

RENEWABLE ENERGY PORTFOLIO STANDARD

With Data for Calendar Year 2024

Public Utilities Article, §7-712



November 2025

TABLE OF CONTENTS

I. INTRODUCTION.....	1
A. Objectives of the Program	1
B. Overview of the Maryland RPS Program	2
1. Registration of Renewable Energy Facilities.....	3
2. Maryland RPS Annual Percentage Requirements	4
3. Maryland RPS Alternative Compliance Payment Requirements	7
II. ELECTRICITY SUPPLIER COMPLIANCE REPORTS	7
III. MARYLAND RENEWABLE ENERGY FACILITIES	18
IV. GEOTHERMAL CARVE-OUT.....	20
V. CONCLUSION	21
APPENDICES	22
Appendix A 2024 Retired RECs by Facility.....	23
Appendix B Location of Facilities that Provided RECs for 2024 RPS Compliance	27
Appendix C Disposition of 2024 Vintage RECs Generated in Maryland	28
Appendix D Number of Renewable Energy Facilities Located in Maryland.....	29
Appendix E Capacity of Renewable Energy Facilities Located in Maryland (MW)	30
Appendix F Maryland Certified Renewable Energy Facilities.....	31
Appendix G Price of RECs by Fuel Source.....	39

LIST OF TABLES

Table 1 Eligible Tier 1 and Tier 2 Sources	4
Table 2 Annual RPS Requirements by Tier.....	6
Table 3 ACP Schedule (\$/MWh).....	7
Table 4 Average Cost of RECs per Tier (2008 – 2024)	8
Table 5 Total Cost of RECs per Year (2019 – 2024)	9
Table 6 Results of the 2024 RPS Compliance Reports.....	9
Table 7 2024 RECs Retired by State	14
Table 8 2024 RECs Retired by State (%)	15
Table 9 2023 Maryland-Generated RECs by Fuel Source.....	19
Table 10 Disposition of 2024 Maryland-Generated RECs	20
Table 11 2024 Maryland-Generated RECs Retired for RPS Compliance by State.....	20

LIST OF FIGURES

Figure 1 RECs Retired in 2024 by Generation Year	10
Figure 2 2024 Tier 1 Retired RECs by Fuel Source	11
Figure 3 Total Rated Capacity by State (MW)	12
Figure 4 Number of RECs Retired by Facility Location (2024)	13
Figure 5 RECs Retired by Fuel Type (2008 – 2024).....	16
Figure 6 Percentage of RECs Generated in Each State, by Fuel (2024)	17

I. INTRODUCTION

This document constitutes the annual report of the Public Service Commission of Maryland (Commission) regarding the implementation of the Maryland Renewable Energy Portfolio Standard (RPS) Program with data for calendar year 2024. This report is submitted pursuant to §7-712 of the Public Utilities Article (PUA), *Annotated Code of Maryland* which requires the Commission to report to the General Assembly on the status of the implementation of the RPS Program on or before December 1 of each year.¹ The Maryland RPS Program is designed to support a stable and predictable market for energy generated from renewables, to reduce greenhouse gas emissions and eliminate carbon-fueled generation from the State's electric grid, and to lower the cost to consumers of electricity produced from these resources. Implementation of the RPS Program assists in overcoming market barriers seen as impediments to the development of the industry. Moreover, increasing reliance upon renewable energy technologies to satisfy electric power requirements can result in long-term emission reductions, increased fuel diversity, and economic benefits to the State.²

The calendar year 2024 electricity supplier compliance reports, as verified by the Commission, indicate that the State of Maryland RPS obligations were partly fulfilled through the submission of Tier 1 and Tier 2 Renewable Energy Credits (RECs).³ Remaining calendar year 2024 RPS obligations were satisfied by compliance fees also known as Alternative Compliance Payments (ACPs.) This year's ACPs were by far the largest in the history of the RPS.

A. Objectives of the Program

The objective of PUA §7-701 *et seq.* (RPS statute) is to recognize and to develop the benefits associated with a diverse portfolio of renewable energy resources to serve Maryland. The State's RPS Program does this by recognizing the environmental and consumer benefits associated with renewable energy. The RPS Program requires electricity suppliers to supply a prescribed minimum portion of their retail electricity sales with various renewable energy resources which have been classified within the RPS statute as Tier 1 and Tier 2 renewable resources. The program is implemented through the creation, sale, and transfer of RECs.

The development of renewable energy resources is further promoted by requiring electricity suppliers to provide an ACP for failing to acquire sufficient RECs to satisfy the RPS as set forth in PUA §7-703. Compliance fees are deposited into the Maryland Strategic Energy Investment Fund (SEIF) as dedicated funds to provide for loans and grants that spur the creation of new Tier 1 renewable energy resources in the State that are owned by or directly benefit low-

¹ Electricity suppliers must file an RPS compliance report with the Commission for the prior calendar year by April 1st of the subsequent year. Consequently, this report, which is due to the General Assembly in December 2025, highlights data from electricity suppliers' 2025 compliance reports and other relevant 2024 data. In compliance with PUA §7-712, topics addressed in this report include the availability of Tier 1, Tier 1 Solar, and Tier 2 renewable energy sources, compliance fees collected to support in-State renewable projects, and other pertinent information.

² See PUA §7-702 which describes the legislative intent and legislative findings in support of the enactment of the Maryland Renewable Energy Portfolio Standard.

³ See Section I.B.2 for a description of eligible Tier 1 and Tier 2 resources and requirements.

to moderate-income communities or overburdened or underserved communities.⁴ Responsibility for developing renewable energy resources is vested with the Maryland Energy Administration (MEA.)

B. Overview of the Maryland RPS Program

Under the RPS Program, Maryland electricity suppliers are required to demonstrate compliance on an annual basis with an escalating renewable energy portfolio standard. This requirement applies to both competitive retail suppliers and electric companies in the state, including those that provide Standard Offer Service.⁵ Electricity suppliers must file annual compliance reports with the Commission verifying that the renewable requirement for each entity has been satisfied.

A REC constitutes the renewable attributes associated with one megawatt-hour (MWh) of electricity generated using eligible renewable resources. As such, a REC is a uniquely-identified tradable commodity equal to one MWh of electricity generated or obtained from an eligible renewable energy resource. While RECs are often bundled and sold with the generated electricity, RECs can be traded separately. Generators and electricity suppliers may trade RECs using a Commission-approved system known as the Generation Attributes Tracking System (GATS.) The GATS system is operated by PJM Environmental Information Services, Inc. (PJM-EIS) and is designed to track the ownership and trading of generation attributes.⁶ A REC has a five-year lifespan during which it may be transferred, sold, or redeemed.⁷ However, each electricity supplier must document annually the retirement of RECs equal to the percentage specified by the RPS statute or pay an ACP commensurate with any shortfalls.

⁴ See Article - State Government §9-20B-05(i).

⁵ Standard Offer Service (SOS) is electricity supply purchased from an electric company by the company's retail customers who cannot or choose not to transact with a competitive supplier operating in the retail market. See PUA §§7-501(n), 7-510(c).

⁶ An attribute is "a characteristic of a generator, such as location, vintage, emissions output, fuel, state RPS Program eligibility, etc." PJM-EIS, *GATS Operating Rules* (May 2014) at 3.

⁷ This was increased to five years by Chapter 595 of the Laws of Maryland 2024.

1. Registration of Renewable Energy Facilities

Facilities eligible for the Maryland RPS Program must be in PJM (the wholesale bulk power control area in which Maryland resides)⁸ or an adjacent control area⁹ so long as the electricity produced is delivered into the PJM region. However, facilities generating electricity from solar energy, geothermal, poultry litter-to-energy, waste-to-energy, or refuse-derived fuel are eligible only if the facility is connected to the electric distribution grid serving Maryland. Energy from a thermal biomass system must be used in Maryland to qualify for the RPS program.¹⁰ Finally, energy from raw or treated wastewater used as a heat source or sink for a heating or cooling system must be either connected with the electric distribution grid serving Maryland or process wastewater from Maryland residents.

Before recommending certification of a Renewable Energy Facility (REF), Commission Staff must determine whether the facility meets the standards set forth by the RPS statute and Code of Maryland Regulations (COMAR) 20.61. REF applicants who qualify under Maryland's RPS Program must complete the appropriate application for REF certification posted on the Commission's RPS website.¹¹ In addition to the geographic requirements, applicants must also meet the fuel source requirements associated with Tier 1 or Tier 2 (*see* Table 1 below.) Verification of the fuel source is completed with the aid of Energy Information Administration Form 860 (EIA-860) to validate each facility's rated nameplate capacity, fuel source(s), location, and commercial operation in-service date.¹² Facilities that co-fire a REC-eligible renewable fuel source with non-eligible fuel sources must also submit a formula or methodology to account for the proportion of total electricity generated by the eligible fuel sources which then may be credited with RECs. In addition to obtaining Commission certification, all REFs must register with GATS to track and transact business related to RECs. The PJM-GATS account must be established with the certification number issued by the Commission upon approval of the REF application.

