



**Public Service Commission of the District of Columbia**  
**1333 H Street, N.W., 2nd Floor, West Tower**  
**Washington, D.C. 20005**  
**(202) 626-5100**  
**www.dcpssc.org**

**BETTY ANN KANE**  
**CHAIRMAN**

April 1, 2014

**VIA HAND DELIVERY**

The Honorable Kenyan McDuffie  
Council of the District of Columbia  
1350 Pennsylvania Avenue, NW  
Washington, D.C. 20004

***Re: 2014 Report on the Renewable Energy Portfolio Standard***

Dear Councilmember McDuffie:

Attached is the Public Service Commission of the District of Columbia's ("Commission") Report on the Renewable Energy Portfolio Standard, which is filed in accordance with § 34-1439 of the District of Columbia Official Code. Specifically, this section requires the Commission to file a report with the Council on or before April 1<sup>st</sup> of every year on the status of implementation of the Renewable Energy Portfolio Standard Act, including: the availability of tier one renewable resources; certification of the number of credits generated by the utilities meeting the requirements of § 34-1432; and any other such information as the Council shall consider necessary.

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

Sincerely,

Betty Ann Kane

Attachment

cc: The Honorable Joanne Duddy Fort, Commissioner, Public Service Commission



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**BETTY ANN KANE**  
**CHAIRMAN**

April 1, 2014

**VIA HAND DELIVERY**

The Honorable Phil Mendelson  
Chairman  
Council of the District of Columbia  
1350 Pennsylvania Avenue, NW  
Washington, D.C. 20004

***Re: 2014 Report on the Renewable Energy Portfolio Standard***

Dear Chairman Mendelson:

Attached is the Public Service Commission of the District of Columbia's ("Commission") Report on the Renewable Energy Portfolio Standard, which is filed in accordance with § 34-1439 of the District of Columbia Official Code. Specifically, this section requires the Commission to file a report with the Council on or before April 1<sup>st</sup> of every year on the status of implementation of the Renewable Energy Portfolio Standard Act, including: the availability of tier one renewable resources; certification of the number of credits generated by the utilities meeting the requirements of § 34-1432; and any other such information as the Council shall consider necessary.

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**CHAIRMAN**

April 1, 2014

**VIA HAND DELIVERY**

The Honorable Yvette Alexander  
Council of the District of Columbia  
1350 Pennsylvania Avenue, NW  
Washington, D.C. 20004

***Re: 2014 Report on the Renewable Energy Portfolio Standard***

Dear Councilmember Alexander:

Attached is the Public Service Commission of the District of Columbia's ("Commission") Report on the Renewable Energy Portfolio Standard, which is filed in accordance with § 34-1439 of the District of Columbia Official Code. Specifically, this section requires the Commission to file a report with the Council on or before April 1<sup>st</sup> of every year on the status of implementation of the Renewable Energy Portfolio Standard Act, including: the availability of tier one renewable resources; certification of the number of credits generated by the utilities meeting the requirements of § 34-1432; and any other such information as the Council shall consider necessary.

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Sincerely,

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Betty Ann Kane

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April 1, 2014

**VIA HAND DELIVERY**

The Honorable Marion Barry  
Council of the District of Columbia  
1350 Pennsylvania Avenue, NW  
Washington, D.C. 20004

***Re: 2014 Report on the Renewable Energy Portfolio Standard***

Dear Councilmember Barry:

Attached is the Public Service Commission of the District of Columbia's ("Commission") Report on the Renewable Energy Portfolio Standard, which is filed in accordance with § 34-1439 of the District of Columbia Official Code. Specifically, this section requires the Commission to file a report with the Council on or before April 1<sup>st</sup> of every year on the status of implementation of the Renewable Energy Portfolio Standard Act, including: the availability of tier one renewable resources; certification of the number of credits generated by the utilities meeting the requirements of § 34-1432; and any other such information as the Council shall consider necessary.

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April 1, 2014

**VIA HAND DELIVERY**

The Honorable Anita Bonds  
Council of the District of Columbia  
1350 Pennsylvania Avenue, NW  
Washington, D.C. 20004

***Re: 2014 Report on the Renewable Energy Portfolio Standard***

Dear Councilmember Bonds:

Attached is the Public Service Commission of the District of Columbia's ("Commission") Report on the Renewable Energy Portfolio Standard, which is filed in accordance with § 34-1439 of the District of Columbia Official Code. Specifically, this section requires the Commission to file a report with the Council on or before April 1<sup>st</sup> of every year on the status of implementation of the Renewable Energy Portfolio Standard Act, including: the availability of tier one renewable resources; certification of the number of credits generated by the utilities meeting the requirements of § 34-1432; and any other such information as the Council shall consider necessary.

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April 1, 2014

**VIA HAND DELIVERY**

The Honorable Muriel Bowser  
Council of the District of Columbia  
1350 Pennsylvania Avenue, NW  
Washington, D.C. 20004

***Re: 2014 Report on the Renewable Energy Portfolio Standard***

Dear Councilmember Bowser:

Attached is the Public Service Commission of the District of Columbia's ("Commission") Report on the Renewable Energy Portfolio Standard, which is filed in accordance with § 34-1439 of the District of Columbia Official Code. Specifically, this section requires the Commission to file a report with the Council on or before April 1<sup>st</sup> of every year on the status of implementation of the Renewable Energy Portfolio Standard Act, including: the availability of tier one renewable resources; certification of the number of credits generated by the utilities meeting the requirements of § 34-1432; and any other such information as the Council shall consider necessary.

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April 1, 2014

**VIA HAND DELIVERY**

The Honorable David Catania  
Council of the District of Columbia  
1350 Pennsylvania Avenue, NW  
Washington, D.C. 20004

***Re: 2014 Report on the Renewable Energy Portfolio Standard***

Dear Councilmember Catania:

Attached is the Public Service Commission of the District of Columbia's ("Commission") Report on the Renewable Energy Portfolio Standard, which is filed in accordance with § 34-1439 of the District of Columbia Official Code. Specifically, this section requires the Commission to file a report with the Council on or before April 1<sup>st</sup> of every year on the status of implementation of the Renewable Energy Portfolio Standard Act, including: the availability of tier one renewable resources; certification of the number of credits generated by the utilities meeting the requirements of § 34-1432; and any other such information as the Council shall consider necessary.

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April 1, 2014

**VIA HAND DELIVERY**

The Honorable Mary Cheh  
Council of the District of Columbia  
1350 Pennsylvania Avenue, NW  
Washington, D.C. 20004

***Re: 2014 Report on the Renewable Energy Portfolio Standard***

Dear Councilmember Cheh:

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April 1, 2014

**VIA HAND DELIVERY**

The Honorable Jack Evans  
Council of the District of Columbia  
1350 Pennsylvania Avenue, NW  
Washington, D.C. 20004

***Re: 2014 Report on the Renewable Energy Portfolio Standard***

Dear Councilmember Evans:

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April 1, 2014

**VIA HAND DELIVERY**

The Honorable Jim Graham  
Council of the District of Columbia  
1350 Pennsylvania Avenue, NW  
Washington, D.C. 20004

***Re: 2014 Report on the Renewable Energy Portfolio Standard***

Dear Councilmember Graham:

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April 1, 2014

**VIA HAND DELIVERY**

The Honorable David Grosso  
Council of the District of Columbia  
1350 Pennsylvania Avenue, NW  
Washington, D.C. 20004

***Re: 2014 Report on the Renewable Energy Portfolio Standard***

Dear Councilmember Grosso:

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April 1, 2014

**VIA HAND DELIVERY**

The Honorable Vincent Orange  
Council of the District of Columbia  
1350 Pennsylvania Avenue, NW  
Washington, D.C. 20004

***Re: 2014 Report on the Renewable Energy Portfolio Standard***

Dear Councilmember Orange:

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April 1, 2014

**VIA HAND DELIVERY**

The Honorable Tommy Wells  
Council of the District of Columbia  
1350 Pennsylvania Avenue, NW  
Washington, D.C. 20004

***Re: 2014 Report on the Renewable Energy Portfolio Standard***

Dear Councilmember Wells:

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**CHAIRMAN**

April 1, 2014

**VIA HAND DELIVERY**

Nyasha Smith  
Secretary to the Council  
Council of the District of Columbia  
1350 Pennsylvania Avenue, NW  
Washington, D.C. 20004

***Re: 2014 Report on the Renewable Energy Portfolio Standard***

Dear Ms. Smith:

Attached is the Public Service Commission of the District of Columbia's ("Commission") Report on the Renewable Energy Portfolio Standard, which is filed in accordance with § 34-1439 of the District of Columbia Official Code. Specifically, this section requires the Commission to file a report with the Council on or before April 1 of every year on the status of implementation of the Renewable Energy Portfolio Standard Act, including: the availability of tier one renewable resources; certification of the number of credits generated by the utilities meeting the requirements of § 34-1432; and any other such information as the Council shall consider necessary.

