3/2/1960	3/6/1960	
1962	D.C. Transit System Inc.	474	-	-	-	
1963	-	-	-	-	-	
1964	-	-	-	-	-	

	Cash Fare (cents)		Group Rate (cents)		Weekly Pass (cents)		Schoolchildren Fare (cents)		Transfers (cents)	
	Requested	Approved	Requested	Approved	Requested	Approved	Requested	Approved	Requested	Approved
	-	17.00	-	15.00	-	240.00		3.00	-	-
	20.00	20.00	19.00	16.00	(requested elimination)	75 (plus 10 cents per ride)	3.00	3.00	-	-
	-	20.00	-	19.00	-	90 (plus 10 cents for each ride)	-	3.00	-	-
	-	20.00	-	19.00	-	90 (plus 10 cents for each ride)	7.50	7.50	-	-
	20.00	20.00	18.00	18.00	-	90 (plus 10 cents for each ride)	-	7.50	-	-
	20.00	20.00	-	18.00	-	90 (plus 10 cents for each ride)	-	7.50	-	-
	20.00	20.00	20.00	20.00	(requested elimination)	eliminated	10.00	10.00	-	-
	25.00	20.00	-	20.00	-	-	10.00	10.00	-	-
	25.00	25.00	-	20.00	-	-	-	10.00	-	-
	-	25.00	-	20.00	-	-	-	10.00	-	-
	-	25.00	-	20.00	-	-	-	10.00	-	-
	-	25.00	-	20.00	-	-	-	10.00	-	-

Appendix Table P1: Nominal Streetcar and Bus Fares, 1913–1963 (Cents) (continued)

Nominal DC Taxicab Fares (Cents), 1913-1985											
Year	Formal Case	Company	Order No.	Date	Date Effective	Cash Fare (cents)		Rate for Luggage (cents)		Additional Passengers	
						Requested	Approved	Requested	Approved	Requested	
1913	FC14	Terminal Taxicab	-	-	-	-	-	-	-	-	
1919	80	Terminal Taxicab	359	12/25/1923	1/2/1924	-	30.00 (for the first 0.5 mile, 10 cents for each additional 1/4 mile)	-	20.00 for each item	-	
1920	84	Terminal Taxicab	379	6/17/1924	7/2/1924	Continuation	30.00 (for the first 0.5 mile, 10 cents for each additional 1/4 mile)	60.00 for trunks	20.00 for hand baggage, 60.00 for trunks	-	
	91	Terminal Taxicab	399	12/31/1924	1/2/1925	Continuation	30.00 (for the first 0.5 mile, 10 cents for each additional 1/4 mile)	60.00 for trunks	20.00 for hand baggage, 60.00 for trunks	-	
1921	97	Terminal Taxicab	426	7/1/1925	7/2/1925	Continuation	30.00 for the first 1/3 mile, 10 cents for each additional 1/3 mile	-	-	-	
1924	149	Black and White Taxi Co.	539	4/4/1928	-	-	-	-	-	20 cents per additional passenger	
1935	259	ALL Companies	1401	7/23/1939	7/25/1939	Uniform zone system (proposed by Commission)	Trip confined to 1 zone: 20.00; Trip from zone 1 to zone 2: 30.00; Trip from zone 1 to zone 3: 50.00; trip from zone 1 to zone 4: 70.00; trip from zone 2 to another point in zone 2 and crossing zone 1: 30.00; trip between two points in the same zone and necessarily passing through zone 1: 20.00	-	Each trunk 50.00; Hand baggage in excess of 2 pieces, 10 cents each;	-	

	Additional Passengers	Hourly Basis		Additional Charges					
	Approved	Requested	Approved	Personal Service	Waiting Time	Call Charge	Stops OFF Direct Route	Stops ON the Direct Route	Rush Hour Surcharge
	-	-	-	-	-	-	-	-	-
	20 cents for each the second and third passenger, no additional charge for more	-	-	-	-	-	-	-	-
	20 cents for each the second and third passenger, no additional charge for more	-	-	-	-	-	-	-	-
	20 cents for each the second and third passenger, no additional charge for more	-	-	-	-	-	-	-	-
	10 cents for each the second and third passenger, no additional charge for more	-	-	-	-	-	-	-	-
	Dismissed	-	-	-	-	-	-	-	-
	Passengers in excess of 2, 10 cents each passenger per trip	-	200 cents per hour	25 cents	10 cents for each 5 minutes	20 cents	20 cents	10 cents	-

Appendix Table P1: Nominal Streetcar and Bus Fares, 1913–1963 (Cents) (continued)

Nominal DC Taxicab Fares (Cents), 1913-1985											
Year	Formal Case	Company	Order No.	Date	Date Effective	Cash Fare (cents)		Rate for Luggage (cents)		Additional Passengers	
						Requested	Approved	Requested	Approved	Requested	
1939	284	ALL Companies	1765	3/21/1943	4/1/1943		Trip confined to 1 zone: 20.00; Trip from zone 1 to zone 2: 40.00; Trip from zone 1 to zone 3: 60.00; trip from zone 1 to zone 4: 80.00; trip from zone 2 to zone 3: 40.00; trip from zone 2 to zone 4: 60.00; trip from zone 3 to zone 4: 40.00; trip between two points in any zone and passing through a different zone: 40.00;	-	Each trunk 50.00; Hand baggage in excess of 2 pieces, 10 cents each;	-	
1942	312	ALL Companies	2164	1/30/1946	3/5/1942 (notice of hearing)	Companies requested a temporary emergency pick-up service	A trip from zone 2 to zone 1 during the morning rush hour: 20 per passenger; trip from zone 1 to zone 2 during evening rush hour: 20 per passenger; a trip confined to either zone during both rush hours: 20 per passenger;	-	Each trunk 50.00; Hand baggage in excess of 2 pieces, 10 cents each;	-	
1943	331	ALL Companies	2578	5/12/1947	5/18/1947		Single Passenger Rate: zone 1: 30 cents; zone 2: 50 cents; zone 3: 70 cents; zone 4: 90 cents; zone 5: 110 cents; zone 6: 130 cents; zone 7: 150 cents	-	Each trunk 50.00; Hand baggage in excess of 2 pieces, 10 cents each;	Group riding service	

	Additional Passengers	Hourly Basis		Additional Charges					
	Approved	Requested	Approved	Personal Service	Waiting Time	Call Charge	Stops OFF Direct Route	Stops ON the Direct Route	Rush Hour Surcharge
	Passengers in excess of 2, 10 cents each passenger per trip	-	200 cents per hour	25 cents	10 cents for each 5 minutes	20 cents	20 cents	10 cents	-
	Passengers in excess of 2, 10 cents each passenger per trip	-	200 cents per hour	25 cents	10 cents for each 5 minutes	20 cents	20 cents	10 cents	-
	zone 1: 20 cents per person; zone 2: 30 cents per person; zone 3: 70 cents per person; zone 4: 90 cents; zone 5: 110 cents; zone 6: 130 cents; zone 7: 150 cents	-	Eliminated	25 cents	10 cents for each 5 minutes	20 cents			-

Appendix Table P2: Nominal DC Taxicab Fares, 1913–1985 (Cents) (continued)

Nominal DC Taxicab Fares (Cents), 1913-1985												
Year	Formal Case	Company	Order No.	Date	Date Effective	Cash Fare (cents)		Rate for Luggage (cents)		Additional Passengers		
						Requested	Approved	Requested	Approved	Requested		
1964	488	ALL Companies	4864	4/15/1968	5/25/1968	Proposals for a new zone system	Single passenger fare for one zone: 60 cents (increases 30 cents for every additional zone into which the trip enters); Single passenger fare for a ride entirely in a subzone of zone 1 is 40 cents; a ride between any two points in zone 1 but not within one subzone shall be 60 cents	-	Each trunk is 100 cents; hand baggage in addition to one piece per passenger shall be 10 cents each	Group rate		
1966	513	Taxicab Lodge No. 814, AFL-CIO	5036	2/15/1970	4/2/1970	Unspecified increase of fares in Zone 1	A ride completely within one subzone of zone 1 is 50 cents for a single passenger. All other fares shall continue.	-	Each trunk is 100 cents; hand baggage in addition to one piece per passenger shall be 10 cents each	-		
1975	577	ALL Companies	5742	11/15/1979	12/2/1979	Proposals to change existing rate structure	A ride completely within one subzone of zone 1 is 90 cents for a single passenger. Otherwise in zone 1: 125 cents per passenger. All other fares shall continue.	-	-	-		
1979	705	The Alliance of Taxicab Businessmen	7039	10/6/1983	10/8/1983	10% increase of rates	Single passenger fare and shared riding rate per passenger: zone 1- 145 cents; zone 2- 215 cents; zone 3- 285 cents; zone 4- 355 cents; zone 5- 425 cents; zone 6- 495 cents; zone 7- 565 cents; zone 8- 635 cents	-	Trunks or similar large articles are 125 cents each; Hand baggage in excess of one piece per passenger shall be 15 cents per piece.	-		

	Additional Passengers	Hourly Basis		Additional Charges					
	Approved	Requested	Approved	Personal Service	Waiting Time	Call Charge	Stops OFF Direct Route	Stops ON the Direct Route	Rush Hour Surcharge
	Group rate per passenger: 40 cents for one zone; 60 cents for two zones; 80 cents for three zones; 95 cents for four zones; 110 cents for five zones; 120 cents for six zones; 130 cents for seven zones; 145 cents for eight zones	-	400 cents for one hour or a fraction thereof; 100 cents for each additional 15 minutes.	50 cents	Waiting time in excess of 5 mintues shall be charged at 25 cents for each five minutes	25 cents	25 cents	25 cents	-
	Group rate per passenger within one subzone of zone 1 is 40 cents. All other fares shall continue.	-	400 cents for one hour or a fraction thereof; 100 cents for each additional 15 minutes.	50 cents	Waiting time in excess of 5 mintues shall be charged at 25 cents for each five minutes	25 cents	25 cents	25 cents	-
	Group rate (2 passengers) is 55 cents per person within a single subzone of Zone 1; 75 cents per person anywhere else in zone 1; Each additional is 15 cents within a subzone, or 25 cents otherwise.	-	700 cents for the first hour or fraction thereof; 175 cent fo each additional 15 minutes.	50 cents	Waiting time in excess of 5 mintues shall be charged at 50 cents for each five minutes	75 cents if the taxi responds within 15 minutes; 50 cents other-wise	25 cents	25 cents	25 cents per passenger in zone 1
	Group rate for each additional passenger after the first passenger in group: 75 cents for all zones.	-	900 cents for the first hour or fraction thereof; 225 cents for each additional 15 minutes	65 cents	Waiting time in excess of 5 mintues shall be charged at 75 cents for each five minutes	65 cents	30 cents	30 cents	65 cents per trip

Appendix Table P2: Nominal DC Taxicab Fares, 1913–1985 (Cents) (continued)

Nominal DC Taxicab Fares (Cents), 1913-1985												
Year	Formal Case	Company	Order No.	Date	Date Effective	Cash Fare (cents)		Rate for Luggage (cents)		Additional Passengers		
						Requested	Approved	Requested	Approved	Requested		
1981	746	Taxicab Industry Group	7420	12/9/1985	12/13/1985	Application for an increase in rates	Single passenger fare and shared riding rate per passenger: zone 1- 170 cents; zone 2- 245 cents; zone 3- 320 cents; zone 4- 390 cents; zone 5- 460 cents; zone 6- 530 cents; zone 7- 600 cents; zone 8- 670 cents; A trip confined to any subzone of zone 1- 145 cents.	-	Trunks or similar large articles are 125 cents each; Hand baggage in excess of one piece per passenger shall be 15 cents per piece.	-		
1984	719	The Alliance of Taxicab Businessmen	7934	1/25/1988	5/22/1988	Unspecified increase in basic zone rate charges and modification of the existing zone map	Addition of a snow emergency fare: In periods of snow emergency the fare for single passenger or group rate shall double. No other charge shall change.	-	Trunks or similar large articles are 125 cents each; Hand baggage in excess of one piece per passenger shall be 15 cents per piece.	-		
1985	820	ALL Companies	Item No. 59	3/23/1989	3/25/1989	PSC undertook it's own investigation into the fairness of rates after members of the Taxicab industry were critical of the ruling in FC 719.	Single passenger fare and shared riding rate per passenger: zone 1- 210 cents; zone 2- 300 cents; zone 3- 390 cents; zone 4- 475 cents; zone 5- 550 cents; zone 6- 635 cents; zone 7- 720 cents; zone 8- 805 cents; A trip confined to any subzone of zone 1- 180 cents.	-	-	-		

	Additional Passengers	Hourly Basis		Additional Charges					
	Approved	Requested	Approved	Personal Service	Waiting Time	Call Charge	Stops OFF Direct Route	Stops ON the Direct Route	Rush Hour Surcharge
	Group rate for each additional passenger after the first passenger in group: 75 cents for all zones.	-	900 cents for the first hour or fraction thereof; 225 cents for each additional 15 minutes	65 cents	Waiting time in excess of 5 mintues shall be charged at 75 cents for each five minutes	65 cents	30 cents	30 cents	65 cents per trip
	Addition of a snow emergency fare: In periods of snow emergency the fare for single passenger or group rate shall double. No other charge shall change.	-	900 cents for the first hour or fraction thereof; 225 cents for each additional 15 minutes	65 cents	Waiting time in excess of 5 mintues shall be charged at 75 cents for each five minutes	65 cents	30 cents	30 cents	65 cents per trip
	Group rate for each additional passenger after the first passenger in group: 125 cents for all zones.	-	1200 cents for the first hour, 300 cents for each additional minute	eliminated		65 cents	eliminated	eliminated	100 cents per trip

Appendix Table R1: DC Public Service Commission Rate Case Information, 1921-2021 All Utilities

DC Public Service Commission Rate Case Information, 1917-2018 All Utilities								
Formal Case No.	Company	Date Opened	Final Order No.	Date of Final Order	Revenue Requirement (RR) Increase			Rate Base
					Requested (Millions)	Approved (Millions)	Percent of RR Approved	Approved (Millions)
61	PEPCO	1/27/1921	Order No. 223 and Valuation Order No. 208	7/14/1921	N/A	-$0.567	N/A	$11.73
1	C&P	12/1/1921	Order No. 254 and Valuation Order No. 211	11/27/1923	N/A	N/A	N/A	$6.85
13	WGL	12/2/1921	Order No. 254 and Valuation Order No. 209	3/16/1922	N/A	N/A	N/A	$9.10
70	WGL	11/22/1922	Order Nos. 314	3/16/1923	N/A	N/A	N/A	N/A
82	C&P	4/18/1924	Order No. 377	5/27/1924	$0.600	N/A	N/A	$12.50
83	WGL	5/8/1924	Order No. 378	5/30/1924	$0.418	N/A	N/A	N/A
85	PEPCO	5/29/1924	Order No. 388	9/4/1924	N/A	$0.400	N/A	N/A
86	WGL	8/11/1924	Order No. 387	8/31/1924	N/A	N/A	N/A	N/A
88	WGL	10/8/1924	Order No. 393	10/30/1924	N/A	N/A	N/A	N/A
93	WGL	2/27/1925	Order No. 415	3/18/1925	N/A	N/A	N/A	N/A
99	PEPCO	7/17/1925	Order No. 430	7/30/1925	N/A	N/A	N/A	N/A
101	WGL	7/23/1925	Order No. 431	7/30/1925	N/A	N/A	N/A	N/A
107	C&P	1/21/1926	Order No. 461	2/16/1926	N/A	N/A	N/A	N/A
111	WGL	2/18/1926	Order No. 463	3/14/1926	N/A	N/A	N/A	N/A
112	PEPCO	3/2/1926	Order No. 464	3/30/1926	N/A	N/A	N/A	N/A
135	PEPCO	2/1/1927	Order No. 509	4/5/1927	N/A	-$0.07	N/A	N/A
142	WGL	10/23/1927	Order No. 526	11/9/1927	N/A	N/A	N/A	N/A
152	PEPCO	12/20/1929	Order No. 737	1/1/1933	N/A	N/A	N/A	N/A
153	C&P	11/191924	Order No. 549 (Valuation)	4/16/1929	N/A	N/A	N/A	$18.58
218	WGL	N/A	Order No. 871	9/26/1934	N/A	N/A	N/A	N/A
234	WGL	N/A	Order No. 1458	2/27/1936	N/A	N/A	N/A	N/A
238	C&P	5/3/1936	Order Nos. 1072 and 1280	9/15/1932 and 3/31/1934	N/A	N/A	N/A	N/A
241	WGL	7/1/1936	Order No. 1341 (Valuation)	3/20/1939	N/A	N/A	N/A	$15.04
243	PEPCO	2/7/1937	Order No. 1115	2/19/1937	-$0.562	N/A	N/A	N/A

*Orange means the data are not applicable so these cells are not used in computing percentages.