⁸ The PJM wholesale market includes all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and the District of Columbia.

⁹ A control area is an "electric system or systems, bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Control Areas and contributing to frequency regulation. For the purposes of this document, a Control Area is defined in broad terms to include transmission system operations, market, and load-serving functions within a single organization. A Control Area operator may be a system operator, a transmission grid operator, or a utility." PJM-EIS, Generation Attribute Tracking System (*GATS*) *Operating Rules* (April 2018) at 5. For example, the multi-state area controlled by the PJM Regional Transmission Operator is one control area as is the adjacent Midwest Independent System Operator (MISO) multi-state area and the adjacent New York ISO.

¹⁰ There are currently no thermal biomass facilities in Maryland.

¹¹ REF applications are maintained by the Commission and are accessible online, available at: <https://www.psc.state.md.us/electricity/description-documents-maryland-renewable-energy-portfolio-standard-program/>.

¹² Submitting Form EIA-860 is a requirement under Section 13(b) of the Federal Energy Administration Act of 1974 (Public Law 93-275) for generating plants, regulated and unregulated, which have a nameplate rating of 1 MW or more, are operating or plan to operate within five years, and are connected to the transmission grid.

2. Maryland RPS Annual Percentage Requirements

To comply with the Maryland RPS Program, electricity suppliers must acquire RECs derived from Maryland-certified Tier 1 and Tier 2 renewable sources as defined in PUA §7-701. Eligible fuel sources for Tier 1 RECs and Tier 2 RECs are listed in Table 1; solar, geothermal, and offshore wind have their own standards within Tier 1 and these carve-out are sub-sets of the Tier 1 standard.

Table 1 Eligible Tier 1 and Tier 2 Sources¹³

Tier 1 Renewable Sources	Tier 2 Renewable Sources
● Solar, including energy from photovoltaic technologies and solar water heating systems ● Wind ● Qualifying Biomass ● Methane from a landfill or wastewater treatment plant ● Geothermal ● Ocean ● Fuel Cell that produces electricity from a Tier 1 source ● Hydroelectric power plant less than 30 MW capacity ● Poultry litter-to-energy ● Waste-to-energy ● Refuse-derived fuel ● Thermal energy from a thermal biomass system ● Raw or treated wastewater used as a heat source or sink for a heating or cooling system	● Hydroelectric power other than pump storage generation <i>(Note: Tier 1 RECs may be used to satisfy Tier 2 obligations)</i>

As shown in Table 2 below, there is a different percentage schedule corresponding to each tier and carve-out requirement comprising the Maryland RPS Program.

- The Tier 1 requirements gradually increase until 2030, after which they are maintained at 2030 levels.
- The Tier 1 Solar carve-out requirement increases from six percent in 2023 to 14.5 percent by 2030.¹⁴ This ramp-up period for the solar carve-out corresponds in part with the implementation of the community solar energy generating facilities

¹³ Waste-to-energy and refuse-derived fuel were removed from the list of eligible Tier 1 Resources effective January 1, 2025 or July 1, 2026 for a facility owned by a public instrumentality of the State. See Chapter 625 of the Laws of Maryland 2025.

¹⁴ Chapter 757 of the Laws of Maryland 2019.

which was established in 2015.¹⁵ This pilot was made into a permanent program in 2023.¹⁶ There is a potential that Solar Renewable Energy Credits (SRECs) generated by eligible community solar facilities could serve to help meet the increasing Tier 1 Solar carve-out in the coming years.

- The Brighter Tomorrow Act from 2024¹⁷ requires the Commission to establish the Small Solar Energy Generating System Incentive Program under which eligible solar systems may generate certified SRECs that have a compliance value of 150 percent of noncertified SRECs. The Act also extends the duration of all RECs used to comply with Maryland's RPS to five years.
- Beginning in 2017, a constant Tier 1 Offshore Wind carve-out of up to 2.5 percent commenced as part of the Tier 1 portfolio.¹⁸ In Order No. 88192, the Commission established specific offshore wind carve-outs from 2021 through 2042 ranging from 0.60 percent to 2.03 percent. Senate Bill 516, enacted in May 2019, increased the RPS requirements to 50 percent by 2030 and established additional offshore wind carve-outs beginning in 2027.
- Beginning in 2023, a Tier 1 geothermal carve-out of up to 0.05 percent will commence as part of the Tier 1 portfolio, rising to 1.0 percent in 2028. Of the geothermal carve-out, 25 percent must come from systems qualifying as low to moderate income (LMI.)
- Maryland's Tier 2 requirement of 2.5 percent was re-established by Senate Bill 65 in 2021.

¹⁵ Chapter 346 of the Laws of Maryland 2015.

¹⁶ Chapter 652 of the Laws of Maryland 2023.

¹⁷ Chapter 595 of the Laws of Maryland 2024.

¹⁸ The Maryland Offshore Wind Energy Act of 2013 (2013 Md. Laws, Ch. 003) established an offshore wind carve-out within the Tier 1 requirement. A project must be generating RECs in order for the obligation to begin. In the absence of a Commission-determined OREC obligation, electricity suppliers must satisfy the carve-out using RECs derived from other Tier 1 renewable sources.

Table 2 Annual RPS Requirements by Tier¹⁹

Compliance Year	Tier 1 (Excluding Carve-outs)	Solar	Offshore Wind²⁰	Geothermal	LMI Geothermal	Tier 2	Total
2024	27.05%	6.50%	N/A	0.1125%	0.0375%	2.50%	36.20%
2025	26.59%	7.00%	1.66%	0.1875%	0.0625%	2.50%	38.00%
2026	26.89%	8.00%	2.61%	0.3750%	0.1250%	2.50%	40.50%
2027	18.23%	9.50%	13.02%	0.5625%	0.1875%	2.50%	44.00%
2028	17.98%	11.00%	13.02%	0.75%	0.25%	2.50%	45.50%
2029	22.98%	12.50%	13.02%	0.75%	0.25%	2.50%	52.00%
2030+	21.48%	14.50%	13.02%	0.75%	0.25%	2.50%	52.50%

At certain renewable procurement cost thresholds, an electricity supplier can request that the Commission consider a delay in scheduled Tier 1 and Tier 1 Solar RPS percentages.²¹ To date, no such request has been made by electricity suppliers operating in the Maryland marketplace.

¹⁹ For an electric cooperative, the solar requirement is 2.5% in 2020 and later. For a municipal electric utility, in 2022 and later, the requirements are 20.4% for Tier 1, which includes 1.95% from solar, and the offshore wind requirement shown above. See PUA §7-703(e).

²⁰ This percentage includes only the Commission-approved offshore wind energy carve-out from Order No. 88192 and Order No. 90011.

²¹ PUA §7-705(e).

3. Maryland RPS Alternative Compliance Payment Requirements

Electricity suppliers who do not meet their RPS obligation through the retirement of eligible RECs must submit an ACP for every unit of shortfall. Table 3 presents the ACP schedule separated by tiers for each compliance year of the RPS Program moving forward.

Table 3 ACP Schedule (\$/MWh)

Compliance Year	Tier 1 (Excluding Carve-outs)	Solar	Geothermal	Tier 2	IPL²² Tier 1
2024	\$27.50	\$60	\$100	\$15	\$2
2025	\$25.00	\$55	\$100	\$15	\$2
2026	\$24.75	\$45	\$90	\$15	\$2
2027	\$24.50	\$35	\$80	\$15	\$2
2028	\$22.50	\$32.50	\$65	\$15	\$2
2029	\$22.50	\$25	\$65	\$15	\$2
2030+	\$22.35	\$22.50	\$65	\$15	\$2

II. ELECTRICITY SUPPLIER COMPLIANCE REPORTS

Calendar year 2024 marked the 19th compliance year for the Maryland RPS. The RPS compliance reports submitted to the Commission by electricity suppliers, along with information obtained from PJM-GATS, provide information regarding the retired RECs and the underlying REFs (e.g., type and location of generators) utilized by electricity suppliers to comply with Maryland RPS obligations.²³ RPS compliance reports were filed by 111 electricity suppliers, including: 74 competitive retail suppliers; 26 brokers or competitive electricity suppliers with zero retail electricity sales; and 11 electric companies, of which four are investor-owned utilities.

