PUBLIC SERVICE COMMISSION
District of Columbia

Your Energy. Your Voice.

RENEWABLE ENERGY PORTFOLIO STANDARDS

A REPORT FOR COMPLIANCE YEAR 2020

MAY 3, 2021

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EXECUTIVE SUMMARY

The *Renewable Energy Portfolio Standard Act* ("REPS Act") requires the Public Service Commission of the District of Columbia ("Commission") to annually report to the Council of the District of Columbia ("D.C. Council") on the status of implementation of the Renewable Energy Portfolio Standards ("RPS"), including the number of renewable energy facilities approved by the Commission and eligible to participate in the District's RPS program; the availability of renewable resources; and the certification of the number of renewable energy credits ("RECs") generated by the utilities meeting the requirements of D.C. Official Code § 34-1432, which outlines the minimum percentages to be derived from certain renewable resources — and any other such information as the Council shall consider necessary. This annual report fulfills the reporting requirements outlined in the REPS Act and amended by the *CleanEnergy DC Omnibus Amendment Act of 2018* ("CleanEnergy Act") for the most recent compliance year of 2020.

The CleanEnergy Act established one of the most aggressive RPS standards in the nation. In addition, the CleanEnergy Act required the Commission to take into account the District's climate policy commitments when making its policy decisions. The Commission has updated its mission to take into account the District's climate policy commitments when making its policy decisions. The DCPSC Commissioners consider climate change and the CleanEnergy Act when ruling in every proceeding put before the Commission. Those decisions, which have the force of law, have created, expanded, or enhanced several climate initiatives.

As of April 9, 2021, there are 11,700 renewable energy generators approved by the Commission and eligible to participate in the District's RPS program. All of the facilities approved use Tier I renewable energy resources (including biomass, methane from landfill gas or wastewater treatment, solar, wind, and wastewater used as a heat source or sink); as of the 2020 compliance year Tier II resources are no longer included as a RPS requirement. Since these renewable energy generators may be certified in other states that have an RPS requirement as well, the RECs associated with the generating capacity for these facilities are not necessarily fully available to meet the District's RPS.

The total amount of 2020 compliance fee payments was $8.2 million, compared to $12.1 million in fees generated in 2019.

Pursuant to the Commission's RPS rules, 46 active competitive suppliers and the Potomac Electric Power Company ("Pepco") — the default electricity supplier — with retail electricity sales in the District submitted compliance reports, due by April 1, 2021, reporting on their RPS compliance in 2020.[i] These reports show that electricity suppliers met the RPS requirements through purchasing RECs or when RECs were not acquired they provide compliance fee payments.

Only eight (8) electricity suppliers were required to submit a compliance fee payment, representing in most cases compensation for not meeting a portion of

their RPS compliance obligation. The compliance fee payments are deposited into the Renewable Energy Development Fund which is administered by the District's Department of Energy and Environment ("DOEE"). The total amount of compliance fee payments owed for 2020 was $8.2 million, compared to $12.1 million in fees in 2019. The decrease in the compliance fee payments, compared to 2019, generally reflects both an increase in the use of solar RECs ("SRECs") to meet the RPS requirements and a decrease in retail sales. Suppliers retired 99,061 SRECs in 2019 compared to 133,416 SRECs retired in 2020, an increase of 35 percent of the number of SRECs retired — although the solar requirement went from 1.85 percent in 2019 to 2.175 percent in 2020.

There are currently 11,402 solar energy systems certified to meet the District's solar RPS requirement.

Reflecting the impact of the COVID-19 pandemic on economic activity, the reported retail electricity sales decreased from the previous year — down about 11 percent — from 11.08 million megawatt-hours ("MWH") in 2019 to 9.85 million MWH in 2020. Although the available capacity from solar energy systems certified for the District's RPS program is still below the required RPS capacity, resulting in a shortage of qualifying SRECs, the supply of SRECs has increased significantly in the past year. Solar energy systems certified for the District's RPS program jumped from 7,991 (108.3 MW) at the end of 2019 to 10,618 (150.8 MW) at the end of 2020. Nevertheless, the shortage of solar capacity has continued to contribute to high SREC prices in the District of Columbia, currently trading around $400 per SREC and by far the highest among the Mid-Atlantic states.

There are currently 11,402 solar energy systems (including both solar photovoltaic and solar thermal) eligible to meet the District's solar RPS requirement, of which 8,661 are located within the District. These District RPS-eligible solar energy systems are located in all 8 wards as follows:

- **Ward 1** — 817 (7.9 MW)
- **Ward 2** — 287 (6.1 MW)
- **Ward 3** — 838 (11.9 MW)
- **Ward 4** — 1,725 (18.0 MW)
- **Ward 5** — 1,488 (24.5 MW)
- **Ward 6** — 1,462 (18.1 MW)
- **Ward 7** — 1,254 (18.4 MW)
- **Ward 8** — 790 (25.6 MW)[iii]

Outside of the District, there are six states with more than 100 solar energy systems eligible to participate in the District's RPS program, including: Pennsylvania (926), Maryland (701), Virginia (490), North Carolina (156), Delaware (149), and Ohio (132). There are also D.C. RPS-eligible solar energy systems — including grandfathered systems — in eight additional states located in the PJM Interconnection region and adjacent states.

Since 2013, on a calendar year basis, the number of RPS applications have continued to grow and in 2019 and 2020 the Commission received 1,591 and 2,835 applications, respectively. The Commission expects the submission of RPS applications to remain at a high level this year.

This growth of solar resources in the District may be attributed to a number of factors, this includes the increase in use of leasing programs and/or power purchase agreements, which eliminate or reduce the upfront costs for homeowners and businesses, the continued high SREC prices in the District, and solar programs expenditures by the District's Sustainable Energy Utility and the District Department of Energy and Environment. As of March 31, 2021, year-to-date, the Commission has received 526 RPS program applications. The Commission developed an online RPS application module, that was implemented at the beginning of January 2019, which improved the efficiency in the review and processing of applications.

The total reported capacity associated with the RPS program's approved 11,402 solar energy systems, as of April 9, 2021, is about 165.0 megawatts ("MW"). About 130.6 MW of this capacity is located in the District. The current RPS certified solar capacity located in the District has increased from 91.7 MW of solar capacity, as of April 9, 2020. Currently, the solar capacity in the District is more than three times the amount of out-of-state solar capacity (about 34.4 MW[v]) that was primarily grandfathered into the RPS program under the Distributed Generation Amendment Act of 2011 ("DGAA"). The out-of-state SRECs, in the 2020 compliance year, accounted for roughly 20 percent of the SRECs retired.[vi]

While the amount of DC-based solar generation capacity is still increasing, it is still below the solar capacity that is necessary to meet the solar RPS requirement of the CleanEnergy Act.[vii] That shortfall is based on an estimated 155.1 MW for 2020 in order to meet the required 2.175 percent of all District of Columbia retail electricity sales and 178.2 MW in 2021 to meet the required 2.50 percent of all District of Columbia retail electricity sales.[viii] The enactment of the RPS Expansion Act of 2016 enabled 15 MW generated by solar energy systems in the District or in locations in Maryland served by a distribution feeder that also serves the District, and no cap on the size of solar installations owned by District agencies, to be eligible for RPS certification. This has the potential to accelerate the number of SRECs that may be available to suppliers for compliance purposes in the upcoming years. However, electricity suppliers' compliance costs could continue to rise in the future to the extent that the solar RPS requirements exceed the availability of RPS-certified solar systems.

District-based RPS certified solar capacity has increased from 91.7 MW to 130.6 MW.

The table below depicts the renewable energy resources potentially available for use in the District's RPS program, as of April 9, 2021. However, some of the resources are registered in RPS programs in multiple jurisdictions. In addition to the solar resources for the carve-out, there are other Tier I renewable resources in the District, some of which are associated with DC Water's facilities. These facilities include a combined heat and power generator using methane produced from the wastewater treatment process to power 14 MW of gas turbines. DC Water's heat recovery process is rated at 35 MW and another 13 MW is associated with a heat exchange system.

The following table also includes 164 fully operational community renewable energy facilities ("CREFs") in the District, which account for a total of 19.4 MW.

Renewable Energy Systems Certified for RPS as of April 9, 2021

	Number	Capacity (MW)
Solar (DC only)	8,661	130.6
Solar (Outside DC)	2,741	34.4
Total Solar	**11,402**	**165.0**
Other Tier I (DC only)	4	62.9
Other Tier I (Outside DC)	294	7,539.9
Total Other Tier 1	**298**	**7,602.8**
Total Renewable Energy	**11,700**	**7,767.8**

Note: Tier II facilities were decertified as of January 1, 2020 (no longer required for RPS)

The District Department of Energy and Environment has developed substantial strategic partnerships (including other District agencies and other organizations) as part of its Solar for All Program to expand the construction of solar systems throughout the District, including community solar systems. Indeed, the number of CREFs located in the District has grown rapidly in recent years.

CREFs Certified for the RPS Program as of December 31, 2020

	Number	Capacity (MW)
2018	9	0.85
2019	12	1.10
2020	137	13.29

The Commission also tracks the number of RECs reported by electricity suppliers for RPS compliance. Identification of the number of RECs for 2020, submitted by fuel type, is provided in the following table:

Renewable Energy Credits Submitted for 2020 Compliance

	No. of RECs	Share of Tier
Tier I Resource		
Methane from Landfill Gas / Wastewater	248,711	12.6%
Wind	773,213	39.2%
Waste Heat	59,537	3.0%
Wood Waste	57,399	2.9%
Non-Solar Tier I (out-of-state solar)*	699,817	35.5%
Solar Carve-Out	133,416	6.8%
Total Tier I and Solar Carve-Out	**1,972,093**	**100.0%**

* The non-solar Tier I ("NSTI") represents the out-of-state solar that was allowed back into the RPS program but only able to meet the Tier I requirement and not the solar requirement.

In 2020, electricity suppliers reported the REC prices for all of their Tier 1 renewable resources. In general, non-solar REC prices have been relatively stable in recent years, despite the rise in RPS requirements. However, SREC prices for the District have generally trended upward since 2011 as the impact of the DGAA has made the District's SREC prices the highest in the region. In 2020, suppliers spent $56.8 million on the acquisition of RECs, driven largely by the cost of SRECs. As in the past, not all of the electricity suppliers were able to meet the solar "carve-out" requirement, thus having to make significant alternative compliance fee payments.

However, electricity suppliers have not had difficulty in meeting the Tier I RPS requirements. Taken together, the estimated total cost of compliance that are passed along to ratepayers — including the cost of RECs and compliance fees — amounted to $65.0 million for the 2020 RPS compliance, an increase from $57.3 million for the 2019 RPS compliance.

Costs of RPS Compliance (in millions of $)

	REC Costs	Compliance Fees	Total
2015	$18.6	$19.9	$38.5
2016	$31.9	$15.2	$47.2
2017	$16.1	$26.6	$42.7
2018	$31.9	$18.7	$50.6
2019	$45.2	$12.1	$57.3
2020	$56.8	$8.2	$65.0

Electricity suppliers also reported the following retail sales that are exempt from changes to the compliance fees pursuant to the RPS Expansion Act of 2016:

Retail Sales Subject to Grandfathered Compliance Fee

	Grandfathered Sales (MWH)	Share of Total Retail Sales	Grandfathered Compliance Fee
2019	3,745,819	33.8%	$200
2020	2,153,592	21.9%	$200
2021*	1,481,398	15.7%	$150

* Estimated amounts provided by electricity suppliers. The last year of applying the grandfather provision is 2021.

The following table shows retail sales exempt from the increased Tier 1 and solar RPS requirements under the CleanEnergy Act and estimates for the near term:

Retail Sales Grandfathered from CleanEnergy Act Requirements

	Grandfathered Sales (MWH)	Share of Total Retail Sales
2019	10,337,329	93.3%
2020	6,690,970	68.0%
2021*	4,621,680	49.1%

* Estimated amounts provided by electricity suppliers. The last year of applying the grandfather provision is 2021.

In addition, pursuant to the CleanEnergy Act, electricity suppliers reported estimated compliance fee payments for the 2021 compliance year of $5.4 million (the actual payment may vary from this preliminary estimate based on deviations from current supplier plans).

In an effort to help the District meet its climate change commitments and renewable energy goals, the Commission approved Order No. 19897 (released: April 12, 2019) that established a pilot program to procure renewable energy supply through long-term power purchase agreements ("PPA") for electricity generated by solar or wind power facilities located within the PJM Interconnection region with a target quantity of five (5) percent of the annual default electricity supply service Standard Offer Service ("SOS") load.

In Order No. 20327 (released April 9, 2020), the Commission adopted a 95/5 Model of cost recovery for the pilot program. Under the 95/5 Model, the long-term renewable energy PPA provides the renewable energy to satisfy five (5) percent of the SOS load including the environmental attributes

associated with that renewable energy. Pepco, as the SOS Administrator, will procure the remaining components for that five (5) percent capacity, losses, congestion, credit and risk, the cost of meeting the District's RPS, and ancillary services. Provisions will have to be made to accommodate the intermittent nature of the renewable energy provided by the PPA since the energy from the PPA will not strictly follow load demand.

RPS compliance costs for District electricity customers increased from $57.3 million in 2019 to $65 million in 2020.

On April 2, 2021, the Commission published a Notice of Final Rulemaking ("NOFR") in the *D.C. Register* to accommodate the integration of long-term renewable energy power purchase agreement(s) into the District's SOS procurement portfolio consistent with Order Nos. 19897 and 20327. The Commission anticipates that renewable energy supply from the PPA will begin to serve the target quantity of five percent of SOS load on June 1, 2024.

On May 1, 2020, the Commission published a NOFR in the *D.C. Register*, that eliminated the need for a CREF to directly connect to the distribution system. This facilitated the implementation of a virtual CREF ("VCREF"), using a behind-the-meter ("BTM") configuration for the system, that helps reduce the cost of establishing a CREF by avoiding certain infrastructure upgrades while maintaining safety and reliability.

On August 14, 2020, the Commission published a NOFR allowing net energy metering ("NEM") systems for individual BTM generators to exceed 100 percent of the customer's historical usage and customer payment for excess generation. A NEM system can increase the generation threshold by 20% annually, starting in 2020 until the generation threshold reaches 200% in 2024.

The Commission has also issued two Notices of Proposed Rulemaking ("NOPRs') in 2020 to further enhance and accelerate interconnection efforts for renewable energy facilities, including CREFs. These issues are important to the continued growth of renewable energy in the District.

I — INTRODUCTION AND BACKGROUND

The D.C. Council enacted the REPS Act on January 19, 2005 and established annual RPS, that required a minimum percentage of the District's electricity suppliers' retail sales must be derived from renewable energy resources beginning January 1, 2007. The RPS minimum requirements, among other things, were amended by the *Clean and Affordable Energy Act of 2008* ("CAEA").[ix] Further changes to the RPS program occurred on August 1, 2011, when DGAA became law.[x] Additional amendments to the RPS program became effective on April 30, 2015, as a result of the *Renewable Energy Portfolio Standard Amendment Act of 2014* ("RPS Amendment Act"); and October 8, 2016, as a result of the *Renewable Portfolio Standard Expansion Amendment Act of 2016* ("RPS Expansion Act"). The most recent changes became effective on March 22, 2019, as a result of the CleanEnergy Act.

Renewable energy resources were divided into two categories, Tier I and Tier II, with Tier I resources including solar energy, wind, biomass, methane, geothermal, ocean, fuel cells, and wastewater used as a heat source or sink and Tier II resources including biomass, hydroelectric power other than pumped storage generation and waste-to-energy.[xi] Although minimum percentage requirements were specified for Tier I and Tier II resources, Tier I resources could be used to comply with the Tier II standard. In addition, a minimum requirement is carved out specifically for solar energy. The REPS Act allowed an electricity supplier to begin receiving and accumulating renewable energy credits as of January 1, 2006.