	Overall Return			Return on Equity (ROE)			Case Duration (Months)	Commissioners
	Requested	Approved	Percent of Overall Return Approved	Requested	Approved	Percent of ROE Approved		
	N/A	7.00%	N/A	N/A	N/A	N/A	5.5	Charles W. Kutz- Chair; Louis Brownlow; W. Gwynn Gardiner
	N/A	N/A	N/A	N/A	N/A	N/A	24	Charles W. Kutz- Chair; W. Gwynn Gardiner;
	N/A	6.00%	N/A	N/A	N/A	N/A	2.5	Louis Brownlow- Chair; W. Gwynn Gardiner; J.G.D. Knight
	N/A	6.00%	N/A	N/A	N/A	N/A	4	Louis Brownlow- Chair; W. Gwynn Gardiner; J.G.D. Knight
	4.75%	N/A	N/A	N/A	N/A	N/A	1	Charles W. Kutz- Chair; Louis Brownlow
	7.00%	6.00%	86%	N/A	N/A	N/A	0.5	Charles W. Kutz- Chair; Louis Brownlow
	N/A	6.00%	N/A	N/A	N/A	N/A	3	Charles W. Kutz- Chair; Mable T. Boardman; Louis Brownlow
	N/A	N/A	N/A	N/A	N/A	N/A	0.5	Charles W. Kutz- Chair; Mable T. Boardman; Louis Brownlow
	8.00%	6.00%	75%	N/A	N/A	N/A	0.5	Charles W. Kutz- Chair; Mable T. Boardman; J. Thilman Hendrick
	N/A	N/A	N/A	N/A	N/A	N/A	1	Charles W. Kutz- Chair; Cuno Rudolph; James Oyster
	N/A	N/A	N/A	N/A	N/A	N/A	1	Charles W. Kutz- Chair; Cuno Rudolph; James Oyster
	N/A	7.00%	N/A	N/A	N/A	N/A	0.5	Charles W. Kutz- Chair; Cuno Rudolph
	N/A	7.00%	N/A	N/A	N/A	N/A	0.5	Charles W. Kutz- Chair; Cuno Rudolph; James Oyster
	N/A	N/A	N/A	N/A	N/A	N/A	1	Charles Keller- Chair; Cuno Rudolph; James Oyster
	N/A	N/A	N/A	N/A	N/A	N/A	1	Charles Keller- Chair; Cuno Rudolph; James Oyster
	N/A	7.00%	N/A	N/A	N/A	N/A	1	Charles Keller- Chair; Cuno Rudolph; James Oyster
	N/A	7.99%	N/A	N/A	N/A	N/A	2	Charles Keller- Chair; Cuno Rudolph; James Oyster
	N/A	N/A	N/A	N/A	N/A	N/A	0.5	Major J. Franklin Bell, Chair; Cuno Rudolph, and James Oyster
	N/A	7.50%	N/A	N/A	N/A	N/A	36	John W. Childress- Chair; William B. Ladue; Harrison Brand
	N/A	N/A	N/A	N/A	N/A	N/A	5	Charles Keller- Chair; Cuno Rudolph; James Oyster
	N/A	N/A	N/A	N/A	N/A	N/A	-	Mason M. Patrick- Chair;William B. Ladue; Harleigh H. Hartman
	N/A	N/A	N/A	N/A	N/A	N/A	-	Mason M. Patrick- Chair;John C. Gotwals; Riley E. Elgen
	N/A	N/A	N/A	N/A	6.00%	N/A	4	Mason M. Patrick- Chair;John C. Gotwals; Riley E. Elgen
	N/A	N/A	N/A	N/A	N/A	N/A	-	Mason M. Patrick- Chair;John C. Gotwals; Riley E. Elgen
	N/A	7.00%	N/A	N/A	N/A	N/A	-	Mason M. Patrick- Chair;John C. Gotwals; Riley E. Elgen

Appendix Table R1: DC Public Service Commission Rate Case Information, 1921-2021 All Utilities (continued)

DC Public Service Commission Rate Case Information, 1917-2018 All Utilities								
Formal Case No.	Company	Date Opened	Final Order No.	Date of Final Order	Revenue Requirement (RR) Increase			Rate Base
					Requested (Millions)	Approved (Millions)	Percent of RR Approved	Approved (Millions)
245	PEPCO	1/19/1938	Order No. 1219	1/25/1938	N/A	-$0.378	N/A	N/A
254	PEPCO	1/20/1939	Order No. 1316	1/31/1939	-$0.139	-$0.147	106%	$66.07
255	WGL	1/10/1939	Order No. 1458 (Implementation of the sliding scale arrangement)	12/14/1939	-$0.850	N/A	N/A	$21.00
261	PEPCO	11/26/1939	Order No. 1476	2/6/1940	-$0.063	-$0.810	1286%	$68.81
265	WGL	5/5/1940	Order No. 1527 (Annual determination of rates in accordance with the provisions of the sliding scale arrangement)	8/12/1940	N/A	-$0.042	N/A	$21.05
270	PEPCO	11/4/1940	Order No. 1566	1/29/1941	N/A	-$0.504	N/A	$70.19
272	WGL	3/12/1941	Order Nos. 1626 and 1633	10/26/1941	-	-	N/A	-
275	PEPCO	7/13/1941	Order No. 1650	2/3/1942	-$0.548	-$0.769	140%	$73.79
276	WGL	2/18/1942	Order No. 1711 (Annual determination of rates in accordance with the provisions of the sliding scale arrangement)	8/16/1942	-$1,568.91	-$3,137.82	200%	$23.14
281	PEPCO	8/16/1942	Order No. 1747	2/3/1943	N/A	-$0.394	N/A	$77.20
285	WGL	1/10/1943	Order No. 1813 (Annual determination of rates in accordance with the provisions of the sliding scale arrangement)	8/12/1943	$95,341	$40,165.41	42%	$24.12
289	PEPCO	8/25/1943	Order No. 1851	2/4/1944	-$0.119	-$0.575	483%	$82.53
292	WGL	1/6/1944	Order No. 1921	8/24/1944	N/A	N/A	N/A	$25.20
296	PEPCO	8/1/1944	Order No. 2000	2/5/1945	-$0.160	-$0.337	211%	$91.54
316	WGL	3/21/1946	Order No. 2401 (Annual determination of rates in accordance with the provisions of the sliding scale arrangement)	10/14/1946	N/A	N/A	N/A	$28.10
326	PEPCO	9/19/1946	Order No. 2564	4/27/1947	N/A	N/A	N/A	N/A

*Orange means the data are not applicable so these cells are not used in computing percentages.

	Overall Return			Return on Equity (ROE)			Case Duration (Months)	Commissioners
	Requested	Approved	Percent of Overall Return Approved	Requested	Approved	Percent of ROE Approved		
	N/A	7.00%	N/A	N/A	N/A	N/A	-	Mason M. Patrick- Chair;John C. Gotwals; Riley E. Elgen
	N/A	7.00%	N/A	N/A	N/A	N/A	-	Riley E. Elgen- Chair; Dan I. Sultan; Richmond B. Keech
	N/A	6.50%	N/A	N/A	N/A	N/A	11	Riley E. Elgen- Chair; Dan I. Sultan; Richmond B. Keech
	N/A	6.50%	N/A	N/A	N/A	N/A	2.5	Riley E. Elgen- Chair; Dan I. Sultan; Richmond B. Keech
	N/A	6.50%	N/A	N/A	N/A	N/A	3	Riley E. Elgen- Chair; Dan I. Sultan; Richmond B. Keech
	N/A	6.50%	N/A	N/A	N/A	N/A	3	Riley E. Elgen- Chair; Dan I. Sultan; Richmond B. Keech
	-	-	N/A	-	-	N/A	8	Riley E. Elgen- Chair; Dan I. Sultan; Richmond B. Keech
	6.50%	6.00%	92%	N/A	N/A	N/A	8	Riley E. Elgen- Chair; Dan I. Sultan; Richmond B. Keech
	N/A	6.50%	N/A	N/A	N/A	N/A	6	Riley E. Elgen- Chair; David McCoach Jr.; Richmond B. Keech
	N/A	6.00%	N/A	N/A	N/A	N/A	6	Riley E. Elgen- Chair; David McCoach Jr.; Richmond B. Keech
	N/A	6.50%	N/A	N/A	N/A	N/A	7	Riley E. Elgen- Chair; David McCoach Jr.; Richmond B. Keech
	N/A	6.00%	N/A	N/A	N/A	N/A	5.5	Riley E. Elgen- Chair; David McCoach Jr.
	N/A	6.50%	N/A	N/A	N/A	N/A	7	Riley E. Elgen- Chair; David McCoach Jr.; Richmond B. Keech
	N/A	6.00%	N/A	N/A	N/A	N/A	6	Riley E. Elgen- Chair; David McCoach Jr.; Richmond B. Keech
	N/A	6.50%	N/A	N/A	N/A	N/A	7	Gregory Hankin- Chair; James H. Flanagan; Charles W. Kutz
	N/A	6.00%	N/A	N/A	N/A	N/A	7	James H. Flanagan- Chair; Gregory Hankin; Charles W. Kutz; Hankins dissented

Appendix Table R1: DC Public Service Commission Rate Case Information, 1921-2021 All Utilities (continued)

DC Public Service Commission Rate Case Information, 1917-2018 All Utilities								
Formal Case No.	Company	Date Opened	Final Order No.	Date of Final Order	Revenue Requirement (RR) Increase			Rate Base
					Requested (Millions)	Approved (Millions)	Percent of RR Approved	Approved (Millions)
334	WGL	4/3/1947	Order No. 2682 (Annual determination of rates in accordance with the provisions of the sliding scale arrangement)	11/9/1947	-$132,896	-$135,417	102%	$30.61
338	PEPCO	4/27/1947	Order No. 2796 (Sliding-Scale Arrangement and Investigation of Rates, Tolls, Charges, Rules, Regulations, and Conditions of Service)	7/23/1948	N/A	-$1.037	N/A	$102.35
340	WGL	5/17/1948	Order No. 2827 (Sliding-Scale Arrangement and Investigation of Rates, Tolls, Charges, Rules, Regulations, and Conditions of Service)	9/1/1948	N/A	N/A	N/A	$32.32
359	PEPCO	9/27/1950	Order No. 3224	7/1/1951	N/A	N/A	N/A	N/A
368	WGL	6/12/1951	Order No. 3271 (Sliding-Scale Arrangement and Investigation of Rates, Tolls, Charges, Rules, Regulations, and Conditions of Service)	10/25/1951	N/A	N/A	N/A	$33.85
370	C&P	9/30/1951	Order No. 3295	12/23/1951	$4.04	$4.036	100%	N/A
379	PEPCO	5/18/1952	Order Nos. 3397 and 3402	7/8/1948 and 9/15/1948	$3	$2.750	92%	N/A
389	WGL	7/15/1953	Order No. 3876	11/10/1953	$0.900	$0.750	83%	$32.24
393	C&P	9/17/1953	Order No. 3635	2/21/1954	$3.25	$2.25	69%	$68.02
402	PEPCO	7/29/1954	Order No. 3762	2/13/1955	$3.5	$2.6	74%	$137.45
414	WGL	11/29/1955	Order No. 3876	3/28/1956	$2.345	$1.723	73%	$33.19
421	C&P	11/1/1956	Order No. 3991	4/30/1957	$3.50	$1.3	37%	$74.67
422	WGL	11/22/1956	Order No. 3989	4/21/1957	$0.850	$0.754	89%	$34.23
430	C&P	11/11/1957	Order No. 4096	7/30/1958	$4.40	$1.625	37%	N/A

*Orange means the data are not applicable so these cells are not used in computing percentages.