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**Public Service Commission**

**of the**

**District of Columbia**

**2014 Report on the  
Renewable Energy Portfolio Standard**

**April 1, 2014**



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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 report to the Council of the District of Columbia on or before April 1 of each year on the status of implementation of the RPS, including the availability of Tier I renewable sources, certification of the number of credits 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 requirement outlined in the REPS Act.

As of March 14, 2014, there are 3,430 renewable generators approved by the Commission and eligible to participate in the District’s RPS program. Of the facilities approved, 3,406 (99.3 percent) use Tier I resources (including biomass, methane from landfill gas, solar, and wind) and 24 (0.7 percent) use Tier II resources (i.e., hydroelectric). Since these renewable generators may be certified in other states that have an RPS requirement as well, the renewable energy credits associated with the generating capacity are not necessarily fully available to meet the District’s RPS.

There are currently 3,296 solar energy systems (including both solar photovoltaic and solar thermal) eligible for the District’s RPS, of which 1,057 are located within the District. The 1,057 District solar energy systems are located in all 8 wards in the following numbers: Ward 1 - 175; Ward 2 - 68; Ward 3 - 181; Ward 4 - 144; Ward 5 - 96; Ward 6 - 246; Ward 7 - 83; and Ward 8 - 64. Outside of the District, there are six states with more than 100 eligible solar energy systems including Pennsylvania (929), Virginia (494), Maryland (189), North Carolina (155), Delaware (150), and Ohio (132). These six (6) states account for roughly 92 percent of the non-DC solar energy systems approved for the District’s RPS program.

As a result of the adoption of the Distributed Generation Emergency Amendment Act of 2011 (“DGAA”),<sup>1</sup> which required all solar facilities certified after January 31, 2011 to be located in the District or on a distribution feeder serving the District, the District has seen a significant decrease in the number of solar generator applications for the RPS program. In particular, the number of applications, primarily solar, increased from 461 in 2009 to 2,034 in 2010, before falling to 1,846 in 2011, and 257 in 2012. The RPS applications, however, increased to 391 in 2013. By March 14, 2014, the Commission has received 101 applications—primarily solar.

The total reported capacity associated with the approved solar energy systems as of March 14, 2014 is about 29.9 MW, with about 10.4 MW in the District. The current reported solar capacity is still considerably less than the estimated 47.7 MW of solar capacity that is necessary to meet the new RPS requirement for 2013 (i.e. 0.50 percent of all District of

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<sup>1</sup> 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.

Columbia retail electricity sales) and 58.1 MW in 2014 (i.e. 0.60 percent of all District of Columbia retail electricity sales) as required by the DGAA.

Pursuant to the Commission's RPS rules, a total of twenty-four (24) active electricity suppliers with retail electricity sales in the District submitted compliance reports due on May 1, 2013 reporting on their RPS compliance in 2012. Twenty-two of the suppliers met the RPS requirements through acquiring renewable energy credits ("RECs"), with only two electricity suppliers submitting a compliance payment.<sup>2</sup> The majority of electricity suppliers also provided sufficient solar RECs ("SRECs") to avoid paying a compliance fee for the solar requirement. The total amount of compliance payments in 2012 was \$4,900 compared to \$229,500 in fees generated in 2011; however, in 2011, one supplier paid a compliance fee of \$225,500. The amount of 2012 compliance fees generally reflects the ability of suppliers to acquire solar RECs to meet their RPS compliance.

The Commission tracks the number of renewable energy credits. A breakdown of the number of RECs in 2012 submitted by fuel type is provided in the table below<sup>3</sup>:

**Renewable Energy Credits Submitted for 2012 Compliance**

|                           | <b>No. of RECs</b> | <b>Share of Tier</b> |
|---------------------------|--------------------|----------------------|
| <b>Tier I Resource</b>    |                    |                      |
| Black Liquor              | 77,944             | 13.2%                |
| Methane from Landfill Gas | 276,095            | 46.7%                |
| Wind                      | 172,908            | 29.2%                |
| Wood Waste                | 42,541             | 7.2%                 |
| Solar                     | 21,965             | 3.7%                 |
|                           |                    |                      |
| <b>Tier II Resource</b>   |                    |                      |
| Hydroelectric             | 258,706            | 92.6%                |
| Municipal Solid Waste     | 20,594             | 7.4%                 |

The Commission received and will address the 2014 Report of the District of Columbia Renewable Energy Portfolio Standard Working Group, regarding the 2014 update to the Renewable Generator Eligibility Matrix that recommends changes to the matrices to incorporate changes in the definitions of eligible renewable resources made by the DGAA and RPS changes in the states in the PJM Interconnection region and adjacent PJM states. The matrices were changed for 2013 to reflect the removal of the incineration of solid waste as an eligible generator of Tier II RECs under the DGAA; and the Commission decertified two municipal solid waste facilities, previously approved for the District's RPS program.

<sup>2</sup> The compliance fee payments are deposited into the Renewable Energy Development Fund administered by the District Department of the Environment ("DDOE").

<sup>3</sup> Data for 2013 will become available after the 2013 compliance reports, due by May 1, 2014, are received.

The Council of the District of Columbia recently enacted new legislation, the *Community Renewable Energy Amendment Act of 2013*, which allows for the creation of community energy generating facilities of up to 5 MW, among other things. Further modifications of the Commission's SOS and net metering rules may be needed. The Commission also testified before the Council on the impact on the RPS program if black liquor is removed as a Tier I resource as proposed in the *Renewable Energy Portfolio Standard Amendment Act of 2013* (Bill 20-0418).

## **I. Introduction and Background**

The Council of the District of Columbia ("Council") enacted the Renewable Energy Portfolio Standard Act ("REPS Act") on January 19, 2005 and established a renewable energy portfolio standard ("RPS"), through which a minimum percentage of District electric providers' supply 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 ("CAEA") of 2008.<sup>4</sup> Further changes to the RPS program occurred on August 1, 2011, when the Distributed Generation Emergency Amendment Act of 2011 ("DGAA") became law.<sup>5</sup>

Renewable energy resources are divided into two categories, Tier I and Tier II, with Tier I resources including solar energy, wind, biomass, methane, geothermal, ocean, and fuel cells, and Tier II resources including hydroelectric power other than pumped storage generation and waste-to-energy.<sup>6</sup> Although minimum percentage requirements are specified for Tier I and Tier II resources, Tier I resources can be used to comply with the Tier II standard. In addition, a minimum requirement is carved out specifically for solar energy. The REPS Act allows an electricity supplier to begin receiving and accumulating renewable energy credits as of January 1, 2006.

The REPS Act required that the Public Service Commission of the District of Columbia ("Commission") adopt regulations, or orders, governing the application and transfer of renewable energy credits 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 generators. The certification process includes a streamlined application that the Commission developed. Renewable generators do not need to submit as much documentation for the streamlined application and the Commission is required to take action in a shorter period of time.

On October 22, 2008, the permanent version of the Clean and Affordable Energy Act of 2008 ("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.

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<sup>4</sup> D.C. Official Code § 34-1432(c) (2012 Supp.).

<sup>5</sup> 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.

<sup>6</sup> 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.

On August 1, 2011, the Distributed Generation Emergency Amendment Act of 2011 (“DGAA”) became law.<sup>7</sup> The DGAA disallows 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. 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 (September 9, 2011), the Commission denied all applications of solar energy facilities seeking certification as eligible District of Columbia renewable energy standards generating facilities, which were not located within the District, nor in locations served by a distribution feeder serving the District, and pending before the Commission on August 1, 2011. Moreover, in Order No. 16529 (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 Act, August 1, 2011, as well as any solar facilities with a capacity larger than 5 MW regardless of the date certified.

Pursuant to the Commission’s RPS rules, each active electricity supplier with retail sales in 2012—a total of twenty-four (24) as compared to twenty-two (22) in 2011—submitted a compliance report for that calendar year that was due by May 1, 2013.<sup>8</sup> Suppliers generally met the RPS requirements through acquiring renewable energy credits (“RECs”), with only two electricity suppliers submitting a compliance payment.<sup>9</sup> The majority of electricity suppliers provided sufficient solar RECs (“SRECs”) to avoid paying a compliance fee for the solar requirement. Based on the available information, the total amount of money generated from compliance payments in 2012 was \$4,900—compared to \$229,500 generated in 2011. In 2011, one supplier paid a compliance fee of \$225,500. The amount of 2012 compliance fees generally reflects the ability of suppliers to acquire solar RECs to meet their RPS compliance.