According to the filed compliance reports, there were approximately 56.2 million MWh of total retail electricity sales in Maryland for 2024; 55.2 million MWh of retail electricity sales were subject to RPS compliance and 1.1 million MWh were exempt.²⁴ Maryland electricity

²² Industrial Process Load (IPL) means the consumption of electricity by a manufacturing process at an establishment classified in the manufacturing sector under the North American Industry Classification System. Under PUA §7-705(b)(2) and COMAR 20.61.01.06.E(5), a supplier sale for IPL is required to meet the entire Tier 1 obligation for electricity sales, including solar. However, the ACP for an IPL Tier 1 non-solar shortfall and a Tier 1 Solar shortfall is the same. For IPL, there is no ACP for Tier 2 shortfalls.

²³ According to PUA §7-709, a REC can be diminished or extinguished before the expiration of three years by: the electricity supplier that received the credit; a nonaffiliated entity of the electricity supplier that purchased or otherwise received the transferred credit; or demonstrated noncompliance by the generating facility with the requirements of PUA §7-704(f). In the PJM region, the regional term of art is “retirement,” which describes the process of removing a REC from circulation by the REC owner, *i.e.*, the owner “diminishes or extinguishes the REC.” PJM-EIS, *GATS Operating Rules* (January 2024) at 54-56.

²⁴ According to PUA §7-703(a)(2), exceptions for the RPS requirement may include: IPL which exceeds 300,000,000 kWh by a single customer in a year; regions where residential customer rates are subject to a freeze or cap (*see* PUA §7-505); or electric cooperatives under a purchase agreement that existed prior to October 1, 2004, until the expiration of the agreement. COMAR 20.61.01.06D exempts any sale of electricity that is marketed or

suppliers retired about 7.0 million RECs in 2023, fewer than the 7.9 million RECs retired for compliance in 2023 and far below the 16.1 million RECs retired in 2022. In fact, 2024 had the fewest RECs retired since 2014, while the total cost of RECs retired in 2024 was \$254.6 million, up from \$243.8 million in 2023. ACP prices were in many instances less expensive than REC prices and, as a result, suppliers choose to pay the ACP rather than retire RECs.

Table 4 displays the average cost per REC retired in each tier since 2008. The overall rise in REC prices is likely attributable to the increasing RPS percentages in both Maryland and other PJM states. The rise in SREC prices may be attributable to an increase in demand for SRECs due to the effects of the Clean Energy Jobs Act.²⁵

Table 4 Average Cost of RECs per Tier (2008 – 2024)

Year	Tier 1	Geothermal *	Solar	Tier 2
2008	\$0.94	N/A	\$345.45	\$0.56
2009	\$0.96	N/A	\$345.28	\$0.43
2010	\$0.99	N/A	\$328.57	\$0.38
2011	\$2.02	N/A	\$278.26	\$0.45
2012	\$3.19	N/A	\$201.92	\$0.44
2013	\$6.70	N/A	\$159.71	\$1.81
2014	\$11.64	N/A	\$144.06	\$1.81
2015	\$13.87	N/A	\$130.39	\$1.71
2016	\$12.22	N/A	\$110.63	\$0.96
2017	\$7.14	N/A	\$38.18	\$0.48
2018	\$6.54	N/A	\$31.91	\$0.66
2019	\$7.77	N/A	\$47.26	\$1.05
2020	\$8.24	N/A	\$66.10	\$1.06
2021	\$14.36	N/A	\$72.59	\$6.45
2022	\$17.80	N/A	\$57.80	\$7.42
2023	\$24.61	\$94.47	\$56.67	\$10.50
2024	\$27.09	\$94.04	\$58.56	\$11.16

* Note geothermal is only the post-2022 carve-out and does not include the geothermal included in the Tier 1 column.

As demonstrated by Table 5, the aggregated cost of compliance with the Maryland RPS Program in 2024 displays a significant increase from 2023. While costs had been moderately increasing with time, a spike in prices occurred in 2021. This was driven in part by an increase in the requirement for retired SRECs, resulting in large quantities of ACPs needing to be purchased. Much of the increase in 2024 was driven by the ACPs, in part due to REC prices in the market being above the ACPs when many suppliers were looking to purchase RECs. REC prices may have been above the ACP due to a general shortage of Tier 1 RECs and the fact that surrounding states such as Pennsylvania and New Jersey have higher Tier 1 ACPs than Maryland. Prior to 2021, reliance on ACPs had been limited.

otherwise represented to customers as renewable or having characteristics of a Tier 1 renewable source or Tier 2 renewable source.

²⁵ Chapter 673 of the Laws of Maryland 2021.

Table 5 Total Cost of RECs per Year (2019 – 2024)

	Tier	2019	2020	2021	2022	2023	2024
REC Costs	Tier 1	\$79,320,505	\$99,836,127	\$187,346,301	\$246,480,883	\$124,932,208	\$90,057,757
	Solar	\$55,166,116	\$122,943,987	\$144,411,601	\$101,384,663	\$109,553,864	\$150,381,920
	Geothermal	N/A	N/A	N/A	N/A	\$104,295	\$2,176,739
	LMI Geo.	N/A	N/A	N/A	N/A	N/A	\$24,375
	Tier 2	\$58,899	\$386,590	\$959,225	\$4,382,570	\$9,254,616	\$11,973,971
	ACPs	\$7,730,223	\$52,240	\$77,129,013	\$86,584,883	\$320,363,538	\$365,034,107
	Total	\$142,277,762	\$223,220,964	\$409,848,162	\$438,832,999	\$564,208,520	\$616,906,542
RECs Retired	Tier 1	10,210,275	12,117,585	13,045,432	13,849,611	5,075,872	3,324,606
	Solar	1,167,329	1,859,976	1,989,505	1,753,987	1,933,280	2,568,159
	Geothermal	N/A	N/A	N/A	N/A	1,032	22,874
	LMI Geo.	N/A	N/A	N/A	N/A	N/A	276
	Tier 2	55,879	366,260	148,702	590,330	878,304	1,073,328
	Total	11,433,483	14,343,821	15,183,639	16,193,928	7,888,488	6,989,243
RPS (%) Required	Tier 1	15.20%	22.00%	23.30%	24.60%	25.85%	27.05%
	Solar	5.50%	6.00%	7.50%	5.50%	6.00%	6.50%
	Geothermal	N/A	N/A	N/A	N/A	0.04%	0.11%
	LMI Geo.	N/A	N/A	N/A	N/A	0.01%	0.04%
	Tier 2	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
	Total	23.20%	30.50%	33.30%	32.60%	34.40%	36.20%

Table 6 Results of the 2024 RPS Compliance Reports

RPS Results	Tier 1	Solar	Geo.	LMI Geo.	Tier 2	Total
RPS Obligation	14,917,411	3,221,782	50,728	16,886	1,159,107	19,365,914
Retired RECs	3,324,606	2,568,159	22,874	276	1,073,328	6,989,243
ACP Required	\$319,374,155	\$37,181,380	\$2,785,500	\$1,661,000	\$1,289,745	\$362,291,780

Note: Some electricity suppliers retired more RECs than required.

RECs are valid to demonstrate RPS compliance for the calendar year in which they were generated and in the following four calendar years.²⁶ Figure 1 aggregates the Maryland RPS tiers based on generation year. For the 2024 compliance year, 76.2 percent of RECs retired were generated in 2024; 12.8 percent in 2023; 3.3 percent in 2022; 1.1 percent in 2021; and 6.5 percent in 2020. This data conveys that RECs are in high demand as they are most often retired in the year of their generation.

²⁶ COMAR 20.61.03.01C (unless the REC is diminished or extinguished before expiration.)

