

Public Service Commission of the District of Columbia

450 5TH STREET, N.W.
WASHINGTON, D.C. 20001
(202) 626-5100



IN REPLY REFER TO

September 23, 1992

Bruce W. Radford
Editor-in-Chief
Public Utility Fortnightly
211 Wilson Boulevard, Suite 200
Arlington Virginia 22201

Dear Mr. Radford:

After consideration of your letter of August 24, 1992, I have decided to submit an article entitled, "Energy Conservation: Its a Four Way Street." The enclosed article will provide your readers with a unique perspective regarding the pursuit of energy conservation. In addition, the article presents specific instances where collaboration and cooperation between the utility, commission, consumer advocate and consumer have lead to meaningful progress with respect to energy conservation in the District of Columbia. Thus, I hope you find the article worthy of publication in the November 1, 1992 issue of *Public Utility Fortnightly*.

I have enclosed two copies of the article in addition to a diskette on which the article has been saved in ASCII (MSDOS). Work Perfect 5.1 was used to draft the article.

Also, find enclosed several photographs for use in connection with the article, courtesy of Potomac Electric Power Company. Lastly, enclosed are photographs of myself and Mr. Brian J. Murphy for use in connection with the article.

If you have any questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in dark ink that reads "Howard C. Davenport". The signature is written in a cursive style.

Howard C. Davenport
Chairman

Enclosures

ENERGY CONSERVATION: IT'S A FOUR-WAY STREET

By Howard C. Davenport and Brian J. Murphy

THE AVENUES

Throughout the nation, many public utility commissions are struggling to develop novel approaches to promote energy conservation. These commissions are striving to guarantee this decade as one of energy conservation and not lost opportunities. To accomplish this goal, they must transcend the peak demand management and chipping programs of the 1980s. Similar to many of our brethren, the District of Columbia Public Service Commission ("Commission") instituted commercial curtailable load, cycling of residential air-conditioning and time-of-use rates for commercial and residential electric customers in the 1980s. However, starting in 1988, with the adoption of integrated least-cost planning for Potomac Electric Power Company ("PEPCO") as well as for Washington Gas Light Company ("Washington Gas"), the Commission has emphasized the importance of achieving energy conservation (*i.e.*, therms and megawatthours) in the commercial, residential and the all-important government sector.

Four years after the initiation of integrated least-cost planning in the District of Columbia, the promotion of energy conservation has become an art as well as a science. Arguably, the science involves the development of a fundamentally sound and integrated least-cost plan which indicates to a commission and utility which energy conservation programs are cost-effective, and, thus, should be pursued. Also, energy conservation programs must be reasonably designed, employing, where possible, state-of-the-art energy

efficient technologies and appropriate rebates or incentives. Meanwhile, the art is to encourage the installation of energy conservation measures (i.e., fluorescent bulbs and high-efficient heating, ventilation and air-conditioning systems). Thus, in one sense, utilities are required to possess the mastery of energy conservation technicians and the creativity of Madison Avenue spin doctors.

The promotion of energy conservation is not an easy proposition given the socioeconomic diversity of our society. As a practical matter, the commission, consumer advocate and consumer activist may be able to reach certain constituents in a much more effective manner than a utility, which is viewed in a negative light by many ratepayers. Moreover, consider the possibilities should a utility, commission, consumer advocate and consumer endeavor en masse to promote energy conservation. While every utility must be at the forefront, leading the battle cry against the irresponsible consumption of electricity and the implementation of energy conservation measures, no utility possesses the requisite herculean sinew to miraculously produce negwatts from megawatts or non-therms from therms. However, this distorted picture of the omnipotent utility is held by some individuals. The more realistic picture involves the commission, consumer advocate, ratepayer and utility all doing their part. It has been said that democracy is not a spectator sport; well, neither is the promotion and implementation of energy conservation measures. Everyone must travel down their respective avenues toward a common intersection if meaningful energy conservation is to be achieved in this decade. In the District of Columbia, there has been a subtle push toward a collaborative movement. While the District of Columbia is still in the genesis of this movement, this article will focus on the

benefits to be gained from encouraging cooperation and collaboration in the sometimes divisive -- Christian and lion -- arena of energy conservation.