In Section II, we provide 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 2012 compliance year. In Section IV, we present some information on the current

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<sup>7</sup> 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.

<sup>8</sup> The compliance reports, with data for the prior year, are due by May 1 of each year. The Commission revised its compliance reporting form to address the DGAA by Order No. 16738 (March 15, 2012), which became effective upon publication of the Notice of Final Rulemaking (“NOFR”) in the *D.C. Register* on March 23, 2012.

<sup>9</sup> The compliance fee payments are deposited into the Renewable Energy Development Fund administered by the District Department of the Environment (“DDOE”).



availability of renewable resources. Finally, Section V summarizes other ongoing actions to implement the RPS in the District and next steps. In addition, we include Attachment 1, which provides a national perspective on what other states are doing with respect to the implementation of a renewable portfolio standard.<sup>10</sup> 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 certified solar energy systems in the District of Columbia.<sup>11</sup>

## **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.<sup>12</sup> In order to establish a record and to begin implementation of the REPS Act, the Commission issued Order No. 13566 on April 29, 2005, inviting interested parties to submit their views on twelve (12) RPS-related issues. The twelve issues addressed:

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

In Order No. 13766, released on September 23, 2005, the Commission addressed the various issues based on the record developed in response to Order No. 13566. Among other things, 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.<sup>13</sup> The

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<sup>10</sup> States such as Connecticut, Hawaii, Michigan, Nevada, North Carolina, Ohio, Pennsylvania, and West Virginia include energy efficiency in their RPS.

<sup>11</sup> The map was produced by Commission staff using the data maintained for the RPS generator certification.

<sup>12</sup> Attachment 2 of this Report contains a list of selected Commission Orders and Notices addressing the implementation of the RPS program.

<sup>13</sup> In Attachment A of Order No. 13766, the RPS Working Group was asked to address 23 issues.



Commission also indicated that the PJM Environmental Information Services ("PJM-EIS") Generation Attribute Tracking System ("GATS") would be used in the implementation of the 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 (December 28, 2005). These rules were subsequently amended in Order No. 13899 (March 27, 2006) and Order No. 14225 (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 (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 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 Energy Credits; (3) the quantity of Tier I, Tier II, and Solar Energy Credits purchased and evidence of those purchases; (4) the quantity of Tier I, Tier II, and Solar Energy Credits 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 list of all RECS used to comply with the RPS; (9) a summary report of RECs retired during the reporting period; and (10) the total price paid for Tier I, Tier II, and Solar Energy Credits. Suppliers that purchase RECs solely via bundled products are exempt from including the total price paid for Tier I, Tier II, and Solar Energy Credits in their annual compliance report. The Commission allows the information in item (10) to be filed confidentially. An electricity supplier that fails to meet its RPS requirements must submit an annual Compliance Fee to the District of Columbia Renewable Energy Development Fund administered by the District Department of the Environment's Energy Office ("DDOE") by May 1 of the calendar year following the year of compliance.

To facilitate the compliance reporting, the Commission issued Order No. 14782 on 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 (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 (March 15, 2012) and became effective upon publication of the NOFR in the *D.C. Register* on March 23, 2012.

### ***Certification of Renewable Generators***

The RPS rules outline the process for certifying renewable generating facilities within a certain period of time. Renewable generators, including behind-the-meter ("BTM") generators, must be certified as a qualified Tier I (including solar energy systems) or Tier II resource through the completion of an application form approved by the Commission.<sup>14</sup> In situations where the applicant has obtained certification as a renewable energy resource by another PJM state where the Commission determines certification to be comparable to the RPS requirements in the District, the applicant may submit a "streamlined" application that requires less documentation to be filed. The Commission assigns a unique certification number to each eligible renewable generator that is approved. Renewable 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 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, issued May 12, 2008, the Commission directed the Renewable Energy Portfolio Standard Working Group ("Working Group") to submit an update for the Tier I and Tier II eligibility matrices, in order to comply with the RPS rules. The matrices allow an applicant that has already been certified by another PJM state to use the streamlined process for 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 on 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 that 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 (February 25, 2010), the Commission granted the Potomac Electric Power Company ("Pepco"), filing on

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<sup>14</sup> A behind-the-meter 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.

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.<sup>15</sup> Subsequently, in Order No. 17062 (February 1, 2013), the Commission adopted the 2011 filing of the Renewable Energy Portfolio Standard Working Group's proposed Tier I and Tier II Eligibility Matrices with certain modifications.<sup>16</sup> On January 13, 2014, in Order No. 17349, the Commission adopted the RPS Working Group's proposed Tier I and Tier II Eligibility Matrices submitted for 2013.

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.<sup>17</sup> On January 2, 2009, the Commission issued an amended NOPR that superseded the October 3 NOPR. OPC filed comments on February 11, 2009. Subsequently, in Order No. 15233 (April 7, 2009), the Commission adopted the amendments to Chapter 29. The amendments to the RPS rules became effective upon publication of a Notice of Final Rulemaking in the *D.C. Register* on April 10, 2009.

#### ***Creation and Tracking of Renewable Energy Credits ("RECs")***

The RPS rules specify that RECs shall be created and tracked through PJM-EIS's Generation Attribute Tracking System ("GATS") beginning January 1, 2006. Through the GATS process, PJM-EIS collects generation data from 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 creates RECs at the end of 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 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 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

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<sup>15</sup> The RPS Working Group submitted the update on March 2, 2010.

<sup>16</sup> 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.

<sup>17</sup> The Commission plans to revise the Affidavit of Environmental Compliance to address the registration of renewable generators by federal and District government facilities.

Act is to encourage the production and siting of renewable resources prospectively, so as to reduce the need for the use of retroactive RECs.

With respect to behind the meter (“BTM”) generators, the RPS rules required 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 contained, at a minimum, the following information: (a) a certification that the RECs attributable to the on-site generation have not expired, been retired, been transferred, or been 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 (issued 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 (issued 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 may recover prudently incurred RPS compliance costs, including REC purchases and any compliance fees. The rules also state that the electric distribution company’s compliance costs for Standard Offer Service (“SOS”) shall be considered prudent if SOS energy suppliers are selected through a competitive bid process and the cost of complying with the RPS is included in the supplier’s bid prices. With respect to the distribution company’s compliance costs for Market Price Service (“MPS”), recovery shall be through the MPS Procurement Rate Schedule.<sup>18</sup> Any cost recovery approved by the Commission may be in the form of a nonbypassable surcharge to current applicable customers and shall be disclosed on their bills. The RPS rules also indicate that no electric supplier shall recover any compliance fee levied pursuant to D.C. Official Code § 34-1434 from its customers without receiving prior approval from the Commission. To date, the Commission has not approved the recovery of any compliance fees from the customers of any electricity supplier.

### **Clean and Affordable Energy Act of 2008**

On October 22, 2008, the permanent version of 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 NOPR in Order No.

<sup>18</sup>

Market Price Service refers to a variable price service option where the rates change hourly.

15561 (September 28, 2009). The amendments to the RPS rules became effective upon publication 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 now defines “solar energy” to mean (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 required 20 percent from Tier I renewable resources only and not less than 0.4 percent from solar energy. Previously, the RPS requirement called for 8.5 percent from Tier I resources only by 2020 and 0.329 percent from solar energy.<sup>19</sup>

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<sup>19</sup> 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 is to continue after 2020.



### ***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 fee is raised from 2.5 cents per kilowatt-hour to 5 cents per kilowatt-hour of shortfall. 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.<sup>20</sup>

### **Distributed Generation Amendment Act of 2011**

On October 20, 2011, the permanent version of the DGAA became law. The legislation amended Sections 34-1431-1439 of the Renewable Energy Portfolio Standard.<sup>21</sup> 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 (March 15, 2012). The amendments to the RPS rules became effective upon publication in the *D.C. Register* on March 23, 2012.

### ***Solar Thermal Systems***

The DGAA amended the requirements for eligible solar thermal energy systems to remove 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.”

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<sup>20</sup> In the January 2, 2009 NOPR, the solar energy compliance fee was indicated to be \$300 for the 2008 compliance year.

<sup>21</sup> D.C. Official Code §§ 34-1431 - 1439 (2010 Repl. & 2012 Supp.).

“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.<sup>22</sup> 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.