Figure 1 RECs Retired in 2024 by Generation Year

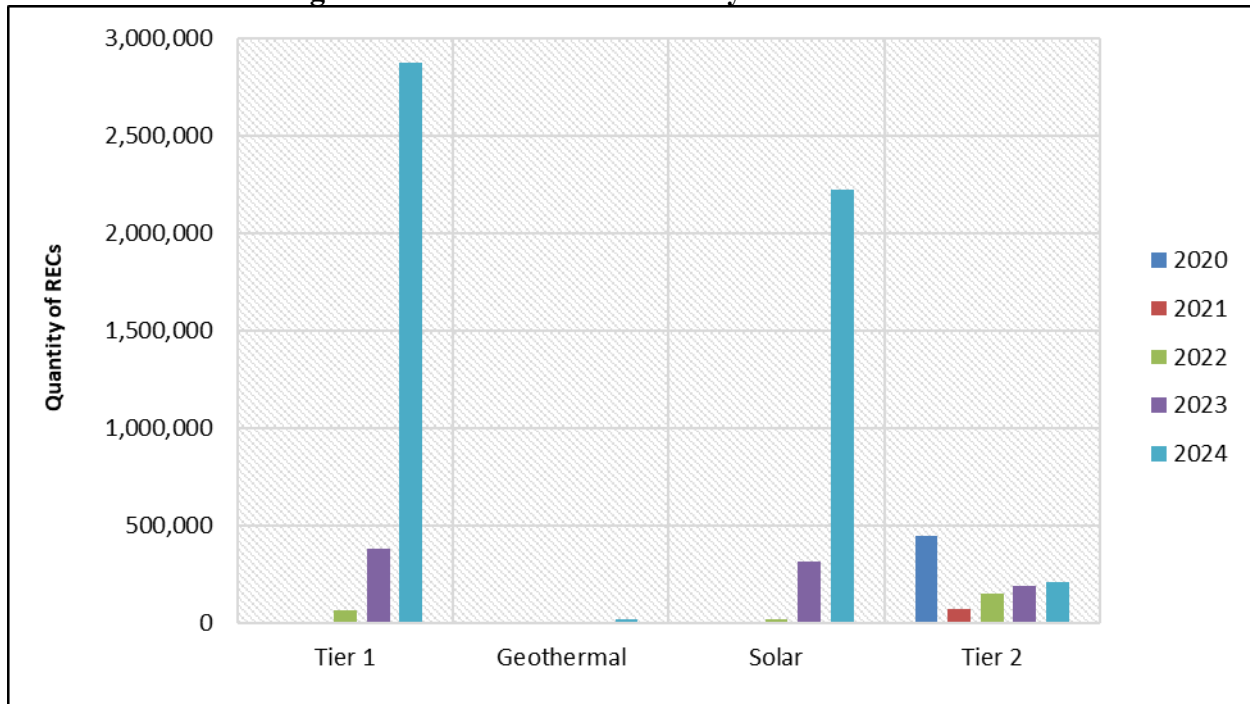
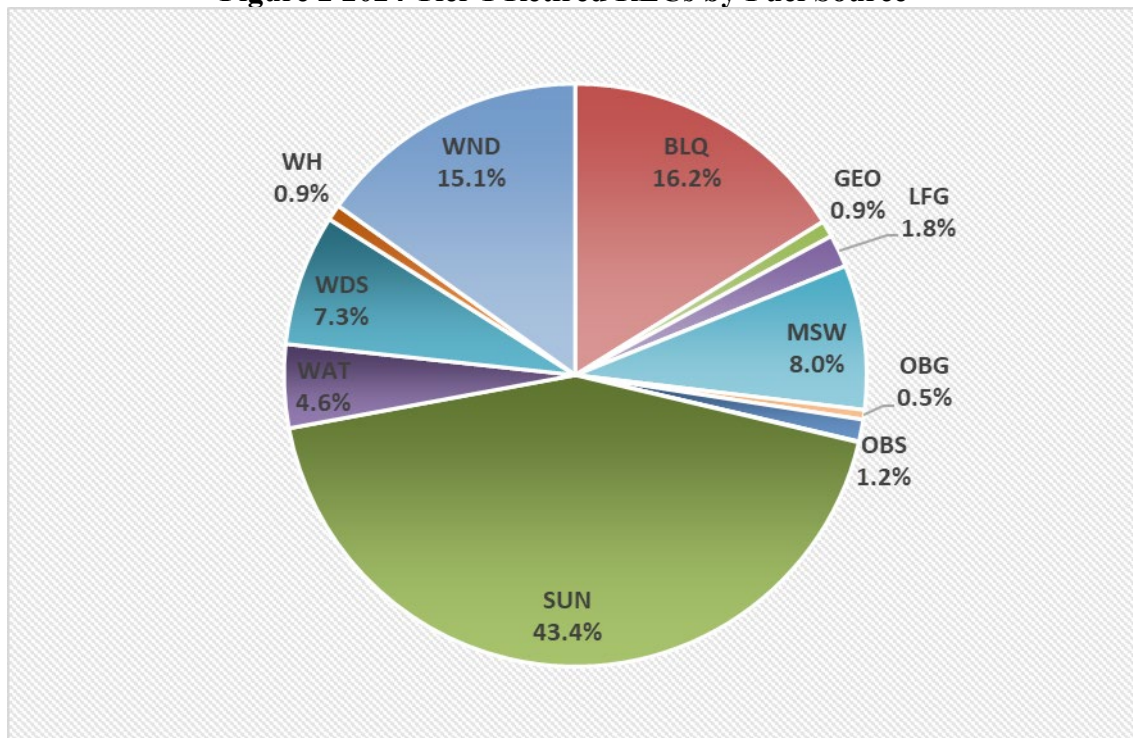


Figure 2 illustrates the fuel sources used to satisfy Tier 1 RPS requirements for the 2024 RPS compliance year. Of the Tier 1 RECs retired for 2024, the resources from which the RECs were sourced consisted primarily of solar, wind, black liquor, and municipal solid waste. Although not pictured, Tier 2 RPS requirements for the 2024 RPS compliance year were satisfied exclusively by RECs derived from hydroelectric power.

Figure 2 2024 Tier 1 Retired RECs by Fuel Source²⁷

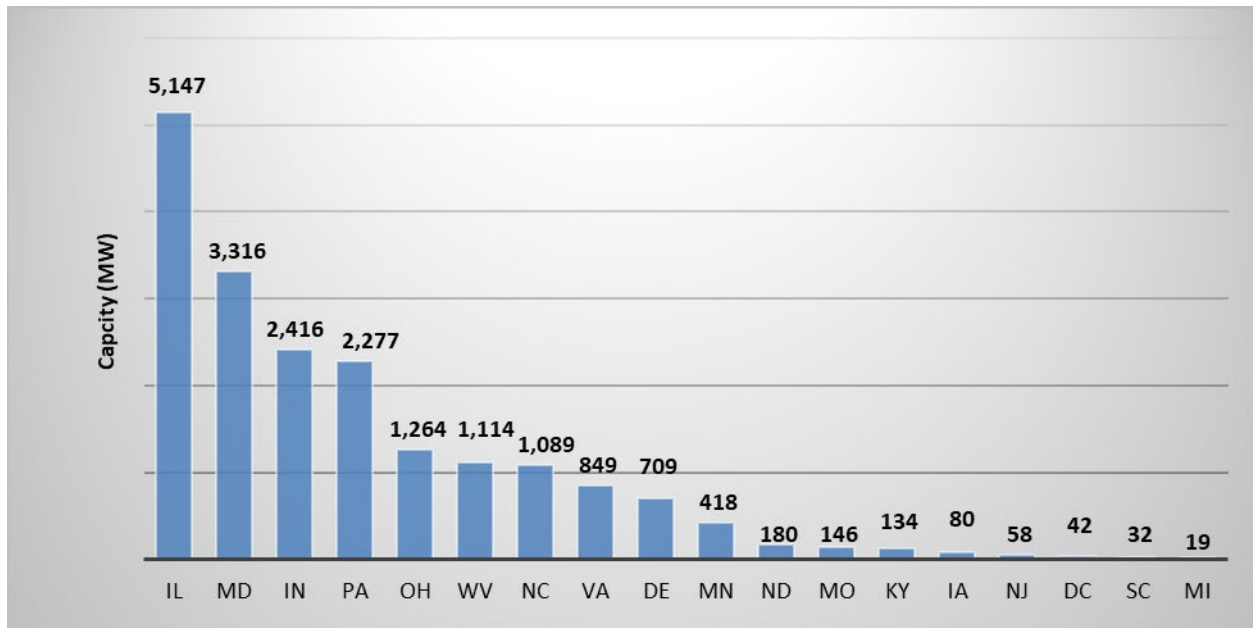


Abbreviations: BLQ, Black Liquor; LFG, Landfill Gas; GEO, Geothermal; MSW, Municipal Solid Waste; OBG, Other Biomass Gas; OBS, Biomass Solids; SUN, PV solar; WAT, Hydroelectric; WDS, WH, Waste Heat; Wood and Waste Solids; WND, Wind.

Figure 3 presents the geographical location and the total generating capacity (19,290 MW) for all Maryland RPS-certified facilities regardless of Tier. RPS requirements also exist in the surrounding states which generally support out-of-state and regional market participation. Illinois is the largest single source with over 99 percent of its registered capacity being wind generation.

²⁷ WAT includes Tier 1 only. Solar thermal and geothermal contributed too few RECs to be seen on the chart.

Figure 3 Total Rated Capacity by State (MW)²⁸



For the 2024 compliance year, Figure 4 displays aggregated REC data to convey general relationships among the states that contributed RECs. For the second time, Maryland supplied the largest number of RECs purchased by retail electric suppliers (45.4 percent), followed by North Carolina (16.8 percent), and Virginia (12.9 percent). The remaining 14 states were responsible for the remaining 24.9 percent of all RECs procured and retired in 2024.