THE COMMISSION

The commission must lay the appropriate regulatory foundation for energy conservation. The regulatory climate will determine whether there will be avenues to energy conservation or roadblocks. Some in the utility industry appear to believe that integrated least-cost planning is an unnecessary burden. Without integrated least-cost planning, however, a utility will not fully understand the energy conservation potential of its service territory. In fact, the projections of potential cost-effective energy conservation of Washington Gas and PEPCO have dramatically increased since the initiation of integrated least-cost planning in 1988. Currently, PEPCO and Washington Gas project that they will be among the nation's leading utilities with respect to reducing energy consumption by the year 2000. To assist PEPCO and Washington Gas, the District of Columbia Commission has taken several steps to implement the nuts and bolts of least-cost planning outside the hearing room. The Commission established least-cost planning working groups, bringing the utilities, Commission Staff, the Office of the People's Counsel ("OPC") and consumers together to investigate the promotion of energy conservation, among other things. Although the working group created for PEPCO was disbanded for lack of progress and cooperation on the part of all participants, the group for Washington Gas has made significant headway toward understanding the complexities of energy conservation. For example, the Washington Gas working group, through surveys and studies, discerned why certain

customers with natural gas heating are not replacing worn or broken furnaces, but rather opting for inefficient portable space heating. Now Washington Gas and PEPCO are developing programs to attack this problem which is referred to as "hidden opportunities." The working group has also facilitated Washington Gas' implementation of energy conservation programs, by settling issues, outside the hearing room, thus providing the company with additional time and resources to aggressively advance its energy conservation programs.

In order for the utilities to be willing to investigate and attempt to solve problems, such as hidden opportunities, it is vital that the commission understand that economics rules energy conservation. In most jurisdictions, a benefit/cost test such as the All-Ratepayers Test and the Societal Test determines whether an energy conservation program is beneficial for the ratepayer. Even in those few states that consider environmental externalities, some degree of cost-effectiveness is the measure of whether an energy conservation program or a generation resource will be pursued. However, the realm of economics does not stop with deciding the appropriate number and type of energy conservation programs to implement; this is only half of the equation, so to speak. Commissions have the obligation to also ameliorate the economic dilemma facing a utility, because of the implementation of energy conservation programs. Hence, at the same time commissions insist on cost-effective energy conservation programs, they must work with the utility, the consumer advocate and interested ratepayers to determine the appropriate financial incentives (e.g., lost revenues, shared savings, true-up mechanisms) necessary to ensure that conservation is not a double-edged sword, resulting from a utility investing funds and losing revenues in the

pursuit of energy conservation. But this is a complex issue which lends itself to continuous monitoring and revision, when appropriate.

In the District of Columbia, a formula to provide PEPCO with the fixed portion of lost revenues as well as a bounty or penalty based upon demonstrated energy savings was adopted. This mechanism has been reviewed by a demand-side incentive mechanism working group, comprised of the Commission Staff, PEPCO, Washington Gas, OPC, and interested consumers. The group has presented the Commission with several proposals. The proposals range from substantial revisions of the Commission-approved mechanism to slight tinkering. These proposals are under review and the Commission will continue to work with the parties in the future to ensure that any demand-side incentive mechanism serves the best interests of the utility and the ratepayers.

In addition, to working with the utility, the Commission has extended its hand to reach out to ratepayers in a community setting. The Commission is interested in educating ratepayers regarding the financial and environmental benefits of energy conservation and how they may participate in the programs offered by PEPCO and Washington Gas. To this end, the District of Columbia Commission Office of Consumer Services has conducted numerous energy conservation seminars during community hearings before the Commission. During these hearings, the Commission is able to educate interested consumers concerning the most effective way to turn the tide of rate increases -- energy conservation. The Commission's Office of Consumer Services, among other things, has distributed energy conservation literature, responded to questions, and demonstrated the use of energy efficient light bulbs at the community hearings.