The table below provides a comparison of the estimated MW of solar capacity needed to meet the increased solar requirement under the DGAA. As of March 14, 2014, the total capacity associated with the solar energy systems certified for the District’s RPS program is about 29.9 MW, of which about 19.5 MW is grandfathered solar capacity outside the

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<sup>22</sup>

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



District.<sup>23</sup> The table also indicates the additional capacity required to meet the solar requirement in subsequent years.

| Year | Percentage of Solar Requirement |       | Estimate of Solar MW Required |       | Incremental MW Capacity Required |
|------|---------------------------------|-------|-------------------------------|-------|----------------------------------|
|      | CAEA                            | DGAA  | CAEA                          | DGAA  | DGAA                             |
| 2011 | 0.04                            | 0.400 | 3.6                           | 36.4  |                                  |
| 2012 | 0.07                            | 0.500 | 6.6                           | 47.4  | 11.0                             |
| 2013 | 0.10                            | 0.500 | 9.5                           | 47.7  | 0.3                              |
| 2014 | 0.13                            | 0.600 | 12.6                          | 58.1  | 10.4                             |
| 2015 | 0.17                            | 0.700 | 16.7                          | 68.7  | 10.7                             |
| 2016 | 0.21                            | 0.825 | 20.9                          | 82.2  | 13.5                             |
| 2017 | 0.25                            | 0.980 | 25.1                          | 98.2  | 16.0                             |
| 2018 | 0.30                            | 1.150 | 30.3                          | 116.2 | 18.0                             |
| 2019 | 0.35                            | 1.350 | 35.6                          | 137.4 | 21.3                             |
| 2020 | 0.40                            | 1.580 | 41.2                          | 162.7 | 25.2                             |
| 2021 |                                 | 1.850 |                               | 191.8 | 29.1                             |
| 2022 |                                 | 2.175 |                               | 227.3 | 35.5                             |
| 2023 |                                 | 2.500 |                               | 263.1 | 35.9                             |

### *Generation Certification*

The DGAA also amended the requirements for 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.”

<sup>23</sup> The estimated solar capacity figures under the DGAA do not take into account the “grandfather” provision for electricity supply contracts, which can reduce the solar capacity needed.

### *Compliance Fees*

The DGAA altered the compliance fees for solar energy. In particular, for each kilowatt-hour 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.

### **III. RPS Compliance Reports for 2012<sup>24</sup>**

Pursuant to the Commission's RPS rules, all active electricity suppliers with retail sales in 2012—a total of twenty-four (24) suppliers submitted a compliance report due by May 1, 2013 for that calendar year: including American PowerNet Management; AEP Energy; Clean Currents Energy Service; Consolidated Edison Solutions; Constellation NewEnergy; Devonshire Energy; Direct Energy Business; Direct Energy Services; GDF Suez Energy Resources NA; Glacial Energy; Hess; Horizon Power and Light; Integrys Energy Services; Liberty Power; MidAmerican Energy; NextEra Energy Services; Noble Americas Energy Solutions; Pepco Energy Services; Potomac Electric Power Company; Public Power; Reliant Energy Northeast; Starion Energy; UGI Energy Services; and Washington Gas Energy Services.<sup>25</sup> All the suppliers met the RPS requirements generally through acquiring RECs.

#### *Renewable Energy Credits ("RECs") and Compliance Payments*

The bulk of the electricity suppliers did not have to pay a compliance fee in order to meet the Tier I or Tier II requirements. Prior to the adoption of the DGAA legislation, electricity suppliers were required to "exhaust all opportunities" to acquire RECs from solar energy systems located within the District before going outside the jurisdiction. The requirement to "exhaust all opportunities" to acquire District solar RECs first is not included in the DGAA. Instead, the DGAA indicates that electricity suppliers shall meet the solar requirement by obtaining the equivalent amount of RECs from solar energy systems, no larger than five megawatts (5 MW) in capacity, that are located within the District of Columbia or in locations served by a distribution feeder serving the District of Columbia, except that RECs generated by solar energy facilities that are not located within the District of Columbia nor in locations served by a distribution feeder serving the District of Columbia that the Commission certified prior to February 1, 2011, may be used to meet the solar requirement.

As a result of the DGAA, in Order No. 16529 (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. Based on the

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<sup>24</sup> Compliance reports are due on May 1 following the calendar year of compliance. Thus, the results for the 2013 compliance year are not available at this time. The Commission plans to submit a second report to the Council later this year to provide the 2013 compliance results. This second report will serve to fulfill the required RPS annual filing due April 1, 2015.

<sup>25</sup> As the provider of Standard Offer Service, PEPCO compiles a report based on the compliance of its wholesale electricity suppliers.

Commission's review of the solar RECs retired for RPS compliance, electricity suppliers did not submit RECs from decertified solar facilities in order to satisfy their requirements. Electricity suppliers, with the exception of one company, provided sufficient solar RECs ("SRECs")—to avoid paying a compliance fee for the solar requirement.<sup>26</sup> Moreover, electricity suppliers generally did not have to pay a compliance fee in order to meet the Tier I or Tier II requirements—with the exception of one company. In meeting the Tier I requirement, suppliers generally did not count their SRECs toward their overall Tier I REC purchases.

Based on the available information, the total amount of money raised from compliance payments was \$4,900 in 2012—compared to \$229,500 generated in 2011.<sup>27</sup> The significant decrease in the compliance fees, compared to 2011, generally reflects the ability of suppliers to acquire solar RECs to meet their RPS compliance—adjusting for the contracts that are not subject to the higher RPS requirement, per the grandfathering provision in the DGAA as discussed below. The total compliance payments submitted in various reporting years are provided in the table below:<sup>28</sup>

**Compliance Payments**

|      | Total     |
|------|-----------|
| 2007 | \$199,490 |
| 2008 | \$399,320 |
| 2009 | \$429,320 |
| 2010 | \$55,850  |
| 2011 | \$229,500 |
| 2012 | \$4,900   |

The DGAA includes a "grandfathering" provision that exempts electricity supply contracts, signed prior to the effective date of the legislation (August 1, 2011), from the increased solar RPS requirements. The current reporting form asks electricity suppliers to report on the retail sales subject to the higher DGAA requirement and the retail sales subject to the previous RPS requirement. A range of responses was provided, resulting in an overall share of only about 29 percent of retail sales being subject to the higher solar requirements under the DGAA.

<sup>26</sup> RECs that are retired for RPS compliance are placed in a special account so that it can no longer be used.

<sup>27</sup> The compliance payments are sent directly to DDOE and the funds are deposited into the Renewable Energy Development Fund.

<sup>28</sup> 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.

Some suppliers used Tier I RECs to meet their Tier II requirement based on § 34-1433(a)(2) of the D.C. Official Code, which indicates that energy from a Tier I resource may be applied to the percentage RPS requirements for either Tier I or Tier II renewable sources.<sup>29</sup> The majority of the Tier I RECs used for compliance were from methane from landfill gas, followed by wind energy—46.7% and 29.2%, respectively. Qualifying biomass resources, including black liquor and wood waste, accounted for a smaller share of Tier I RECs—only 20.4% in 2012 compared to 62.1% in 2011. Solar resources accounted for the remaining Tier I RECs. Tier II RECs were primarily from hydroelectric facilities, with the remainder accounted for by municipal solid waste. A breakdown of the number of RECs submitted in 2012 by fuel type is provided in the table below:

**Renewable Energy Credits Submitted for 2012 Compliance**

|                           | No. of RECs | Share of Tier |
|---------------------------|-------------|---------------|
| <b>Tier I Resource</b>    |             |               |
| Black Liquor              | 77,944      | 13.2%         |
| Methane from Landfill Gas | 276,095     | 46.7%         |
| Wind                      | 172,908     | 29.2%         |
| Wood Waste                | 42,541      | 7.2%          |
| Solar                     | 21,965      | 3.7%          |
| <b>Tier II Resource</b>   |             |               |
| Hydroelectric             | 258,706     | 92.6%         |
| Municipal Solid Waste     | 20,594      | 7.4%          |

Electricity suppliers submitted RECs generated from 2010 through 2013. About 3.7 percent of the RECs used for compliance were generated in 2010, while nearly 37.5 percent of the RECs were generated in 2011, with roughly 58.8 percent generated in 2012. Only 0.03 percent were generated in 2013. 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. The Commission currently does not have a specific rule that would disallow the submission of RECs generated in a period following the compliance year.

Most suppliers provided the REC prices for all their resources. The range and weighted average of the reported REC prices for 2012, by fuel type, is provided in the table below:<sup>30</sup>

<sup>29</sup> In particular, eight (8) of the suppliers used Tier I RECs to meet the Tier II requirement, with seven (7) out of the 8 suppliers using only Tier I RECs.

<sup>30</sup> A REC represents one megawatt-hour of electricity attributable to a particular renewable resource. PEPCO REC prices were incomplete.