²⁸ PJM-EIS, Generation Attribute Tracking System, Database query, (October 1, 2023.) The information in this figure does not include Commission-authorized REFs that have not established a REC account with PJM GATS.

Figure 4 Number of RECs Retired by Facility Location (2024)

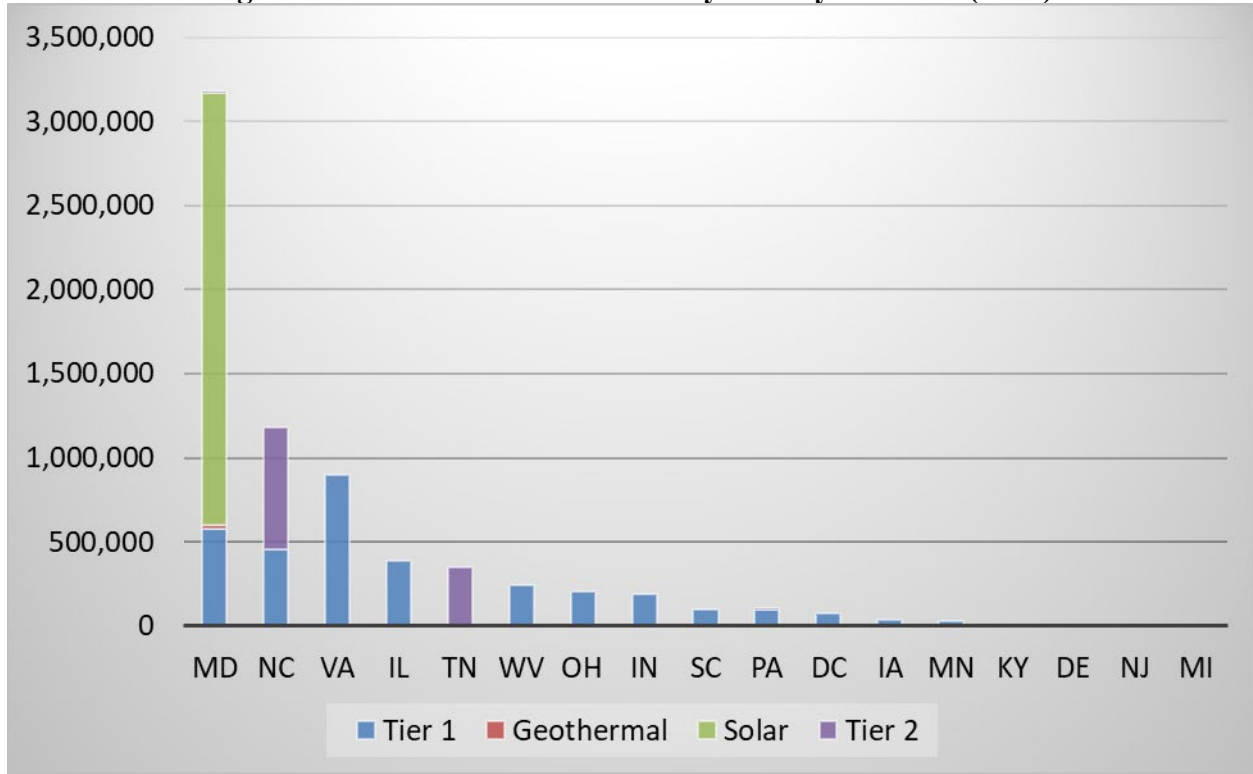


Table 7 and Table 8 provide the quantitative data in support of the previous figure. Table 7 provides the reported levels of RECs retired by Maryland electricity suppliers in 2024 on a tier and aggregate basis whereas Table 8 provides the information on a percentage basis.

Table 7 2024 RECs Retired by State

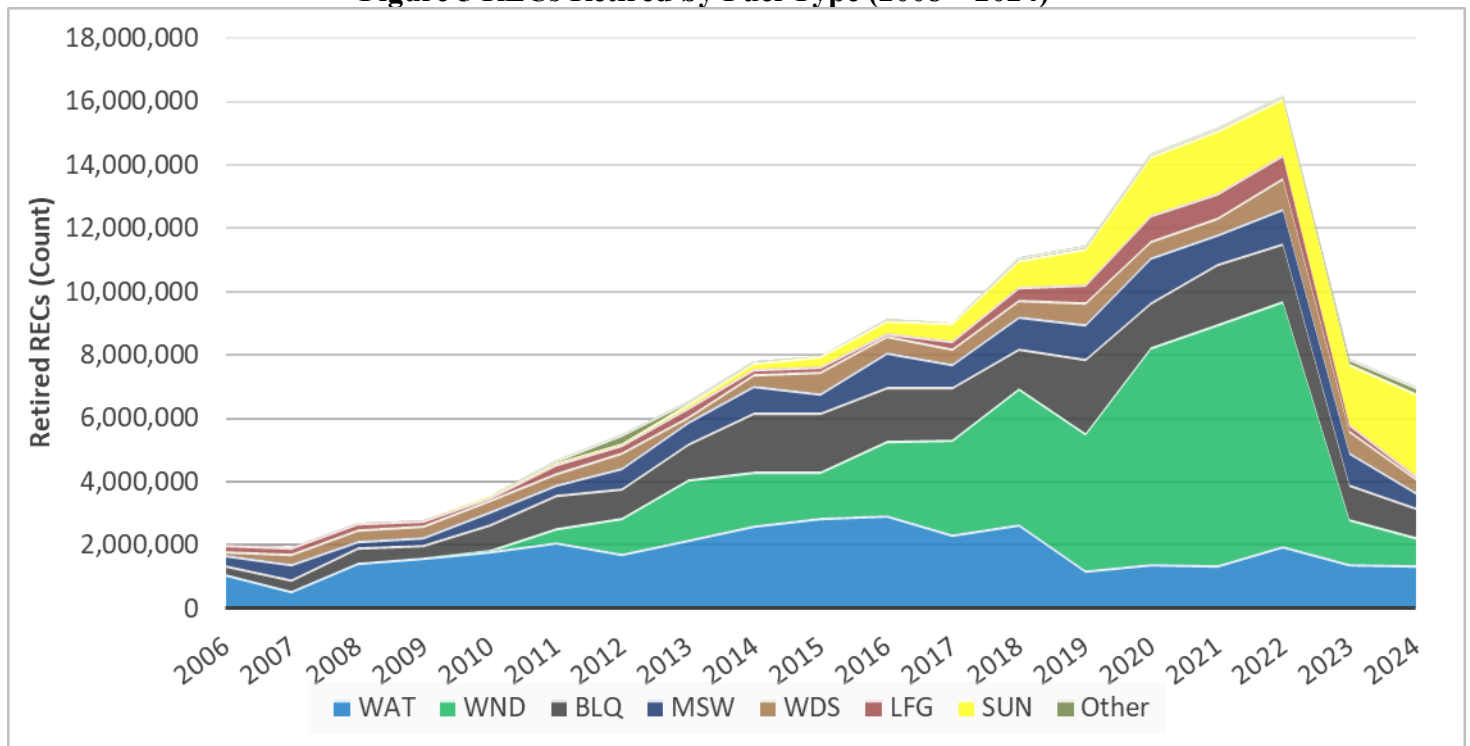
State	Tier 1	Geothermal	Solar	Tier 2	All Tiers
MD	579,134	23,407	2,568,159	1,357	3,172,057
NC	457,225	0	0	720,283	1,177,508
VA	900,911	0	0	0	900,911
IL	386,717	0	0	0	386,717
TN	0	0	0	351,598	351,598
WV	241,109	0	0	0	241,109
OH	206,046	0	0	0	206,046
IN	192,721	0	0	0	192,721
SC	101,707	0	0	0	101,707
PA	100,827	0	0	90	100,917
DC	75,086	0	0	0	75,086
IA	34,875	0	0	0	34,875
MN	27,178	0	0	0	27,178
KY	9,698	0	0	0	9,698
DE	4,287	0	0	0	4,287
NJ	3,943	0	0	0	3,943
MI	3,046	0	0	0	3,046
<i>Total</i>	3,324,510	23,407	2,568,159	1,073,328	6,989,404

Table 8 2024 RECs Retired by State (%)