	Overall Return			Return on Equity (ROE)			Case Duration (Months)	Commissioners
	Requested	Approved	Percent of Overall Return Approved	Requested	Approved	Percent of ROE Approved		
	N/A	5.75%	N/A	N/A	N/A	N/A	7	James H. Flanagan- Chair; Gregory Hankin; Charles W. Kutz
	N/A	5.50%	N/A	N/A	8.00%	N/A	15	James H. Flanagan- Chair; Gregory Hankin; Charles W. Kutz
	N/A	6.00%	N/A	N/A	N/A	N/A	3	James H. Flanagan- Chair; Gregory Hankin; Charles W. Kutz
	N/A	5.50%	N/A	N/A	N/A	N/A	9	James H. Flanagan - Chair; Gordon R. Young; James W. Lauderdale
	N/A	6.00%	N/A	N/A	N/A	N/A	4	James H. Flanagan - Chair; Gordon R. Young; James W. Lauderdale
	N/A	N/A	N/A	N/A	N/A	N/A	3	James H. Flanagan - Chair; Gordon R. Young; James W. Lauderdale
	6.50%	5.50%	85%	8.75%	N/A	N/A	4	James H. Flanagan- Chair; James W. Lauderdale; Gordon R. Young
	N/A	6.25%	N/A	8.50%	8.00%	94%	4	James H. Flanagan- Chair; James W. Lauderdale; Carlin H. Whitesell
	7.00%	6.00%	86%	8.39%	8.00%	95%	6	James H. Flanagan- Chair; Gordon R. Young
	7.25%	5.50%	76%	10.20%	8.91%	87%	7	James H. Flanagan - Chair; Gordon R. Young; Kenneth W. Spencer
	7.50%	6.25%	83%	N/A	N/A	N/A	4	James H. Flanagan- Chair; Bernard L. Robinson; Kenneth W. Spencer
	7.40%	6.13%	83%	10%	8.91%	87%	6	Kenneth W. Spencer- Chair; Louis W. Spencer
	6.25%	6.25%	100%	N/A	N/A	N/A	5	Kenneth W. Spencer- Chair; Louis W. Spencer
	7.40%	6.25%	84%	9%	8.25%	92%	9	James H. Flanagan- Chair; Louis W. Prentiss; Kenneth W. Spencer

Appendix Table R1: DC Public Service Commission Rate Case Information, 1921-2021 All Utilities (continued)

DC Public Service Commission Rate Case Information, 1917-2018 All Utilities								
Formal Case No.	Company	Date Opened	Final Order No.	Date of Final Order	Revenue Requirement (RR) Increase			Rate Base
					Requested (Millions)	Approved (Millions)	Percent of RR Approved	Approved (Millions)
438	PEPCO	10/15/1958	Order No. 4182	4/7/1959	$5.785	$3.8	66%	$202.27
456	WGL	12/3/1961	Order No. 4468 and 4473	7/23/1962	4.3	2.654	62%	$103.40
464	PEPCO	2/3/1963	Order No. 4525	4/11/1963	$5	$4.991	100%	$316.03
494	C&P	9/8/1967	Order No. 4887, 4899 (2/18/65), and 5408 (11/26/69)	12/23/1968	$10.5	$2.196	21%	$142.50
511	PEPCO	7/31/1969	Order No. 5062 (Determination of Authorized Rate of Return)	6/11/1970	N/A	-$1.406	N/A	$573.78
538	C&P	11/9/1972	Order No. 5460	3/30/1975	$13	$0	0%	$172.37
541	PEPCO	2/28/1973	Order No. 5429	4/16/1974	$24.9	$10.220	41%	$354.34
567	WGL	7/10/1975	Order No. 5522	8/3/1976	N/A	$1.611	N/A	$66.76
568	PEPCO	10/13/1975	Order No. 5521	7/29/1976	$24.7	$12.152	49%	$489.67
584	WGL	10/31/1976	Order No. 5548 (Authority to place a surcharge on the rates, tolls, charges and schedules for gas service and steamed and chilled water)	11/17/1976	N/A	N/A	N/A	N/A
595	C&P	4/20/1977	Order Nos. 5623 and 5690 (2/19/75)	1/26/1978	$21.649	$9.138	42%	$263.17
596	PEPCO	5/1/1977	Order No. 5614	11/17/1977	$24.441	$17.808	73%	$551.75
610	WGL	1/12/1978	Order No. 5685 and 5686	2/1/1979	$9	$6.795	76%	$71.63
630	PEPCO	12/21/1978	Order No. 5739	11/13/1979	$50.832	$27.7	54%	$650.09
631	C&P	2/1/1979	Order No. 5790	5/18/1980	$14	$7.4	53%	$279.09
647	WGL	9/2/1979	Order No. 5833	10/30/1980	$7.496	$6.701	89%	$78.33
651	PEPCO	12/30/1979	Order No. 5831	10/21/1980	$57.578	$29.411	51%	$764.88

*Orange means the data are not applicable so these cells are not used in computing percentages.

	Overall Return			Return on Equity (ROE)			Case Duration (Months)	Commissioners
	Requested	Approved	Percent of Overall Return Approved	Requested	Approved	Percent of ROE Approved		
	6.25%	5.80%	93%	12.00%	10.35%	86%	6	Robert E. McLaughlin- Chair; Robert M. Weston; Thomas A. Lane
	7.00%	6.45%	92%	11.25%	9.90%	88%	7	George E.C. Hayes- Chair; Howard A. Kertz; Alvin Willis
	5.85%	5.85%	100%	N/A	N/A	N/A	2	George E.C. Hayes- Chair; A.C. Welling; Howard A. Kertz
	8.00%	6.25%	78%	12.00%	8.00%	67%	15	James A. Washington- Chair; C.M. Duke; Edgar Bernstein
	6.91%	6.30%	91%	11.50%	N/A	N/A	11	James A. Washington- Chair; C.M. Duke
	10.00%	8.00%	80%	11.00%	10.00%	91%	28	George A. Avery- Chair; Jeremiah C. Waterman
	7.50%	7.10%	95%	12.00%	10.00%	83%	14	George A. Avery- Chair; William L. Porter; Graham W. Watt
	8.50%	8.23%	97%	N/A	12.86%	N/A	13	Jeremiah C. Waterman- Chair; H. Mason Neely; Graham W. Watt
	8.50%	7.84%	92%	13.50%	12.55%	93%	9	Jeremiah C. Waterman- Chair; H. Mason Neely
	N/A	N/A	N/A	N/A	N/A	N/A	1	Jeremiah C. Waterman- Chair; H. Mason Neely
	9.50%	8.80%	93%	13.00%	11.00%	85%	9	H. Mason Neely- Chair; William R. Stratton
	8.75%	8.30%	95%	14.00%	12.50%	89%	7	H. Mason Neely- Chair; Douglas N. Schneider
	9.00%	8.75%	97%	14.38%	12.96%	90%	12	William R. Stratton- Chair; H. Mason Neely
	10.00%	9.10%	91%	14.50%	13.00%	90%	11	Ruth Hankins Nesbitt- Chair; H. Mason Neely; William R. Stratton
	10.20%	9.45%	93%	N/A	N/A	N/A	16	Ruth Hankins Nesbitt- Chair; H. Mason Neely; William R. Stratton
	9.50%	9.25%	97%	14.50%	13.40%	92%	14	Ruth Hankins Nesbitt- Chair; H. Mason Neely; William R. Stratton
	9.75%	9.06%	93%	15-15.5%	N/A	N/A	10	Ruth Hankins Nesbitt- Chair; H. Mason Neely; William R. Stratton

Appendix Table R1: DC Public Service Commission Rate Case Information, 1921-2021 All Utilities (continued)

DC Public Service Commission Rate Case Information, 1917-2018 All Utilities								
Formal Case No.	Company	Date Opened	Final Order No.	Date of Final Order	Revenue Requirement (RR) Increase			Rate Base
					Requested (Millions)	Approved (Millions)	Percent of RR Approved	Approved (Millions)
655	WGL	4/10/1980	Order No. 5808 (Authority to place a surcharge on the rates, tolls, charges and schedules for gas service and steamed and chilled water service)	7/10/1980	N/A	N/A	N/A	N/A
686	WGL	10/2/1981	Order No. 6051	2/14/1983	$10.90	$7.232	66%	$87.12
685	PEPCO	7/27/1981	Order No. 6096	7/19/1983	$44.80	$6.783	15%	$754.96
715	PEPCO	2/16/1983	Order No. 7135	5/16/1984	$63.361	$35.465	56%	$811.98
722	WGL	6/30/1983	Order No. 7209 and7193	11/3/1984	$17.80	$11.915	67%	$107.49
729	C&P	10/25/1983	Order Nos. 7323 and 7345 (6/19/81)	5/29/1985	$17.53	$10.916	62%	$330.55
748	PEPCO	9/18/1984	Order No. 7457	12/31/1985	$37.10	$23.289	63%	$823.23
763	WGL	3/6/1985	Order No. 7289 (Decrease in Existing Rates and Charges)	4/4/1985	N/A	N/A	N/A	N/A
768	WGL	4/25/1985	Order No. 7469 and 7483	2/12/1986	$18.80	$8.15	43%	$127.48
777	C&P	11/13/1985	Order No. 7616	7/21/1986	$67.646	$40.30	60%	N/A
785	PEPCO	3/18/1986	Order No. 7716	12/30/1986	$97.70	$34.00	35%	$876.88
787	WGL	4/15/1986	Order No. 7749	2/26/1987	$26.30	$14.316	54%	$145.48
798	C&P	3/16/1987	Order Nos. 7886, 7924 (11/10/83), and 7954 (1/5/84)	10/4/1987	$82.027	$39.796	51%	$292.05
813	PEPCO	11/5/1987	Order No. 8056 (Settlement)	7/13/1988	$86.00	$29.90	35%	$978.15
827	C&P	8/25/1988	Order No. 8300 and 8374 (12/31/85)	8/10/1989	$75.90	$31.50	42%	$325.34
840	WGL	10/24/1989	Order No. 8569	9/6/1990	$16.373	$10.793	66%	$147.37

*Orange means the data are not applicable so these cells are not used in computing percentages.

	Overall Return			Return on Equity (ROE)			Case Duration (Months)	Commissioners
	Requested	Approved	Percent of Overall Return Approved	Requested	Approved	Percent of ROE Approved		
	N/A	N/A	N/A	N/A	N/A	N/A	3	William R. Stratton- Chair; Ruth Hankins-Nesbitt; Elizabeth H. Patterson
	9.85%	9.25%	94%	14.50%	13.00%	90%	16	Elizabeth H. Patterson- Chair; Ruth Hankins-Nesbitt; William R. Stratton
	9.91%	9.03%	91%	14.50%	12.75%	88%	24	Elizabeth H. Patterson- Chair; Ruth Hankins-Nesbitt; William R. Stratton
	10.00%	9.38%	94%	14.50%	13.25%	91%	15	Elizabeth H. Patterson- Chair; Ruth Hankins-Nesbitt
	10.46%	9.60%	92%	15.75%	13.25%	84%	17	Hankins-Nesbitt - Acting Chair; Wesley Long; Patricia Worthy Clement
	11.14%	10.66%	96%	-	13.80%	N/A	19	Hankins-Nesbitt - Acting Chair; Wesley Long; Patricia Worthy Clement
	10.60%	10.09%	95%	N/A	14-14.5%	N/A	15	Hankins-Nesbitt - Chair; Wesley Long; Patricia Worthy Clement
	N/A	N/A	N/A	N/A	N/A	N/A	1	Hankins-Nesbitt - Acting Chair; Wesley Long; Patricia Worthy Clement
	12.75%	11.40%	89%	17.5-18%	N/A	N/A	10	Hankins-Nesbitt - Acting Chair; Wesley Long; Patricia Worthy Clement
	N/A	12.15%	N/A	N/A	15.10%	N/A	8	Hankins-Nesbitt - Chair; Wesley Long; Patricia Worthy Clement
	11.90%	10.71%	90%	17.75%	14.90%	84%	9	Hankins-Nesbitt - Chair; Wesley Long; Patricia Worthy Clement
	14.65%	11.84%	81%	19.00%	15.70%	83%	10	Patricia Worthy - Chair; Ruth Hankins-Nesbitt; Wesley H. Long
	14.75%	11.91%	81%	16.75%	15.10%	90%	7	Patricia Worthy - Chair; Ruth Hankins-Nesbitt; Wesley H. Long
	11.60%	0.00%	N/A	16.50%	14.50%	88%	8	Patricia Worthy - Chair; Ruth Hankins-Nesbitt; Wesley H. Long
	13.66%	12.29%	90%	17.00%	15.10%	89%	12	Patricia Worthy - Chair; Ruth Hankins-Nesbitt; Wesley H. Long
	11.98%	10.85%	91%	15.25%	13.30%	87%	11	Patricia Worthy - Chair; Ruth Hankins-Nesbitt; Wesley H. Long

Appendix Table R1: DC Public Service Commission Rate Case Information, 1921-2021 All Utilities (continued)

DC Public Service Commission Rate Case Information, 1917-2018 All Utilities								
Formal Case No.	Company	Date Opened	Final Order No.	Date of Final Order	Revenue Requirement (RR) Increase			Rate Base
					Requested (Millions)	Approved (Millions)	Percent of RR Approved	Approved (Millions)
850	C&P	6/27/1994	Order No. 9927	1/28/1996	N/A	$1.689 reduction	NA	$383.07
854	C&P	1/23/1991	Order Nos. 8811 (7/2/87), 8867 (9/24/87), 8916	1/1/1992	N/A	$3.3 reduction in 1987; $5.44 reduction in 1988	NA	-
869	PEPCO	1/5/1992	Order No. 9216	3/4/1993	$40.75	-$14.55	-36%	$1,035.82
870	WGL	1/23/1992	Order No. 9146	10/29/1992	$24.503	$10.17	41%	$157.45
889	PEPCO	9/2/1993	Order No. 9509	7/25/1994	$38.50	$9.46	25%	$1,159.70
890	WGL	9/23/1993	Order No. 9482 (Granted the Joint Motion for Approval of the Non-Unanimous Agreement of Stipulation and Full Settlement)	6/1/1994	$17.20	$4.51	26%	$158.65
905	PEPCO	12/29/1994	Order No. 9868	10/24/1995	$56.41	$19.74	35%	$1,230.70
912	PEPCO	12/6/1995	Order No. 10044	6/27/1996	$54.09	$30.38	56%	$1,392.17
922	WGL	12/19/1996	Order No. 10307	10/9/1997	$24.50	$4.70	19%	$180.96
926	C&P	3/27/1997	Order Nos. 10353 and 10383 (2/22/84)	12/22/1997	$39.10	$15.82	40%	$439.58
929	PEPCO	6/5/1997	Order No. 10387	3/5/1998	$72.60	$23.20	32%	$1,529.30
934	WGL	1/15/1998	Order No. 10464 (Approved settlement agreement)	8/2/1998	$17.30	$6.40	37%	$181.00
939	PEPCO	10/1/1998	Order No. 10646	7/1/1999	$56.60	$27.90	49%	$1,639.13
989	WGL	6/20/2005	Order No. 12589	10/30/2006	$16.30	-$7.50	-46%	$233.87
1016	WGL	2/8/2007	Order No. 12986	11/11/2007	$18.80	$5.40	29%	$242.26
1053	PEPCO	12/13/2010	Order No. 14712	1/31/2012	$50.50	$28.30	56%	$978.29

*Orange means the data are not applicable so these cells are not used in computing percentages.