#### 2012 Compliance REC Pricing (per REC)

|                           | Avg. Price |
|---------------------------|------------|
| Tier I Resource           |            |
| Black Liquor              | \$2.74     |
| Methane from Landfill Gas | \$2.22     |
| Wind                      | \$2.37     |
| Wood Waste                | \$2.77     |
| Solar                     | \$327.59   |
|                           |            |
| Tier II Resource          |            |
| Hydroelectric             | \$0.60     |
| Municipal Solid Waste     | \$0.60     |

Recent 2014 solar REC (SREC) prices from the Flett Exchange are around \$470 per REC.

#### 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 indicated 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.<sup>31</sup> In particular, the following states are currently 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.

<sup>31</sup> 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.



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.<sup>32</sup>

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.<sup>33</sup> 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 applications from states such as New York and Wisconsin in 2010; however, with the passage of the DGAA, out-of-state solar energy systems are now generally disallowed.

The table below provides a measure of some of the renewable resources available in the PJM region for 2013. The following information provides a perspective on the renewable resources in the PJM region associated with the generation of electricity. Based on the table below, the overall renewable resources in the PJM Interconnection Region represents nearly four percent of the available fuels. Wind power accounts for the largest share among renewable resources, nearly two percent. Among other renewable sources, hydroelectric power represents the second largest resource—a little less than one percent—followed by municipal solid waste—less than one percent. For 2013, only hydroelectric power would be counted as a Tier II resource under the District’s renewable portfolio standard as municipal solid waste no longer qualifies as a renewable resource under the changes enacted by the DGAA. Methane gas and biomass-related fuels are approximately 0.3 to 0.2 percent, respectively.<sup>34</sup> Taken together, Tier I related resources as defined by the District represent a very small share of the current fuel mix in the PJM system—roughly 2.4 percent.

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<sup>32</sup> D.C. Official Code § 34-1431 (10) (2012 Supp.).

<sup>33</sup> See Order No. 15699 (February 23, 2010), Order No. 15775 (April 20, 2010), and Order No. 15812 (May 18, 2010).

<sup>34</sup> Coal mine methane gas is not generally eligible under most RPS policies.

### PJM System Fuel Mix 2013

| Fuel   | Share          |
|--|----------------|
| Coal   | 44.43%         |
| Nuclear                                      | 35.12%         |
| Natural Gas                                  | 16.39%         |
| Oil  | 0.19%          |
| Hydroelectric                                | 0.97%          |
| Other Renewable                              | 2.89%          |
| Captured Methane Gas (Landfill or Coal Mine) | 0.29%          |
| Geothermal                                   | 0.00%          |
| Solar PV                                     | 0.05%          |
| Municipal Solid Waste                        | 0.52%          |
| Wind   | 1.88%          |
| Wood, other biomass                          | 0.15%          |
| <b>Total Renewable Resources</b>             | <b>3.86%</b>   |
| <b>Total</b>                                 | <b>100.00%</b> |

Source: PJM-EIS GATS

Through the Reliable Energy Trust Fund, DDOE previously administered the Renewable Energy Demonstration Project (“REDP”), approved by the Commission in Order No. 12778 (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, DDOE awarded grants to help finance renewable energy projects in the District. The CAEA replaced the REDP with the Renewable Energy Incentive Program (“REIP”), which is currently administered by DDOE.<sup>35</sup>

As of March 14, 2014, there are 3,430 renewable generators eligible for the District’s RPS program. Of these facilities, 3,406 (roughly 99 percent) use Tier I resources (including biomass, methane from landfill gas, solar, and wind) and 24 (roughly one percent) use Tier II resources (including hydroelectric). Since these renewable generators may be certified in other states that have a RPS as well, the RECs associated with the generating capacity are not necessarily fully available to meet the District’s RPS requirement. The table below provides a breakdown of the renewable generators by fuel type and location:<sup>36</sup>

<sup>35</sup> As part of its Renewable Energy Incentive Program, DDOE makes available the application packet at the following link:  
<http://ddoe.dc.gov/publication/renewable-energy-incentive-program-application-packet>

<sup>36</sup> The use of black liquor as a qualifying Tier I resource has been called into question in a recent article that appeared in the Washington Post - *Md., D.C. utilities pay paper mills burning ‘black liquor’ for alternative fuel credits* (published February 22, 2013). In the District, black liquor RECs accounted for the following share of Tier I RECs used in compliance reporting: 57% in 2007, 48% in 2008, 50% in 2009, 70% in 2010, 42% in 2011, and 13% in 2012.



Number of Renewable Generators by Fuel Type and Location  
(as of March 14, 2014)

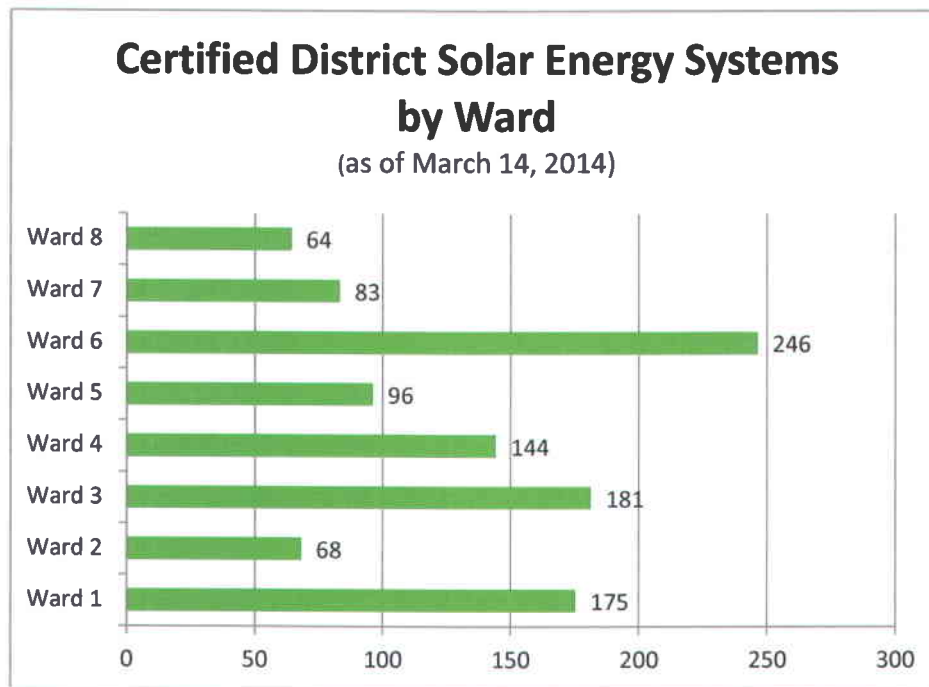
| Location             | Biomass   | Methane from landfill | Solar PV    | Solar Thermal | Wind      | Hydroelectric | Total        |
|----------------------|-----------|-----------------------|-------------|---------------|-----------|---------------|--------------|
| District of Columbia |           |                       | 991         | 66            |           |               | 1,057        |
| Delaware             |           | 2                     | 149         | 1             |           |               | 152          |
| Georgia              | 3         |                       |             |               |           |               | 3            |
| Iowa                 |           |                       |             |               | 1         |               | 1            |
| Illinois             |           | 18                    | 7           |               | 14        | 1             | 40           |
| Indiana              |           | 14                    | 42          |               | 7         |               | 63           |
| Kentucky             | 2         | 6                     | 55          | 1             |           |               | 64           |
| Maryland             | 1         |                       | 179         | 10            |           | 2             | 192          |
| Michigan             | 1         | 3                     | 6           |               |           |               | 10           |
| North Carolina       |           | 1                     | 78          | 77            |           |               | 156          |
| New Jersey           |           |                       | 8           |               |           |               | 8            |
| New York             |           |                       | 28          | 1             |           | 1             | 30           |
| Ohio                 | 2         | 2                     | 128         | 4             | 1         | 1             | 138          |
| Pennsylvania         |           | 6                     | 913         | 16            | 6         | 4             | 945          |
| Tennessee            | 1         |                       |             |               |           |               | 1            |
| Virginia             | 6         | 9                     | 373         | 121           |           | 9             | 518          |
| Wisconsin            | 1         |                       | 11          |               |           | 1             | 13           |
| West Virginia        |           |                       | 24          | 7             | 3         | 5             | 39           |
| <b>Total</b>         | <b>17</b> | <b>61</b>             | <b>2992</b> | <b>304</b>    | <b>32</b> | <b>24</b>     | <b>3,430</b> |

Note: Biomass includes black liquor and wood/wood waste.