State	Tier 1	Geothermal	Solar	Tier 2	All Tiers
		I			
MD	17.4%	100.0%	100.0%	0.1%	45.4%
NC	13.8%	0.0%	0.0%	67.1%	16.8%
VA	27.1%	0.0%	0.0%	0.0%	12.9%
IL	11.6%	0.0%	0.0%	0.0%	5.5%
TN	0.0%	0.0%	0.0%	32.8%	5.0%
WV	7.3%	0.0%	0.0%	0.0%	3.4%
OH	6.2%	0.0%	0.0%	0.0%	2.9%
IN	5.8%	0.0%	0.0%	0.0%	2.8%
SC	3.1%	0.0%	0.0%	0.0%	1.5%
PA	3.0%	0.0%	0.0%	0.0%	1.4%
DC	2.3%	0.0%	0.0%	0.0%	1.1%
IA	1.0%	0.0%	0.0%	0.0%	0.5%
MN	0.8%	0.0%	0.0%	0.0%	0.4%
KY	0.3%	0.0%	0.0%	0.0%	0.1%
DE	0.1%	0.0%	0.0%	0.0%	0.1%
NJ	0.1%	0.0%	0.0%	0.0%	0.1%
MI	0.1%	0.0%	0.0%	0.0%	0.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Figure 5 illustrates the growth in RECs retired in total and by fuel type from the beginning of the RPS in 2006. For the second consecutive year, solar was the largest contributor of the total number of RECs. Total wind RECs retired for compliance have fallen by 88.4 percent since 2022. Note that the contributions from qualifying biomass sourced from agricultural crops, geothermal, other biomass liquid and gas, and solar thermal are too small to be seen on this chart.

Figure 5 RECs Retired by Fuel Type (2008 – 2024)²⁹

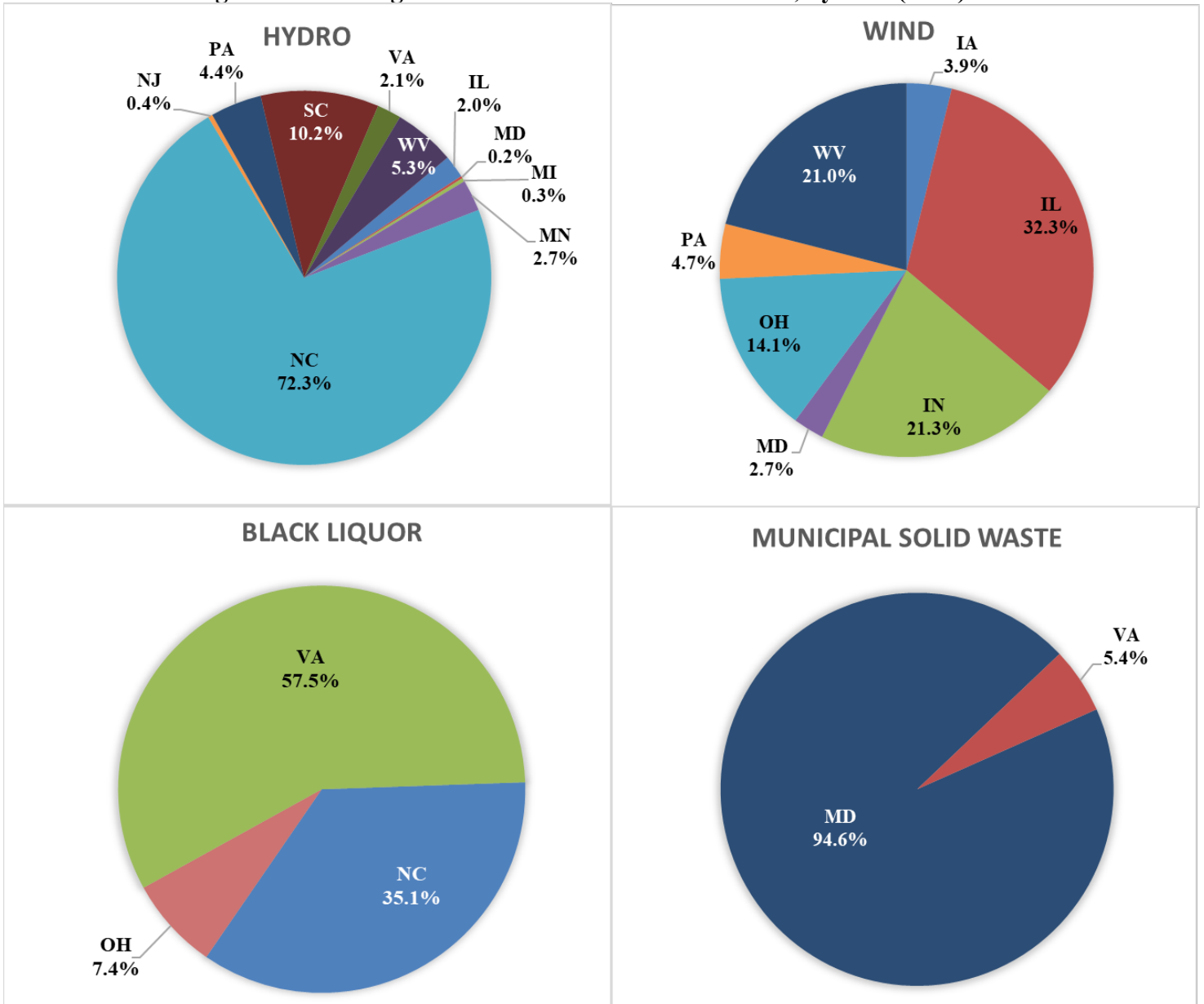


Abbreviations: BLQ, Black Liquor; LFG, Landfill Gas; MSW, Municipal Solid Waste; SUN, Solar Photovoltaic; WAT, Hydroelectric; WDS, Wood and Waste Solids; WND, Wind.

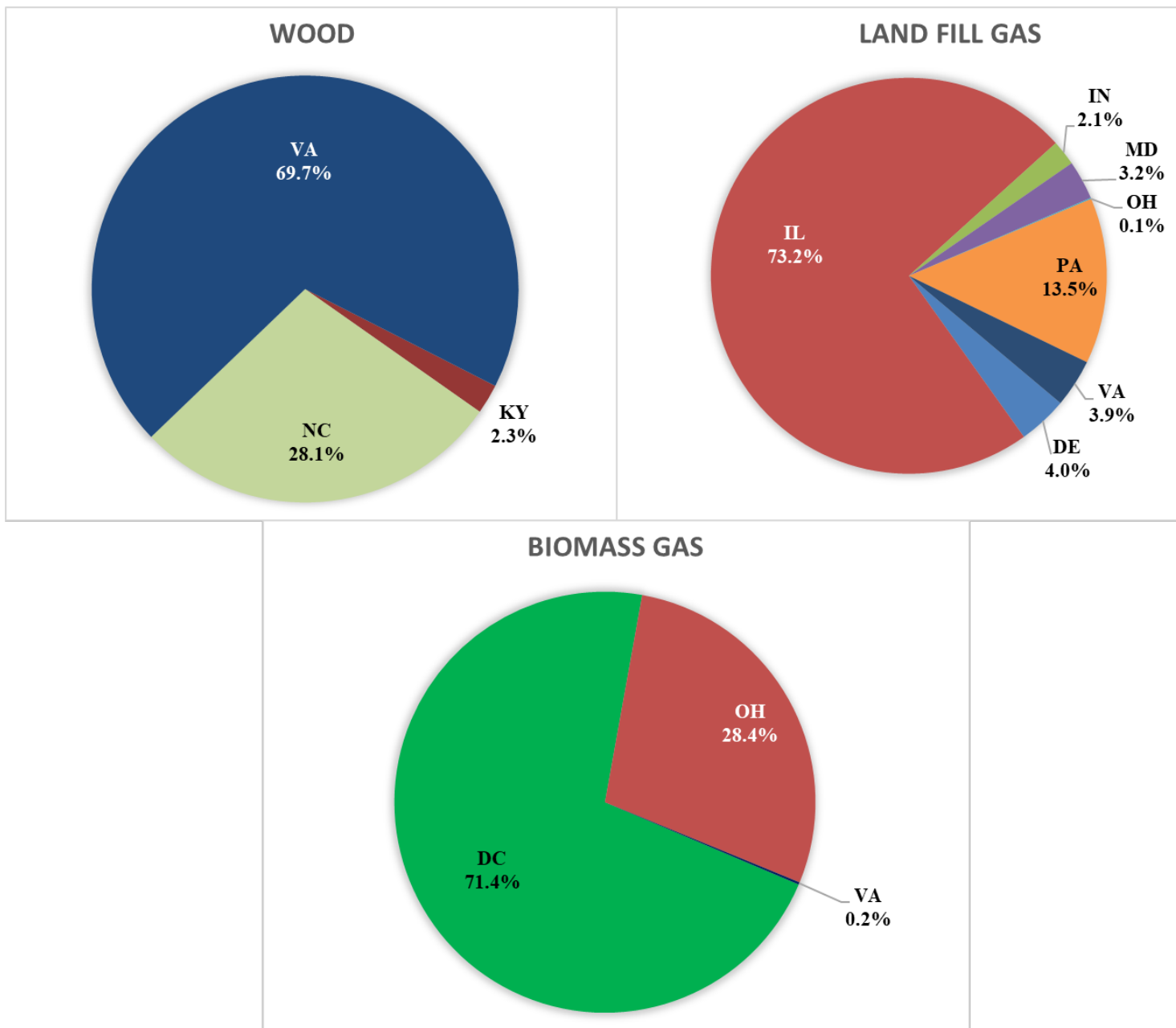
In 2024, all the RECs retired from geothermal, solar, and biomass gas sources originated in Maryland while all waste heat RECs came from the District of Columbia. The seven remaining fuels used to comply with Maryland’s 2024 RPS requirements corresponded to RECs generated in multiple other states and Figure 7 shows the percentage contribution from each state for each of these seven fuels. Facilities located in Maryland provided 94.6 percent of municipal solid waste RECs retired for compliance in 2024. Maryland resources provided only 2.7 percent of wind RECs, 0.2 percent of hydroelectric RECs, and 3.2 percent of landfill gas RECs. Maryland produced no RECs from wood, black liquor, or biomass gas.