	Overall Return			Return on Equity (ROE)			Case Duration (Months)	Commissioners
	Requested	Approved	Percent of Overall Return Approved	Requested	Approved	Percent of ROE Approved		
	12.25%	10.18%	83%	15.23%	12.50%	82%	19	Howard C. Davenport, Chair; Belva Newsome; Edward M. Meyers
	-	-	-	-	-	-	11	Patricia Worthy - Chair; Ruth Hankins-Nesbitt; Wesley H. Long
	10.43%	10.06%	96%	14.00%	13.00%	93%	14	Patricia Worthy - Chair; Ruth Hankins-Nesbitt; Wesley H. Long
	12.05%	10.87%	90%	15.00%	12.95%	86%	9	Patricia Worthy - Chair; Ruth Hankins-Nesbitt; Wesley H. Long
	10.43%	9.78%	94%	13.80%	12.35%	89%	10	Patricia Worthy - Chair; Wesley H. Long; Belva Newsome
	11.36%	10.60%	93%	13.75%	12.40%	90%	8	Patricia Worthy - Chair; Wesley H. Long; Belva Newsome
	10.40%	9.93%	95%	13.50%	12.50%	93%	10	Howard C. Davenport, Chair; Belva Newsome; Edward M. Meyers
	10.26%	9.96%	97%	13.00%	12.35%	95%	6	Howard C. Davenport, Chair; Belva Newsome; Edward M. Meyers
	10.21%	9.86%	97%	12.15%	11.50%	95%	10	Howard C. Davenport - Chair; Edward M. Meyers; Agnes Alexander;
	10.42%	9.69%	93%	12.50%	11.45%	92%	9	Howard C. Davenport - Chair; Edward M. Meyers; Agnes Alexander
	9.46%	9.05%	96%	11.40%	11.00%	96%	9	Howard C. Davenport - Chair; Edward M. Meyers; Agnes Alexander
	10.39%	9.72%	94%	12.75%	11.50%	90%	7	Howard C. Davenport - Chair; Edward M. Meyers; Agnes Alexander
	9.89%	9.09%	92%	12.75%	11.10%	87%	9	Edward M. Meyers-Acting Chair; Agnes Alexander
	9.73%	8.83%	91%	12.25%	10.60%	87%	16	Angel Cartagena - Chair; Agnes Yates; Anthony Rachal
	9.25%	8.42%	91%	12.25%	10.60%	87%	9	Agnes Yates- Chair; Anthony Rachal; Richard Morgan
	8.42%	7.96%	95%	11.00%	10.00%	91%	13	Agnes Yates - Chair; Richard E. Morgan; Betty Ann Kane

Appendix Table R1: DC Public Service Commission Rate Case Information, 1921-2021 All Utilities (continued)

DC Public Service Commission Rate Case Information, 1917-2018 All Utilities									
Formal Case No.	Company	Date Opened	Final Order No.	Date of Final Order	Revenue Requirement (RR) Increase			Rate Base	
					Requested (Millions)	Approved (Millions)	Percent of RR Approved	Approved (Millions)	
1054	WGL	12/22/2010	Order No. 14694 (Granted the Joint Motion for Approval of the Non-Unanimous Agreement of Stipulation and Full Settlement)	12/29/2011	$20.00	$1.40	7%	N/A	
1076*	PEPCO	5/23/2013	Order No. 15710	3/3/2014	$44.51	$19.80	44%	$1,010.27	
1087	PEPCO	7/9/2015	Order No. 16930	9/28/2016	$39.75	$24.00	60%	$1,151.82	
1093	WGL	3/1/2016	Order No. 17132	5/16/2017	$28.20	$8.38	30%	$201.57	
1103	PEPCO	3/9/2017	Order No. 17424	3/27/2018	$44.82	$23.45	52%	$1,333.48	
1137	WGL	2/27/2020	Order No. 18712	3/4/2021	$17.24	$8.51	49%	$255.67	
1139	PEPCO	7/26/2021	Order No. 18846 18856 (ERRATA Order)	9/1/2021	$85.48	$36.89	48%	$1,627.94	
1150	PEPCO	12/20/2021	Order No. 19433 (Settlement Order for F.C. 1150 Rate Case and F.C. 1151 Tax Act Case)	8/10/2022	$65.70	-$24.10	-36.68%	Not Disclosed - Settlement Agreement	
Total and Average					$1,123.90	$384.8	34.24%		
Ratio/Average					34.24%				

* The revenue requirement and cost of capital figures factor in the Bill Stabilization Adjustment
* N/A in the highlighted cells means the data are not applicable so these cells are not used in computing percentages.
* Orange means the data are not applicable so these cells are not used in computing percentages.

	Overall Return			Return on Equity (ROE)			Case Duration (Months)	Commissioners
	Requested	Approved	Percent of Overall Return Approved	Requested	Approved	Percent of ROE Approved		
	8.89%	8.12%	91%	11.08%	10.00%	90%	12	Agnes Yates - Chair; Richard E. Morgan; Betty Ann Kane
	8.53%	8.01%	94%	10.75%	9.63%	90%	10	Betty Ann Kane - Chair ; Richard E. Morgan; Lori Murphy Lee
	8.64%	8.03%	93%	10.75%	9.50%	88%	14	Betty Ann Kane - Chair; Lori Murphy Lee
	8.91%	7.93%	89%	10.90%	9.25%	85%	15	Betty Ann Kane - Chair; Joanne Doddy Fort
	8.07%	7.65%	95%	10.25%	9.40%	92%	12	Betty Ann Kane - Chair; Joanne Doddy Fort
	8.23%	7.57%	92%	10.25%	9.25%	90%	13	Betty Ann Kane - Chair; Joanne Doddy Fort, Willie L. Phillips
	8.00%	7.46%	93%	10.60%	9.50%	90%	13	Betty Ann Kane - Chair; Willie L. Phillips, Richard Beverly
	7.74%	7.45%	93%	10.10%	9.53%	94%	8	Betty Ann Kane - Chair; Willie L. Phillips, Richard Beverly
	9.57%	8.53%	89.16%	13.12%	11.60%	88.43%	10	
	89.16%			88.43%				

Original 1913 Law Creating the Commission

APPENDICES.

APPENDIX A.

LAW.

The following is the law creating the Public Utilities Commission:

[Extract from Public No. 435.

AN ACT Making appropriations to provide for the expenses of the government of the District of Columbia for the fiscal year ending June 30, 1914, and for other purposes, approved March 4, 1913, section 8 of which creates a Public Utilities Commission.]

* * * * * * *

SEC. 8. Par. 1. That for the purpose of this section the term "commission" when used herein shall mean the Public Utilities Commission of the District of Columbia created by this section.

The term "commissioner" when used in this section shall mean one of the members of such commission.

The term "public utility" as used in this section shall mean and embrace every street railroad, street railroad corporation, common carrier, gas plant, gas corporation, electric plant, electrical corporation, water power company, telephone corporation, telephone line, telegraph corporation, telegraph line, and pipe line company.

The term "service" is used in this section in its broadest and most inclusive sense.

The term "corporation" when used in this section includes a corporation, company, association, and joint-stock company or association.

The word "person" when used in this section includes an individual and a firm or copartnership.

The term "joint rates" when used in this section with reference to street railways shall be taken to mean rates between unrelated lines now in effect under existing law or under contract, or which may hereafter be specifically authorized by law.

The term "extension or extensions" when used in this section shall include the reasonable extension of the service and facilities of every street railroad, street railroad corporation, gas plant, gas corporation, electric plant, electrical corporation, telephone corporation, telephone line, telegraph line, and telegraph corporation as the same are defined in this section.

The term "street railroad" when used in this section includes every such railroad, whether wholly or partly in the District of Columbia, by whatsoever power operated, or any extension or extensions, branch or branches thereof, for public use in the conveyance of persons or property for compensation, and includes all equipment, construction, maintenance, repairs, switches, spurs, tracks, terminals, terminal facilities of every kind, trackage, joint or reciprocal trackage, transfers of passengers between street railways having connecting lines and street railways having independent lines, subways, tunnels, and stations, used, operated, or owned by or in connection with any such street railroad, and all the property of the same used in the conduct of its business.

The term "street railroad corporation" when used in this section includes every corporation, company, association, joint-stock company or association, partnership, and person doing business in the District of Columbia, their lessees, trustees, or receivers, appointed by any court whatsoever, owning, operating, controlling, or managing any street railroad or any cars or other equipment used thereon or in connection therewith.

The term "common carrier" when used in this section includes express companies and every corporation, street railroad corporation, company, association, joint-stock company or association, partnership, and person, their lessees, trustees, or receivers, appointed by any court whatsoever, owning, operating, controlling, or managing any agency or agencies for public use for the conveyance of persons or property within the District of Columbia for hire. Steam railroads, the Washington Terminal Company, and the Norfolk and Washington Steamboat Company, and all companies engaged in interstate traffic upon the Potomac River and Chesapeake Bay are excluded from the operation of this section, and are not included in the term "common carrier."

The term "gas plant" when used in this section includes all buildings, easements, real estate, mains, pipes, conduits, service pipes, services, pipe galleries, meters, boilers, water-gas sets, retorts, fixtures, condensers, scrubbers, purifiers, holders, materials, apparatus, personal property, and franchises, and property of every kind used in the conduct of the business operated, owned, controlled, used or to be used for or in connection with or to facilitate the manufacture, distribution, sale, or furnishing of gas (natural or manufactured) for light, heat, or power.

The term "gas corporation" when used in this section includes every corporation, company, association, joint-stock company or association, partnership, or person manufacturing, making, distributing, or selling gas for light, heat, or power, or for any public use whatsoever in the District of Columbia, their lessees, trustees, or receivers, appointed by any court whatsoever, and in said district owning, operating, controlling, or managing any gas plant, except where the gas is made or produced and distributed by the maker on or through private property solely for its own use or the use of its tenants and not for sale to or for the use of others.

The term "electric plant" when used in this section includes all engines, boilers, dynamos, generators, storage batteries, converters, motors, transformers, cables, wires, poles, lamps, meters, easements, real estate, fixtures, and personal property, materials, apparatus, and devices of every kind operated, owned, used or to be used for or in connection with or to facilitate the generation, transmission, distribution, sale, or furnishing of electricity for light, heat, or power, and any conduits, ducts, or other devices, materials, apparatus, or property for containing, holding, or carrying electrical conductors used or to be used wholly or in part for the transmission of electricity for light, heat, or power, except where electricity is made, generated, produced, or transmitted by a private person or private corporation on or through private property solely for its own use or the use of tenants of its building and not for sale to or for the use of others.

The term "electrical corporation" when used in this section includes every corporation, company, association, joint-stock company or association, partnership, or person doing business in the District of Columbia, their lessees, trustees, or receivers, appointed by any court whatsoever, owning, operating, controlling, or managing any electric plant, including any water plant, or water property, or water falls, or dam, or water-power stations, except where electricity is made, generated, produced, or transmitted by a private person or private corporation on or through private property solely for its own use or the use of tenants of its building and not for sale to or for the use of others.

The term "water-power company" when used in this section includes every corporation, company, association, joint-stock company or association, partnership, and person, their lessees, trustees, or receivers, appointed by any court whatsoever, owning, operating, managing, or controlling any plant or property, dam or water supply, canal, or power station for the development of water power for the generation of electrical current or other power or for the distribution or sale of such electrical current or other power.

The term "telephone corporation" when used in this section includes every corporation, company, association, joint-stock company or association, partnership, and persons, their lessees, trustees, or receivers, appointed by any court whatsoever, owning, operating, controlling, or managing any plant, wires, poles for the reception, transmission, or communication of messages by telephone, telephonic apparatus or instruments, or any telephone line or part of telephone line, used in the conduct of the business of affording telephonic communication for hire, or which licenses, lets, or permits telephonic communication for hire.

The term "telephone line" when used in this section includes conduits, ducts, poles, wires, cables, cross arms, receivers, transmitters, instruments, machines, and appliances, and all devices, real estate, franchises, easements, apparatus, fixtures, property, appurtenances, and routes used, operated, controlled, or owned by any telephone corporation to facilitate the business of affording telephonic communication for hire, or which licenses, lets, or permits telephonic communication.

The term "telegraph corporation" when used in this section includes every corporation, company, association, joint-stock company or association, partnership, and person, their lessees, trustees, or receivers, appointed by any court whatsoever, owning, operating, controlling, or managing any plant, wires, poles, or property for the purposes of communication, or of transmitting or receiving messages by telegraph, or by any telegraphic apparatus or instruments, or any telegraph line or part of telegraph line used in the conduct of the business of affording for hire communication by telegraph, or which licenses, lets, or permits telegraphic communication for hire.

The term "telegraph line" when used in this section includes conduits, ducts, poles, wires, cables, cross arms, instruments, machinery, appliances, and all devices, real

estate, franchises, easements, apparatus, fixtures, property, and routes used, operated, controlled, or owned by any telegraph corporation to facilitate the business of affording communication by telegraph for hire.

The term "pipe-line company" when used in this section includes every corporation, company, association, joint-stock company or association, partnership, or person, their lessees, trustees, or receivers, appointed by any court whatsoever, owning, operating, managing, or controlling the supply of any liquid, steam, or air through pipes or tubing to consumers for use or for lighting, heating, or cooling purposes, or for power.

This section shall apply to the transportation of passengers, freight, or property from one point to another within the District of Columbia, and any common carrier performing such service; and this section shall be so applicable and be so construed as to be free from conflict with those provisions of the Constitution of the United States and the laws in pursuance thereof relating to interstate commerce.

Corporations formed to acquire property or to transact business which would be subject to the provisions of this section, and corporations possessing franchises for any of the purposes contemplated by this section shall be deemed to be subject to the provisions of this section, although no property may have been acquired, business transacted, or franchises exercised.

Par. 2. That every public utility doing business within the District of Columbia is required to furnish service and facilities reasonably safe and adequate and in all respects just and reasonable. The charge made by any such public utility for any facility or services furnished, rendered, or to be furnished or rendered, shall be reasonable, just, and nondiscriminatory. Every unjust or unreasonable or discriminatory charge for such facility or service is prohibited and is hereby declared unlawful. Every public utility is hereby required to obey the lawful orders of the commission created by this section.

Par. 3. That every public utility doing business in the District of Columbia having tracks, conduits, subways, poles, wires, switchboards, exchanges, works, or other equipment shall, for a reasonable compensation, permit the use of the same by any other public utility whenever public convenience and necessity require such use, and such use will not result in irreparable injury to the owners or other users of such equipment; nor in any substantial detriment to the service to be rendered by such owners or other users. In case of failure to agree upon such use, or the conditions or compensation for such use, any public utility or any person, firm, copartnership, association, or corporation interested may apply to the commission, and if after investigation the commission shall ascertain that public convenience and necessity require such use and that it would not result in irreparable injury to the owners or other users of such equipment nor in any substantial detriment to the service to be rendered by such owners or other users of such equipment, it shall by order direct that such use be permitted and prescribe the conditions and compensation for such joint use. Such use so ordered shall be permitted and such conditions and compensation so prescribed shall be the lawful conditions and compensation to be observed, followed, and paid, subject to recourse to the courts upon the complaint of any interested party, as hereinafter provided, which provisions, so far as applicable, shall apply to any action arising on such complaint so made. Any such order of the commission may be from time to time revised by the commission upon application of any interested party or upon its own motion after hearing and notice by order in writing.

Par. 4. That the commission shall have power, after hearing and notice by order in writing, to require and compel every public utility to comply with the provisions of this section, and with all other laws of the United States applicable, and any municipal ordinance or regulation relating to said public utility, and to conform to the duties upon it thereby imposed or by the provisions of its own charter, if any charter has or shall be granted it: *Provided*, That nothing herein contained shall be held to relieve any public utility, its officers, agents, or servants, from any punishment, fine, forfeiture, or penalty for violation of any such law, ordinance, regulation, or duty imposed by its charter, nor to limit, take away, or restrict the jurisdiction of any court or other authority which now has or which may hereafter have power to impose any such punishment, fine, forfeiture, or penalty.