THE UTILITY

Experience has shown that the number of megawatthours or therms a utility estimates will be saved is not always indicative of what will be achieved. Not until the corporate culture embraces energy conservation from the CEO to the linesperson will energy conservation have a fighting chance. Moreover, a cooperative or collaborative effort between the commission, utility, consumer advocate and customer is not possible, if utility executives continue to cling to the notion that the best day of the year is a scalding August afternoon or a frigid December night. The commission, consumer and consumer advocate demand sincerity of purpose and sufficient commitment of corporate resources. Thus, just as perestroika was necessary to reform the economy of the old Soviet Union, so it appears that a form of corporate perestroika must sweep through the board rooms and work rooms of electric and natural gas utilities. They must stop playing the "game" of energy conservation, moving pieces of information at the last minute to comply superficially and temporarily with commission rulings. Any executive who happens to roll his or her eyes reading this portion of the article, because he or she maintains that energy conservation is the antithesis of the operation of "their business," should think again. Energy conservation is in the public interest; and, commissions have no hesitation to remind utilities of this fact. Unfortunately for utilities and ratepayers, reminders in the form of financial penalties, such as reductions on common equity return hurt the utility's ability to earn a rate of return on its investment..., hurt a utility's bond rating..., hurt the utility's ability to meet expenses..., and may, to some degree, hurt ratepayers because of the negative financial impact upon the utility. Utilities must overtly and aggressively promote energy conservation for any

collaboration with the commission, consumer and consumer advocate to be successful.

For the utilities in the nation's capital, the road to meaningful energy conservation, at times, has had its share of speed bumps and pot holes. But after a thorough investigation of the potential for energy conservation, the benefits to be derived from energy conservation and the feasibility of cost-effective energy conservation, PEPCO and Washington Gas have made a U-turn and are now poised to achieve significant savings in the 1990s and beyond.

Since PEPCO and Washington Gas have arguably committed their corporations to energy conservation, such commitment allows them to work with others to maximize energy conservation. For instance, targeting energy conservation to the governmental sector is a case study in-and-of-itself. The bureaucratic and institutional barriers which a utility must overcome are formidable. To gain greater insight into the unique demands of the governmental sector, PEPCO in conjunction with OPC, the Commission Staff, and the District and Federal Governments are working together to overcome the barriers to energy conservation. One dynamic issue this group has investigated involves the President's mandate requiring a 20% reduction in energy consumption between the years 1985 and 2000, on the one hand, and the ability of the federal government to shop around the country for the most economical cities to produce the 20% reduction on the other. The Commission has been extremely interested in ensuring that rebates paid to the Federal Government are reasonable in light of the President's mandate. While this group continues to explore how the Federal and District Governments may maximize their participation in PEPCO's energy conservation programs, specifically-tailored rebates may not be feasible for the Federal

Government, at this time, given the vast number of federal buildings located outside the District of Columbia.

Washington Gas and PEPCO have also voluntarily invested the time and effort to reach out to all ratepayers, including those businesses and individuals who find participating in mainstream energy conservation programs financially difficult. For example, as part of one program, the Community Rehabilitation Program, PEPCO works with the District and Federal Governments to retrofit abandoned and dilapidated housing with energy conservation measures. The housing is subsequently sold to low-income families. Programs such as this, which improve the quality of life and energy efficiency of a residence, are special and innovative ways to capture all possible energy conservation by meeting customers more than half way.

THE CONSUMER ADVOCATE

Parochial interests and skirmishes, inside and outside the hearing room, too often result in the consumer advocate distancing itself from a utility's efforts to attract participation in its energy conservation programs. As the statutory representative of ratepayers, a consumer advocate's words and actions carry substantial weight in the community it represents. Thus, while the consumer advocate must aggressively advance its point of view during commission hearings, the consumer advocate should also abide by a commission's decision. The advocate should lay down its arms after the commission has reached its decision and determine how it may best facilitate the promotion and implementation of energy conservation measures for its constituents. Assisting a utility's

energy conservation efforts is not synonymous with sleeping with the enemy. Despite the political ebbs and flows a consumer advocate may feel from time to time, assuring that energy conservation is implemented to the greatest extent possible is in the greater good.