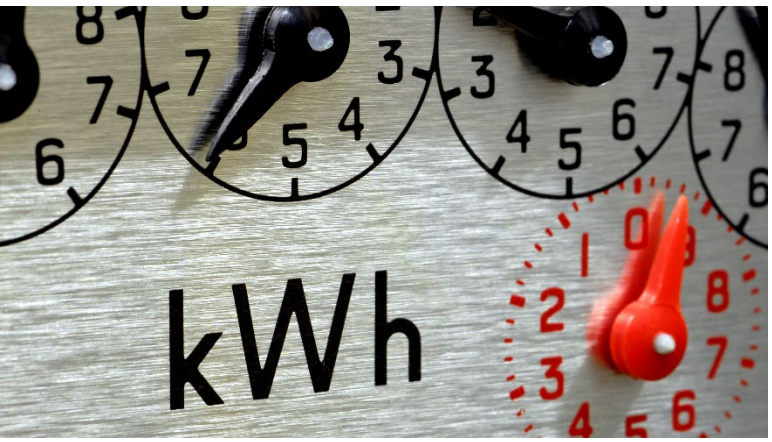
The REPS Act required that the Commission adopt regulations, or orders, governing the application and transfer of RECs and implementation of the REPS Act. The RPS rules became effective upon the publication of the Notice of Final Rulemaking in the *D.C. Register* on January 18, 2008. The Commission's Rules can be found in Chapter 29 of 15 DCMR. As part of its RPS rules, the Commission established a process for certifying eligible renewable energy generators.

On October 22, 2008, the CAEA became law. The law, among other things, amended the REPS Act and changed the definition of solar energy to provide eligibility for solar thermal applications that do not generate electricity, raised the RPS requirements to 20 percent by 2020, and increased certain alternative compliance fees.

The DGAA disallowed most new solar energy systems located outside of the District from being certified by the Commission for the RPS program, after January 31, 2011 — although solar energy systems located outside of the District that were certified prior to February 1, 2011 were "grandfathered" and remain eligible under the RPS program for the solar carve-out requirement. In addition, among other things, the legislation increased the solar RPS requirement from 2011 through 2023 (up to 2.5 percent by 2023 as opposed to 0.4 percent by 2020), disallowed the certification of solar energy systems larger than 5 megawatts ("MW") in capacity, amended the solar compliance fees for 2011 through

2023, and changed the eligibility requirements for solar thermal systems.

Pursuant to the DGAA, in Order No. 16528 (released: September 9, 2011), the Commission denied all applications by solar energy facility owners seeking RPS certification, which were not located within the District, nor in locations served by a Pepco distribution feeder serving the District, and pending before the Commission on August 1, 2011. Moreover, in Order No. 16529 (released: September 9, 2011), the Commission decertified 1,426 solar energy facilities not located within the District, or in locations served by a distribution feeder serving the District, and certified by the Commission between February 1, 2011, and the effective date of the DGAA, August 1, 2011, as well as any solar facilities with a capacity larger than 5 MW, regardless of the date certified.



As a result of the RPS Amendment Act, the eligibility of "qualifying biomass" resources was changed. The RPS Amendment Act requires that, to qualify as a Tier I renewable resource, a generation unit using biomass must: achieve a total system efficiency of at least sixty-five (65) percent on an annual basis; demonstrate that it achieved a total system efficiency of at least 65 percent on an annual basis through actual operational data after one year; demonstrate that it started commercial operation after January 1, 2007; and refrain from using black liquor. Under this law, those biomass generation units that cannot achieve a total system efficiency of at least 65 percent, or that started commercial operations on or before December 31, 2006, or that use black liquor, can no longer qualify as Tier I resources. Rather, they now qualify as Tier II resources. Finally, any extension or renewal of energy supply contracts executed on or after August 1, 2011 shall be subject to the higher solar energy requirement.

Subsequently, the RPS Expansion Act raised the RPS requirement to 50.0 percent from Tier I resources by 2032, with not less than 5.0 percent from solar energy. In addition, the RPS Expansion Act amended the solar RPS compliance fee and kept it at 50 cents per kilowatt-hour ("kWh") through 2023, before decreasing to 5 cents per kWh by 2033. Previously, the solar compliance fee was set to begin decreasing in 2017.[xii]

The most recent legislation, the CleanEnergy Act, increased the RPS requirement to 100.0 percent from Tier I resources by 2032 and thereafter, with not less than 5.5 percent from solar energy systems in 2032. However, the solar energy RPS requirement continues to increase to 10.0 percent by 2041. In addition, the CleanEnergy Act restricted the geographical location of renewable generators to the PJM Interconnection region but allowed existing renewable energy generators certified for the RPS program to continue to create RECs until January 1, 2029.

In calendar year 2020 there were 47 electricity suppliers, including the default SOS Provider, who reported electricity sales to retail customers in the District. Pursuant to the Commission's RPS rules, each of these active suppliers submitted the required compliance report that was due by the April 1, 2021 statutory deadline. These reports show that competitive electricity suppliers and Pepco, the SOS administrator, met the RPS requirements through purchasing RECs and when they were unable to make REC

purchases, they made compliance fee payments. As is shown in the following table, eight suppliers were required to submit a compliance fee payment in addition to or in lieu of acquiring RECs.[xiii] Based on the available information, the total amount of money generated from compliance fee payments in 2020 was $8.2 million — compared to $12.1 million in 2019. The decrease in the amount of the 2020 compliance fees reflects, in part, the increased use of solar RECs to meet the RPS compliance obligation and an 11 percent decrease in retail sales – reflecting the impact of the COVID-19 pandemic on D.C. economic activity. This helped to minimize the cost of compliance given that the average cost of a D.C. SREC was approximately $388 per SREC.

RPS Requirements and Compliance

	2017	2018	2019	2020
Tier I	13.5%	15.5%	17.5%	20%
Tier II	1.5%	1%	0.5%	0%
Solar	0.98%	1.15%	1.85%	2.175%
No. of Electricity Suppliers	41	41	46	47
No. Paying Compliance Fee	15	10	12	8
% Not Paying Compliance Fee	63.4%	75.6%	73.9%	83%

Section II provides a summary of the steps that the Commission has taken to implement the RPS in the District. Section III reviews the RPS compliance reports submitted for the 2020 compliance year. Section IV presents information on the current availability of renewable resources.

Finally, Section V summarizes other ongoing actions by the Commission to implement the RPS in the District and next steps. In addition, Attachment 1, provides a national perspective on what other states are doing with respect to the implementation of their renewable portfolio standards.[xiv]

Attachment 2 contains a list of selected orders that the Commission has issued to implement the RPS. Lastly, Attachment 3 includes a map of the RPS certified solar energy systems located in the District of Columbia.[xv]

II — SUMMARY OF THE IMPLEMENTATION OF THE RENEWABLE ENERGY PORTFOLIO STANDARD

This section provides a brief description of the history of actions that the Commission has undertaken to implement the RPS. In order to establish a record and to begin implementation of the REPS Act, the Commission issued Order No. 13566 (released: April 29, 2005), inviting interested parties to submit their views on twelve (12) RPS-related issues. The twelve issues addressed were the:

- process and timeline that the Commission should adopt to implement the Act;
- procedure to apply for, verify, and transfer RECs;
- type(s) of renewable energy projects that are feasible within the District;
- process for certifying the eligibility of generating facilities;
- standards that should apply to customer generators;
- information that should be submitted in an electricity supplier's annual compliance report;
- appropriate procedures for cost recovery by Pepco;
- standards that the Commission should employ for determining whether the compliance costs claimed by Pepco were prudently incurred;
- verification of an electricity supplier's compliance with the RPS;
- imposition of an administrative fee;
- data and confidentiality concerns of stakeholders; and
- states that qualify as being within or adjacent to the PJM Interconnection Region.

In Order No. 13766 (released: September 23, 2005), the Commission addressed the various issues based on the record developed in response to Order No. 13566. By this Order, the Commission directed interested parties to form a RPS Working Group to examine in more detail certain issues related to the implementation of the REPS Act, and to propose a timeline and recommendations for a two-phased approach to resolving those issues.[xvi] The Commission also indicated that the PJM Environmental Information Services ("PJM-EIS") Generation Attribute Tracking System ("GATS") would be used in the implementation of the REPS Act. In addition, the Commission indicated its intent to establish regulations to govern the application and transfer of RECs, on an interim basis, prior to January 1, 2006.

RPS Rules

Based on input from the RPS Working Group, the Commission established interim RPS rules in Order No. 13840 (released: December 28, 2005). These rules were subsequently amended in Order No. 13899 (released: March 27, 2006) and Order No. 14225 (released: March 2, 2007). The Commission eventually established a formal rulemaking process and on November 2, 2007, a Notice of Proposed Rulemaking ("NOPR") appeared in the *D.C. Register* requesting comments on revised RPS rules that were based, in part, on the interim RPS rules. After receiving and reviewing comments on the NOPR, the Commission issued Order No. 14697 (released: January 10, 2008) and adopted Chapter 29 of Title 15 District of Columbia Municipal Regulations ("Final Rules").

The Final Rules became effective upon the publication of the Notice of Final Rulemaking ("NOFR") in the *D.C. Register* on January 18, 2008. The most recent changes to the RPS rules became effective on January

31, 2020, following the publication of a NOFR in the *D.C. Register*.

The rules establish definitions for various terms consistent with the REPS Act, compliance requirements for electricity suppliers, certification of renewable generators, policies regarding the creation and tracking of RECs, and directives concerning the recovery of fees and costs.

Compliance Requirements for Electricity Suppliers

The RPS rules include compliance requirements for electricity suppliers beginning in 2007. Under the current requirements, suppliers are to file annual reports that include the following components:

1. the quantity of annual District retail electricity sales;
2. a calculation of the annual quantity of required Tier I, Tier II, and Solar RECs;
3. the quantity of Tier I, Tier II, and Solar RECs purchased and evidence of those purchases;
4. the quantity of Tier I, Tier II, and Solar RECs transferred to the electricity supplier by a Renewable On-Site Generator;
5. a calculation of any compliance fees owed by the energy supplier;
6. certification of the accuracy and veracity of the report;
7. all documentation supporting the data in the annual compliance report;
8. a summary report of RECs retired during the reporting period; and
9. the total price paid for Tier I, Tier II, and Solar RECs.

An electricity supplier that fails to meet its RPS requirements must submit an annual compliance fee payment to the District of Columbia Renewable Energy Development Fund administered by the DOEE.

To facilitate the compliance reporting, the Commission issued Order No. 14782 (released: April 10, 2008) and adopted a 2007 Compliance Report form for the District's RPS Program, along with the associated filing instructions. This material was made available on the Commission's website. Electricity suppliers used the form to submit the 2007 compliance reports due May 1, 2008.

A revised compliance reporting form was included in a January 2, 2009 NOPR, to reflect changes mandated by the CAEA. The revised compliance reporting form was adopted in Order No. 15233 (released: April 7, 2009) and became effective upon publication of the NOFR in the *D.C. Register* on April 10, 2009. The compliance reporting form was revised again in order to address the DGAA legislation, with a NOPR appearing in the *D.C. Register* on January 13, 2012. The revised compliance reporting form was adopted in Order No. 16738 (released: March 15, 2012) and became effective upon publication of the NOFR in the *D.C. Register* on March 23, 2012. More recently, on February 4, 2021, the Commission issued a Public Notice to provide information on an updated compliance reporting form for the 2020 compliance year.

Certification of Renewable Generators

The RPS rules outline the process for certifying renewable generating facilities within a certain period of time. Renewable generators, including BTM generators, must be certified as a qualified Tier I (including solar energy systems) or Tier II renewable source through the completion of an application approved by the Commission.[xvii] The Commission assigns a unique certification number to each eligible renewable energy generator that is approved. Renewable energy generators may be decertified by the Commission if they are determined to no longer be an eligible renewable resource due to a material change in the nature of the resource, or fraud. Before being decertified, a renewable energy generator will be given

thirty (30) days written notice and an opportunity to show cause why it should not be decertified.

In Order No. 14809 (released: May 12, 2008), the Commission directed the RPS Working Group to submit an update for the Tier I and Tier II renewable sources eligibility matrices, in order to comply with the RPS rules. The matrices allow an applicant that has already been certified by another state in the PJM Interconnection region to use the streamlined process for RPS certification, provided that the Commission determines that the certification by the other PJM state is comparable to the RPS requirements in the District. The RPS Working Group responded on October 31, 2008 that no update was required. Subsequently, the Commission issued Order No. 15192 (released: February 18, 2009), directing the RPS Working Group to again comply with the rules and submit an update for the Tier I and Tier II eligibility matrices within 60 days of the date of the Order. The Commission noted in that Order that since 2007, four (4) additional states which are part of the PJM Interconnection region — Illinois, Michigan, North Carolina, and Ohio — have adopted renewable energy portfolio standards and/or begun certifying renewable energy generators.

In Order No. 15707 (released: February 25, 2010), the Commission granted Pepco, filing on behalf of the RPS Working Group, a Motion for Enlargement of Time to file the annual update of the eligibility matrices by March 1, 2010. Subsequently, in Order No. 17062 (released: February 1, 2013), the Commission adopted the 2011 filing of the RPS Working Group's proposed Tier I and Tier II Eligibility Matrices with certain modifications.[xviii] In Order No. 17349 (released: January 13, 2014), the Commission adopted the RPS Working Group's proposed Tier I and Tier II Eligibility Matrices submitted for 2013. On January 30, 2014, the RPS Working Group's filing indicated that there were no modifications needed to the eligibility matrices presented in the 2013 Working Group report. Thus, no Commission action was necessary as the Working Group's 2013 eligibility matrices were adopted in Order No. 17349. Subsequently, on January 29, 2015, the RPS Working Group filed its 2015 Update to the Renewable Generator Eligibility Matrix and determined that the information submitted in the 2014 Report remains unchanged, so no Commission action was necessary.[xix] The Commission responded to a Motion filed by Pepco to suspend the annual update of the Eligibility Matrix, its NOFR dated December 14, 2018 and removed the streamlined application process.

On October 3, 2008, the Commission published a NOPR in the *D.C. Register* that contained revisions to the RPS rules that would, among other things, allow an applicant seeking to certify a renewable generator for the District's RPS program to provide a self-certified Affidavit of Environmental Compliance. This Affidavit helps provide documentation that the renewable generating facility complies with all applicable state and federal environmental requirements. On January 2, 2009, the Commission issued an amended NOPR that superseded the October 3 NOPR. Subsequently, in Order No. 15233 (released: April 7, 2009), the Commission adopted the amendments to the RPS rules. The amendments to the RPS rules became effective upon publication of a NOFR in the *D.C. Register* on April 10, 2009. Subsequently, at the discretion of the Commission, a NOFR appeared in the *D.C. Register* on January 16, 2015 to remove the application requirement for an Affidavit of Environmental Compliance from solar energy systems.

On January 2, 2019, the Commission launched a new online application system ("RPS Portal") to facilitate the certification of renewable generators for the District's RPS program. The new system provides a convenient and secure tool for users to submit and track their RPS applications. In addition, the RPS Portal

allows Commission staff the ability to review and communicate easily with applicants and has improved the administrative efficiency in processing applications.

Creation and Tracking of Renewable Energy Credits

The Commission's RPS rules specify that RECs shall be created and tracked through PJM-EIS's GATS beginning January 1, 2006. Through the GATS process, PJM-EIS collects generation data from renewable energy facilities certified for RPS programs in various states. Upon issuance of a District-specific RPS certification number, a facility may open a GATS account for use with the District's RPS program. Facilities often are eligible for participation in several state RPS programs and, thus, will be certified with multiple states and receive multiple state certification numbers. GATS posts RECs for each month. One REC represents one megawatt-hour of electricity from a renewable resource. The number of RECs created reflects the amount of electricity generation associated with renewable resources. Each REC tracked in GATS has a unique serial number that aids in ensuring against the double counting of RECs and helps distinguish between RECs that are created by a certain facility and by fuel type, in a given month.

According to the RPS rules, RECs are generally valid for a three-year period from the date of generation, beginning January 1, 2006. A REC shall be retired after it is used to comply with any state's RPS requirement. The accumulation of retroactive RECs created before January 1, 2006 is not allowed. In Order No. 13804, the Commission noted that the intent of the REPS Act is to encourage the production and siting of renewable resources prospectively, so as to reduce the need for the use of retroactive RECs. Effective with the enactment of the CleanEnergy Act, SRECs are now valid for a five-year period from the date of generation.

With respect to BTM generators, the RPS rules require an authorized representative of the renewable on-site generator to file a BTM generator report with the Commission. RECs created by BTM generators must be recorded in GATS at least once each calendar year, in order to be eligible for compliance. The BTM generator report contains, at a minimum, the following information: (a) a certification that the RECs attributable to the on-site generation have not expired, been retired, transferred, or redeemed; and (b) a report or statement indicating the quantity of electricity generated as determined by an engineering estimate (if appropriate) or revenue-quality meter.