The District has also made significant progress in certifying solar energy facilities for the RPS program. Currently, as of March 14, 2014, 3,296 solar energy systems—including solar photovoltaic and solar thermal—are eligible to participate in the District’s RPS program. Within the District, there are currently 991 approved solar photovoltaic (“PV”) systems and 66 solar thermal systems.<sup>37</sup> Outside of the District, there are six states with more than 100 eligible solar energy systems including Pennsylvania (929), Virginia (494), Maryland (189), North Carolina (155), Delaware (150), and Ohio (132). These six (6) states account for roughly 92 percent of the non-DC solar energy systems approved for the District’s RPS program.

Solar energy systems can now be found in all eight wards of the District. The figure below shows where the systems certified for the District’s RPS program are located:

<sup>37</sup> The Commission provides monthly updates on solar energy system certifications and solar REC pricing, available at the following link: <http://www.dcpsc.org/Electric/Renewable.asp>



The total capacity associated for all solar energy systems is about 29.9 megawatts (MW), with about 10.4 MW located in the District—as of March 14, 2014. The current solar capacity is less than the 47.7 MW of estimated solar capacity necessary to meet the new RPS requirement of 0.50 percent required by the DGAA in 2013 and less than the 58.1 MW of estimated solar capacity necessary to meet the 0.60 percent required by the DGAA in 2014.<sup>38</sup> As noted above, many of these solar energy systems are certified in more than one jurisdiction, so it is difficult to determine the resources fully available to meet the District’s RPS requirement. However, the District’s solar REC prices are the highest in the region, so there is a significant financial incentive to sell to electricity suppliers who need to satisfy the solar requirement in the District. In addition, the “grandfather” provision for electricity supply contracts means that a portion of the electricity sales will not be subject to the new RPS requirements. The results of the 2013 annual compliance reports, due May 1, 2014, should help provide further insight on the electricity suppliers’ ability to meet the higher solar requirement. The table below shows the capacity of all the District’s certified renewable generators by fuel type and location as of March 14, 2014:

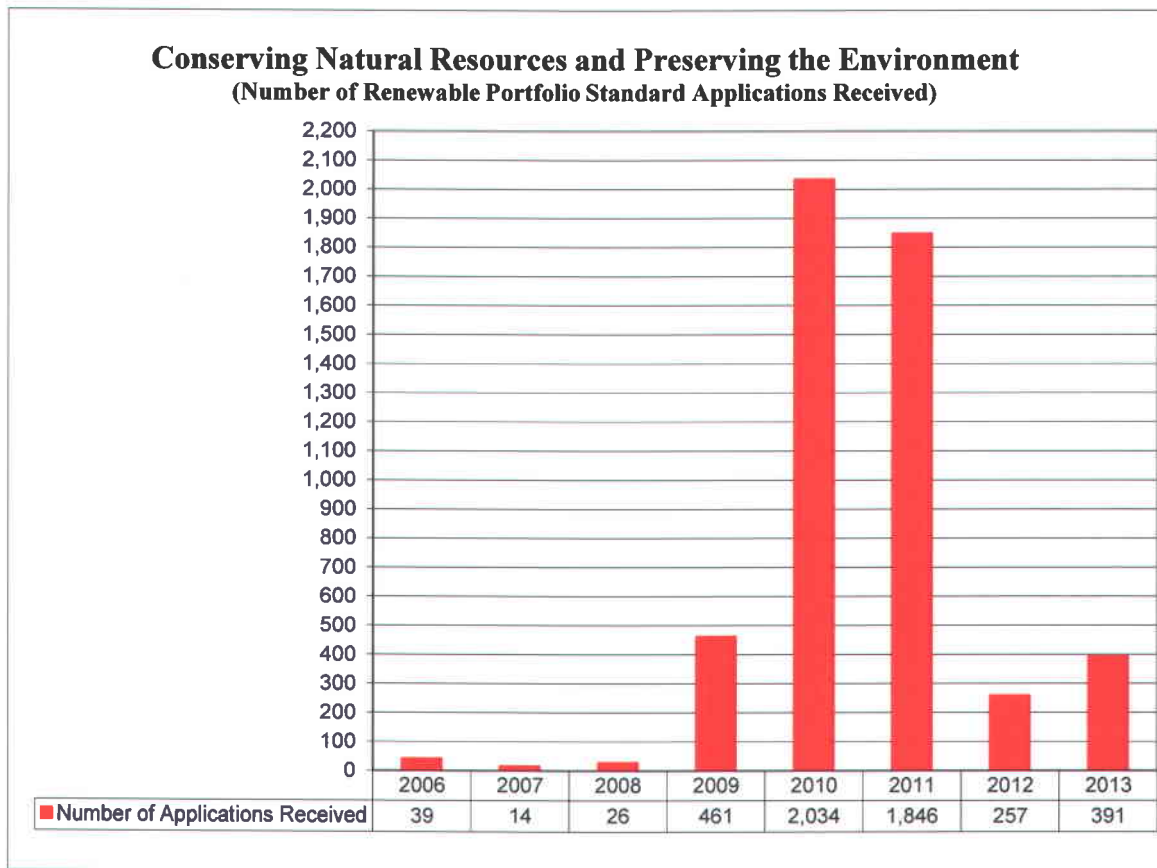
<sup>38</sup> These estimated solar capacity figures do not take into account the “grandfather” provision for electricity supply contracts.

Capacity (MW) of Renewable Generators by Fuel Type and Location  
(as of March 14, 2014)

| Location             | Biomass | Methane from landfill | Solar PV | Solar Thermal | Wind    | Hydroelectric | Total   |
|----------------------|---------|-----------------------|----------|---------------|---------|---------------|---------|
| District of Columbia |         |                       | 6.8      | 3.6           |         |               | 10.4    |
| Delaware             |         | 7.4                   | 1.2      | 0.0           |         |               | 8.6     |
| Georgia              | 284.4   |                       |          |               |         |               | 284.4   |
| Iowa                 |         |                       |          |               | 200.0   |               | 200.0   |
| Illinois             |         | 98.7                  | 0.3      |               | 1,614.2 | 3.0           | 1,716.2 |
| Indiana              |         | 44.0                  | 0.2      |               | 1,001.9 |               | 1,046.1 |
| Kentucky             | 148.0   | 16.8                  | 0.1      | 0.0           |         |               | 164.9   |
| Maryland             | 65.0    |                       | 1.4      | 0.0           |         | 494.0         | 560.4   |
| Michigan             | 103.0   | 33.0                  | 0.0      |               |         |               | 136.0   |
| North Carolina       |         | 5.0                   | 1.7      | 0.2           |         |               | 6.9     |
| New Jersey           |         |                       | 0.2      |               |         |               | 0.2     |
| New York             |         |                       | 0.4      | 0.0           |         | 34.8          | 35.2    |
| Ohio                 | 109.3   | 8.0                   | 1.1      | 0.0           | 304.0   | 47.4          | 469.8   |
| Pennsylvania         |         | 49.8                  | 9.7      | 0.0           | 371.0   | 467.5         | 898.0   |
| Tennessee            | 50.0    |                       |          |               |         |               | 50.0    |
| Virginia             | 398.7   | 43.7                  | 2.1      | 0.4           |         | 147.2         | 592.1   |
| Wisconsin            | 44.6    |                       | 0.1      |               |         | 9.1           | 53.8    |
| West Virginia        |         |                       | 0.1      | 0.0           | 462.1   | 152.6         | 614.9   |
| Total                | 1,203.0 | 306.4                 | 25.5     | 4.3           | 3,953.2 | 1,355.6       | 6,848.0 |

Note: Biomass includes black liquor and wood/wood waste.

In 2013, the Commission received 391 renewable generator applications—primarily involving the certification of solar generators for the RPS program. As of March 14, 2014, the Commission has received 101 applications—mainly involving solar energy. The Commission continues to approve solar energy applications based on the existing laws and regulations. The chart below shows how the number of applications has changed over the years:



## V. Recent Activity and Next Steps

The Council of the District of Columbia recently enacted legislation, the *Community Renewable Energy Amendment Act of 2013* (D.C. Law 20-0047), which allows for the creation of community energy generating facilities of up to 5 MW—allowing two or more “subscribers” to share the electricity produced by a single system—among other things. The Commission expects that further modifications to the SOS and net metering rules will be needed. The Commission also testified before the Council on the impact on the RPS program if black liquor is removed as a Tier I resource as proposed in the *Renewable Energy Portfolio Standard Amendment Act of 2013* (B20-0418). The Commission would also move to revise its RPS rules should the proposed legislation be adopted.