Without doubt, certain segments of the population are not inclined to trust utilities. One local instance involved an owner of rental housing who threw away utility rebate pamphlets and stated that the rebates were the scheme of a "greedy monopoly" to make money. Clearly, this individual is not amenable to the utility's promotional campaign and must be reached by some other source. The consumer advocate may be that source. The advocate possesses knowledge and expertise regarding energy conservation and may be able to convince skeptical customers to participate in a utility's energy conservation programs.

In the District of Columbia, OPC, in association with the local Consumer Utility Board, has attempted to reach ratepayers by way of energy conservation seminars. PEPCO, Washington Gas and the District of Columbia Commission Staff participated in these seminars, designed to explain in laymen's terms the advantages of the utilities' conservation programs. These seminars provide participants with free energy conservation kits, containing energy efficient light bulbs, caulking and plug seals, among other things. The first of these seminars was conducted in September and October of this year. Hopefully, these seminars will become commonplace, and always include the Commission, PEPCO and Washington Gas. The importance of such cooperation between the consumer advocate, commission, utility and consumer cannot be understated. The District of Columbia has its share of feuding between the People's Counsel and the utilities; however, as cooperation

brings energy conservation home to the consumer it may also be accompanied by a new, less adversarial partnership.

THE CONSUMER

The end user -- the consumer, the ratepayer -- comes in all shapes and sizes: from the family in a house surrounded by a white picket fence to the owners of massive glass and concrete skyscrapers, steel mills and auto factories. What they are not is a commission staffer, who renovates to create an archetypal energy efficient house as his or her home sweet home.

Plato may have seen many ratepayers as prisoners in the cave, bewildered by sometimes truthful, sometimes distorted images of the need for and benefits of energy conservation. Thus, citizens in the know must reach out to the others confused by the shadows on the wall. As discussed above, the District of Columbia Consumer Utility Board is doing just that. They have joined forces with the Commission, consumer advocate and utility to promote energy conservation at the street level.

In addition, to disseminate accurate information regarding the need for energy conservation, maintaining acceptable comfort levels, and the financial and environmental benefits of energy conservation, the Commission has directed PEPCO to implement an Energy Awareness Campaign. PEPCO's research indicates that consumers are most persuaded to participate in energy conservation if they can save money. In one promotion, PEPCO attempts to address this point by way of the following clever catchphrase: *PEPCO believes in promoting energy conservation through a system of checks and balances. You*

balance your energy use and we send you a check. Also, PEPCO and Washington Gas attempt to inform customers that energy conservation involves several beneficial long-range goals, including fewer rate increases and cleaner air. An accurate portrayal of energy conservation to the public is essential to positive and energetic participation in energy conservation programs. However, knowledgeable consumers must also take the initiative to improve the energy efficiency of the community. No utility is an island.

In the District of Columbia, numerous community-based organizations have shown significant interest in generating energy conservation opportunities in communities. For instance, community-based organizations, such as the Washington Urban League and Washington Innercity Self Help, have joined with Washington Gas to identify untapped energy conservation potential. Washington Gas provides grants ranging from \$15,000 to \$25,000 to community-based organizations for the installation of energy conservation measures in buildings and homes the organization helps to identify. In one instance, Washington Gas provided job training related to boiler/furnace tune-ups, which involved thirty-nine classroom hours over eight weeks and a four week apprenticeship. Washington Gas has employed some of these individuals to verify tune-ups. Such projects should unsheathe an interest in energy conservation, where it would not otherwise exist. Based upon current experience, the continued efforts of interested consumers will facilitate a greater acceptance of energy conservation in the District of Columbia.

THE INTERSECTION

The commission, consumer advocate, utility and consumer must in one way or another meet at the intersection of energy conservation. In the District of Columbia, there is a move to have these groups work cooperatively and collaboratively. These strategies have not always been successful; however, recently, given the additional experience and knowledge gained from least-cost planning, these groups are starting to understand the benefits of working together toward a common goal. If all join the cause, this decade will achieve the promise to become the first of many decades of meaningful energy conservation.