To ensure that all BTM generators were in compliance with the Commission's rules, Order No. 14798 (released: April 29, 2008) directed BTM generators certified for the District's RPS program to submit a BTM generation report by May 20, 2008. In addition, as part of the approval of 20 solar generators in Order No. 15185 (released: February 9, 2009), the Commission initially required that these generators provide BTM generation reports consistent with the RPS rules. However, upon learning that PJM-EIS makes available BTM generation information through its website, the Commission subsequently removed the reporting requirement for BTM generators when the RPS rules were amended by the NOFR that went into effect on March 23, 2012.

Recovery of Fees and Costs

The RPS rules state that the local electric distribution company (Pepco) may recover prudently incurred RPS compliance costs, including REC purchases and any compliance fees, through a non-bypassable surcharge on customers' bills pursuant to Commission rule 2904 and D.C. Code § 34-1435 (2014 Supp.) Pepco, SOS Administrator, has never sought to recover RPS compliance costs for the SOS program through a non-bypassable surcharge on customers' bills. Instead, winning SOS suppliers bid into the

competitive auction a full requirements product that includes all costs (including RPS costs) — other than transmission and distribution costs which are Pepco tariffed costs.

Like SOS suppliers, competitive electricity suppliers simply bill customers a bundled generation charge rather than breaking out the cost of generation into line items such as RPS compliance costs. Thus, RPS compliance costs are generally imbedded in the cost of generation charged by competitive electricity suppliers. Consistent with Commission Rule 2904 and D.C. Code § 34-1435, competitive electricity suppliers can also seek to recover prudently incurred compliance fees through a Commission-approved non-bypassable surcharge on customers' bills. To date, no electricity supplier has ever sought or received the Commission's approval to recover the cost of compliance fees through a surcharge.

Clean and Affordable Energy Act of 2008

On October 22, 2008, the CAEA became law. This legislation amended the REPS Act and the amendments are discussed briefly below. The Commission addressed these amendments, as appropriate, in a NOPR issued on April 3, 2009. After reviewing the comments to the NOPR, the Commission adopted the NOFR in Order No. 15561 (September 28, 2009). The amendments to the RPS rules became effective upon publication of the NOFR in the *D.C. Register* on October 2, 2009.

Solar Energy Definition

The RPS Rules originally defined "solar energy" to mean "radiant energy, direct, diffuse, or reflected, received from the sun at wavelengths suitable for conversion into thermal, chemical, or electrical energy". The CAEA changed the definition of "solar energy" to add the new language in bold:

> "…radiant energy, direct, diffuse, or reflected, received from the sun at wavelengths suitable for conversion into thermal, chemical, or electrical energy, **that is collected, generated, or stored for use at a later time**."

Solar System Ratings

The CAEA allowed the certification of solar thermal energy systems as follows:

> "For nonresidential solar heating, cooling, or process heat property systems producing or displacing greater than 10,000 kilowatt hours per year, the solar systems shall be rated and certified by the SRCC [Solar Rating and Certification Corporation] and the energy output shall be determined by an onsite energy meter that meets performance standards established by OIML [International Organization of Legal Metrology]."

> "For nonresidential solar heating, cooling, or process heat property systems producing or displacing 10,000 or less than 10,000 kilowatt hours per year, the solar systems shall be rated and certified by the SRCC and the energy output shall be determined by the SRCC OG-300 annual system performance rating protocol applicable to the property, by the SRCC OG-100 solar collector rating protocol, or by an onsite energy meter that meets performance standards established by OIML;" and

> "For residential solar thermal systems, the system shall be certified by the SRCC and the energy output shall be determined by the SRCC OG-300 annual rating protocol or by an onsite energy meter that meets performance standards established by OIML."

RPS Requirements

The CAEA amended the requirements for the RPS. In particular, beginning in 2011, the RPS requirements increased. By 2020, the CAEA requires that 20 percent of electricity supplied comes from Tier I renewable sources only and not less than 0.4 percent comes from solar energy. Previously, the RPS requirement called for 8.5 percent of electricity supplied coming from Tier I renewable sources only by 2020 and 0.329 percent from solar energy.[xx]

Solar Requirement

The CAEA required that:

> "…an electricity supplier shall meet the solar requirement by obtaining the equivalent amount of renewable energy credits from solar energy systems interconnected to the distribution grid serving the District of Columbia. Only after an electricity supplier exhausts all opportunity to meet this requirement that the solar energy systems be connected to the grid within the District of Columbia, can that supplier obtain renewable energy credits from jurisdictions outside the District of Columbia."

Compliance Fees

The CAEA increased the compliance fees for Tier I and solar energy requirements. In particular, the Tier I compliance fee was raised from 2.5 cents per kilowatt-hour to 5 cents per kilowatt-hour of shortfall (in REC purchases). For solar energy resources, the compliance fee is raised from 30 cents to 50 cents in 2009 until 2018 for each kilowatt-hour of shortfall.[xxi]

Distributed Generation Amendment Act of 2011

On October 20, 2011, the DGAA became law. The legislation amended Sections 34-1431-1439 of the Renewable Energy Portfolio Standard.[xxii] These amendments to the statute are discussed briefly below. The Commission addressed these statutory revisions, as appropriate, in a NOPR amending the RPS rules issued on January 13, 2012. No comments were received on the NOPR and the Commission adopted the proposed amendments to the RPS rules in Order No. 16738 (released: March 15, 2012). The amendments to the RPS rules became effective upon publication of a NOFR in the *D.C. Register* on March 23, 2012.

Solar Thermal Systems

The DGAA amended the requirements for eligible solar thermal energy systems by removing the requirement that all such systems have a certification from the Solar Rating and Certification Corporation ("SRCC"). The new language is as follows:

> "For nonresidential solar heating, cooling, or process heat property systems producing or displacing greater than 10,000 kilowatt hours per year, the solar collectors used shall be SRCC OG-100 certified and the energy output shall be determined by an onsite energy meter that meets performance standards established by OIML."

> "For nonresidential solar heating, cooling, or process heat property systems producing or displacing 10,000 or less than 10,000 kilowatt hours per year, the solar collectors used shall be SRCC OG-100 certified and the energy output shall be determined by the SRCC OG-300 annual system performance rating protocol or the solar collectors used shall be SRCC OG-100 certified and the energy output shall be determined by an onsite energy meter that meets performance standards established by OIML."

> "For residential solar thermal systems, the systems shall be SRCC OG-300 system certified and the energy output shall be determined by the SRCC OG-300 annual rating protocol or the solar collectors used shall be SRCC OG-100 certified and the energy output shall be determined by an onsite energy meter that meets performance standards established by OIML."

These changes also made it easier for large nonresidential solar thermal systems to participate in the RPS program as these larger systems are able to meet the requirements for the certification of solar collectors under SRCC OG-100, but not the system certification under SRCC OG-300.

RPS Solar Requirements

The DGAA amended the requirements for the RPS. In particular, beginning in 2011, the RPS solar requirements increase through 2023. By 2023, the DGAA requires 2.5 percent from solar energy resources. Previously, the RPS requirement called for 0.4 percent from solar energy resources by 2020.[xxiii] In addition, the DGAA legislation restricted the location of eligible solar energy resources:

> "…an electricity supplier shall meet the solar requirement by obtaining the equivalent amount of renewable energy credits from solar energy systems no larger than 5 MW [megawatts] in capacity located within the District or in locations served by a distribution feeder serving the District."

Moreover, the DGAA included a "grandfathering" provision that exempted electricity supply contracts, signed prior to the effective date of the legislation, from the increased solar RPS requirements.

Generation Certification

The DGAA also amended the requirements for RPS certification:

> "After January 31, 2011, the Commission shall not certify any tier one renewable source solar energy system larger than 5 MW in capacity or any tier one renewable source solar energy system not located within the District or in locations served by a distribution feeder serving the District."
>
> "Any tier one renewable source solar energy system larger than 5 MW in capacity shall be decertified by the Commission. Any tier one renewable source solar energy system not located within the District or in locations served by a distribution feeder serving the District, first certified by the Commission between February 1, 2011, and the applicability date of the Distributed Generation Amendment Act of 2011, passed on 2nd reading on July 12, 2011 (Enrolled version of Bill 19-10), shall be decertified by the Commission."[xxiv]

Compliance Fees

The DGAA altered the compliance fees for electricity suppliers that do not purchase enough RECs to meet the annual RPS for solar energy. In particular, for each kilowatt-hour ("kWh") of shortfall from required solar energy sources, the compliance payment is 50 cents in 2011 through 2016; 35 cents in 2017; 30 cents in 2018; 20 cents in 2019 through 2020; 15 cents in 2021 through 2022; and 5 cents in 2023 and thereafter.

Renewable Energy Portfolio Standard Amendment Act of 2014

On April 30, 2015, the RPS Amendment Act became effective. The legislation primarily affected the eligibility of qualifying biomass resources. The

amendments to the statute are discussed briefly below. The Commission addressed these statutory revisions, as appropriate, in an amendment to the RPS rules that became effective upon publication of a NOFR in the *D.C. Register* on April 1, 2016.

RPS Compliance Requirements

Under the DGAA, energy supply contracts entered into prior to August 1, 2011, shall not be subject to the increased solar energy RPS requirement. However, as a result of the RPS Amendment Act, any extension or renewal of such contracts, executed on or after August 1, 2011, shall be subject to the higher solar energy RPS requirement. This affects the ability of electricity suppliers to take advantage of the contracts grandfathering provision that was included in the DGAA.

Generator Certification and Eligibility

The RPS Amendment Act, in part, requires qualifying biomass facilities to meet a certain efficiency standard in order to be eligible as a Tier I resource. Thus, the Commission now requires every facility using qualifying biomass to generate electricity and certified as a qualifying renewable source by the Commission to submit annually by June 1, starting in 2016, information demonstrating each facility's total system efficiency for the current calendar year.

Definitions and Applicability

The relevant changes (highlighted) to the definitions and applicability of the RPS statutes as implemented in the RPS rules are indicated below:

Black liquor

The spent cooking liquor from the Kraft process of paper making.

Fuel input

The higher heating value of the input fuel type, measured in BTU/LB, based on the standardized heating type of fuel type, multiplied by the annual fuel used in as delivered tons, multiplied by 2000.

Qualifying biomass

A solid, non-hazardous, cellulosic waste material that is segregated from other waste materials, and is derived from any of the following forest-related resources, with the exception of old growth timber, construction and demolition-derived wood and whole trees that are not part of a closed-loop biomass system, cleared solely for the purpose of energy production, unsegregated solid waste, or post-consumer wastepaper.

Construction and demolition-derived wood and whole trees that are not part of a closed-loop biomass system, cleared solely for the purpose of energy production, shall be considered qualifying biomass, if a) this material was used to generate RECs and those RECs are retired for compliance purposes with respect to electricity consumed by SOS customers on or before May 31, 2015; or b) this material was used by a facility certified before April 30, 2015, the effective date of the Renewable Energy Portfolio Standard Amendment Act of 2014, to generate RECs, which were purchased by an electricity supplier pursuant to a contract executed before April 30, 2015, and those RECs are retired for compliance purposes with respect to electricity consumed by non-SOS customers on or before December 31, 2017.

In all other instances, the construction and demolition-derived wood and whole trees that are not part of a closed-loop biomass

system, cleared solely for the purpose of energy production, shall not be considered qualifying biomass, as of April 30, 2015.

Tier one renewable source — one (1) or more of the following types of energy sources:

(c) Qualifying biomass used at a generation unit that achieves a total system efficiency of at least sixty-five percent (65%) on an annual basis, can demonstrate that it achieved a total system efficiency of at least 65% on an annual basis through actual operational data after one year, and that started commercial operation after January 1, 2007;

The qualifications to qualifying biomass in subsection (c) shall not apply to RECs retired for compliance purposes with respect to electricity consumed by SOS customers on or before May 31, 2015; or with respect to electricity consumed by non-SOS customers on or before December 31, 2017, provided that these RECs were produced by a facility certified as a Tier I energy source before April 30, 2015 and were purchased by an electricity supplier pursuant to a contract executed before April 30, 2015. In all other instances, subsection (c) shall apply as of April 30, 2015.

Tier two renewable source — one (1) or more of the following types of energy sources:

(c) Qualifying biomass used at a generation unit that started commercial operation on or before December 31, 2006; or achieves a total system efficiency of less than 65%; or uses black liquor.

Subsection (c) shall not apply to RECs retired for compliance purposes with respect to electricity consumed by SOS customers on or before May 31, 2015; or with respect to electricity consumed by non-SOS customers on or before December 31, 2017, provided that these RECs were produced by a facility certified as a Tier I energy source before April 30, 2015 and were purchased by an electricity supplier pursuant to a contract executed before April 30, 2015. In all other instances, subsection (c) shall apply as of April 30, 2015.

Total system efficiency
The sum of the net useful thermal energy output measured in BTUs divided by the total fuel input.

Useful thermal energy output
Energy in the form of direct heat, steam, hot water, or other thermal form that is used in production and beneficial measures for heating, cooling, humidity control, process use, or other valid thermal end use energy requirements and for which fuel or electricity would otherwise be consumed. Useful thermal energy output does not include thermal energy used for the purpose of drying or refining biomass fuel.

Renewable Portfolio Standard Expansion Amendment Act of 2016

The RPS Expansion Act became effective on October 8, 2016. The law increased and extended the RPS requirement to 50.0 percent by 2032 — with the solar energy RPS requirement rising to 5.0 percent by 2032. The amendments to the statute are discussed briefly below. The Commission addressed these statutory revisions, as appropriate, in Order No. 18749 (released: April 13, 2017) and the amendment to the RPS rules became effective upon publication of a NOFR in the *D.C. Register* on May 5, 2017.

RPS Requirements

The RPS Expansion Act amended the RPS and raised the requirement from 2024 through 2032. By 2023, 20.0 percent of the electricity supplied must be associated with Tier I renewable resources only and not less than 2.5 percent comes from solar energy. As a result of the RPS Expansion Act, the RPS requirement continues to rise from 2024 till it reaches 50.0 percent by 2032, with 5.0 percent from solar energy.

Under the DGAA, and as part of meeting the solar RPS requirement, a supplier was obligated to obtain SRECs from solar energy systems no larger than 5 MW in capacity located within the District or in locations served by a distribution feeder serving the District. However, SRECs from solar energy systems larger than 5 MW in capacity located on property owned by the District, or by an agency or independent authority of the District, may be used to meet the solar RPS requirement as well. The RPS Expansion Act increased the 5 MW amount referenced earlier to 15 MW.

Compliance Fees

The RPS Expansion Act altered the compliance fees for solar energy. Under the DGAA, the solar energy RPS compliance fee payment was set to decrease from 50 cents per kWh in 2016 to 35 cents in 2017; then 30 cents in 2018; then 20 cents in 2019 through 2020; then 15 cents in 2021 through 2022; until reaching 5 cents in 2023 and thereafter. As a result of extending the RPS requirement to 2032 and increasing the solar energy requirement to 5.0 percent by 2032, the solar energy compliance fee payment is now set at 50 cents from 2016 through 2023; 40 cents from 2024 through 2028; 30 cents from 2029 through 2032; and 5 cents in 2033 and thereafter. However, the law also grandfathered the compliance fees under the DGAA for 5 years after the effective date of the Act, for any contracts entered into before the effective date of the Act, excluding any extension or renewal of such a contract.

Definitions and Applicability

The DGAA also added "raw or treated wastewater used as a heat source or sink for a heating or cooling system" to the definition of a Tier I renewable source.

CleanEnergy DC Omnibus Amendment Act of 2018

The CleanEnergy Act became effective on March 22, 2019. The law increased and extended the RPS requirement to 100.0 percent by 2032 — with the solar energy RPS requirement rising to 5.5 percent by 2032 and then increasing to 10.0 percent by 2041. The amendments to the statute are discussed briefly below. The Commission addressed some of these statutory revisions, as appropriate, in Order No. 19859 (released: March 13, 2019) and addressed the remaining legislative changes in a NOFR published in the *D.C. Register* on January 31, 2020.

RPS Requirements

The CleanEnergy Act amended the RPS and, thereby, raised the Tier I and SREC acquisition requirements again. By 2032, 100.0 percent of the electricity supplied must be associated with Tier I renewable sources only and not less than 5.5 percent comes from solar energy. The solar RPS requirement continues to rise after 2032 until it reaches 10.0 percent by 2041 and thereafter. However, for three (3) years after January 1, 2019, the new requirements shall not apply to contracts entered into prior to the effective date of the Act.