The Commission continues to address issues related to the implementation of the RPS. The Commission has received and will address the 2014 Report of the District of Columbia Renewable Energy Portfolio Standard Working Group, regarding the 2014 update to the Renewable Generator Eligibility Matrix. Additionally, as noted in Order No. 17062, as of January 1, 2013, the incineration of solid waste is no longer eligible to generate RECs. Because the RECs currently produced by solid waste facilities cannot be used for compliance purposes, the Commission decertified the two municipal solid waste facilities, which were previously approved for the District’s RPS program, in Order No. 17350 (January 13, 2014).

As needed, the Commission will continue to adopt regulations or orders governing the implementation of the RPS. Moreover, the Commission will continue to certify generating facilities and update information on approved generators on the Commission's website. Through its website, the Commission is making forms and the rules available, to help facilitate the certification and compliance process. In addition, the Commission will continue to maintain a list of approved renewable generating facilities on the Commission's website. Moreover, the Commission has made available on its website fact sheets that explain net energy metering, which allows customer-owned generators (including renewable energy systems) to generate and sell excess electricity back to the grid, and the process for certifying a renewable energy system for the District's RPS program. The Commission's website also provides monthly updates on solar energy system certifications and solar REC pricing. Additional program information will also be made available as deemed appropriate.

## **Attachment 1**

### **Renewable Portfolio Standards in Other States**



## *Renewable Portfolio Standards in Other States<sup>1</sup>*

According to the Database of State Incentives for Renewable Energy (“DSIRE”), 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, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, Texas, Washington, West Virginia, and Wisconsin. Kansas and West Virginia were the most recent states to enact a renewable portfolio standard in 2009. Colorado and Delaware increased their renewable energy requirements in 2010.

The 30 states include Pennsylvania’s Alternative Energy Portfolio Standard, which allows non-renewable resources that the state considers to be “environmentally beneficial,” such as waste coal.<sup>2</sup> Ohio also adopted an alternative energy—renewable and advanced—resource standard with an overall target of 25 percent by 2025.<sup>3</sup> However, the state has renewable resource benchmarks that begin in 2009 and increase annually towards an eventual target of 12.5% of retail electricity sales by 2024 and thereafter.<sup>4</sup> More recently, West Virginia also adopted an alternative and renewable energy portfolio standard that is unique to the state. Specifically, West Virginia’s standard does not appear to require a minimum contribution from renewable energy resources, and it is feasible that the standard could be met using only alternative resources and no renewable resources (as defined in the law). Thus, the renewable portion of the standard may function more like a non-binding goal. Another distinguishing characteristic of West Virginia’s standard is the use of the term “alternative energy resources,” which is defined more broadly than definitions of alternative energy in other states. In particular, West Virginia’s “alternative energy resources” include 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

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<sup>1</sup> This section draws from material available at [www.dsireusa.org](http://www.dsireusa.org) (Database of State Incentives for Renewable Energy) and various state agency websites.

<sup>2</sup> The 8% in Figure 1 applies only to the Tier I resources under Pennsylvania’s Alternative Energy Portfolio Standard. However, eligible Tier I resources also includes coal mine methane gas, which is not eligible under most RPS policies. Pennsylvania also has a Tier II that includes some nonrenewable resources such as waste coal and also takes into account integrated combined coal gasification technology. The Tier II requirement is 10%, yielding an 18% total from alternative sources.

<sup>3</sup> Eligible renewable resources are defined to include the following technologies: solar photovoltaics (PV), solar thermal technologies used to produce electricity, wind, geothermal, biomass, biologically derived methane gas, landfill gas, certain non-treated waste biomass products, solid waste (as long as the process to convert it to electricity does not include combustion), fuel cells that generate electricity, certain storage facilities, and qualified hydroelectric facilities. Generally, advanced energy resources are defined as any process or technology that increases the generation output of an electric generating facility without additional carbon dioxide emissions. The definition of advanced energy resources explicitly includes clean coal, generation III advanced nuclear power, distributed combined heat and power (CHP), fuel cells that generate electricity, certain solid waste conversion technologies, and demand side management or energy efficiency improvements.

<sup>4</sup> Only the renewable resource portion of Ohio’s requirement is reflected in Figure 1 below.

coal, tire-derived fuel, pumped storage hydroelectric projects, and recycled energy.<sup>5</sup> Lastly, while the portfolio standards of most other states are based on retail electric sales (kilowatt-hours), Kansas' standard is based on generating capacity (kilowatts).

In addition, seven states—Alaska, Indiana, Oklahoma, North Dakota, South Dakota, Vermont, and Virginia—have non-binding renewable energy goals. Indiana was the latest state to establish a goal in 2011. 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.<sup>6</sup> Specifically, the legislation requires that utilities only need to pursue renewable energy to the extent that it is “cost-effective.” The guidelines for determining the cost-effectiveness of acquiring an energy source include an assessment of whether acquisition of the resource will result in the delivery of electricity at the lowest reasonable cost, as well as an assessment of long-term and short-term impacts, risks, reliability, financial impacts on the affected utility, and other factors determined by the Utah Public Service Commission. To the extent that it is cost-effective to do so, investor-owned utilities, municipal utilities and cooperative utilities must use eligible renewable resources to account for 20% of their 2025 adjusted retail electric sales. In addition, the first year of compliance is 2025 with no interim targets, but utilities must file progress reports during the interim period at specified times. The progress reports are supposed to indicate the actual and projected amount of qualifying electricity the utility has acquired, the source of the electricity, an estimate of the cost for the utility to achieve their target, and recommendations for a legislative or program change.

The following compares the District's RPS requirement to nearby states:<sup>7</sup>

- District – 20.0% by 2023 (the solar requirement increases to 2.5% by 2023)
- Delaware – 25% by 2025-26
- Maryland – 20% by 2022
- New Jersey – 24.5% by 2027-28
- North Carolina – 12.5% by 2021
- Pennsylvania – 8% by 2020-21
- Virginia – 15% by 2025

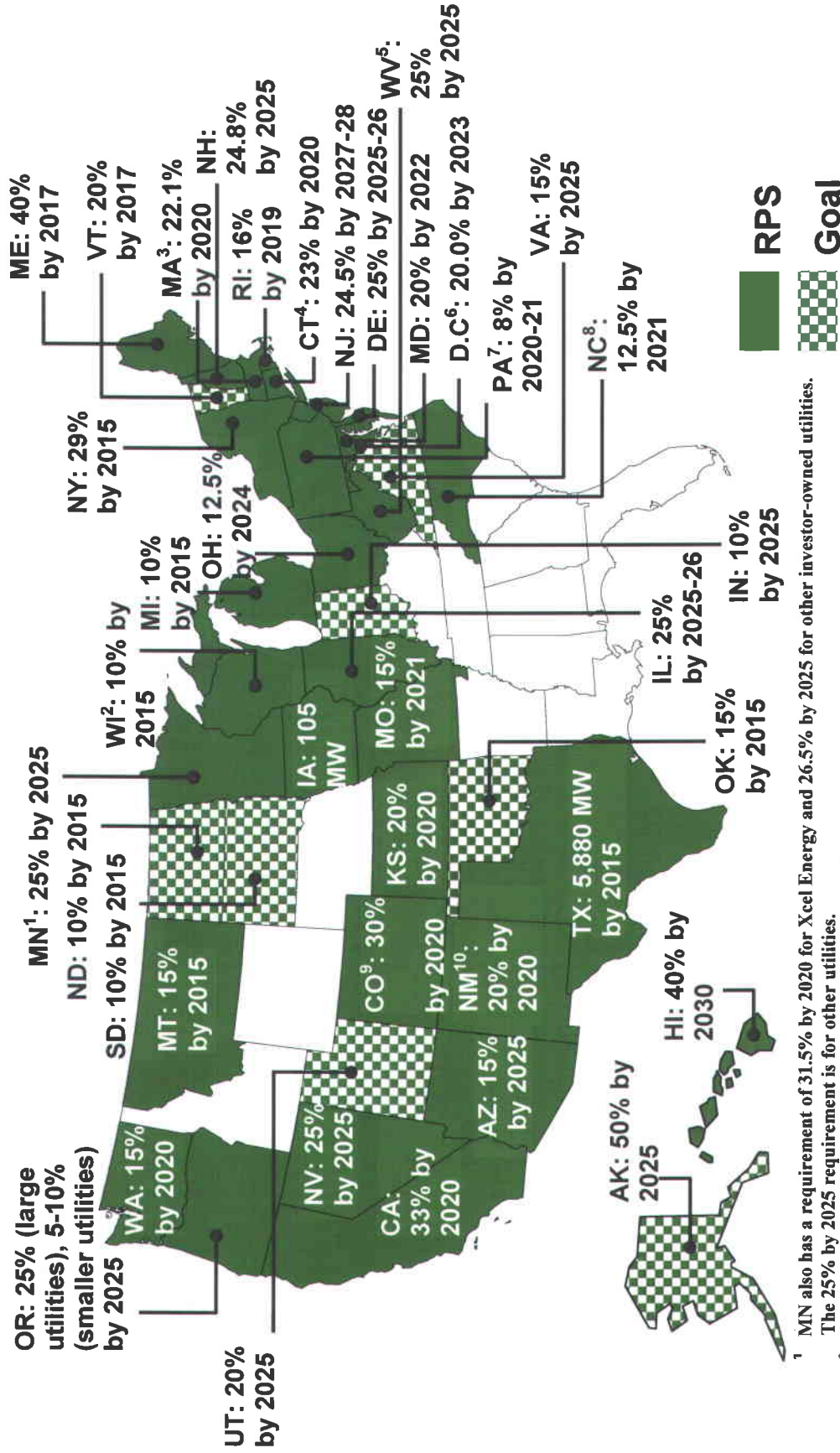
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<sup>5</sup> Recycled energy means useful thermal, mechanical or electrical energy produced from: (i) exhaust heat from any commercial or industrial process; (ii) waste gas, waste fuel or other forms of energy that would otherwise be flared, incinerated, 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.