²⁹ Senate Bill 65 of 2021 (Chapter 673) removed black liquor as an eligible resource. However, this law stated that a presently existing obligation or contract right may not be impaired in any way by this Act; so black liquor RECs will remain eligible until certain still-existing contracts expire.

Figure 6 Percentage of RECs Generated in Each State, by Fuel (2024) ³⁰



³⁰ Additional information pertaining to the source of renewable energy used to meet Maryland's 2024 RPS compliance requirements is presented in Appendices A and B. Appendix A provides a breakdown of the *number of RECs* used by electricity suppliers according to tier, fuel type, and facility location while Appendix B presents the *number of facilities* by tier, fuel type, and facility location that provided RECs for compliance.



III. MARYLAND RENEWABLE ENERGY FACILITIES

Implementation of the Maryland RPS Program can provide an incentive for renewable generators to locate in Maryland and generate electricity. The renewable requirement establishes a market for renewable energy and, to the extent Maryland's geography and natural resources can be utilized to generate renewable electricity, developers may locate projects within the State. This section of the report provides information about the REFs located in Maryland in 2024.³¹ Renewable energy generated in Maryland can be used both in Maryland and in other states for

³¹ Specific information pertaining to the State's REFs as described herein was made available by PJM-EIS in the GATS State Agency Report.

RPS compliance purposes and also can be sold in support of competitive retail electricity supplier product offerings (*i.e.*, green power products.)

As shown in Table 9, in 2024, eligible sources located within Maryland generated approximately 1.5 million Tier 1 non-solar RECs, 2.4 million Tier 1 SRECs, and 1.8 million Tier 2 RECs. Additional analyses pertaining to the Maryland-based renewable generators are presented in Appendices C through E. Appendix C shows the disposition of RECs generated in Maryland in 2023. Appendix D provides the number of renewable energy facilities by county that are both located in Maryland and registered with PJM-GATS to participate in any one of the PJM states' RPS programs. Appendix E provides the total capacity of these facilities broken out by county and tier.

Table 9 2023 Maryland-Generated RECs by Fuel Source

Fuel Type		RECs (Quantity)	RECs (Percent)
Tier 1	Geothermal	88,669	1.6%
	Landfill Gas	55,170	1.0%
	Municipal Solid Waste	684,211	12.0%
	Biomass Solids	77,161	1.4%
	Small Hydro	17,643	0.3%
	Wood Waste	0	0.0%
	Wind	566,944	10.0%
Solar	Solar PV	2,363,048	41.6%
	Solar Thermal	2,343	0.0%
Tier 2	Large Hydro	1,831,179	32.2%
Total		5,686,368	100.0%

Table 10 presents additional details regarding the disposition of Maryland-generated RECs in calendar year 2024. Approximately 22 percent of the RECs generated by renewable facilities located within Maryland during 2024 are available for potential future sale in Maryland or in other states in subsequent compliance years. Over 52 percent of all RECs generated in Maryland were retired in 2024 to meet the RPS requirements in Maryland and various other PJM states. Labeled as "Other" in Table 10, 26 percent of RECs were used for other purposes which may include pending transfers between parties.

Table 10 Disposition of 2024 Maryland-Generated RECs

REC Tier	Available	RPS Compliance	Other	Total
Tier 1	750,183	739,615	0	1,489,798
Solar	124,157	2,237,195	4,039	2,365,391
Tier 2	369,808	1,357	1,460,014	1,831,179
Total	1,244,148	2,978,167	1,464,053	5,686,368
(%)	21.9%	52.4%	25.7%	100.0%

Source: PJM-EIS

Table 11 presents, on a state-by-state basis, the distribution of the RECs both generated in-state and retired for RPS compliance purposes. In 2024, Maryland-generated RECs were retired for compliance purposes in five jurisdictions: the District of Columbia, Delaware, Maryland, New Jersey, and Pennsylvania.

Table 11 2024 Maryland-Generated RECs Retired for RPS Compliance by State

Tier	Fuel Type	DC	DE	MD	NJ	PA	Total
Tier 1	Geothermal	-	-	32,757	-	-	32,757
	Land Fill Gas	-	-	-	-	2,945	2,945
	Municipal Waste	-	-	448,013	-	-	448,013
	Biomass Solids	-	-	72,161	-	-	72,161
	Small Hydro	-	-	725	-	-	725
	Wind	-	46,673	23,885	109,956	2,500	183,014
	Subtotal	-	46,673	577,541	109,956	5,445	739,615
	Percentage	0.0%	6.3%	78.1%	14.9%	0.7%	100.0%
Solar	Solar PV	12,307	-	2,222,194	-	649	2,235,150
	Solar Thermal	-	-	2,045	-	-	2,045
	Subtotal	12,307	-	2,224,239	-	649	2,237,195
	Percentage	0.6%	0.0%	99.4%	0.0%	0.0%	100.0%
Tier 2	Large Hydro	-	-	1,357	-	-	1,357
	Subtotal	-	-	1,357	-	-	0
	Percentage	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
All Tiers	Grand Total	12,307	46,673	2,803,137	109,956	6,094	2,978,167
	Percentage	0.4%	1.6%	94.1%	3.7%	0.2%	100.0%

Source: PJM-EIS.

IV. GEOTHERMAL CARVE-OUT

In 2021, House Bill 1007³² was signed into law which created a carve-out within Tier 1 for geothermal RECs created by a system with an in-service date of on or after January 1, 2023. The legislation refers to these as “Post–2022 Geothermal Systems” and the carve-out includes a

³² Chapter 164 of the Acts of 2021.

requirement that at least 25% of the required percentage of the RPS percentage derived from post-2022 geothermal systems be derived from LMI systems.

2024 was the second year the post-2022 geothermal carve-out was applicable and percentage requirements were 0.1125% for non-LMI systems and 0.0375% for LMI systems for a total of 0.15%. This results in a REC obligation of 50,728 non-LMI GRECs and 16,886 LMI GRECs. A large majority of suppliers met these obligations by paying ACPs, with only 22,874 non-LMI GRECs being retired, and just 276 LMI GRECs. These shortfalls resulted in ACP payments of \$2,785,500 for non-LMI GREC obligations and \$1,661,000 for LMI GREC obligations.

V. CONCLUSION

The electricity supplier compliance reports for 2024, verified by the Commission, indicate that approximately 36 percent of Maryland RPS obligations were met via the purchase and retirement of RECs with \$365 million in ACPs. Approximately 45 percent of RECs used for compliance in 2024 came from in-state resources, up from 35 percent in 2023, RECs derived from three fuel types, solar (43.4 percent), black liquor (16.2 percent), and wind (15.1 percent), were the predominant sources of Tier 1 compliance in 2024. Throughout 2025, the Commission will continue to: review applications from facilities requesting certification as a Maryland REF, oversee the RPS Program, and verify that the electricity suppliers in Maryland procure enough electricity generated by renewable resources.