Compliance Fees

The CleanEnergy Act altered the compliance fees for solar energy RPS after 2032. The solar energy RPS compliance fee payment is now set at 50 cents per kWh from 2018 through 2023; 40 cents from 2024

through 2028; 30 cents from 2029 through 2041; and 10 cents in 2042 and thereafter. In addition, the law shifted the payment of the compliance fee from when the annual compliance report is filed on April 1 to between October 1 and November 1.

Reporting Requirements

The CleanEnergy Act requires electricity suppliers to provide additional information in 2019 through 2022. This new information relates to contracts — such as the duration of the contract, the amount of electricity associated with the contract, and the number of such contracts — that are exempt from the higher compliance fees pursuant to the RPS Expansion Act. Similar information was also required for contracts that would be exempt from the CleanEnergy Act.

Moreover, the legislation requires the Commission to report on this new information, to include the total amount of the District's electricity supply that was exempt from the current RPS requirements — including the previous year, the current year, and each subsequent year that the exemption applies — pursuant to the RPS Expansion Amendment Act, as well as similar information about exempt sales under the CleanEnergy Act.

Application of RECs

As a result of the enactment of the CleanEnergy Act, the banking period for solar RECs — the effective lifespan of a REC that is not retired for compliance purposes — was extended from 3 years to 5 years. This applies to renewable generation as of the effective date of the Act — from a practical standpoint this should be beginning April 1, 2019. That is, although the legislation was effective as of March 22, 2019, GATS provides information on RECs on a monthly basis and it is appropriate to start the tracking of RECs as of a full month.

Definitions and Applicability

The CleanEnergy Act amended the definition of a "renewable energy credit" and restricted the location of the energy produced from a renewable resource to the PJM Interconnection region. However, the legislation also allowed renewable resources located within a state adjacent to the PJM Interconnection region and certified by the Commission as of the applicability date of the CleanEnergy Act to continue to produce RECs until January 1, 2029.

III — RPS COMPLIANCE REPORTS FOR 2020

Pursuant to the Commission's RPS rules, active electricity suppliers and the default supplier with retail sales in 2020 are required to submit a compliance report by April 1, 2021 for that calendar year. A total of forty-seven (47) suppliers were required to report on their compliance. These include:

- Alpha Gas and Electric
- Ambit Energy
- AEP Energy
- Atlantic Energy
- Champion Energy Services
- Calpine Energy Solutions
- CleanChoice Energy
- Clearview Energy
- Constellation NewEnergy
- Devonshire Energy
- DC Gas and Electric
- Direct Energy Business
- Direct Energy Services
- EDF Energy Services
- Eligo Energy
- ENGIE Resources
- Everyday Energy
- Freepoint Energy Solutions
- Grid Power Direct
- Horizon Power and Light
- IDT Energy
- Inspire Energy
- Liberty Power
- Major Energy Electric Services
- MidAmerican Energy
- MP2 Energy
- Mpower Energy
- NextEra Energy Services
- Palmco Power DC
- Park Power
- Pepco
- Public Power
- Reliant Energy Northeast
- Renaissance Power and Gas
- RPA Energy
- SmartEnergy
- Star Energy Partners
- Starion Energy
- Stream Energy
- SunSea Energy
- Talen Energy Marketing
- Think Energy
- Titan Gas and Power
- UGI Energy Services
- Viridian Energy
- WGL Energy Services
- XOOM Energy

Renewable Energy Credits ("RECs") and Compliance Fee Payments

As identified in the table on page 3 of this Report, 83 percent of the electricity suppliers did not have to pay a compliance fee because they met the Tier I and solar energy RPS requirements in 2020.[xxvi] In general, in order to meet the solar requirement, the statute provides that RECs must be generated by solar energy facilities that are located within the District of Columbia or in locations served by a distribution feeder serving the District. However, solar energy systems outside of the District that were certified by the Commission prior to February 1, 2011, may still be used to meet the solar carve-out requirement. These latter solar energy systems are referred to as "grandfathered" facilities.

Based on the available information, the total amount of money raised from compliance fee payments was $8.2 million for 2020, reduced from $12.1 million in 2019.[xxvii] The decrease in the compliance fees, compared to 2019, partly reflects the increase in use of solar RECs to meet the RPS requirements and an 11%

decline in retail sales.[xxviii] Electricity suppliers retired 133,416 SRECs in 2020, compared to the 99,061 SRECs retired in 2019.[xxix] The total compliance fee payments submitted in various reporting years are provided in the following table:[xxx]

Compliance Fee Payments

	Total
2007	$199,490
2008	$399,320
2009	$429,320
2010	$55,850
2011	$229,500
2012	$4,900
2013	$699,140
2014	$6,308,710
2015	$19,910,000
2016	$15,230,000
2017	$26,571,010
2018	$18,744,020
2019	$12,095,800
2020	$8,153,950

Pursuant to the CleanEnergy Act, electricity suppliers reported estimated compliance fee payments for the 2021 compliance year of $5.4 million (the actual payment may vary from this preliminary estimate based on deviations from current supplier plans).

Based on the following table, wind resources accounted for the largest share — about 39 percent — of Tier I and solar RECs retired for compliance purposes. The next highest share of Tier I and solar RECs was attributed to non-solar Tier I renewable sources — about 35 percent.[xxxi] Methane from landfill gas and wastewater treatment accounted for roughly 13 percent of the Tier I and solar RECs. Eligible wood waste resources accounted for about 3 percent of the Tier I renewable sources.[xxxii] Solar energy resources able to meet the solar carve-out amounted to about 7 percent of Tier I and solar RECs. There was also roughly 3 percent (waste heat) of the Tier I and solar RECs attributable to facilities using wastewater as a heat source or heat sink. Tier II is no longer required as of the 2020 compliance year. The breakdown of the number of RECs submitted in 2020 by fuel type is provided in the following table:

Renewable Energy Credits Submitted for 2020 Compliance

	No. of RECs	Share of Tier
Tier I Resource		
Methane from Landfill Gas / Wastewater	248,711	12.6%
Wind	773,213	39.2%
Waste Heat	59,537	3.0%
Wood Waste	57,399	2.9%
Non-Solar Tier I (out-of-state solar)	699,817	35.5%
Solar Carve-Out	133,416	6.8%
Total Tier I and Solar Carve-Out	**1,972,093**	**100.0%**

Suppliers submitted RECs generated from 2018 through 2020. About 7.0 percent of the RECs used for RPS compliance were generated in 2018, while roughly 54.7 percent of the RECs were generated in 2019, with 38.3 percent generated in 2020. Section 2903.2 of the RPS Rules indicates that RECs shall be valid for a three-year period from the date of generation, beginning January 1, 2006, except where precluded by statute. Pursuant to the CleanEnergy Act, newly created SRECs are now valid for a five-year period from the date of generation.

In 2020, electricity suppliers provided the REC prices for all of their renewable sources. The weighted average of the reported REC prices for 2016 through 2020, by fuel type, is provided in the following table.[xxxiv]

Average Price of Reported Compliance RECs

	2016	2017	2018	2019	2020
Tier I Resource					
Methane from Landfill Gas/Wastewater	$2.44	$1.85	$2.51	$2.68	$2.89
Wind	$1.87	$2.89	$2.93	$2.89	$2.78
Waste Heat	N/A	N/A	$3.18	$2.93	$1.27
Wood Waste	$1.26	$2.31	$2.87	$2.99	$3.05
Non-solar Tier 1 (out-of-state solar)	$2.18	$3.03	$2.87	$2.86	$2.84
Solar Carve-Out	**$477.18**	**$390.05**	**$396.63**	**$402.65**	**$388.11**

Note: The Tier I compliance fee is $50 per REC shortfall.

As seen in the table, non-solar REC prices have been relatively stable in recent years, despite the rise in the RPS requirements over time. SREC prices for the District have generally remained elevated since 2016 as the impact of the legislative changes have made the District's SREC prices the highest in the Mid-Atlantic states. The decrease in 2017 likely reflects the impact of the contract grandfathering provision for the solar RPS compliance fee in the RPS Expansion Act. Taken together, the estimated total cost of compliance — including the cost of RECs and compliance fees — amounted to $65.0 million for the 2020 RPS compliance year, up from $57.3 million for the 2019 RPS compliance year. The increase in the RPS requirements over time will continue to place upward pressure on the cost of RPS compliance. However, the grandfather provisions for the solar compliance fee contained in the RPS Expansion Act and CleanEnergy Act may help mitigate cost increases in the near term. In particular, the RPS Expansion Act allows energy supply contracts entered into prior to October 8, 2016 to be grandfathered for up to 5 years and subject to the lower compliance fee schedule under the DGAA — in 2020 the grandfathered compliance fee was $200 per SREC shortfall, unchanged from 2019, but will drop to $150 per SREC in 2021 (the last effective year).[xxxv] Electricity suppliers will always prefer to pay the grandfathered compliance fee that continues to decline. The following table provides a distribution of SRECs retired by state:

Solar RECs Retired by State in the 2020 Compliance Year

State	SRECs Retired	Share of Total
Alabama	-	0.0%
District of Columbia	108,787	81.5%
Delaware	1,466	1.1%
Georgia	-	0.0%
Iowa	-	0.0%

Illinois	374	0.3%
Indiana	148	0.1%
Kentucky	128	0.1
Maryland	8,994	6.7%
Michigan	37	0.0%
Missouri	-	0.0%
North Carolina	1,809	1.4%
New Jersey	59	0.0%
New York	300	0.2%
Ohio	657	0.5%
Pennsylvania	8,154	6.1%
South Carolina	-	0.0%
Virginia	2,148	1.6%
Wisconsin	204	0.2%
West Virginia	151	0.1%
Total	**133,416**	

Lastly, the CleanEnergy Act required the Commission to report on the total amount of the District's electricity sales that were exempt from the changes to the RPS compliance fees, pursuant to the RPS Expansion Act of 2016. The following table shows the total amount of exempt sales and the percentage with respect to totals sales:

Retail Sales Subject to Grandfathered Compliance Fee

	Grandfathered Sales (MWH)	Share of Total Retail Sales	Grandfathered Compliance Fee
2018	5,540,183	49.1%	$300
2019	3,745,819	33.8%	$200
2020	2,153,592	21.9%	$200
2021*	1,481,398	15.7%	$150

* Estimated amount provided by electricity suppliers.

The following table shows retail sales exempt from the CleanEnergy Act since 2019 and an estimate for compliance year 2021:

Retail Sales Grandfathered from CleanEnergy Act Requirements

	Grandfathered Sales (MWH)	Share of Total Retail Sales
2019	10,337,329	93.3%
2020	6,690,970	68.0%
2021*	4,621,680	49.1%

* Estimated amount provided by electricity suppliers.

IV — THE AVAILABILITY OF RENEWABLE RESOURCES

This section discusses the availability of Tier I renewable sources, as required in the REPS Act. The issue of available resources is affected by geographic restrictions in the RPS.

The REPS Act provides that a:

> "Renewable energy credit" or "credit" means a credit representing one megawatt-hour of electricity consumed within the PJM Interconnection Region that is derived from a Tier I renewable source or a Tier II renewable source that is located:
>
> 1. In the PJM Interconnection region or in a state that is adjacent to the PJM Interconnection Region; or
> 2. Outside the area described in subparagraph (1) of this paragraph but in a control area that is adjacent to the PJM Interconnection region, if the electricity is delivered into the PJM Interconnection Region.

The REPS Act did not provide a definition for adjacent states or an adjacent control area. In its third report in 2005, the RPS Working Group was not able to reach a consensus on the definition of "adjacent" states and, thus, presented two different interpretations. Ultimately, the Commission adopted the broader definition of "adjacent" and determined that states "adjacent" to the PJM Interconnection Region should help lessen the cost that ratepayers will have to pay for the renewable portion of their fuel mix.[xxxvi]

In particular, the following states were deemed adjacent to PJM: Alabama, Arkansas, Georgia, Iowa, Mississippi, Missouri, New York, South Carolina, and Wisconsin. Thus, from the outset, the District's RPS program allowed a relatively broad geographic participation.

Subsequently, the *Fiscal Year 2011 Budget Support Act of 2010* amended the definition of a REC to read as follows:

> "Renewable energy credit" or "REC" means a credit representing one megawatt-hour of energy produced by a tier one or tier two renewable source located within the PJM Interconnection region or within a state that is adjacent to the PJM Interconnection region.[xxxvii]

The change in the definition of a REC actually made it easier for the Commission to approve renewable energy systems located in states adjacent to the PJM Interconnection Region. That is, the previous definition's reference to "electricity consumed within the PJM Interconnection Region" suggested that at least the potential to deliver electricity was required in order for a renewable energy system to be approved for the District's RPS program. As a result, prior to the change in the REC definition, the Commission denied several applications from solar generator systems located in New York.

In its decisions, the Commission generally indicated that the applicant did not provide sufficient information to demonstrate or document the amount of energy that can be delivered into the PJM Interconnection region for consumption.[xxxviii]

However, the new definition refers only to where the energy is produced, not consumed. As a result of the revised statutory REC definition, the Commission began approving solar generator RPS applications from states that are geographically adjacent to the PJM Interconnection region states such as New York which is adjacent to Pennsylvania and Wisconsin which is adjacent to Illinois in 2010; both Pennsylvania and Illinois are within the PJM Interconnection region. However, with the passage of the DGAA, out-of-state solar energy systems are now generally not eligible to be certified by the Commission for generation of SRECs for compliance with the solar RPS. However, pursuant to the clarification language included by the Council in the Fiscal Year 2015 Budget Support Act of 2014, out-of-state solar facilities may be certified for use in complying with the non-solar portion of the Tier I RPS requirement.

The CleanEnergy Act again amended the definition of a "renewable energy credit" and restricted the location of the energy produced from a renewable resource to the PJM Interconnection region. But the law also allowed renewable sources located within a state adjacent to the PJM Interconnection region and certified by the Commission as of the applicability date of the Act to continue to produce RECs until January 1, 2029.

The following table provides a measure of some of the renewable sources available in the PJM region for 2020. The following information provides a perspective on the renewable sources in the PJM Interconnection region. The amount of renewable sources in the PJM Interconnection region represents about six (6) percent of the available fuels. Wind power accounts for the largest share among renewable sources, about 3.3 percent. Among other renewable sources, hydroelectric power represents the second largest resource — around 1.3 percent — followed by municipal solid waste — less than one percent. Methane/Other Biomass gas, biomass-related fuels, and solar photovoltaics are approximately 0.3, 0.1, and 0.5 percent, respectively.[xxxix]

PJM System Fuel Mix 2020

Fuel	Share
Coal	19.4%
Nuclear	34.5%
Natural Gas	39.8%
Oil	0.2%
Hydroelectric	1.3%
Other Renewable	4.7%
Captured Methane Gas / Other Biomass Gas	0.3%
Geothermal	0.0%
Solar PV	0.5%
Municipal Solid Waste	0.5%
Wind	3.3%
Wood, other biomass	0.1%
Total Renewable Resources	**6.0%**
Total	**100.0%**

Source: PJM-EIS GATS

Through the Reliable Energy Trust Fund, DOEE previously administered the Renewable Energy Demonstration Project ("REDP"), approved by the Commission in Order No. 12778 (released: July 9, 2003). The objective of the REDP was to increase the awareness and use of renewable energy grid-connected technologies by District ratepayers. Through the REDP, DOEE awarded grants to help finance renewable

energy projects in the District. The CAEA replaced the REDP with the Renewable Energy Incentive Program ("REIP"). Subsequently, the RPS Expansion Act established a Solar for All Program to increase the access of seniors, small local businesses, nonprofits, and low-income households in the District to the benefits of solar power. This Program is intended to reduce, by at least 50 percent, the electric bills of at least 100,000 of the District's low-income households with high energy burdens by December 31, 2032.The program is funded annually from the Renewable Energy Development Fund which receives the annual RPS compliance fee payments.