<sup>6</sup> For purposes of preparing Figure 1 below, Utah's RPS program is considered to be a voluntary goal.

<sup>7</sup> This does not account for differences in eligible resources, specific resource requirements, and other factors. West Virginia was not included in the comparison given the lack of specificity about the actual percentage of renewable resources required to meet the standard.

# Figure 1: Renewable Portfolio Standards



<sup>1</sup> MN also has a requirement of 31.5% by 2020 for Xcel Energy and 26.5% by 2025 for other investor-owned utilities.

<sup>2</sup> The 25% by 2025 requirement is for other utilities.

<sup>3</sup> Statewide target is 10%, but requirements can vary by utility.

<sup>4</sup> 15% Class I (New Resources) plus additional 1% each year after 2020, 7.1% Class II (Existing Resources).

<sup>5</sup> The 23% refers to Class I and II resources.

<sup>6</sup> Includes alternative (such as coal gasification or waste coal) and renewable energy resources.

<sup>7</sup> Solar requirement is 2.5% by 2023.

<sup>8</sup> The 12.5% is for investor-owned utilities. Co-ops and municipalities must meet 10% by 2018.

<sup>9</sup> 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 municipalities must meet 10% by 2020.

<sup>10</sup> The 20% is for investor-owned utilities. Co-ops must meet 10% by 2020.

Sources: Database of State Incentives for Renewable Energy and various state agency websites

## **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 Meadowcroft 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 REC's 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 REC's 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 Behind-the-Meter 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 behind-the-meter 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 behind-the-meter ("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<sup>46</sup> 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 1, 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

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<sup>46</sup> As May 1 fell on a Sunday, annual compliance reports were due the next business day, Monday, May 2, 2011.

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

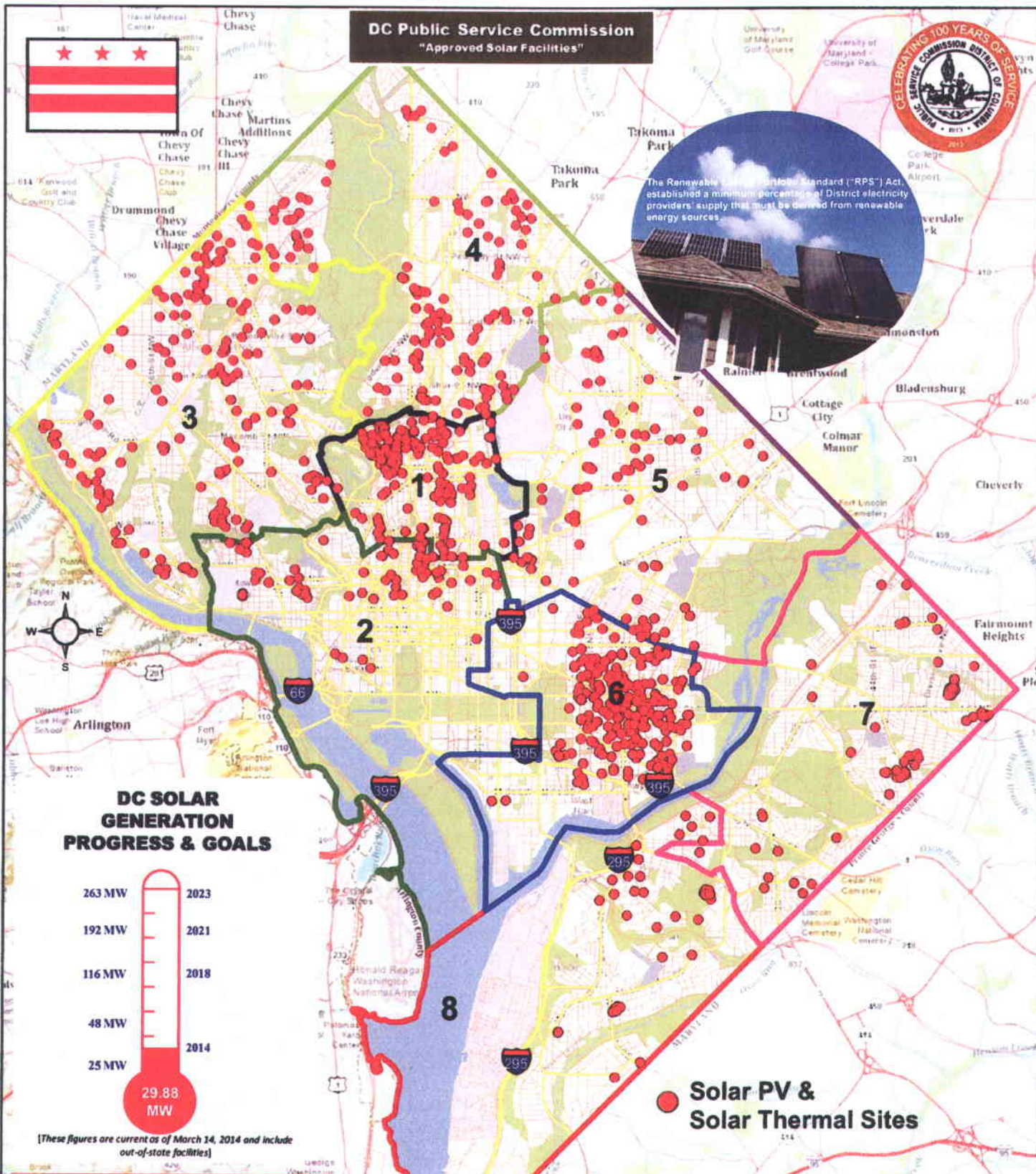
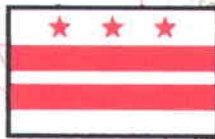
obtain SRECs. Based on its review of the Commission's RPS rules, the Applicant asserted that the District's solar carve out does not prevent outside of the District solar facilities like its own from being certified as a "generic" Tier I resource. By statute, Tier I renewable sources are clearly defined 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.

## **Attachment 3**

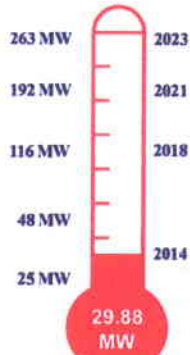
### **Map of the Certified Solar Energy Systems in the District of Columbia**



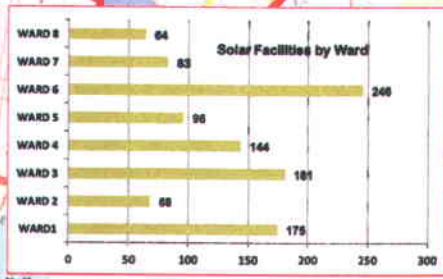
# DC Public Service Commission "Approved Solar Facilities"



## DC SOLAR GENERATION PROGRESS & GOALS



[These figures are current as of March 14, 2014 and include out-of-state facilities]



**Solar PV & Solar Thermal Sites**

**Title:** Approved DC Solar Generation 2013  
**Produced by:** DC Public Service Commission (PSC) on March 15, 2014  
**About:** This map list only those Generators Approved by the DC PSC up to March 14, 2014

**Projection Coordinate System:** NAD 1983 State Plane Maryland  
**Projection:** Lambert Conformal Conic  
**Geographic Coordinate System:** GCS North American 1983

**Linear Units:** Meter      **Prime Meridian:** Greenwich      **Angular Units:** Degree

**Sources:** [Logos of various organizations]

**Scale:** 0 500 1,000 2,000 3,000 4,000 Meters