Par. 5. That whenever any public utility or person shall propose any change in any law relating directly or indirectly to the property or operations of any public utility the said proposed change shall also and at the same time be submitted to the commission, which may take testimony and give a public hearing thereon, and the commission shall recommend such bills as will in its judgment protect the interests of the public and such public utility and transmit the same to the proper committees of the Senate and House of Representatives.

Par. 6. That the commission shall ascertain, as soon and as nearly as practicable, the amount of money expended in the construction and equipment of every public

utility, including the amount of money expended to procure any right of way; also the amount of money it would require to secure the right of way, reconstruct and roadbed, track, depots, cars, conduits, subways, poles, wires, switchboards, exchanges, offices, works, storage plants, power plants, machinery, and any other property or instrument not included in the foregoing enumeration used in or useful to the business of such public utility, and to replace all the physical properties belonging to the public utility. It shall ascertain the outstanding stock, bonds, debentures, and indebtedness, and the amount, respectively, thereof, the date when issued, to whom issued, to whom sold, the price paid in cash, property, or labor therefor, what disposition was made of the proceeds, by whom the indebtedness is held, so far as ascertainable, the amount purporting to be due thereon, the floating indebtedness of the public utility, the credits due the public utility, other property on hand belonging to it, the judicial or other sales of said public utility, its property or franchises, and the amounts purporting to have been paid, and in what manner paid therefor, and the taxes paid thereon. The commission shall also ascertain in detail the gross and net income of the public utility from all sources, the amounts paid for salaries to officers and the wages paid to its employees, and the maximum hours of continuous service required of each class. Whenever the information required by this paragraph is obtained it shall be printed in the annual report of the commission. In making such investigation the commission may avail itself of any information in possession of any department of the Government of the United States or of the Commissioners of the District of Columbia.

Par. 7. That the commission shall value the property of every public utility within the District of Columbia actually used and useful for the convenience of the public at the fair value thereof at the time of said valuation.

Par. 8. That before final determination of such value the commission shall, after notice of not less than thirty days to the public utility, hold a public hearing as to such valuation in the manner hereinafter provided for a hearing, which provisions, so far as applicable, shall apply to such hearing. The commission shall, within ten days after such valuation is determined, serve a statement thereof upon the public utility interested, and shall file a like statement with the District committees in Congress.

Par. 9. That the commission may at any time, on its own initiative, make a revaluation of the property of any public utility.

Par. 10. That every public utility shall keep and render to the commission, in the manner and form prescribed by the commission, uniform accounts of all business transacted. Every public utility engaged directly or indirectly in any other business than that of the conduct of a street railway, or the production, transmission, or furnishing of heat, light, water, or power, or the conveyance of telegraph or telephone messages, shall, if required by the commission, keep and render separately to the commission in like manner and form the accounts of all such other business, in which case all the provisions of this section shall apply with like force and effect to the books, accounts, papers, and records of such other business.

Par. 11. That the commission shall prescribe the forms of all books, accounts, papers, and records required to be kept, and every public utility is required to keep and render its books, accounts, papers, and records accurately and faithfully in the manner and form prescribed by the commission, and to comply with all directions of the commission relating to such books, accounts, papers, and records. In so far as practicable for the purposes of this section, the form prescribed shall be the form accepted by the Interstate Commerce Commission.

Par. 12. That the commission shall cause to be prepared suitable blanks for carrying out the purposes of this section, and shall when necessary furnish such blanks to each public utility.

Par. 13. That each public utility shall have an office within the District of Columbia in which it shall keep all such books, accounts, papers, and records as shall be required by the commission to be kept within the District of Columbia. No books, accounts, papers, or records required by the commission to be kept within the District of Columbia shall be at any time removed from the District of Columbia, except upon such condition as may be prescribed by the commission: *Provided*, That public utilities operating in the District of Columbia and elsewhere who have their general or executive offices outside of the District may continue to keep their books, accounts, records, and so forth at their executive or general offices, such public utilities being required, however, to produce before the commission such books, accounts, records, and papers from time to time as the commission may order.

Par. 14. That the accounts shall be closed annually on the thirty-first day of December, and a balance sheet of that date promptly taken therefrom. On or before the first day of February following such balance sheet, together with such other information as the commission shall prescribe, verified by an owner or officer of the public utility, shall be filed with the commission, and a copy thereof transmitted to Congress.

Par. 15. That the commission shall provide for the examination and audit of all accounts, and all items shall be allocated to the accounts in the manner prescribed by the commission. The agents, accountants, or examiners employed by the commission shall have authority, under the direction of the commission, to inspect and examine any and all books, accounts, papers, records, and memoranda kept by such public utilities.

Par. 16. That every public utility shall carry a proper and adequate depreciation account. The commission shall ascertain and determine what are the proper and adequate rates of depreciation of the several classes of property of each public utility. These rates shall be such as will provide the amounts required over and above the expense of maintenance to keep such property in a state of efficiency corresponding to the progress of the industry. Each public utility shall conform its depreciation accounts to such rates so ascertained and determined by the commission. The commission may make changes in such rates of depreciation from time to time as it may find to be necessary. The commission shall also prescribe rules, regulations, and forms of accounts regarding such depreciation which the public utility is required to carry into effect. The commission shall provide for such depreciation in fixing the rates, tolls, and charges to be paid by the public. All moneys in this fund may be expended in keeping the property of such public utility in repair and good and serviceable condition for the use to which it is devoted, or invested, and, if invested, the income from the investments shall also be carried in the depreciation fund. This fund and the proceeds thereof shall be used for no other purpose than as provided in this paragraph, unless with the consent and by order of the commission.

Par. 17. That the commission shall keep itself informed of all new construction, extensions, and additions to the property of all public utilities, and shall prescribe the necessary forms, regulations, and instructions to the officers and employees of all public utilities for the keeping of construction accounts, which shall clearly distinguish all operating expenses and new construction.

Par. 18. That nothing in this section shall be taken to prohibit a public utility, with the consent of the commission, from providing a sliding scale of rates and dividends according to what is commonly known as the Boston sliding scale, or other financial device that may be practicable and advantageous to the parties interested. No such arrangement or device shall be lawful until it shall be found by the commission, after investigation, to be reasonable and just and not inconsistent with the purposes of this section. Such arrangement shall be under the supervision and regulation of the commission. The commission shall ascertain, determine, and order such rates, charges, and regulations, and the duration thereof, as may be necessary to give effect to such arrangement, but the right and power to make such other and further changes in rates, charges, and regulations as the commission may ascertain and determine to be necessary and reasonable, and the right to alter or amend all orders relative thereto, is reserved and vested in the commission notwithstanding any such arrangement and mutual agreement.

Par. 19. That each public utility shall furnish to the commission in such form and at such times as the commission shall require, such accounts, reports, and information as shall show in itemized detail: Depreciation; salaries and wages; legal expenses; taxes and rentals; quantity and value of material used; receipts from residuals, by-products, services, or other sales; total and net costs; net and gross profits; dividends and interest; surplus or reserve; prices paid by consumers; and in addition such other items, whether of a nature similar to those hereinbefore enumerated or otherwise, as the commission may prescribe, in order to show completely and in detail the entire operation of the public utility in furnishing its product or service to the public.

Par. 20. That the commission shall publish annual reports showing its proceedings relating to all the public utilities of each kind in the District of Columbia, and such other occasional reports as it may deem advisable. The commission shall also publish in its annual reports the value of all property actually used and useful for the convenience of the public, of every public utility as to whose rates, charges, service, or regulations any hearing has been held by the commission or the value of whose property has been ascertained by it under the provisions of this section.

Par. 21. That the commission shall ascertain and fix adequate and serviceable standards for the measurement of quality, pressure, initial voltage, or other condition pertaining to the supply of the product or service rendered by any public utility, and prescribe reasonable regulations for examining and testing such product or service and for the measurement thereof. It shall establish reasonable rules, regulations, specifications, and standards to secure the accuracy of all meters and appliances for measurements, and every public utility is required to carry into effect all orders issued by the commission relative thereto.

Par. 22. That the commission shall provide for the examination and testing of any and all appliances used for the measuring of any product or service of a public utility. Any consumer or user may have any such appliance tested upon payment of the fees fixed by the commission. The commission shall declare and establish reasonable fees to be paid for testing such appliances on the request of the consumers or users, the fee to be paid by the consumer or user at the time of his request, but to be paid by the public utility and repaid to the consumer or user if the appliance be found defective or incorrect to the disadvantage of the consumer or user.

Par. 23. That the commission may purchase such materials, apparatus, and standard measuring instruments for such examination and tests as it may deem necessary. The commission, its agents, experts, or examiners, shall have power to enter upon any premises occupied by any public utility for the purpose of making the examinations and tests provided for in this section, and to set up and use on such premises any apparatus and appliances and occupy reasonable space therefor.

Par. 24. That every public utility shall file with the commission, within a time to be fixed by the commission, schedules, which shall be open to public inspection, showing all rates, tolls, and charges which it has established and which are in force at the time for any service performed by it within the District of Columbia, or for any service in connection therewith or performed by any public utility controlled or operated by it. The rates, tolls, and charges shown on such schedules shall not exceed the rates, tolls, and charges now allowed by law, and shall be the lawful rates, tolls, and charges within the District of Columbia, and shall remain and be in force until set aside by the commission.

Par. 25. That every public utility shall file with and as a part of such schedule all rules and regulations that in any manner affect the rates charged or to be charged for any service.

Par. 26. That a copy of so much of said schedules as the commission shall deem necessary for the use of the public shall be printed in plain type and kept on file in every station and office of such public utility where payments are made by the consumers or users, open to the public, in such form and place as to be readily accessible to the public and so as to be conveniently inspected.

Par. 27. That where a schedule of joint rates or charges is, or may be, in force between two or more public utilities, such schedule shall in like manner be printed and filed with the commission, and so much thereof as the commission shall deem necessary for the use of the public shall be filed in every such station or office, as provided in the preceding paragraph.

Par. 28. That no change shall thereafter be made in any schedule, including schedules of joint rates, except upon ten days' notice to the commission, and all such changes shall be plainly indicated upon existing schedules, or by filing new schedules in lieu thereof ten days prior to the time the same are to take effect: *Provided*, That the commission, upon application of any public utility, may prescribe a less time within which a reduction may be made.

Par. 29. That copies of all new schedules shall be filed, as hereinbefore provided, in every station and office of such public utility where payments are made by consumers or users ten days prior to the time the same are to take effect, unless the commission shall prescribe a less time.

Par. 30. That it shall be unlawful for any puplic utility to charge, demand, collect, or receive a greater or less compensation for any service performed by it within the District of Columbia, or for any service in connection therewith, than is specified in such printed schedules, including schedules of joint rates, as may at the time be in force, or to demand, collect, or receive any rate, toll, or charge not specified in such schedules. The rates, tolls, and charges named therein shall be the lawful rates, tolls, and charges until the same are changed as provided in this section.

Par. 31. That the commission may prescribe such changes in the form in which the schedules are issued by any public utility as may be found to be expedient.

Par. 32. That the commission shall have power to adopt reasonable and proper rules and regulations relative to all inspections, tests, audits, and investigations, and to adopt and publish reasonable and proper rules to govern its proceedings and to regulate the mode and manner of all investigations and hearings of public utilities and other parties before it.

Par. 33. That the commission shall keep itself informed as to the manner and method in which the business of all public utilities is conducted, and shall have the right to obtain from any public utility all necessary information to enable the commission to perform its duties.

Par. 34. That the commission or any commissioner or any person or persons employed by the commission for that purpose shall, upon demand, have the right to inspect the books, accounts, papers, records, and memoranda of any public utility, and to examine,

under oath, any officer, agent, or employee of such public utility in relation to its business and affairs. Any person other than one of said commissioners who shall make such demand shall produce his authority to make such inspection or examination.

Par. 35. That the commission may require, by order or subpœna, to be served upon any public utility in the same manner that a summons is served in a civil action in the Supreme Court of the District of Columbia, the production within the District of Columbia at such time and place as it may designate of any books, accounts, papers, or records kept by such public utility in any office or place without the District of Columbia, or verified copies in lieu thereof, if the commission shall so order, in order that an examination thereof may be made by the commission under its direction. Any public utility failing or refusing to comply with any order or subpœna shall for each day it shall so fail or refuse forfeit any pay to the District of Columbia the sum of one hundred dollars, to be recovered in an action to be brought in the name of said District.

Attendance of witnesses and the production of such documentary evidence may be required from any place in the United States. And in case of disobedience to a subpœna the commission, or any party to a proceeding before the commission may invoke the aid of any court of the United States or the Supreme Court of the District of Columbia in requiring the attendance and testimony of witnesses and the production of books, papers, and documents under the provisions of this section. And the said commission is hereby given power to call on any district attorney of the United States, the corporation counsel of the District of Columbia, or any counsel of the commission to enforce the provisions of this section in the proper courts of the United States, and on such call it shall be the duty of the said district attorney, corporation counsel, or any counsel of the commission, upon request of said commission, to enforce the provisions of this paragraph, the cost and expenses incurred to be paid out of the appropriations for the expenses of the courts of the United States.

Par. 36. That for the purpose of making any investigation with regard to any public utility the commission shall have power to appoint, by an order in writing, an agent, whose duties shall be prescribed in such order. In the discharge of his duties such agent shall have every power whatsoever of an inquisitorial nature granted in this section to the commission and shall have power to administer oaths and take depositions. The commission may conduct any number of such investigations contemporaneously through different agents, and may delegate to such agent or agents the taking of all testimony bearing upon any investigation or hearing. The decision of the commission shall be based upon its examination of all testimony and records. The recommendations made by such agents shall be advisory only, and shall not preclude the taking of further testimony, if the commission so order, nor further investigation.

Par. 37. That every public utility shall furnish to the commission all information required by it to carry into effect the provisions of this section, and shall make specific answers to all specific questions submitted by the commission. Any public utility receiving from the commission any blanks with directions to fill the same shall cause the same to be properly filled out so as to answer, fully and correctly, each question therein propounded, and in case it is unable to answer any question it shall give a good and sufficient reason for such failure; and said answer shall be verified under oath by the president, secretary, superintendent, or general manager of such public utility, and returned to the commission at its office within the period fixed by the commission. Whenever required by the commission, every public utility shall deliver to the commission any or all maps, profiles, contracts, reports of engineers, and all documents, books, accounts, papers, and records, or copies of any or all of the same, with a complete inventory of all its property, in such form as the commission may direct.