Number of Renewable Generators Certified for the District's RPS Program by Fuel Type and Location

	Methane from landfill or wastewater treatment	Solar PV	Solar PV (NSTI)	Solar Thermal	Wastewater heat source or sink	Wind	Biomass	Total
Alabama							1	1
District of Columbia	1	8,549		112	3			8,665
Delaware	2	148		1				151
Georgia	4		42					46
Iowa	1		1			19		21
Illinois	22	7				15		44
Indiana	15	42	1			14		72
Kentucky	6	55	2	1				64
Maryland		691	5	10				706
Michigan	3	6						9
Missouri	1		14			6		21
North Carolina	1	78	60	78				217
New Jersey		8						8
New York		28		1				29
Ohio	2	128	2	4		4		140
Pennsylvania	8	910	1	16		6		941
South Carolina	6		11					17
Virginia	15	371	1	119				506
Wisconsin		11						11
West Virginia		23		5		3		31
Total	**87**	**11,055**	**140**	**347**	**3**	**67**	**1**	**11,700**

As of April 9, 2021, there are 11,700 renewable generators eligible for the District's RPS program. All of these facilities use Tier I renewable sources (including biomass, methane from landfill gas or wastewater treatment, solar, wind, and wastewater used as a heat source or sink). Beginning in calendar year 2020, Tier II sources are no longer included in the RPS requirements. Since these renewable energy generators may be certified in other states that have a RPS program as well, the RECs associated with the generating capacity from these sources are not necessarily fully available to meet the District's RPS requirement. The table above provides a breakdown of the renewable energy generators by fuel type and location.[xl]

The District has also made significant progress in certifying solar energy facilities for the RPS program. Currently, as of April 9, 2021, 11,402 solar energy systems — including solar photovoltaic and solar thermal — are eligible to participate in the District's RPS program to meet the solar RPS requirement. Within the District, there are currently 8,549 approved solar photovoltaic ("PV") systems and 112 solar thermal systems.[xli] Outside of the District, there are six states with more than 100 eligible solar energy systems, including:

- **Pennsylvania:** 926
- **Maryland:** 701
- **Virginia:** 490
- **North Carolina:** 156
- **Delaware:** 149
- **Ohio:** 132

These six states account for roughly 93 percent of the non-DC solar energy systems approved for the District's RPS program.

The following table depicts the resources potentially available for use in the District's RPS program as of April 9, 2021, as some of the resources are registered in multiple jurisdictions. In addition to the solar resources for the RPS carve-out, there are other Tier I renewable sources in the District that are associated with DC Water facilities. They include a combined heat and power generator using methane produced from the wastewater treatment process to power 14 MW of gas turbines, a heat recovery process rated at 35 MW and another 13 MW associated with a heat exchange system. The following table also includes 164 fully operational community renewable energy facilities ("CREFs") in the District, which account for a total of 19.4 MW.

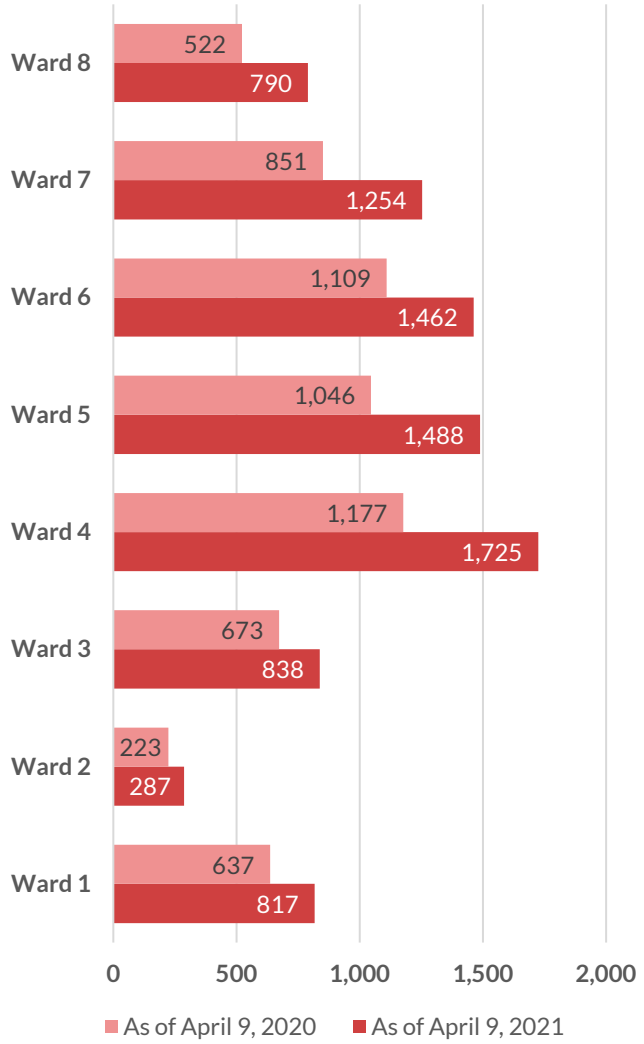
Renewable Energy Systems as of April 9, 2021

	Number	Capacity (MW)
Solar (DC only)	8,661	130.6
Solar (Outside DC)	2,741	34.5
Total Solar	**11,402**	**165.0**
Other Tier I (DC only)	4	62.9
Other Tier I (Outside DC)	294	7,539.8
Total Other Tier 1	**298**	**7,602.8**
Total Renewable Energy	**11,700**	**7,767.8**

Note: Tier II facilities were decertified as of January 1, 2020 (no longer required for RPS)

Solar energy systems can be found in all eight wards of the District. To date in 2021, the number of RPS-eligible solar energy systems has increased in all wards. The figure below shows where the systems certified for the District's RPS program are located:[xlii]

Certified District Solar Energy Systems by Ward



The total capacity associated for all solar energy systems is about 165.0 megawatts ("MW"), with about 130.6 MW located in the District as of April 9, 2021, compared to 91.7 MW located in the District as of April 9, 2020.[xliii] However, the current solar systems' capacity is less than the 178.2 MW of estimated solar capacity necessary to meet the 2.50 percent RPS requirement in 2021.

The District's solar REC prices remain the highest in the region, so holders of solar RECs have a significant financial incentive to sell them to suppliers who need to satisfy the solar RPS requirement in the District. Specifically, the price of the District's solar RECs is currently trading at approximately $400 per REC.

It is worthwhile to note that about 16 percent of the total capacity available to supply RECs to the District's RPS program are located in states adjacent to the PJM Interconnection region. Moreover, some states such as Illinois, Kentucky, and North Carolina only have a portion of the state in the PJM Interconnection region. As such, many renewable energy systems will no longer be able to contribute to the RPS compliance by electricity suppliers as of the beginning of 2029, adding to the upward pressure on the cost of compliance. Indeed, nearly 70 percent of the RECs retired for compliance in 2020 were obtained from facilities in states adjacent to the PJM region.

The following table shows the capacity of all of the District's certified renewable generators, by fuel type and location, as of April 9, 2021:

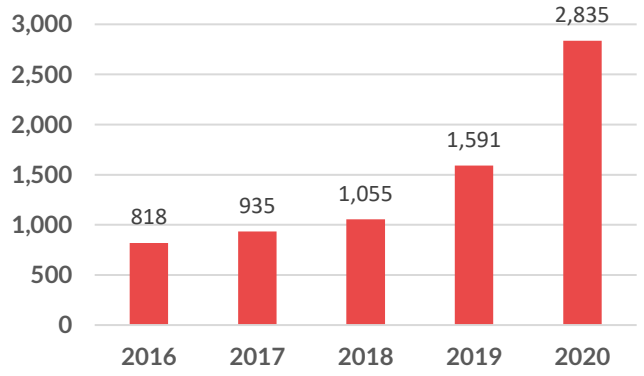
Capacity (MW) of Renewable Generators Certified for the District's RPS Program by Fuel Type and Location

	Methane from landfill or wastewater treatment	Solar PV	Solar PV (NSTI)	Solar Thermal	Wastewater heat source or sink	Wind	Biomass	Total
Alabama							49.8	49.8
District of Columbia	14.4	125.2		5.4	48.5			193.5
Delaware	7.4	1.2		0.0				8.6
Georgia	27.1		159.1					186.3
Iowa	1.6		2.0			351.8		355.4
Illinois	113.9	0.5				1,843.9		1,958.3
Indiana	47.2	0.2	24.3			2,032.5		2,104.2
Kentucky	18.4	0.2	14.1	0.0				32.7
Maryland		14.8	0.1	0.0				14.9
Michigan	33.0	0.0						33.0
Missouri	5.6		61.2			451.0		517.8
North Carolina	5.0	1.7	569.9	0.2				576.8
New Jersey		0.2						0.2
New York		0.4		0.0				0.4
Ohio	8.0	1.2	4.2	0.0		537.1		550.5
Pennsylvania	72.2	10.8	0.3	0.0		371.0		454.4
South Carolina	30.8		104.8					135.6
Virginia	127.7	2.2	2.7	0.4				133.0
Wisconsin		0.1						0.1
West Virginia		0.1		0.0		462.1		462.3
Total	512.4	159.0	942.7	6.1	48.5	6,049.4	49.8	7,767.8

Note: Biomass includes wood/wood waste. In addition, the total solar capacity available to meet the solar requirement is the sum of the solar PV and solar thermal capacity of 165.0 MW. The non-solar Tier I ("NSTI") represents the out-of-state solar that was allowed back into the RPS program but only able to meet the Tier I requirement and not the solar requirement.

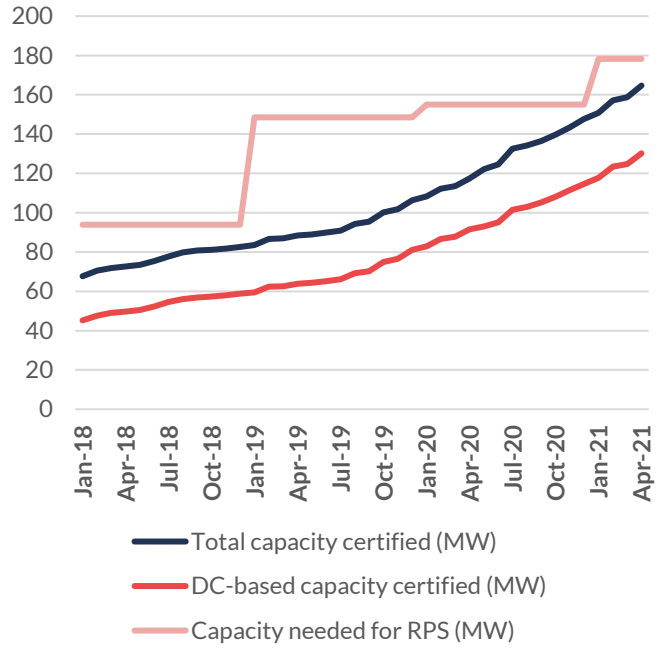
In calendar year 2020, the Commission received 2,835 renewable generator applications — primarily involving the certification of solar generators for the RPS program. As of March 31, 2021, the Commission has received 526 applications. The Commission continues to approve solar energy RPS applications based on the existing laws and regulations. The chart below shows how the number of applications has changed over the years:

Number of Renewable Portfolio Standard Applications Received



The chart below provides a comparison of the estimated MW of solar capacity needed to meet the increased solar RPS requirement under the CleanEnergy Act. The current RPS shortfall in solar system capacity is about 14 MW as of April 1, 2021.

Solar RPS Capacity (MW)



In terms of the availability of other renewable sources to meet the District's RPS, as part of its merger commitments, Exelon committed to develop or assist in the development, by December 31, 2018, of 7 MW of solar generation in the District outside of the Blue Plains Wastewater Treatment Plant ("Blue Plains"). This has been completed and has been certified for the RPS program. In addition, Exelon committed that Pepco would support and expedite the interconnection for 5 MW of ground-mounted solar generation at Blue Plains that is developed, constructed and installed by a vendor selected by DC Water. The Commission has recently received an application from DC Water for 4.4 MW of solar generation at Blue Plains. Exelon also committed to provide $5 million of capital to creditworthy governmental entities at market rates for the development of renewable energy projects in the District of Columbia — the implementation of this commitment is ongoing.

Moreover, Exelon or its non-utility subsidiaries will, within five (5) years after the Merger close, conduct one or more requests for proposals ("RFP") or other competitive process to solicit offers to purchase a total of 100 MW of renewable energy from one or more new or existing wind-generation facilities located within the PJM Interconnection region with an anticipated product delivery date beginning approximately three years following the applicable RFP date. Exelon has executed a PPA with the owner of a wind energy facility to be built in Indiana that is expected to be operational this year. There were also commitments by Exelon relating to the enhancement of the

interconnection process and support for customer-owned distributed energy generation. This is an on-going process being addressed in Commission-sponsored working groups.

As a result of the AltaGas/Washington Gas Light merger, AltaGas committed to develop 10 MW of either electric grid energy storage or Tier I renewable sources in the District. After the Commission rejected AltaGas' initial plan in Order No. 19883 (released: April 5, 2019), on June 17, 2019, AltaGas filed a revised, more detailed plan, which the Commission in Order No. 20250 (released: November 7, 2019) conditionally approved. AltaGas filed quarterly reports detailing its progress on implementing the plan. The Commission also sponsors periodic stakeholder working group meetings to evaluate AltaGas' implementation of the revised plan.

The Value of Solar Study for the District of Columbia, released in April 2017 by the Office of the People's Counsel ("OPC"), mentions five primary barriers to the development of distributed solar in the District. These barriers include:

1. Access to suitable space, including real estate constraints such as the high proportion of renters; historic preservation guidelines that may restrict roof space; and the lack of open space for ground-mounted arrays.
2. Upfront costs and customer financing.
3. Interconnection processing time.
4. Program funding uncertainty, including variation in solar REC prices and funding for program incentives.
5. Ineffective price signals to compensate owners of solar generating systems.

The OPC Study provides recommendations to help address the challenges for stimulating distributed solar energy growth in the District:

1. Facilitate community solar through addressing engineering and customer acquisition challenges, expanding incentives, partnering with third-party community solar developers, and potentially allowing Pepco to provide community solar (to own and rate base) if the market does not.
2. Expand municipal procurement of solar to maximize available real estate, encourage solar parking canopies, and expand the definition of eligible solar generators.
3. Ensure that historic district restrictions are appropriate and not overly strict.
4. Continue to address financial challenges for low-income customers, such as through expansion of the Affordable Solar Program or implementation of a Green Bank.
5. Consider implementing financial penalties or rewards (that cannot be passed through to customers) for Pepco that are tied to achieving solar targets and meeting interconnection deadlines.

V — RECENT ACTIVITY AND NEXT STEPS

Going forward, the Commission will continue to certify renewable energy generating facilities and update information on approved generators on the Commission's website including, among other things, changes to the reporting requirements in the compliance reports from electricity suppliers. The Commission launched an online RPS application system on January 2, 2019, and the Commission is making forms and the rules available, to help facilitate the RPS certification and compliance process. In addition, the Commission will continue to maintain a list of approved renewable energy generating facilities on the Commission's website.[xliv]

Moreover, the Commission's website also provides monthly updates on solar energy system certifications and SREC pricing.[xlv] Additional program information will also be made available as deemed appropriate. The Commission will continue to post, on a monthly basis, the total amount of solar energy from such systems for which interconnection requests have been submitted in the prior months.

In an effort to help the District meet its climate change commitments and renewable energy goals, Order No. 19897 (released: April 12, 2019), established a pilot program to procure renewable energy through long-term PPAs for electricity generated by solar or wind energy facilities located within the PJM Interconnection region with a target quantity of five (5) percent of the SOS load. In Order No. 20327 (released: April 9, 2020), the Commission, adopted a 95/5 Model of cost recovery for the pilot program. Under the 95/5 Model, the long-term renewable energy PPA provides the renewable energy to satisfy five (5) percent of the SOS load including the environmental attributes associated with that renewable energy. Pepco, as the SOS Administrator, will have to procure the remaining components for that five (5) percent load – capacity, losses, congestion, credit and risk, the cost of meeting the District's RPS, and ancillary services. In addition, provisions will need to be made to accommodate the intermittent nature of the renewable energy provided by the PPA since the energy from the PPA will not strictly follow SOS load demand. On April 2, 2021, the Commission published a Notice of Final Rulemaking ("NOFR") in the *D.C. Register* to accommodate the integration of long-term renewable energy PPAs into the District's SOS procurement portfolio consistent with Order Nos. 19897 and 20327. The Commission anticipates that energy from the PPA will begin to serve the target quantity of five percent of SOS load on June 1, 2024.

On May 1, 2020, the Commission published a NOFR in the *D.C. Register*, that eliminated the need for a CREF to directly connect to the distribution system. This facilitated the implementation of a VCREF, using a BTM configuration for the system, that helps reduce the cost of a CREF by avoiding certain infrastructure upgrades while maintaining safety and reliability.

On August 14, 2020, the Commission published a NOFR allowing NEM systems for individual BTM generators to exceed 100 percent of the customer's historical usage and customer payment for excess generation. A NEM system can increase the generation

threshold by 20% annually, starting in 2020 until the generation threshold reaches 200% in 2024.