Par. 38. That upon its own initiative or upon reasonable complaint made against any public utility that any of the rates, tolls, charges, or schedules, or services, or time and conditions of payment, or any joint rate or rates, schedules, or services, are in any respect unreasonable or unjustly discriminatory, or that any time schedule, regulation, or act whatsoever affecting or relating to the conduct of any street railway or common carrier, or the production, transmission, delivery, or furnishing of heat, light, water, or power, or any service in connection therewith, or the conveyance of any telegraph or telephone message, or any service in connection therewith, is in any respect unreasonable, insufficient, or unjustly discriminatory, or that any service is inadequate or can not be obtained, the commission may, in its discretion, proceed, with or without notice, to make such investigation as it may deem necessary or convenient. But no order affecting said rates, tolls, charges, schedules, regulations, or act complained of shall be entered by the commission without a formal hearing.

Par. 39. That the commission shall prior to such formal hearing notify the public utility complained of that a complaint has been made, and ten days after such notice has been given the commission may proceed to set a time and place for a hearing and and an investigation as hereinafter provided.

Par. 40. That the commission shall give the public utility and the complainant, if any, ten days' notice of the time and place when and where such hearing and investigation will be held and such matters considered and determined. Both the public utility and complainant shall be entitled to be heard and shall have process to enforce the attendance of witnesses.

Par. 41. That if upon such investigation the rates, tolls, charges, schedules, or joint rates shall be found to be unjust, unreasonable, insufficient, or unjustly discriminatory, or to be preferential or otherwise in violation of any of the provisions of this section, the commission shall have power to determine and by order fix and order to be substituted therefor such rate or rates, tolls, charges, or schedules as shall be just and reasonable. If upon such investigation it shall be found that any regulation, time schedule, act, or service complained of is unjust, unreasonable, insufficient, preferential, unjustly discriminatory, or otherwise in violation of any of the provisions of this section, or if it be found that reasonable service is not supplied, the commission shall have power to determine and substitute therefor such other regulations, time schedules, service, or acts and to make such orders respecting and such changes in such regulations, time schedules, service, or acts as shall be just and reasonable. And upon any investigation for the purpose of determining upon and requiring any reasonable extension or extensions of lines or of service that shall promise to be compensatory within a reasonable time, the commission shall have power to fix, determine, and require every such extension or extensions to be made and the terms and conditions upon which the same shall be made: *Provided*, That no hearing shall be had and no order shall be made respecting such extension or extensions without notice to the public utility affected thereby, as provided in paragraph forty of this section.

Par. 42. That if upon investigation it shall be found that any rate, toll, charge, schedule, or joint rate, or rates, is unjust, unreasonable, insufficient, or unjustly discriminatory or preferential, or otherwise in violation of any of the provisions of this section, or that any time schedule, regulation, act, or service complained of is unjust, unreasonable, insufficient, preferential, or otherwise in violation of any of the provisions of this section, or if it be found that reasonable service is not supplied, the public utility found to be at fault shall pay the expenses incurred by the commission upon such investigation.

Par. 43. That the commission may, in its discretion, when complaint is made of more than one rate or charge, order separate hearings thereon, and may consider and determine the several matters complained of separately and at such times as it may prescribe. No complaint shall of necessity at any time be dismissed because of the absence of direct damage to the complainant.

Par. 44. That whenever the commission shall believe that any rate or charge may be unreasonable or unjustly discriminatory, or that any reasonable service is not supplied, or that an investigation of any matter relating to any public utility should for any reason be made, it may, on its own motion, summarily investigate the same with or without notice.

Par. 45. That if after making such investigation the commission becomes satisfied that sufficient grounds exist to warrant a formal hearing being ordered as to the matters so investigated, it shall furnish such public utility interested a statement notifying the public utility of the matters under investigation. Ten days after such notice has been given the commission may proceed to set a time and place for a hearing and an investigation as hereinbefore provided.

Par. 46. That notice of the time and place for such hearing shall be given to the public utility and to such other interested persons as the commission shall deem necessary, as provided in paragraph forty of this section, and thereafter proceedings shall be had and conducted in reference to the matter investigated in like manner as though complaint had been filed with the commission relative to the matter investigated, and the same order or orders may be made in reference thereto as if such investigation had been made on complaint.

Par. 47. That any public utility may make complaint as to any matter affecting its own product or service with like effect as though made by the commission or upon reasonable complaint as hereinbefore provided.

Par. 48. That each of the commissioners and every agent provided for in paragraph thirty-six of this section, for the purposes mentioned in this section, shall have power to administer oaths, certify to official acts, issue subpœnas, compel the attendance of witnesses and the production of books, accounts, papers, records, documents, and testimony. In case of disobedience on the part of any person or persons to comply with any order of the commission or any commissioner, or any subpœna, or on the refusal of any witness to testify to any matter regarding which he may be interrogated before the commission or its agent authorized, it shall be the duty of the Supreme Court of the District of Columbia, or a judge thereof, on application of a commissioner,

to compel obedience by attachment proceedings for contempt, as in the case of disobedience of the requirements of a subpœna issued from such court or a refusal to testify therein.

Par. 49. That each witness who shall appear before the commission or its agent by its order shall receive for his attendance the fees and mileage now provided for witnesses in the Supreme Court of the District of Columbia, which shall be audited and paid in the same manner as fees in criminal cases within the District of Columbia are audited and paid, upon the presentation of proper vouchers, sworn to by such witnesses and approved by the chairman of the commission. No witnesses subpœnaed at the instance of parties other than the commission shall be entitled to compensation for attendance or travel unless the commission shall certify that his testimony was material to the matter investigated, and that his attendance as a witness was reasonably necessary.

Par. 50. That the commission or any party may, in any investigation, cause the depositions of witnesses residing within or without the District of Columbia to be taken in the manner prescribed by law for like depositions in civil actions in circuit courts.

Par. 51. That a full and complete record shall be kept of all proceedings had before the commission or its agents on any formal investigation had, and all testimony shall be taken down by a stenographer appointed by the commission.

Par. 52. That whenever any complaint is served upon the commission under the provisions of this section the commission shall, before said action is reached for trial, cause a certified transcript of all proceedings had and testimony taken upon such investigation to be filed with the clerk of the Supreme Court of the District of Columbia.

Par. 53. That a transcribed copy of the evidence and proceedings, or any specific part thereof, in any investigation taken by a stenographer appointed by the commission, being certified by such stenographer to be a true and correct transcript of all the testimony in the investigation or of a particular witness, or of other specific part thereof, carefully compared by him with his original notes, and to be a correct statement of the evidence and proceedings had in such investigation so purporting to be taken and transcribed, shall be received in evidence with the same effect as if such reporter were present and testified to the fact so certified. A copy of such transcript shall be furnished on demand, free of cost, to any party to such investigation.

Par. 54. That no franchise nor any right to or under any franchise to own or operate any public utility as defined in this section or to use the tracks of any street railroad shall be assigned, transferred, or leased, nor shall any contract or agreement with reference to or affecting any such franchise or right be valid or of any force or effect whatsoever unless the assignment, transfer, lease, contract, or agreement shall have been approved by the commission in writing. The permission and approval of the commission to the assignment, transfer, or lease of a franchise under this paragraph shall not be construed to revive or validate any lapsed or invalid franchise or to enlarge or add to the powers and privileges contained in the grant of any franchise or to waive any forfeiture. It shall be unlawful for any street railroad corporation, gas corporation, electric corporation, telephone corporation, telegraph corporation, or other public utility corporation, directly or indirectly, to acquire the stock or bonds of any other corporation incorporated for or engaged in the same or similar business as it is, unless authorized in writing to do so by the commission, and every contract, transfer, agreement for transfer or assignment of any such stock or bonds without such written authority shall be void and of no effect.

Par. 55. That the commission shall, within its jurisdiction—

Have general supervision of all gas corporations and electrical corporations having authority under any general or special law or under any charter or franchise to lay down, erect, or maintain wires, pipes, conduits, ducts, or other fixtures in, over, or under the streets, highways, and public places in the District of Columbia for the purpose of furnishing or distributing gas or of furnishing or transmitting electricity for light, heat, or power, or maintaining underground conduits or ducts for electrical conductors, and all gas plants and electric plants owned, leased, or operated by any corporation.

Investigate and ascertain, from time to time, the quality and quantity of gas supplied by persons or corporations; examine or investigate the methods employed by such persons and corporations in manufacturing, distributing, and supplying gas or electricity for light, heat, or power, and in transmitting the same, and have power to order such reasonable improvements as will reasonably promote the public interest, preserve the public health, and protect those using such gas or electricity and those employed in the manufacture and distribution thereof or in the manufacture and operation of the works, wires, poles, lines, conduits, ducts, and systems connected there-

with, and have power to order reasonable improvements and extensions of the works, wires, poles, lines, conduits, ducts, and other reasonable devices, apparatus, and property of gas corporations and electrical corporations.

Have power by order to fix from time to time standards for determining the purity or the measurement of the illuminating power of gas to be manufactured, distributed, or sold by persons or corporations for lighting, heating, or power purposes, and to prescribe from time to time the efficiency of the electric supply system, of the current supplied, and of the lamps furnished by the persons or corporations generating and selling electric current, and by order to require the gas so manufactured, distributed, or sold to equal the standards so fixed by it, and to prescribe from time to time the reasonable minimum and maximum pressure at which gas shall be delivered by said persons or corporations. For the purpose of determining whether the gas manufactured, distributed, or sold by such persons or corporations for lighting, heating, or power purposes conforms to the standards of illuminating power, purity, and pressure, and for the purpose of determining whether the efficiency of the electric supply system, of the current supplied, and of the lamps furnished conforms to the orders issued by the commission, the commission shall have power, of its own motion, to examine and investigate the plants and methods employed in manufacturing, delivering, and supplying gas or electricity, and shall have access, through its members or persons employed and authorized by it to make such examinations and investigations, to all parts of the manufacturing plants owned, used, or operated for the manufacture, transmission, or distribution of gas or electricity by any such person or corporation. Any employee or agent of the commission who divulges any fact or information which may come to his knowledge during the course of any such inspection or examination, except in so far as he may be directed by the commission, or by a court or judge thereof, or authorized by law, shall be guilty of a misdemeanor, and on conviction thereof shall be punished by a fine of not less than $50 nor more than $500 for each offense.

Par. 56. That no gas corporation or electrical corporation shall begin the construction of a gas plant or electric plant without first having obtained the permission and approval of the commission.

Par. 57. That the commission shall appoint inspectors of gas meters, whose duty it shall be, when required by the commission, to inspect, examine, prove, and ascertain the accuracy of any and all gas meters used or intended to be used for measuring or ascertaining the quantity of gas for light, heat, or power furnished by any person or corporation to or for the use of any person or corporation, and when found to be or made to be correct, the inspector shall seal all such meters and each of them with some suitable device, which device shall be recorded in the office of the commission.

No corporation or person shall furnish, set, or put in use any gas meter which shall not have been inspected, proved, and sealed by an inspector of the commission.

The commission shall appoint inspectors of electric meters, whose duty it shall be, when required by the commission, to inspect, examine, and ascertain the accuracy of any and all electric meters used or intended to be used for measuring and ascertaining the quantity of electric current furnished for light, heat, or power by any person or corporation to or for the use of any person or corporation, and to inspect, examine, and ascertain the accuracy of all apparatus for testing and proving the accuracy of electric meters; and when found to be or made to be correct the inspector shall stamp or mark all such meters and apparatus with some suitable device, which device shall be recorded in the office of the commission. No corporation or person shall furnish, set, or put in use any electric meter the type of which shall not have been approved by the commission or any meter not approved by an inspector of the commission.

Every gas corporation and electrical corporation shall provide, repair, and maintain such suitable premises and apparatus and facilities as may be required and approved by the commission for testing and proving the accuracy of gas and electric meters furnished for use by it, and by which apparatus every meter may be tested.

If any consumer to whom a meter has been furnished shall request the commission in writing to inspect such meter, the commission shall have the same inspected and tested; if the same, on being so tested, shall be found to be more than four per centum, if an electric meter, or more than two per centum, if a gas meter, defective or incorrect to the prejudice of the consumer, the inspector shall order the gas or electrical corporation forthwith to remove the same and to place instead a correct meter, and the expense of such inspection and test shall be borne by the corporation; if the same, on being so tested, shall be found to be correct, the expense of such inspection and test shall be borne by the consumer.

The commission shall prescribe such rules and regulations to carry into effect the provisions of this paragraph as it may deem necessary and shall fix uniform reasonable charges for the inspection and testing of meters upon complaint.

Par. 58. That if it be alleged and established in an action brought in any court for the collection of any charge for gas or electricity that a price has been demanded in excess of that fixed by the commission or by statute no recovery shall be had therein, but the fact that such excessive charges have been made shall be a complete defense to such action.

Par. 59. That the appointment and power to remove the inspector of gas and meters and assistant inspectors of gas and meters from office is hereby vested in the commission. All the powers and duties of such inspectors conferred and imposed by statute shall be exercised and performed under the supervision and control of the commission: *Provided*, That the salaries of the inspector of gas and meters and every assistant inspector of gas and meters shall continue to be paid as heretofore and as now provided by act of Congress.

Par. 60. That the inspector of gas and meters now provided for by law shall transfer and deliver to the commission all books, maps, papers, records, apparatus, and the property of whatsoever description in his possession, and said commission is authorized to take possession of all books, maps, papers, records, apparatus, and property of whatsoever description.

Par. 61. That all public utilities to which an order of the commission applies shall make such changes in their schedules on file as may be necessary to make the same conform to said order, and no change shall thereafter be made by any public utility in any such rates, tolls, or charges, or in any joint rate or rates, without the approval of the commission. Certified copies of all other orders of the commission shall be delivered to the public utility affected thereby in like manner, and the same shall take effect within such reasonable time thereafter as the commission shall prescribe.

Par. 62. That the commission may, at any time, upon notice to the public utility and after opportunity to be heard as provided in paragraph forty of this section, rescind, alter, or amend any order fixing any rate or rates, tolls, charges, or schedules, or any other order made by the commission, and certified copies of the same shall be served and take effect as herein provided for original orders.

Par. 63. That all rates, tolls, charges, time and condition of payment thereof, schedules, and joint rates fixed by the commission shall be in force and shall be prima facie reasonable until finally found otherwise in an action brought for that purpose.

Par. 64. That if at any time the commission shall be in doubt of the elements of value to be by them considered in arriving at the true valuation under the provisions of this section, they are authorized and empowered to institute a proceeding in equity in the Supreme Court of the District of Columbia petitioning said court to instruct them as to the element or elements of value to be by them considered as aforesaid, and the particular utility under valuation at the time shall be made party defendant in said action.

That any public utility and any person or corporation interest (ed) being dissatisfied with any order or decision of the commission fixing any valuation, rate or rates, tolls, charges, schedules, joint rate or rates, or regulation requirement, act, service, or other thing complained of may commence a proceeding in equity in the Supreme Court of the District of Columbia against the commission, as defendants, to vacate, set aside, or modify any such decision or order on the ground that the valuation, rate or rates, tolls, charges, schedules, joint rate or rates, or regulation, requirement, act, service, or other thing complained of fixed in such order is unlawful, inadequate, or unreasonable. The answer of the commission, on any such action being instituted against it, or the answer of any public utility on any such action being commenced by said commission against it, shall be filed within ten days, whereupon said proceeding shall be at issue and stand ready for trial.

All such proceedings shall have precedence over any civil cause of a different nature pending in such court, and the Supreme Court of the District of Columbia shall always be deemed open for the trial thereof, and the same shall be tried and determined as are equity proceedings in said court. Any party, including said commission, may appeal from the order or decree of said court to the Court of Appeals of the District of Columbia, and therefrom to the Supreme Court of the United States, which shall thereupon have and take jurisdiction in every such appeal. Pending the decision of said appeal the commission may suspend the decision or order appealed from for such a period as it may deem fair and reasonable under the circumstances: *Provided*, That no appeal, unless the court or the commission shall so order, shall operate to stay any order of the commission: *And provided further*, That said commission shall not, nor shall any of its members, officers, agents, or employees, be taxed with any costs, nor shall they or any of them be required to give any supersedeas bond or security for costs or damages on any appeal whatsoever. Said commission, or any of its members, officers, agents, or employees shall not be liable to suit or action or for any judgment or decree for any damages, loss, or injury claimed by any public

utility or person, nor required in any case to make any deposit for costs or pay for any service to the clerks of any court or to the marshal of the United States.

Par. 65. That every proceeding, action, or suit to set aside, vacate, or amend any determination or order of the commission, or to enjoin the enforcement thereof, or to prevent in any way such order or determination from becoming effective shall be commenced, and every appeal to the courts or right of recourse to the courts shall be taken or exercised, within one hundred and twenty days after the entry or rendition of such order or determination, and the right to commence any such action, proceeding, or suit, or to take or exercise any such appeal or right of recourse to the courts, shall terminate absolutely at the end of such one hundred and twenty days.

Par. 66. That no injunction shall issue suspending or staying any order of the commission, except upon application to the Supreme Court of the District of Columbia or a judge thereof, and only upon notice to the commission and after hearing had.

Par. 67. That if upon trial of such proceeding or suit evidence shall be introduced by the plaintiff which is found by the court to be different from that offered upon the hearing before the commission or its authorized agent, or additional thereto, the court, before proceeding to render judgment, unless the parties to such action stipulate in writing to the contrary, shall transmit a copy of such evidence to the commission, and shall stay further proceedings in said proceeding for fifteen days from the date of such transmission. Upon the receipt of such evidence the commission shall consider the same and may alter, modify, amend, or rescind its order relating to such valuation, rate or rates, tolls, charges, schedules, joint rate or rates, time schedules, regulation, act, or service complained of in said action, and shall report its action thereon to said court within ten days from receipt of such evidence.

Par. 68. That if the commission shall rescind its order complained of the proceeding or suit shall be dismissed; if it shall alter, modify, or amend the same, such altered, modified, or amended order shall take the place of the original order complained of and judgment shall be rendered thereon as though made by the commission in the first instance. If the original order shall not be rescinded or changed by the commission, judgment shall be rendered upon such original order, and costs shall be taxed as may be deemed proper under the circumstances.

Par. 69. That in all trials, actions, and proceedings arising under the provisions of this section or growing out of the exercise of the authority and powers granted herein to the commission, the burden of proof shall be upon the party adverse to such commission or seeking to set aside any determination, requirement, direction, or order of said commission to show by clear and satisfactory evidence that the determination, requirement, direction, or order of the commission complained of is inadequate, unreasonable, or unlawful, as the case may be.

Par. 70. That no person shall be excused from testifying or from producing books, accounts, and papers in any proceeding based upon or growing out of any violation of the provisions of this section, on the ground or for the reason that the testimony or evidence, documentary or otherwise, required of him may tend to incriminate him or subject him to penalty or forfeiture; but no person having so testified shall be prosecuted or subjected to any penalty or forfeiture for or on account of any transaction, matter, or thing concerning which he may have testified or produced any documentary evidence: *Provided*, That no person so testifying shall be exempted from prosecution or punishment for perjury: *Provided further*, That the immunity hereby conferred shall extend only to a natural person who, in obedience to a subpœna, gives testimony under oath or produces evidence, documentary or otherwise, under oath.

Par. 71. That upon application of any person the commission shall furnish certified copies, under the seal of the commission, of any order made by it, which shall be prima facie evidence of the facts stated therein.

Par. 72. That the power to create liens on corporate property by public utilities in the District of Columbia is hereby declared to be a special privilege the right of supervision, regulation, restriction, and control of which is hereby vested in the public utilities commission of the District of Columbia, and such power shall be exercised according to the provisions of this section.

Par. 73. That no public utility shall hereafter issue any stocks, stock certificates, bonds, mortgages, or any other evidences of indebtedness payable in more than one year from date, until it shall have first obtained the certificate of the commission showing authority for such issue from the commission.

Par. 74. That no public utility shall issue any stocks, certificates of stock, bonds, or other evidences of indebtedness for money, property, or services, either directly or indirectly, nor shall it receive any money, property, or services in payment of the same, either directly or indirectly, until there shall have been recorded upon the books of such public utility the certificate of the commission in this section provided for.

Par. 75. That no public utility shall declare any stock, bond, or scrip dividend or divide the proceeds of the sale of any stock, bond, or scrip among its stockholders.

Par. 76. That no public utility shall issue any stocks, certificates of stock, bonds, or other evidences of indebtedness secured on its property in the District of Columbia for the purpose of any reorganization or consolidation in excess of the total amount of the stocks, certificates of stock, bonds, or other evidences of indebtedness then outstanding against the public utilities so reorganizing or consolidating, and no such public utility shall purchase the property of any other public utility for the purpose of effecting a consolidation until the commission shall have determined and set forth in writing that said consolidation will be in the public interest, nor until the commission shall have approved in writing the terms upon which said consolidation shall be made.

Par. 77. That no public utility shall apply the proceeds of any such stock, certificates of stock, bonds, or other evidences of indebtedness to any other purpose or issue the same on any less favorable terms than that specified in the certificate issued by the commission.

Par. 78. That all stocks, certificates of stock, bonds, and other evidences of indebtedness issued contrary to the provisions of this section shall be void.

Par. 79. That any public utility, or any agent, director, or officer thereof, who shall, directly or indirectly, issue or cause to be issued any stocks, certificates of stock, bonds, or other evidences of indebtedness contrary to the provisions of this section, or who shall apply the proceeds from the sale thereof to any purposes other than that specified in the certificate of the commission, shall forfeit and pay into the Treasury of the United States, one-half to the credit of the District of Columbia, not less than $1,000 nor more than $10,000 for each offense.

Par. 80. That each and every director, president, secretary, or other official of any such public utility who shall make any false statement to secure the issue of any stock, certificate of stock, bond, mortgage, or other evidence of indebtedness, or who shall, by false statement knowingly made, procure of the commission the making of the certificate herein provided, or issue, with knowledge of such fraud, negotiate, or cause to be negotiated, any such stock, certificate of stock, bond, mortgage, or other evidence of indebtedness in violation of this section, shall be guilty of a felony, and, upon conviction thereof, shall be punished by a fine of not less than $1,000 or by imprisonment for a term of not less than one year, or by both such fine and imprisonment, in the discretion of the court.

Par. 81. That if any public utility or any agent or officer thereof shall, directly or indirectly, by any device whatsoever, or otherwise, charge, demand, collect, or receive from any person, firm, or corporation a greater or less compensation for any service rendered or to be rendered by it in or affecting or relating to the conduct of a street railroad or street railroad corporation, common carrier, gas plant, gas corporation, electric plant, electric corporation, water power company, telephone line, telephone corporation, telegraph line, or telegraph corporation, or pipe line company, or to the production, transmission, delivery, or furnishing of heat, light, water, or power, or the conveyance of telephone or telegraph messages, or for any service in connection therewith than that prescribed in the public schedules or tariffs then in force or established as provided herein, or than it charges, demands, collects, or receives from any other person, firm, or corporation other than one conducting a like business for a like and contemporaneous service, such public utility shall be deemed guilty of unjust discrimination, which is hereby prohibited and declared to be a misdemeanor and unlawful, and upon conviction thereof shall forfeit and pay to the District of Columbia not less than $100 nor more than $1,000 for each offense; and such agent or officer so offending shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than $50 nor more than $100 for each offense.

Par. 82. That it shall be unlawful for any public utility to demand, charge, collect, or receive from any person, firm, or corporation less compensation for any service rendered or to be rendered by said public utility in consideration of the furnishing by said person, firm, or corporation of any part of the facilities incident thereto: *Provided*, That nothing herein shall be construed as prohibiting any public utility from renting any facilities incident to the production, transmission, delivery or furnishing of heat, light, water, or power, or the supply of any liquid, steam, or air, through pipes or tubing, or the conveyance of telegraph or telephone messages, and paying a reasonable rental therefor; or as requiring any public utility to furnish any part of such appliances which are situated in and upon the premises of any consumer or user, except telephone station equipment upon the subscribers' premises, and, unless otherwise ordered by the commission, meters, and appliances for measurements of any product or service.

Par. 83. That it shall be unlawful for any person, firm, or corporation to solicit, accept, or receive any rebate, concession, or discrimination in respect to any service

in or affecting or relating to any public utility or the production, transmission, delivery, or furnishing of heat, light, water, or power, or any liquid, steam, or air, or the conveying of telegraph or telephone messages within the District of Columbia, or for any service in connection therewith whereby any such service shall, by any device whatsoever or otherwise, be rendered free or at a less rate than that named in the schedules and tariffs in force as provided in this section, or whereby any service or advantage is received other than is in this section specified. Any person, firm, or corporation violating the provisions of this paragraph shall be deemed guilty of a misdemeanor, and on conviction thereof shall be punished by a fine of not less than $200 nor more than $1,000 for each offense.

Par. 84. That any officer, agent, or employee of any public utility who shall fail or refuse to fill out and return any blanks, as required by this section, or shall fail or refuse to answer any question therein propounded, or shall knowingly or willfully give a false answer to any such question, or shall evade the answer to any such question where the fact inquired of is within his knowledge, or who shall, upon proper demand, fail or refuse to exhibit to the commission or any commissioner, or any person authorized to examine the same, any book, paper, account, record, or memoranda of such public utility which is in his possession or under his control, or who shall fail to properly use and keep his system of accounting, or any part thereof, as prescribed by the commission under this section, or who shall refuse to do any act or thing in connection with such system of accounting when so directed by the commission or its authorized representative shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than $200 nor more than $1,000 for each offense, and a penalty of not less than $500 nor more than $2,000 shall, on conviction, be imposed on the public utility for each such offense when such officer, agent, or employee acted in obedience to the direction, construction, or request of such public utility or any general officer thereof.

Par. 85. That if any public utility shall violate any provision of this section, or shall do any act herein prohibited, or shall fail or refuse to perform any duty enjoined upon it for which a penalty has not been provided, or shall fail, neglect, or refuse to obey any lawful requirement or order made by the commission, or any judgment or decree made by any court upon its application, for every such violation, failure, or refusal such public utility shall forfeit and pay to the District of Columbia the sum of $200 for each such offense. In construing and enforcing the provisions of this paragraph, the act, omission, or failure of any officer, agent, or other person acting for or employed by any public utility acting within the scope of his employment and instructions shall in every case be deemed to be the act, omission, or failure of such public utility.

Par. 86. That any person who shall destroy, injure, or interfere with any apparatus or appliance owned or operated by or in charge of the commission or its agent shall be deemed guilty of a misdemeanor, and upon conviction shall be punished by fine not exceeding $100 or imprisonment for a period not exceeding thirty days, or both.

Par. 87. That every day during which any public utility, or any officer, agent, or employee thereof, shall fail knowingly or willfully to observe and comply with any order or direction of the commission, or to perform any duty enjoined by this section, shall constitute a separate and distinct violation of such order, or direction, or of this section, as the case may be.

Par. 88. That whenever, after hearing and investigation as provided in this section, the commission shall find that any rate, toll, charge, regulation, or practice of any public utility within the District of Columbia is unreasonable or discriminatory, it shall have the power to regulate, fix, and determine the same as provided in this section.

Par. 89. That every public utility shall, whenever an accident attended with loss of human life or personal injury without loss of human life occurs within the District of Columbia, upon its premises, or directly or indirectly arising from or connected with its maintenance or operation, give immediate notice thereof to the commission. In the event of any such accident, the commission, if it deem the public interest requires it, shall cause an investigation to be made forthwith.

Par. 90. That the commission shall inquire into any neglect or violation of the laws or regulations in force in the District of Columbia by any public utility doing business therein, or by the officers, agents, or employees thereof, or by any person operating the plant of any public utility, and shall have the power, and it shall be its duty, to enforce the provisions of this section as well as all other laws relating to public utilities.

Par. 91. That the corporation counsel of the District of Columbia shall be the general counsel of the commission and shall receive from and be paid out of the appropriations provided and to be provided for the expenses of the commission in addition to his compensation otherwise provided by law the sum of $1,000 per annum, payable

in equal monthly installments. It shall be the duty of the general counsel to represent and appear for the commission in all actions and proceedings involving any question under this section, or under or in reference to any act, order, or proceeding of the commission, and if directed to do so by the commission, to intervene, if possible, in any action or proceeding in which any such question is involved; to commence and prosecute all actions and proceedings directed or authorized by the commission, and to expedite, in every way possible, final and just determination of all such actions and proceedings; to advise the commission and each commissioner, when so requested, in regard to all matters in connection with the powers and duties of the commission and of the members thereof, and generally to perform all duties and services as attorney and counsel to the commission which the commission may reasonably require of him. The assistants to the corporation counsel shall perform such duties relating to matters arising under this section and all other matters as the corporation counsel may prescribe. The commission may, if at any time it deems necessary, employ other attorneys at law as additional assistants to the said general counsel for the performance of such extraordinary legal services for or in behalf of the commission at such special compensation for such additional assistants as the commission may prescribe, which said compensation shall be paid out of the appropriations herein provided and hereafter to be provided for the expenses of the commission. The said corporation counsel and any of his assistants designated by him or by the commission shall have the right to appear and prosecute any civil, quasi criminal, or criminal case to recover any penalty, forfeiture, fine, or for the imposition of any punishment provided for in this section whether instituted by or on behalf of the United States of America or by or on behalf of the District of Columbia or otherwise, and on every appeal provided by law. The commission may enforce its orders in any case by mandamus or other legal or equitable remedy in any court of competent jurisdiction, and it shall be the duty of the corporation counsel or his assistants to represent the commission in every such proceeding.