The Commission also monitors the interconnection process to ensure that applications for the interconnection of renewable generating facilities with Pepco's distribution network in the District are made on a timely basis. Moreover, the Commission issued two NOPRs in 2020 to further enhance and accelerate interconnection efforts for renewable energy facilities, including CREFs. Additional rulemaking efforts are underway. Finally, we will continue to monitor the development of relevant Council legislation regarding RPS and goals for renewables in the District. As needed, the Commission will continue to adopt regulations or orders governing the implementation of the RPS.

PUBLIC SERVICE COMMISSION
District of Columbia

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ATTACHMENT 1

RENEWABLE PORTFOLIO STANDARDS IN OTHER STATES

RENEWABLE PORTFOLIO STANDARDS IN OTHER STATES [xlvi]

According to the Database of State Incentives for Renewable Energy ("DSIRE") and National Conference of State Legislatures ("NCSL"), 30 states and the District of Columbia have adopted RPS policies or mandates. In addition, eight states have renewable energy goals (see Figure 1). The 30 states include:

- Arizona
- California
- Colorado
- Connecticut
- Delaware
- Hawaii
- Illinois
- Iowa
- Maine
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Missouri
- Montana
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- Ohio
- Oregon
- Pennsylvania
- Rhode Island
- Texas
- Vermont
- Virginia
- Washington
- Wisconsin

In 2015, Hawaii substantially increased its renewable energy requirements, while Vermont switched from a non-binding goal to an RPS mandate. On March 11, 2016, Oregon's Governor signed legislation that will effectively eliminate coal from the electricity supply of the state's major utilities by 2030. The law also increases the Oregon RPS from a pre-existing 25 percent by 2025 to 50 percent by 2040, with interim goals along the way, starting in 2025 with 27 percent.

On March 22, 2019, the *CleanEnergy DC Omnibus Amendment Act of 2018* became effective and increased the District of Columbia's RPS requirement to 100 percent by 2032. On April 12, 2020, Virginia's Governor signed the *Virginia Clean Economy Act*, which calls for a 100 percent renewable requirement by 2050. The District of Columbia joins California, Hawaii, Maine, Maryland, Nevada, New Jersey, New Mexico, New York, Oregon, Vermont, and Virginia as states with RPS requirements of 50 percent or more.

In February 2015, West Virginia repealed its RPS standard, which was enacted in 2009. West Virginia had adopted an alternative and renewable energy portfolio standard that was unique to the state. Specifically, West Virginia's standard did not appear to require a minimum contribution from renewable energy resources, and it is feasible that the standard could have been met using only alternative resources and no renewable resources (as defined in the law). Thus, the renewable portion of the standard functioned more like a non-binding goal. Another distinguishing characteristic of West Virginia's standard was the use of the term "alternative energy resources," which was defined more broadly than definitions of alternative energy in other states. In particular, West Virginia's "alternative energy resources" included advanced coal technology, coal bed methane, natural gas, fuel produced by a coal

gasification or liquefaction facility, synthetic gas, integrated gasification combined cycle technologies, waste coal, tire-derived fuel, pumped storage hydroelectric projects, and recycled energy.[xlvii]

In May 2015, Kansas also took a major step when it switched from an RPS mandate to a non-binding goal. In June 2015, the Hawaii legislature updated legislation increasing the state's mandate to 100 percent in 2045 — with interim requirements of 30 percent by 2020, 40 percent by 2030, and 70 percent by 2040. This makes Hawaii the first state with a 100 percent RPS requirement and is now considered a test bed for understanding how to safely and reliably integrate very high proportions of intermittent and distributed generation resources, such as solar, into the distribution grid. Vermont also passed a bill in June 2015, establishing an RPS requirement of 75 percent by 2032 — with an interim requirement of 55 percent by 2017 and then increasing by an additional four (4) percent every three years until reaching the final requirement by 2032.

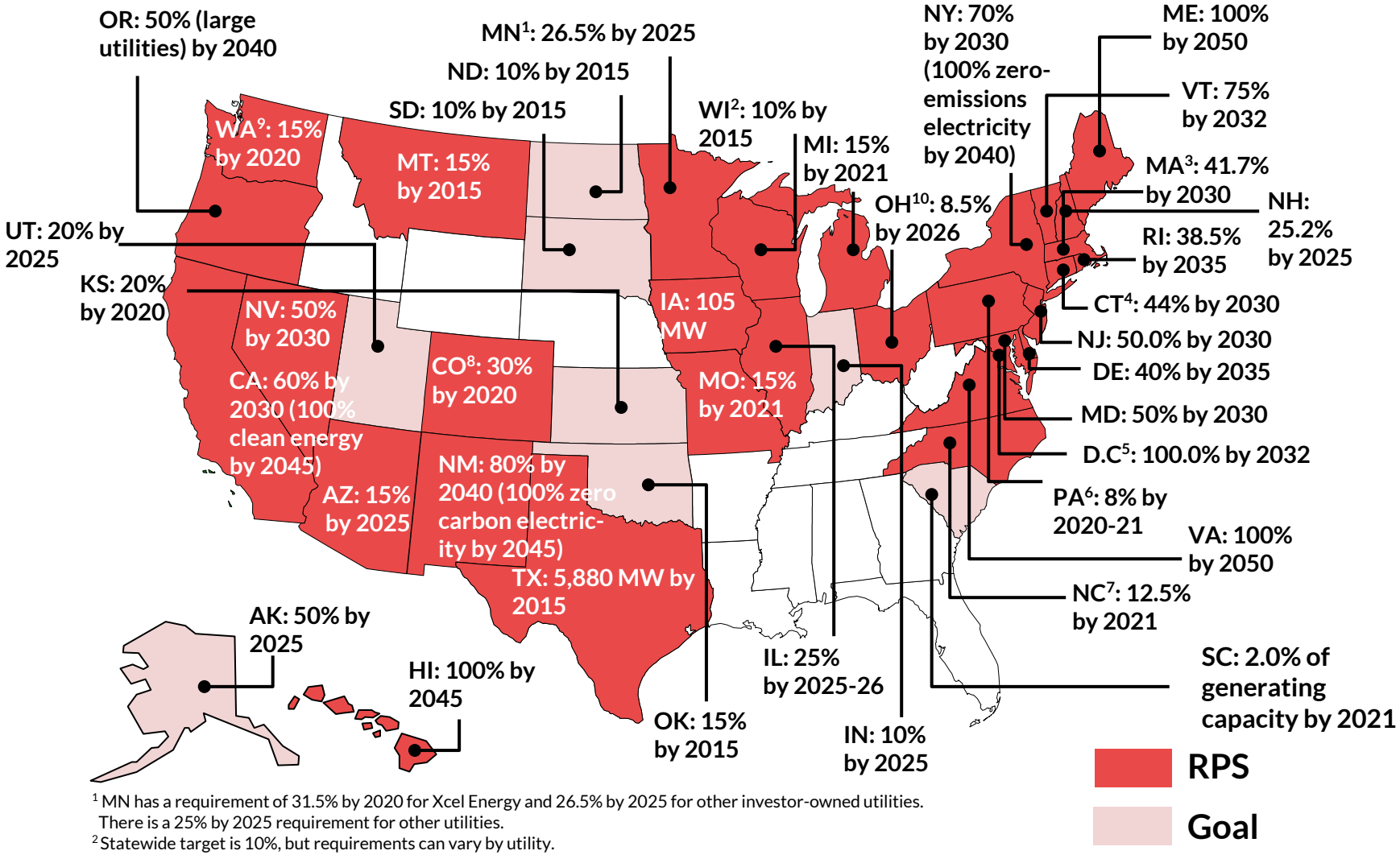
In addition, eight states — Alaska, Indiana, Kansas, North Dakota, Oklahoma, South Carolina, South Dakota, and Utah — have non-binding renewable energy goals. South Carolina was the latest state to establish a goal in 2014.[xlviii] Utah also enacted legislation in March 2008 that contains some provisions similar to those found in renewable portfolio standards adopted by other states. However, certain provisions in the legislation may be more accurately described as a renewable portfolio goal.[xlix]

The following compares the District's RPS requirement to nearby states:[l]

- District of Columbia: 100% by 2032 (the solar energy requirement continues to increase to 10.0% by 2041)
- Delaware: 40% by 2035
- Maryland: 50% by 2030
- New Jersey: 50% by 2030
- North Carolina: 12.5% by 2021
- Pennsylvania: 8% by 2020-21
- Virginia: 100% by 2050

Figure 1: Renewable Portfolio Standards

(Percentage of Sales, except for Iowa and Texas)



[1] MN has a requirement of 31.5% by 2020 for Xcel Energy and 26.5% by 2025 for other investor-owned utilities. There is a 25% by 2025 requirement for other utilities.
[2] Statewide target is 10%, but requirements can vary by utility.
[3] 35% Class I (New Resources) plus additional 1% each year after 2030, 6.7% Class II (Existing Resources) by 2020.
[4] The 44% refers to Class I and II resources.
[5] Solar requirement increases to 5.0% by 2032 and 10.0% by 2041.
[6] The 8% is for Tier I resources (including solar PV). PA also has a 10% requirement for Tier II resources that includes some nonrenewable resources.
[7] The 12.5% is for investor-owned utilities. Co-ops and municipals must meet 10% by 2018.
[8] The 30% is for investor-owned utilities. Co-ops serving 100,000 or more meters must meet 20% by 2020. Co-ops serving less than 100,000 meters and municipals must meet 10% by 2020. 100% clean energy by 2050 for utilities serving 500,000 or more customers
[9] There is a 100% greenhouse gas neutral requirement by 2030 and a 100% carbon-free requirement by 2045.
[10] OH reduced its RPS requirement from 12.5% to 8.5% by 2026, including reductions in annual incremental targets.
Sources: Database of State Incentives for Renewable Energy, Lawrence Berkeley National Laboratory, and National Conference of State Legislatures.

PUBLIC SERVICE COMMISSION
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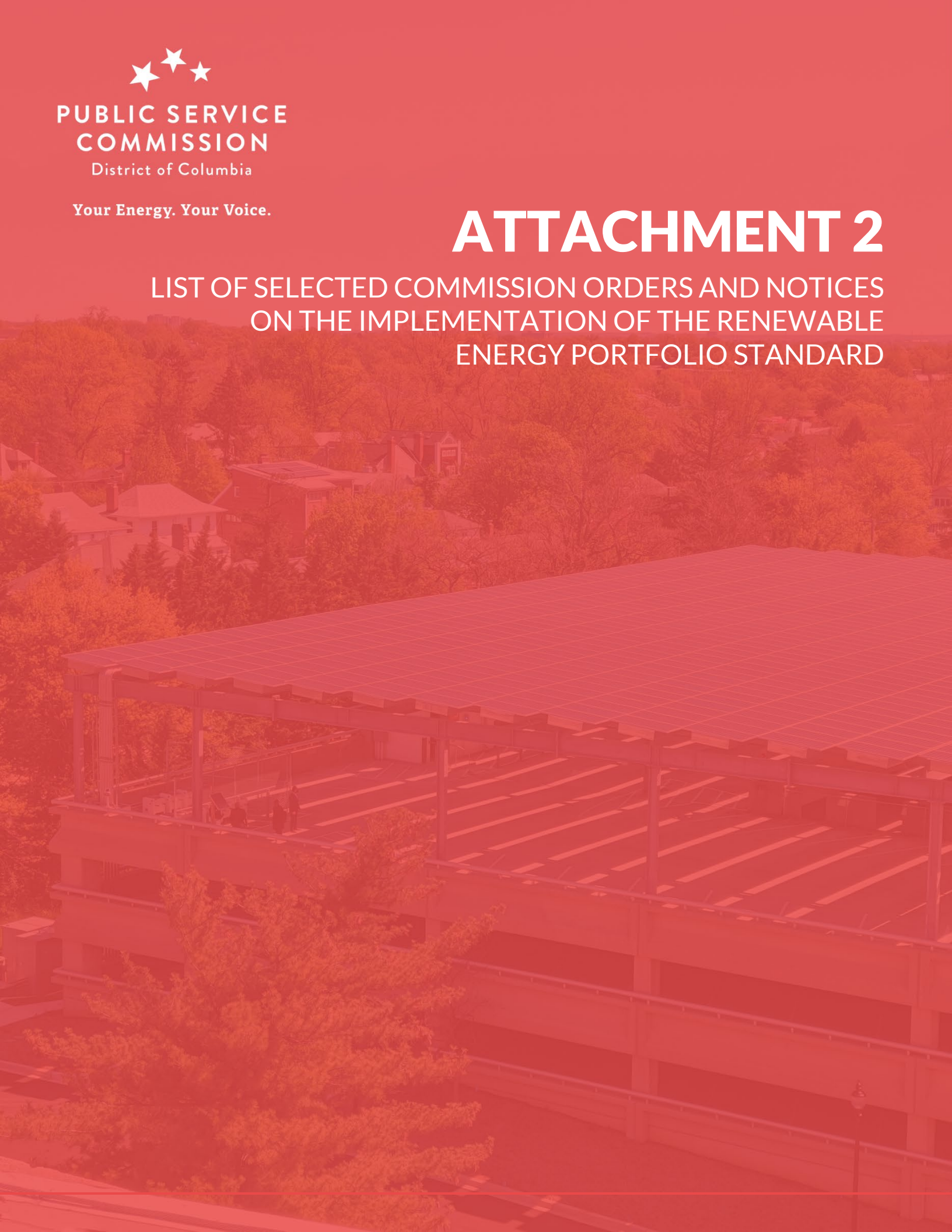
ATTACHMENT 2

LIST OF SELECTED COMMISSION ORDERS AND NOTICES ON THE IMPLEMENTATION OF THE RENEWABLE ENERGY PORTFOLIO STANDARD



LIST OF SELECTED COMMISSION ORDERS AND NOTICES ON THE IMPLEMENTATION OF THE RENEWABLE ENERGY PORTFOLIO STANDARD

Order No. 13566 (April 29, 2005): Invited interested parties to submit their views on twelve (12) RPS-related issues.

Order No. 13766 (September 23, 2005): Addressed various issues based on the comments filed in response to Order No. 13566. With respect to the process for implementing the Act, the Commission directed interested parties to form a RPS Working Group to examine in more detail certain issues related to the implementation of the REPS Act, and to develop a timeline and recommendations with respect to a two-phased approach to resolving those issues. The Commission also indicated that the PJM Environmental Information Service ("PJM-EIS") Generation Attribute Tracking System ("GATS") would be used in the implementation of the Act.

Order No. 13795 (October 24, 2005): Adopted the RPS Working Group's proposed procedural schedule recommended in the RPS Working Group Report (submitted October 11, 2005), including a timeline and designation of items, for addressing Phase I and Phase II issues — raised in Order No. 13766.

Order No. 13804 (November 10, 2005): Accepted in part and rejected in part comments filed by the parties in the RPS Working Group Report submitted on October 25, 2005. The Commission generally approved the method for certifying individual generators. The Commission directed the RPS Working Group to develop a list of comparable state certificates that would meet the District's RPS. The resulting list would help identify which facilities are in compliance with the District's RPS requirements. However, the Commission rejected the accrual of retroactive RECs created before January 1, 2006. The Commission noted that the intent of the REPS Act is to encourage the production and siting of renewable resources going forward, rather than looking back, which reduces the need for the use of retroactive RECs.

Order No. 13840 (December 28, 2005): Approved, in part, various rules addressing Phase I issues recommended in the RPS Working Group's third report (submitted November 23, 2005). Attachment A of the Order contains the interim rules that the Commission adopted. The interim rules, in part, established definitions for various terms consistent with the REPS Act, compliance requirements for electricity suppliers, generator eligibility, rules regarding the creation and tracking of RECs, and rules concerning the recovery of fees and costs.

Order No. 13860 (January 26, 2006): Generally accepted the recommendations presented in the RPS Working Group's report (submitted December 22, 2005) on comparable state certificates and related issues. The Commission pointed out that the use of the Tier I and Tier II eligibility matrices promotes a streamlined and simple process for the certification of renewable resources located outside of the District, consistent with Order No. 13766.

Order No. 13899 (March 27, 2006): Responded to Applications and/or Motions for Reconsideration and Clarification of Order No. 13840 filed by the Meadwestvaco Corporation, the Potomac Electric Power Company on behalf of the RPS Working Group, and jointly by Pepco Energy Services, Mirant Corporation, Washington Gas Energy Services, Inc., District of Columbia Energy Office, and

Constellation. This Order, in part, amended the interim rules to indicate that retroactively created RECs must be tracked through GATS. In addition, with respect to the information to be included in the annual compliance report, the Commission amended the interim rules to indicate that suppliers purchasing RECs solely via bundled products are exempt from including the total price paid for Tier I, Tier II, and Solar Energy Credits in their report.