Par. 92. That the provisions of this section shall be interpreted and construed liberally in order to accomplish the purposes thereof, and where any specific power or authority is given the commission by the provisions of this section the enumeration thereof shall not be held to exclude or impair any power or authority otherwise in this section conferred on said commission. The commission hereby created shall have in addition to the powers in this section specified, mentioned, and indicated all additional, implied, and incidental power which may be proper and necessary to effect and carry out, perform, and execute all the said powers herein specified, mentioned, and indicated. A substantial compliance with the requirements of this section shall be sufficient to give effect to all the rules, orders, acts, and regulations of the commission, and they shall not be declared inoperative, illegal, or void for any omission of a technical nature in respect thereto. That each paragraph of this section, and every part of each paragraph, are hereby declared to be independent paragraphs, and the holding of any paragraph or paragraphs or part or parts thereof to be void, ineffective, or unconstitutional for any cause shall not be deemed to affect any other paragraph or part thereof.

Par. 93. That this section shall not have the effect to release or waive any right of action by the United States, or by the District of Columbia, or by any person, for any right, penalty, or forfeiture which may have arisen or which may hereafter arise under any law of the United States or any regulation in force in the District of Columbia; and all penalties and forfeitures accruing under this section shall be cumulative, and a suit for any recovery of one shall not be a bar to the recovery of any other penalty.

Par. 94. That, first, unless the commission shall otherwise order, it shall be unlawful for any public utility within the District of Columbia to demand, collect, or receive a greater compensation for any service than the charge fixed on the lowest schedules of rates for the same service under the law in force at the date of the passage of this section; second, every public utility in the District of Columbia shall, within thirty days after the passage and publication of this section, file in the office of the commission copies of all schedules of rates and charges, including joint rates, in force at the date of the passage of this section; third, any public utility desiring to advance or discontinue any such rate or rates may make application to the commission in writing, stating the advance in or discontinuance of the rate or rates desired, giving the reasons for such advance or discontinuance; fourth, upon receiving such application the commission shall fix a time and place for hearing, and give such notice to interested parties as shall be proper and reasonable; if, after such hearing and investigation, the commission shall find that the change or discontinuance applied for is reasonable, fair, and just, it shall grant the application, either in whole or in part; fifth, any public utility being dissatisfied with any order of the commission made under the provisions of this paragraph may commence a proceeding against it in the Supreme Court of the

District of Columbia in the manner as is in this section hereinbefore provided, which action shall be tried and determined in the same manner as is in this section hereinbefore provided.

Par. 95. The commission shall have the power in each and every instance to employ and to prescribe the duties of such officers, clerks, stenographers, typewriters, inspectors, experts, and employees as it may deem necessary to carry out the provisions of this section, and to fix and pay their compensation within the appropriations provided by Congress. The commission is hereby authorized, within the appropriation made by Congress, to incur and pay incidental expenses for postage, printing, blanks, books, law books, books of reference, and periodicals, stationery, binding, rebinding, repairing and preservation of records, desks, office furniture and supplies, traveling expenses of the commission, the commissioners, and every officer, agent, and employee thereof, and all other general expenses reasonably necessary to be incurred in carrying out the purposes of this section. All payments and disbursements, as provided in this section, shall be made by the disbursing officer of the District of Columbia upon proper vouchers, certified as required by the commission; and the commission is hereby also granted power and authority to designate and appoint during its pleasure such officers, clerks, inspectors, and employees of the District of Columbia and members of the Metropolitan police force of the District of Columbia to perform any of the duties which the commission may from time to time, respectively, assign to them, and to employ any assistance and fix compensation therefor within the limits of the appropriations for its use herein or hereafter made by act of Congress.

Par. 96. That the said commission shall hereafter exercise all the powers and have all the authority now vested by law in the Interstate Commerce Commission by virtue and under the act of Congress approved May twenty-third, nineteen hundred and eight, entitled "An act authorizing certain extensions to be made of the lines of the Anacostia and Potomac River Railroad Company, the Washington Railway and Electric Company, the City and Suburban Railway of Washington, and the Capital Traction Company, in the District of Columbia, and for other purposes," and said power and authority shall no longer be exercised by said Interstate Commerce Commission: *Provided*, That the orders, rules, and regulations made by the Interstate Commerce Commission shall continue to be in force until changed, repealed, altered, or amended by the commission created by this section, which said commission is hereby given power and jurisdiction to issue and, at its pleasure, to revoke all permits, or licenses, to carry this section into effect, and its rules and regulations shall be valid and binding on all public-service corporations and on all persons.

Whenever the commission shall be of opinion, after hearing had upon its own motion or upon complaint, that repairs, improvements, or changes in any street railroad, gas plant, electric plant, telephone line, telegraph line, pipe line, water-power plant, or the facilities of any common carrier ought reasonably to be made, or that any addition of service or equipment ought reasonably to be made thereto, or that the vehicles or cars of any street railroad or common carrier are unclean, insanitary, uncomfortable, inconvenient, or improperly equipped, operated, or maintained, or are in need of paint, or unsightly in appearance, or that any addition ought reasonably to be made thereto, in order to promote the comfort or convenience of the public or employees, or in order to secure adequate service or facilities, the commission shall have power to make and serve an order directing that such repairs, improvements, changes, or additions to service or equipment be made within a reasonable time and in a manner to be specified therein, and every such public utility is hereby required and directed to obey every such order of the commission.

Par. 97. That all the powers created by this section and the duty of carrying this section into effect and enforcing the provisions thereof are hereby vested in and imposed on the Commissioners of the District of Columbia as a governmental and administrative agency, and said powers shall be exercised and said duties performed as additional and superadded powers to their powers and duties as Commissioners of the District of Columbia. The powers, authority, and duties hereby imposed on and granted said commissioners shall be permanent and are hereby imposed on and granted to the present Commissioners of the District of Columbia and their successors in office. The commission created by this section shall, so soon as convenient after its passage, organize by electing one of its number chairman, who shall serve until the first Monday in January, nineteen hundred and fourteen. On the first Monday in January in each odd-numbered year the commissioners shall meet and elect a chairman, who shall serve for two years and until his successor is elected. A majority of said commissioners shall constitute a quorum to do business, and any vacancy shall not impair the right of the remaining commissioners to exercise all the powers of the commission. Any investigation, inquiry, or hearing within the powers of the commission may be made or held by any commissioner, whose acts and orders, when

approved by the commission, shall be deemed to be the order of the commission. The commission shall have power to adopt and publish rules to govern its proceedings and to regulate the mode and manner of all investigations and hearings pertaining to public utilities.

No commissioner shall be directly or indirectly interested in any public utility or in any stock, bond, mortgage, security, or contract of any such public utility; and if any such commissioner shall voluntarily become so interested his office shall ipso facto become vacant; and if any such commissioner shall become so interested otherwise than voluntarily he shall, within a reasonable time, divest himself of such interest, and if he fails so to do his office shall become vacant. Before entering upon the duties of his office each commissioner, the secretary of the commission, the counsel of the commission, and every employee of said commission shall take and subscribe the constitutional oath of office, and shall in addition thereto make oath or affirmation before and file with the clerk of the Supreme Court of the District of Columbia that (he) is not pecuniarily interested, voluntarily or involuntarily, in any public utility in the District of Columbia or elsewhere.

Par. 98. That the sum of $40,000, or so much thereof as may be necessary, is hereby appropriated to carry out the provisions of this section, one-half out of the revenues of the District of Columbia and one-half out of any moneys in the Treasury not otherwise appropriated, and all moneys received from fines, forfeitures, and penalties shall be paid into the Treasury of the United States, one-half to the credit of the District of Columbia.

Par. 99. That all the duties, powers, and authority of the Commissioners of the District of Columbia shall continue and remain in full force and effect notwithstanding this section; and all powers, authority, and duties of the municipality known as the District of Columbia and all rights vested in said municipality shall continue and remain in full force and effect notwithstanding this section. All the lawful ordinances and regulations made by the Commissioners of the District of Columbia as such, and all other lawful municipal ordinances and regulations, shall continue and remain in full force and effect, and may be altered, changed, or amended, and new ordinances and regulations may be made by the Commissioners of the District of Columbia, acting as such, hereafter, notwithstanding this section: *Provided*, That when any order of the commission created by this section shall be made which shall be inconsistent and repugnant to any municipal ordinance or regulation, or any ordinance or regulation made or to be made by the Commissioners of the District of Columbia, acting as such, then and in such event the order of the commission created by this section shall be given full force and effect, notwithstanding such municipal ordinance or regulation.

Par. 100. That the board of directors of every public utility shall consist of not more than fifteen nor less than seven members, within which limitation the membership may be in any case increased or diminished, as the stockholders may from time to time determine.

Par. 101. That, except as modified or changed by this section and until modified or changed under its provisions, all charters, statutes, laws, ordinances, and regulations now in force shall remain and continue to be in full force and effect until altered, amended, or repealed according to law: *Provided*, That all charters, statutes, acts, and parts of acts, laws, ordinances, and regulations inconsistent and repugnant to the provisions of this section, and only so far as inconsistent and repugnant thereto, are hereby repealed.

Par. 102. That this section shall not affect pending actions or proceedings, civil or criminal, or quasi criminal, but the same may be prosecuted or defended as heretofore provided by law or regulation.

Par. 103. That Congress reserves the right to alter, amend, or repeal this section.

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APPENDIX—ANTI-MERGER LAW.

[Extract from Public No. 435. See par. 54 of public utilities law.

AN ACT Making appropriations to provide for the expenses of the government of the District of Columbia for the fiscal year ending June 30, 1914, and for other purposes, approved March 4, 1913, section 11 of which provides as follows:]

SEC. 11. That it shall be unlawful for any foreign public utility corporation, or for any foreign or local holding corporation, or for any local street railroad corporation, gas corporation, electric corporation, telephone corporation, telegraph corporation, or any other local public utility corporation, directly or indirectly, to own, control, or hold or vote stock or bonds of any public utility corporation organized under any general incorporation law or special act of the United States or authorized under any law of the United States to do business in the District of Columbia, except as heretofore or hereafter expressly authorized by Congress; and it shall be unlawful for any

public utility corporation organized or authorized as aforesaid to sell or transfer any portion of its stock or bonds to any other public utility corporation or holding corporation whatsoever, unless heretofore or hereafter expressly authorized by Congress so to do; and every contract, transfer, agreement to transfer, or assignment by any said public utility corporation organized or authorized as aforesaid of any portion of its stock or bonds without such authority shall be utterly void and of no effect. That the Supreme Court of the District of Columbia, on application of the District of Columbia by its commissioners or attorney, or on application of the United States by its proper officer, or on application of any shareholder interested in any such corporations, shall have jurisdiction in equity to dissolve any public utility corporation organized under any general incorporation law or special section (act) of the United States, or authorized under any law of the United States to do business in the District of Columbia, for violation of any of the provisions of this section or of their charters; and further, to require any foreign public utility corporation, or foreign or local holding corporation which owns, holds, or controls, or which shall hereafter own, hold, or control any such stock or bonds contrary to any of the provisions of this section, to sell or dispose of the same and to refrain from voting such stock or bonds: *Provided*, That in case the allegations in any bill filed in said court relate to the ownership of stock or bonds of a local corporation by any foreign corporation, then it must be shown to the satisfaction of the court that such ownership includes at least twenty per centum of the capital stock of the local corporation.

That the word "foreign" when used in this section shall be construed to mean foreign to the District of Columbia, and the word "local" when used in this section shall be construed to mean local in the District of Columbia.

That each provision of this section and every part of each provision is hereby declared to be an independent provision, and the holding or any provision or provisions, or part or parts thereof, to be void, ineffective, or unconstitutional for any cause shall not be deemed to affect any other provision or part thereof.

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Approved, March 4, 1913.

APPENDIX B.

ORDERS.

The following is a complete list of the orders issued by the commission during the 10 months ending December 31, 1913, a summary of each being given:

Order No. 1.

MARCH 11, 1913.

Appointment of Harry C. Eddy as engineer to the commission under the direction of the chairman.

Order No. 2.

MARCH 13, 1913.

Appointment of Capt. Julian L. Schley, Corps of Engineers, United States Army, assistant to the Engineer Commissioner of the District of Columbia, as executive officer of the commission under the direction of the chairman.

Order No. 3.

MARCH 22, 1913.

Creation of the division of gas inspection under the direction of Elmer G. Runyan, inspector of gas and gas meters, District of Columbia. Designation of responsibility and affirmation of existing duties, fees, and regulations.

Order No. 4.

APRIL 1, 1913.

Adoption of seal and assignment of its custody.

Annual Report of the Commissioners of the District of Columbia, Year Ended June 30, 1913, Vol. II, Engineer Department Reports, page 8, Public Utilities Commission

63D CONGRESS, 2d Session } HOUSE OF REPRESENTATIVES { DOCUMENT No. 403

ANNUAL REPORT OF THE COMMISSIONERS OF THE DISTRICT OF COLUMBIA

YEAR ENDED JUNE 30, 1913

Vol. II

ENGINEER DEPARTMENT REPORTS

WASHINGTON
1913

AUTHENTICATED U.S. GOVERNMENT INFORMATION GPO

BRIDGES.

No large bridges were constructed during the year. Authority was granted for the construction of a bridge across Rock Creek on the line of Q Street NW., but owing to the delay in securing title to the land for the approaches to this bridge it has not yet been constructed. Bids for the bridge have been received. The estimated cost of this bridge is $275,000, and an appropriation of this amount has been made by Congress.

An appropriation of $160,000 has been authorized for the construction of a bridge crossing Rock Creek on the line of Pennsylvania Avenue NW. Plans are now being designed for this bridge.

At the request of the Secretary of War, an item for constructing a draw span in the Pennsylvania Avenue Bridge across the Anacostia River has been included in the estimates of the commissioners for the ensuing fiscal year. The estimated cost of this draw span is $60,000, and the construction is made necessary by the reclamation of the Anacostia Flats.

ELIMINATION OF SUBURBAN GRADE CROSSINGS.

The construction of a subway at the Cedar Street crossing of the tracks of the Baltimore & Ohio Railroad Co., in order to eliminate a railroad grade crossing, was completed during the year.

Another such railroad crossing at Benning, D. C., should also be eliminated in the interest of public safety. Designs for this work have been prepared and the estimated cost is $110,000. The design provides for the construction of a viaduct and bridge to carry Benning Road over the railroad tracks.

Railroad grade crossings have been entirely eliminated within the city limits, and the commissioners believe that they should be similarly eliminated where they exist outside of the city on much traveled roads.

PUBLIC UTILITIES.

The District appropriation act for the fiscal year 1914, approved March 4, 1913, created a public utilities commission of the District of Columbia, and prescribed its jurisdiction, powers, and duties. This commission is composed of the Commissioners of the District of Columbia, ex officio. The law above referred to imposed the duty on them as a governmental and administrative agency to be exercised and performed as additional and superadded powers to their duties as Commissioners of the District of Columbia.

The Public Utilities Commission is required by the law to publish annual reports showing its proceedings relating to all the public utilities in the District of Columbia, and reports of these matters which have heretofore been contained in the report of the Commissioners of the District of Columbia will hereafter be made by the commission.

SURVEYOR'S OFFICE.

The work of the surveyor shows a decrease in work done for private parties, but an increase in work done for the District of Columbia and the United States. The work done for private parties is paid for