Order No. 14005 (July 24, 2006): Accepted in part and rejected in part, recommendations contained in the RPS Working Group report addressing Phase II issues, submitted on March 24, 2006. This Order further accepted in part and rejected in part recommendations contained in supplemental comments filed by the Office of the People's Counsel and in reply comments filed jointly by the Potomac Electric Power Company, Pepco Energy Services, Inc., and the District of Columbia Energy Office.

Order No. 14085 (October 13, 2006): Denied the Application for Reconsideration of Order No. 14005 filed by the MD-DC-VA Solar Energy Industries Association.

Order No. 14114 (November 13, 2006): Accepted in part and rejected in part, recommendations contained in the RPS Working Group report (September 15, 2006) regarding: (1) the use of engineering estimates to measure the output of small solar installations; (2) the District of Columbia's adoption of BTM rules and regulations used in other Mid-Atlantic States; and (3) the RPS Working Group's response to a hypothetical question involving renewable energy credit creation that was set forth in Order No. 13766.

Order No. 14225 (March 2, 2007): Accepted in part and rejected in part recommendations contained in the RPS Working Group report, addressing issues identified in Order No. 14114, submitted on December 13, 2006. In particular, the Commission amended the interim rules to address certain issues regarding BTM generation.

Order No. 14697 (January 10, 2008): Adopted Chapter 29 of Title 15 District of Columbia Municipal Regulations ("Final Rules"). The Final Rules became effective upon the publication of the Notice of Final Rulemaking in the *D.C. Register* on January 18, 2008.

Order No. 14782 (April 10, 2008): Adopted the Electricity Supplier 2007 Compliance Report Form and associated filing instructions for the District's RPS Program. Electricity suppliers were directed to use the form for the 2007 Compliance Reports due May 1, 2008.

Order No. 14798 (April 29, 2008): Directed on-site or BTM generators, certified by the Commission as eligible renewable generating facilities and required to file on-site or BTM generation reports under the Commission's rules, to file their reports with the Commission.

Order No. 14809 (May 12, 2008): Directed the RPS Working Group to file, consistent with the Commission's rules, an annual update to the Tier I and Tier II eligibility matrices.

Order No. 14885 (August 11, 2008): Directed certain electricity suppliers to file evidence with the Commission that each established Generation Attribute Tracking System accounts and that the renewable energy credits reported in their compliance reports have been properly retired.

Order No. 15077 (October 1, 2008): Denied Washington Gas Energy Services, Inc.'s request for a waiver of the 2007 compliance fee for solar renewable energy credits and directed the Company to file

proof of payment of the 2007 compliance fee for solar renewable energy credits.

Order No. 15192 (February 18, 2009): Directed the RPS Working Group to review the available information regarding certain states and, if the RPS Working Group identifies any Tier I or Tier II renewable energy resources whose certification requirements may be comparable to the District's RPS program, to file an annual update. In identifying new resources, the Order noted that the RPS Working Group should be mindful of the fact that the Clean and Affordable Energy Act of 2008 has added additional certification requirements for certain solar energy facilities.

Order No. 15233 (April 7, 2009): Adopted amendments to the RPS rules, an Affidavit of Environmental Compliance, and a revised Electricity Supplier Annual Compliance Report Form.

Order No. 15561 (September 28, 2009): Adopted amendments to RPS rules consistent with the applicable sections of the Clean and Affordable Energy Act of 2008. In particular, the Commission added a new subsection detailing the requirements for meeting the solar portion of the RPS requirement. In addition, the amendments raised the compliance fees for tier one and solar energy Renewable Energy Credit ("SREC") shortfalls as well as change the definition of solar energy. The amendments also required additional documentation for applications for certification of solar thermal systems as District of Columbia renewable energy facilities.

Order No. 15581 (October 21, 2009): Denied Sol System's request to increase the derate factor used in estimating the output of a solar photovoltaic ("PV") system. The derate factor accounts for the inefficiencies inherent in converting direct current ("DC'") produced by a solar PV system to alternating current ("AC") used in homes or businesses. Specifically, the derate factor accounts for the inefficiency of the solar panels and inverter, as well as losses due to connections and wiring, among other factors. Pursuant to the Commission's rules, solar RECs are created and tracked through the PJM Environmental Information Services, Inc.'s Generation Attribute Tracking System ("PJM-EIS GATS"). PJM-EIS GATS applies a certain default derate factor utilizing PVWATTS, a performance calculator for PV systems developed by the National Renewable Energy Laboratory, which estimates the AC electricity produced by these PV systems. These estimates in turn are used to determine how many solar RECs individual photovoltaic systems generate. Sol Systems offered no technical information of merit in support of its request.

Notice Regarding the Submission of Electricity Supplier Annual Compliance Report for the District of Columbia's Renewable Energy Portfolio Standard (March 23, 2010): Reminded electricity suppliers that they may not use the incineration of solid waste to meet more than 20 percent of the standard for tier two renewable sources. In addition, starting January 1, 2013, suppliers are prohibited from using RECs derived from solid waste incineration to meet any part of the Tier II standard.

Notice Regarding the Submission of Electricity Supplier Annual Compliance Report for the District of Columbia's Renewable Energy Portfolio Standard (March 18, 2011): Reminded electricity suppliers that they are obligated to submit their annual renewable energy portfolio standard compliance reports for calendar year 2010 by May 2, 2011[li] and that electricity suppliers shall meet the solar requirement by first exhausting all opportunity to purchase D.C. SRECs before purchasing non-D.C. SRECs.

Order No. 16528 (September 9, 2011): Denied all applications for certification of solar energy facilities that were not located within the District, nor in

locations served by a distribution feeder serving the District, pending before the Commission on August 1, 2011.

Order No. 16529 (September 9, 2011): Decertified all solar energy facilities not located within the District or in locations served by a distribution feeder serving the District, and certified by the Commission between February 1 and August 1, 2011, as well as any solar facilities with a capacity larger than 5 MW regardless of the date certified. In addition, the clarified that any solar renewable energy credits generated by solar energy facilities decertified pursuant to this Order cannot be used to satisfy the solar portion of the District's RPS program for the 2011 compliance year nor any future compliance year.

Order No. 16680 (January 12, 2012): Denied SolTherm Energy, LLC's applications for recertification of 15 facilities, arguing that the applicability section of the permanent version of the legislation, the Distributed Generation Amendment Act of 2011 ("DGAA" or the "Act"), exempts contracts for the purchase and sale of solar renewable energy credits ("SRECs") from the decertification provision of the Act. In its Order, the Commission indicated that rather than grandfathering-in SRECs and/or SREC contracts, the DGAA effectively voided them after January 31, 2011. The Order mentions that the Council clarified the Act in both its emergency and permanent versions and expressly required the Commission to decertify any non-compliant facility certified between February l, 2011 and the effective date of the Emergency Act, August 1, 2011. The Commission determined that SolTherm's interpretation of the Act would frustrate the Council's intent to render SRECs from non-D.C. facilities unmarketable — as SolTherm's facilities are located outside the District and are not in locations served by a distribution feeder serving the District. Therefore, the Commission concluded that it is statutorily precluded from recertifying them. In addition, SRECs extinguished by operation of law when the Commission decertified the SolTherm facilities cannot be rekindled under a provision clearly intended to apply only to energy supply contracts.

Order No. 16738 (March 15, 2012): Adopted the amended rules and revised annual compliance report form published in the January 13, 2012 Notice of Proposed Rulemaking. The proposed amendments to the RPS rules include, among other things, changes pursuant to the Distributed Generation Amendment Act of 2011.

Order No. 16787 (May 25, 2012): Directed three alternative electricity suppliers — Consolidated Edison Solutions, Liberty Power, and Noble Americas Energy Solutions — to comply with statutory limit on the use of municipal solid waste to meet the RPS requirement for Tier II resources, based on their 2010 compliance reports. The three suppliers were directed to either show cause why this notification of non-compliance is unwarranted or submit their respective payments for non-compliance payable to the Renewable Energy Development Fund.

Order No. 17062 (February 1, 2013): Adopted the RPS Working Group's proposed Tier I and Tier II eligibility matrices for 2011 as modified.

Order No. 17239 (September 6, 2013): Denied the Virginia Living Museum's revised application to expand its existing solar generating system as the second array is functionally separate from the existing array — being separately metered and located on two separate buildings, sharing no parts or components, and do not interact in any way. Given the information and argument before the Commission, there was no basis upon which to conclude that the second array is anything other than a new facility that is disallowed under the Distributed Generation Amendment Act of

2011, as it is not in a location served by a distribution feeder serving the District of Columbia.

Order No. 17349 (January 13, 2014): Adopted the RPS Working Group's proposed Tier I and Tier II eligibility matrices submitted for 2013. The proposed eligibility matrices do not include solar energy or solid waste among the eligible resources for the streamlined certification process. In addition, the RPS Working Group accounted for all nine (9) of the adjacent PJM states.

Order No. 17350 (January 13, 2014): Decertified two municipal solid waste facilities that were previously approved. After December 31, 2012, the incineration of solid waste is no longer eligible to generate RECs to be used to satisfy the Tier II portion of the District's renewable energy portfolio standard. The Commission indicated that RECs from these two facilities cannot be used to satisfy the Tier II portion of the RPS requirement for the 2013 compliance year, nor any future compliance year.

Order No. 17351 (January 10, 2014): Denied the Silicon Ranch Corporation's application for certification of a solar energy facility, with a capacity of least 30 MW, located in Georgia. In its Application, the Silicon Ranch Corporation indicated that it was seeking certification of the solar energy facility as a Tier I out-of-state resource, and it is not seeking certification to obtain SRECs. Based on its review of the Commission's RPS rules, the Applicant asserted that the District's solar carve out does not prevent outside of the District solar facilities like its own from being certified as a "generic" Tier I resource. By statute, Tier I renewable sources are clearly defined to mean one or more of the following types of energy sources: solar, wind, qualifying biomass, methane from the decomposition of organic materials, geothermal, ocean, and fuel cells producing electricity from qualifying biomass or methane. The Commission determined that since the statutory definition of a Tier I renewable source is based on the source used to produce energy, a Tier I renewable source cannot, therefore, be "generic." In addition, the applicant did not provide any supporting legal authority for the creation of a "generic" Tier I source. Nor does the statute authorize the Commission to certify a solar facility outside of the District which is not in a location served by a distribution feeder serving the District of Columbia and which is larger than 5 MW in capacity.

Order No. 17379 (February 12, 2014): Directed the Potomac Electric Power Company ("Pepco") to incorporate the changes set out in this Order in its future Annual Interconnection Reports.

Order No. 17393 (February 20, 2014): Denied the application for certification of the Welch/Molloy Residence's Solar Energy Facility as a Renewable Energy Standards Generating Facility because the solar energy facility is not located within the District or in a location served by a distribution feeder serving the District, pursuant to the DGAA.

Order No. 17673 (October 24, 2014): Adopted a modified version of the NOPR published in the D.C. Register on June 27, 2014. The filing deadline for RPS compliance reports and fees in Sections 2901.7 and 2901.9 of the RPS Rules was moved from May 1 to April 1.

Order No. 17794 (February 4, 2015): Addressed comments from interested persons and described changes to the NOPR published on September 12, 2014 amending Chapter 9, Rules and Regulations Governing NEM, to implement those provisions of the Community Renewable Energy Amendment Act of 2013 ("CREA") regarding the community net metering program. A revised NOPR with the incorporated changes was published in the *D.C. Register* on January 30, 2015 for comment by interested persons.

Order No. 17862 (April 24, 2015): Adopted revised rules and regulations governing NEM to implement those provisions of the Community Renewable Energy Amendment Act of 2013 ("CREA") which establish the community net metering program.

Order No. 17863 (April 24, 2015): Adopted amendments to Chapter 41, "District of Columbia Standard Offer Service ['SOS'] Rules," which were made to implement those provisions of the Community Renewable Energy Amendment Act of 2013 ("CREA") that affect SOS.

Order No. 18050 (December 11, 2015): Approved the Potomac Electric Power Company's ("Pepco") Community Renewable Energy Facilities Documents ("CREF Documents") filed, pursuant to Chapter 9 of Title 15 of the District of Columbia Municipal Regulations ("DCMR") as well as the "Procedural Manual for Implementation and Administration of Community Renewable Energy Facilities" ("CREF Procedural Manual"). The Commission directed Pepco to amend the CREF Documents and the proposed CREF Procedural Manual in accordance with the directives of this Order.

Order No. 18135 (March 3, 2016): Granted the motion of Potomac Electric Power Company ("Pepco") to reconsider the Commission's decision in Order No. 18050. Pepco was directed to modify the CREF Contract consistent with this Order.

Order No. 18705 (February 24, 2017): Approved the Potomac Electric Power Company's ("Pepco") Community Net Metering Rider ("Rider CNM"), Pepco's Community Renewable Energy Facility ("CREF") Contract and conditionally approved Pepco's proposed revised CREF Procedural Manual. The Commission directed Pepco to amend its proposed revised CREF Procedural Manual in accordance with the directives of this Order.

Order No. 18749 (April 13, 2017): Adopted amendments to Chapter 29, "Renewable Energy Portfolio Standard" ("REPS"), of Title 15 of the District of Columbia Municipal Regulations ("DCMR"), pursuant to D.C. Code § 34-802 and in accordance with D.C. Code § 2-505, that were made to implement those provisions of the Renewable Portfolio Standard Expansion Amendment Act of 2016 that affect the District of Columbia's REPS.

Order No. 19859 (March 13, 2019): Adopted a revised electricity supplier compliance report form for 2018 and directed suppliers to submit their compliance fees for the 2018 compliance year to the District Department of Energy and the Environment between October 1 and November 1, 2019.

Order No. 20334 (April 22, 2020): Adopted the amendment to the NEM rules, eliminating the requirement that a community renewable energy facility ("CREF") be directly connected with the electric company's distribution system in the District of Columbia.

Order No. 20387 (August 6, 2020): Adopted the amendments to the NEM rules, allowing NEM systems for individual BTM generators to go beyond 100 percent of the customer's historical usage and customer payment for excess generation. A NEM system can increase the generation threshold by 20% annually, starting in 2020 until the generation threshold reaches 200% in 2024.

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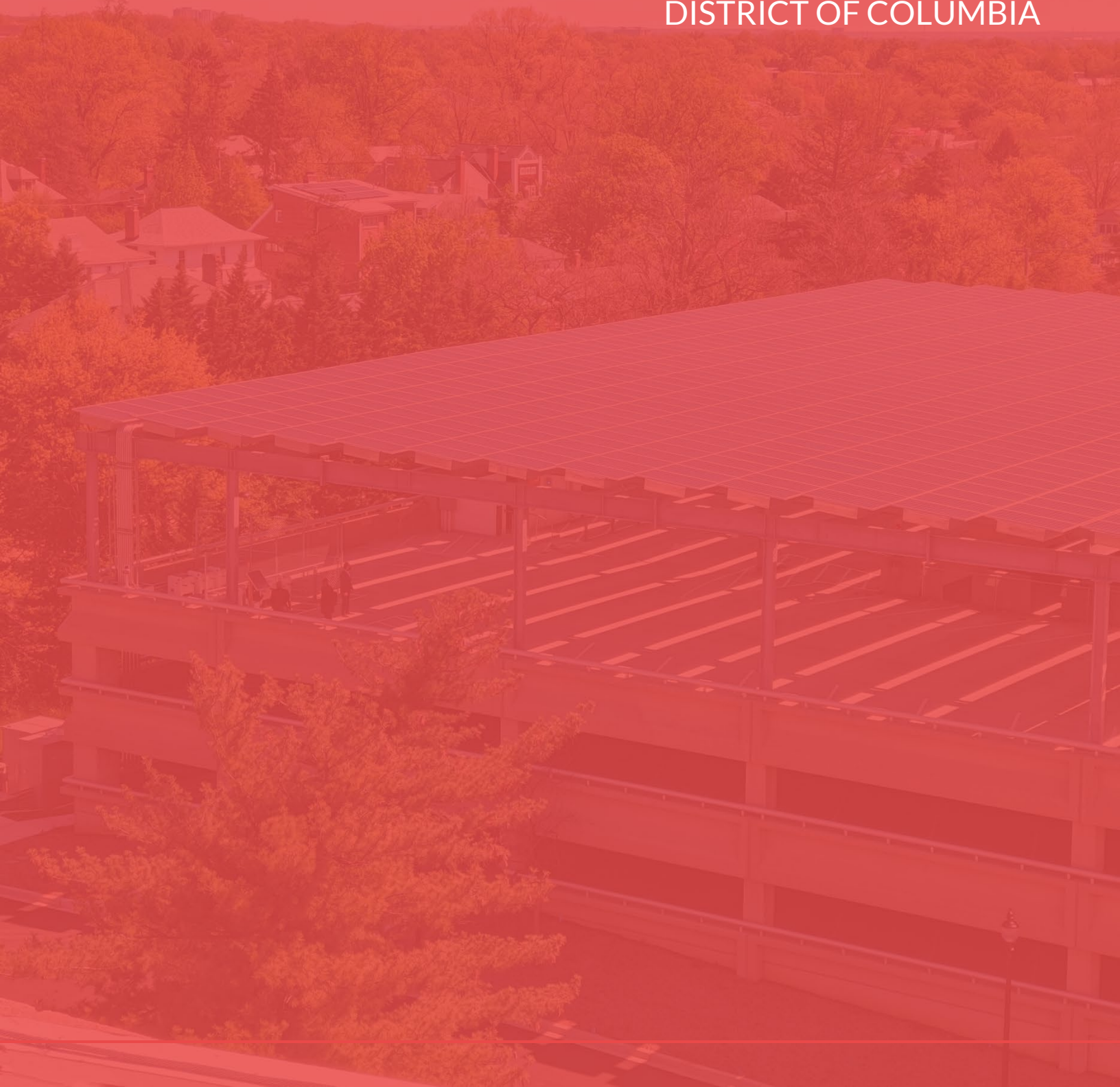
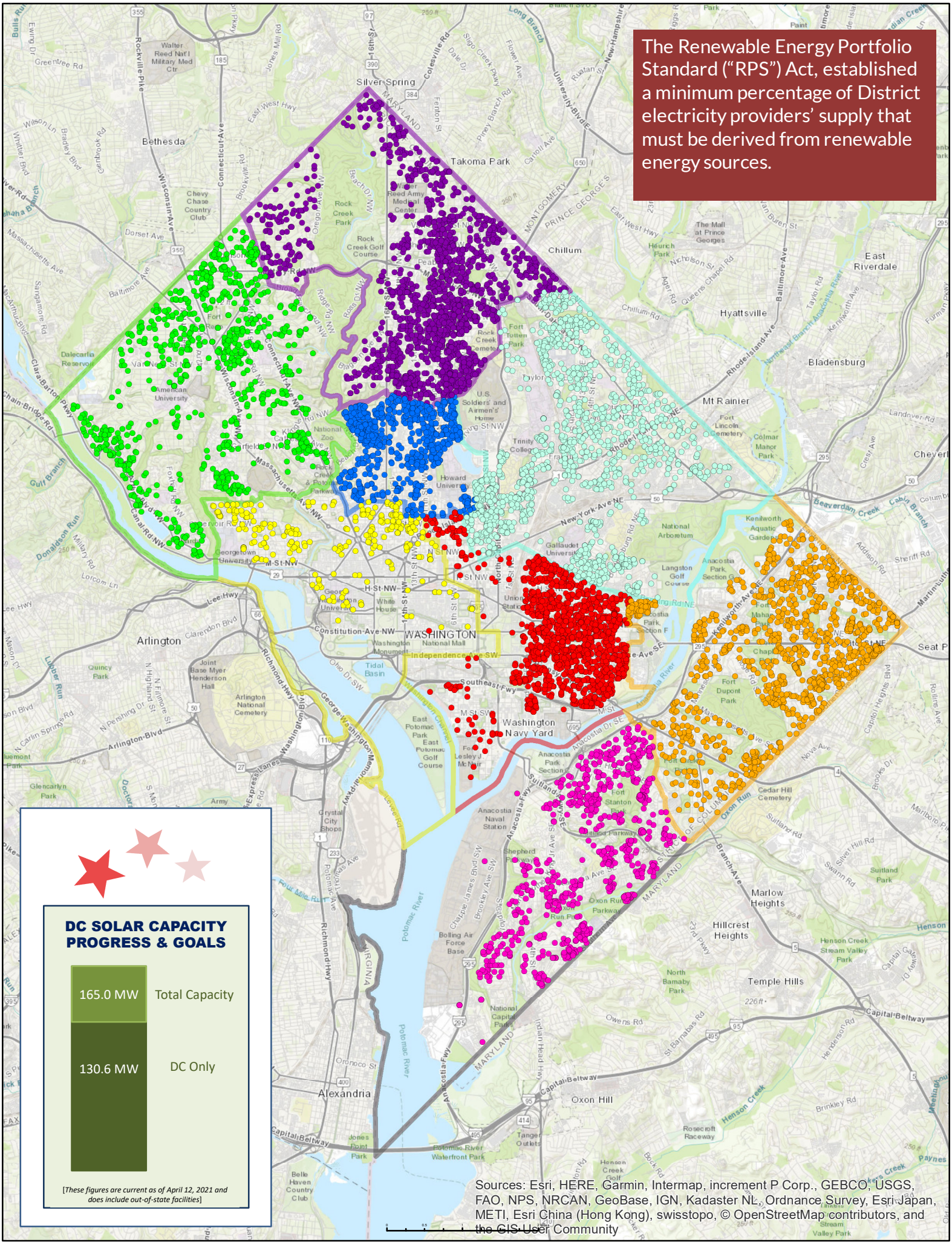
ATTACHMENT 3

MAP OF THE CERTIFIED SOLAR ENERGY SYSTEMS IN THE DISTRICT OF COLUMBIA




The Renewable Energy Portfolio Standard ("RPS") Act, established a minimum percentage of District electricity providers' supply that must be derived from renewable energy sources.
DC SOLAR CAPACITY PROGRESS & GOALS
165.0 MW
Total Capacity
130.6 MW
DC Only
[These figures are current as of April 12, 2021 and does include out-of-state facilities]
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

ENDNOTES

[i] Pepco submits a compliance report on behalf of the Standard Offer Service ("SOS") program, in its capacity as SOS Administrator.

[ii] Recent solar REC prices from the Flett Exchange as of April 16, 2021: Maryland - $71; New Jersey - $230; and Pennsylvania - $30.

[iii] See Attachment 3.

[iv] D.C. Act 19-126 (August 1, 2011). The permanent version of this legislation, the Distributed Generation Amendment Act of 2011, became law on October 20, 2011. See D.C. Law 19-0036.

[v] This also includes solar energy systems, in a small portion of Maryland, which are in a location served by feeders serving the District of Columbia.

[vi] A REC represents one megawatt-hour of electricity generation, attributable to a particular renewable energy source.

[vii] Nearly 82 percent of the solar RECs retired for 2020 compliance were from District-based systems.

[viii] The solar capacity is estimated by adjusting the energy requirement, based on the solar requirement, by a factor that reflects the solar generation per kW.

[ix] D.C. Official Code § 34-1432(c) (2012 Supp.).

[x] D.C. Act 19-126 (August 1, 2011). The permanent version of this legislation, the Distributed Generation Amendment Act of 2011, became law on October 20, 2011. See D.C. Law 19-0036. Since emergency and permanent versions of the legislation are identical, both are referred to as the DGAA.

[xi] As of January 1, 2013, the incineration of solid waste is no longer eligible to generate renewable energy credits for the District's RPS program. In addition, the RPS Amendment Act resulted in the transfer of certain biomass resources to Tier II.

[xii] Under the DGAA, the solar energy compliance payment was set to decrease from 50 cents per kWh in 2016 to 35 cents in 2017; then 30 cents in 2018; then 20 cents in 2019 through 2020; then 15 cents in 2021 through 2022; until reaching 5 cents in 2023 and thereafter. However, as a result of the RPS Expansion Act, the solar energy compliance payment was set at 50 cents from 2016 through 2023; 40 cents from 2024 through 2028; 30 cents from 2029 through 2032; and 5 cents in 2033 and thereafter.

[xiii] The compliance fee payments are deposited into the Renewable Energy Development Fund administered by the District's Department of Energy and Environment ("DOEE").

[xiv] States such as Connecticut, Hawaii, Michigan, Nevada, North Carolina, Ohio, and Pennsylvania include energy efficiency in their RPS.

[xv] The map was produced by Commission staff using the data maintained for the RPS generator certification.

[xvi] In Attachment A of Order No. 13766, the RPS Working Group was asked to address 23 issues.

[xvii] A BTM generator is defined as a renewable on-site generator that is located behind a retail customer meter such that no utility-owned transmission or distribution facilities are used to deliver the energy from the generating unit to the on-site generator's load.

[xviii] The RPS Working Group did not file a report in 2012. On January 30, 2013, the RPS Working Group submitted a request for an extension of time to file its annual report for 2013. The RPS Working Group filed its 2013 report on February 28, 2013.

[xix] The RPS Working Group filed its report for 2016 on January 28, 2016 and the 2017 report on January 30, 2017. Pepco filed a Motion to Suspend and/or Modify the Renewable Portfolio Standard Working Group Annual Update on February 1, 2018.

[xx] Previously, the RPS stated that in 2022 and later, the RPS requirement would be 11 percent from Tier I resources, 0 percent from Tier II resources, and not less than 0.386 percent from solar energy. The CAEA did not explicitly state that the RPS obligation was to continue after 2020.

[xxi] In the January 2, 2009 NOPR, the solar energy compliance fee was indicated to be $300 for the 2008 compliance year.

[xxii] D.C. Official Code §§ 34-1431 - 1439 (2010 Repl. & 2012 Supp.).

[xxiii] The DGAA also clarifies that the RPS obligation is to continue after 2023.

[xxiv] As a result of the DGAA, in Order No. 16529, issued on September 9, 2011, the Commission decertified 1,426 solar energy facilities. Thus, for the 2011 compliance year and beyond, any RECs submitted from decertified solar energy facilities will not be accepted.

[xxv] As the provider of Standard Offer Service, Pepco compiles a report based on the compliance of its wholesale electricity suppliers.

[xxvi] For 2020, the Tier I requirement was 20.0 percent, the Tier II requirement was 0.0 percent (no longer required), and the solar requirement was 2.175 percent. For 2021, the Tier I requirement increases to 26.25 percent and the solar requirement increases to 2.50 percent.

[xxvii] The compliance payments are sent directly to DOEE and the funds are deposited into the Renewable Energy Development Fund. Based on a total compliance cost (REC costs plus compliance fees) of $65.0 million, the compliance fees accounted for roughly 13 percent of the cost of compliance in 2020.

[xxviii] While the solar carve out percentage requirement increases over time, the price of the Alternative Compliance Payment ("ACP") for the solar requirement — currently $500 per solar REC shortfall — will not decline till after 2023. In 2024 through 2028 the ACP is set at $400 per solar REC shortfall and in 2029 through 2041 the ACP will drop to $300 per solar REC shortfall. After 2041 the ACP will go to $100 per solar REC shortfall. Since the price of the ACP acts as a cap on the solar REC price, the revenue stream from this source will decrease over time.

[xxix] The solar requirement increased from 1.85 percent in 2019 to 2.175 percent in 2020. Reported retail electricity sales in the District decreased by 11.2 percent from 2019 — down to 9.8 million megawatt-hours in 2020.

[xxx] In 2007 and 2008, the compliance payments generally resulted from electricity suppliers paying the solar compliance fee to meet the solar requirement.

In 2009, the increase in the compliance payment from the previous year was due, in part, to the increase in the solar compliance fee from $300 to $500 per REC — as a result of the CAEA. In 2010, as a result of the substantial increase in approved solar energy systems, electricity suppliers were generally able to acquire a substantial number of solar RECs instead of paying the compliance fee. In 2011, the jump in the compliance payment was due to one electricity supplier failing to obtain solar RECs and, thus, having to pay the compliance fee. This particular supplier accounted for the majority of the compliance fees — $225,500 out of a total of $229,500. In 2012, suppliers were largely able to meet the RPS through REC purchases and were subject to only $4,900 in compliance fees.

[xxxi] As a result of the Fiscal Year 2015 Budget Support Act of 2014, solar facilities located in PJM or in a state adjoining PJM may be certified by the Commission and their RECS may be used by electricity suppliers to only meet the Tier I renewable resource requirement that falls outside of the DC-based solar requirement. Such facilities are certified as non-solar Tier I ("NSTI").

[xxxii] The RPS Amendment Act of 2014 changed the definition of qualifying biomass that resulted in moving black liquor and wood waste to Tier II. However, the legislation grandfathered RECs purchased by an electricity supplier pursuant to a contract executed prior to April 30, 2015, the effective date of the Act. The 2017 compliance year was the last year that electricity suppliers were allowed to apply the grandfather provision to biomass RECs. In addition, the legislation allowed more efficient biomass facilities to be certified as a Tier I resource.

[xxxiii] Order No. 17350 (issued January 13, 2014) decertified the two municipal solid waste facilities previously approved for the RPS and noted that the MSW RECs from these facilities were no longer eligible for RPS compliance purposes in 2013 and going forward.

[xxxiv] A REC represents one megawatt-hour of electricity attributable to a particular renewable resource. Prior to 2014, not all of the electricity suppliers fully reported their REC prices. Recent solar REC ("SREC") prices from the Flett Exchange and SRECTrade are trading around $400 per REC.

[xxxv] Moreover, the CleanEnergy Act grandfathered contracts entered into prior to the effective date of the Act from increases in the RPS requirement for 3 years after January 1, 2019.

[xxxvi] The RPS rules indicate that states within the PJM Interconnection Region are currently defined to include: Delaware, the District of Columbia, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia.

[xxxvii] D.C. Official Code § 34-1431 (10) (2012 Supp.).

[xxxviii] See Order No. 15699 (February 23, 2010), Order No. 15775 (April 20, 2010), and Order No. 15812 (May 18, 2010).

[xxxix] Coal mine methane gas is not generally eligible under most RPS policies. Municipal solid waste is no longer considered a renewable resource under the District's RPS program.

[xl] The Commission has approved DC Water's 14 MW generating facility for the RPS program. This facility uses methane from wastewater treatment. In addition, the Commission also approved two processes at the Blue Plains facility that use the waste heat produced from wastewater treatment, pursuant to the RPS Expansion Act that allowed wastewater used as heat source or sink for a heating or cooling system.

[xli] The Commission provides monthly updates on solar energy system certifications and solar REC pricing, available at the following link: **https://dcpsc.org/Utility-Information/Electric/RPS.aspx**

[xlii] This includes 20 federal facilities with a solar PV capacity of about 10.2 MW and 76 D.C. government facilities with a solar PV capacity of about 12.7 MW. In addition, there are 164 community solar photovoltaic systems with a total capacity of about 19.4 MW.

[xliii] Within the District, there are currently 226 certified solar photovoltaic systems with a reported capacity of at least 100 kW. The two largest systems are at Joint Base Anacostia-Bolling, which have a reported capacity of 3.46 MW and 2.97 MW.

[xliv] **https://dcpsc.org/PSCDC/media/PDFFiles/Electric/Eligible_Renewable_Generators_List.xls**

[xlv] **https://dcpsc.org/Utility-Information/Electric/RPS/Renewable-Energy-Portfolio-Standard-Program/Monthly-Update-of-Solar-Generator-Certification.aspx**

[xlvi] This section draws from material available at www.dsireusa.org (Database of State Incentives for Renewable Energy), Clean Energy States Alliance, Lawrence Berkeley National Laboratory, and the National Conference of State Legislatures.

[xlvii] Recycled energy means useful thermal, mechanical or electrical energy produced from: (i) exhaust heat from any commercial or industrial process; (ii) waste gas, waste fuel or other forms of energy that would otherwise be flared, incinerated, disposed of or vented; and (iii) electricity or equivalent mechanical energy extracted from a pressure drop in any gas, excluding any pressure drop to a condenser that subsequently vents the resulting heat.

[xlviii] In the 2009-2010 legislative session, the Alaska legislature enacted House Bill 306 with the goal that "the state receive 50 percent of its electrical generation from renewable energy sources by 2025." However, this language does not appear in codified statutes.

[xlix] For purposes of preparing Figure 1 below, Utah's RPS program is considered to be a voluntary goal.

[l] This does not account for differences in eligible resources, specific resource requirements, and other factors.

[li] As May 1 fell on a Sunday, annual compliance reports were due the next business day, Monday, May 2, 2011.

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