APPENDICES

Appendix A 2024 Retired REC's by Facility

Facility Name	State	Fuel	Quantity	BLQ %	Tier 1
Covington Facility - MeadWestvaco	VA	BLQ	173,757	16.11%	5.19%
Domtar Paper Co LLC	NC	BLQ	338,355	31.37%	10.11%
Franklin Mill	VA	BLQ	130,590	12.11%	3.90%
Hopewell Mill - Gen 1	VA	BLQ	77,477	7.18%	2.31%
Kapstone Kraft Paper	NC	BLQ	118,870	11.02%	3.55%
Pixelle Specialty Solutions	OH	BLQ	70,569	6.54%	2.11%
West Point Mill - GEN8-12	VA	BLQ	168,996	15.67%	5.05%
		Total	1,078,614	100.00%	32.22%
Facility Name	State	Fuel	Quantity	LFG %	Tier 1
AEP ELKHART 1 LF - 1	IN	LFG	2,204	2.06%	0.07%
BC MILLERSVILLE 1 LF - 1	MD	LFG	542	0.51%	0.02%
Beecher - Beecher	IL	LFG	4,243	3.97%	0.13%
Biodyne Pontiac - 1	IL	LFG	30,577	28.62%	0.91%
Blue Ridge LFGTE - 1	PA	LFG	223	0.21%	0.01%
Broad Mountain	PA	LFG	3,073	2.88%	0.09%
CID - LFG Turbines	IL	LFG	7,493	7.01%	0.22%
Croda Atlas Point CHP	DE	LFG	4,287	4.01%	0.13%
Greene Valley	IL	LFG	6,760	6.33%	0.20%
Lake Gas Recovery - Gas Turbines	IL	LFG	2,910	2.72%	0.09%
Lakeview Gas Recovery	PA	LFG	5,758	5.39%	0.17%
PEP OAKS 4 LF - 4	MD	LFG	2,365	2.21%	0.07%
PEP RITCHIE BROWN	MD	LFG	488	0.46%	0.01%
Rochelle Energy LLC	IL	LFG	1,037	0.97%	0.03%
Settlers Hill - LFG Turbines	IL	LFG	14,556	13.63%	0.43%
Suburban Landfill Generator	OH	LFG	105	0.10%	0.00%
Tullytown Landfill Gas-to-Energy Facility	PA	LFG	5,410	5.06%	0.16%
VP CHARLES CITY 1 CT - 1	VA	LFG	4,190	3.92%	0.13%
Woodland - LFG Engines	IL	LFG	10,599	9.92%	0.32%
		Total	106,820	100.00%	3.19%
Facility Name	State	Fuel	Quantity	MSW %	Tier 1
Covanta Fairfax Energy	VA	MSW	25,744	5.43%	0.77%
Montgomery County - GEN1	MD	MSW	139,729	29.45%	4.17%
Montgomery County - Gen 2	MD	MSW	31,047	6.54%	0.93%
Wheelabrator Baltimore Refuse	MD	MSW	277,878	58.57%	8.30%
		Total	474,398	100.00%	14.17%

Facility Name	State	Fuel	Quantity	OBG %	Tier 1
Buckeye BioGas - Wooster	OH	OBG	3,841	12.06%	0.11%
Collinwood Bioenergy	OH	OBG	4,008	12.58%	0.12%
DC Water Bailey Bioenergy - GTG1	DC	OBG	4,059	12.74%	0.12%
DC Water Bailey Bioenergy - GTG2	DC	OBG	10,348	32.48%	0.31%
DC Water Bailey Bioenergy - GTG3	DC	OBG	8,353	26.22%	0.25%
Haviland Energy - Haviland	OH	OBG	1,195	3.75%	0.04%
Martinsville - IWPF 1	VA	OBG	53	0.17%	0.00%
		Total	31,857	100.00%	0.95%
Facility Name	State	Fuel	Quantity	OBG %	Tier 1
Pocomoke Drying Plant	MD	OBS	42,827	59.35%	1.28%
Salisbury Drying Plant	MD	OBS	29,334	40.65%	0.88%
		Total	72,161	100.00%	2.16%
Facility Name	State	Fuel	Quantity	WAT %	Tier 1
AEP BUCK-BYLLESBY 1 H - 1	VA	WAT	17,001	6.20%	0.51%
AEP GLEN FERRIS 1 H - 1	WV	WAT	501	0.18%	0.01%
Allegheny Lock& Dam No 6	PA	WAT	757	0.28%	0.02%
Allegheny River Lock No. 8	PA	WAT	27,068	9.87%	0.81%
Allegheny River Lock No. 9	PA	WAT	12,932	4.72%	0.39%
Buzzards Roost Hydro	SC	WAT	35,240	12.86%	1.05%
City of Rock Falls Upper Sterling Hydro	IL	WAT	10,413	3.80%	0.31%
Deep Creek - 32	MD	WAT	725	0.26%	0.02%
Dixon Hydroelectric Dam	IL	WAT	9,165	3.34%	0.27%
French Paper Co - Unit 1 - 4	MI	WAT	3,046	1.11%	0.09%
Great Falls Hydro Project - HY1	NJ	WAT	3,943	1.44%	0.12%
Holcomb Rock Hydro - Unit # 1	VA	WAT	1,103	0.40%	0.03%
Lockhart Power Hydro	SC	WAT	66,467	24.25%	1.99%
London - 1	WV	WAT	13,206	4.82%	0.39%
Marmet - 1	WV	WAT	14,950	5.45%	0.45%
Niagara - 1	VA	WAT	1,525	0.56%	0.05%
Snowden Hydro Site - Unit # 1	VA	WAT	1,214	0.44%	0.04%
Twin Cities Hydro LLC	MN	WAT	27,178	9.91%	0.81%
Winfield - 1	WV	WAT	24,403	8.90%	0.73%
Yough Hydro Power - 1	PA	WAT	3,292	1.20%	0.10%
		Total	274,129	100.00%	8.19%
Facility Name	State	Fuel	Quantity	WDS %	Tier 1
Cox Waste-to-Energy Cogeneration	KY	WDS	9,698	3.14%	0.29%
VP SOUTH BOSTON 1 F - 1	VA	WDS	299,261	96.86%	8.94%
		Total	308,959	100.00%	9.23%

Facility Name	State	Fuel	Quantity	WH %	Tier 1
Blue Plains Wastewater Treatment	DC	WH	46,395	88.67%	1.39%
DC Water Bailey Bioenergy	DC	WH	5,868	11.21%	0.18%
HQO - Sharc Wastewater	DC	WH	63	0.12%	0.00%
Total			52,326	100.00%	1.56%
Facility Name	State	Fuel	Quantity	WND %	Tier 1
AEP BLUE CREEK 3 WF - 3	OH	WND	300	0.03%	0.01%
AEP FOWLER RIDGE 1A WF - 1	IN	WND	85,385	9.54%	2.55%
AEP FOWLER RIDGE 1C WF - 3	IN	WND	17,765	1.99%	0.53%
AEP FOWLER RIDGE 2-1 WF - 21	IN	WND	8,230	0.92%	0.25%
AEP FOWLER RIDGE 2-3 WF - 23	IN	WND	7,104	0.79%	0.21%
AEP HOG CREEK 1 WF - 1	OH	WND	105,758	11.82%	3.16%
AEP MEADOW LAKE 1 WF - 1	IN	WND	22,718	2.54%	0.68%
AEP MEADOW LAKE 6 WF - 6	IN	WND	5,000	0.56%	0.15%
AEP SCIOTO RIDGE 1 WF - 1	OH	WND	1,694	0.19%	0.05%
AEP TIMBER2 1 WF - 1	OH	WND	9,666	1.08%	0.29%
AEP WILDCAT 1A WF - 1	IN	WND	15,251	1.70%	0.46%
AEP WILDCAT 1B WF - 2	IN	WND	1,000	0.11%	0.03%
AMP Wind Farm / OMEGA JV 6	OH	WND	3,252	0.36%	0.10%
AP PINNACLE 1 WF - 1	WV	WND	188,049	21.01%	5.62%
AP ROTH ROCK 1 WF - 1	MD	WND	23,817	2.66%	0.71%
Ball Metal Beverage Container	OH	WND	881	0.10%	0.03%
COM HIGH TRAIL 1 WIND - 1	IL	WND	23,967	2.68%	0.72%
COM KELLY CREEK 1 WF - 1	IL	WND	13,162	1.47%	0.39%
COM OLD TRAIL 2 WF - 2	IL	WND	16	0.00%	0.00%
COM OTTER CREEK 1 WF - 1	IL	WND	22,740	2.54%	0.68%
COM PROVIDENCE HGTS 1 WF - 2	IL	WND	2,967	0.33%	0.09%
COM RADFORDS RUN 1 WF - 1	IL	WND	136,100	15.21%	4.07%
COM TOP CROP 1 WF - 1	IL	WND	24,691	2.76%	0.74%
COM WALNUT RIDGE 1 WF - 1	IL	WND	29,445	3.29%	0.88%
Fowler Ridge II Wind Farm	IN	WND	28,064	3.14%	0.84%
Martin Marietta Wind Project	OH	WND	2,763	0.31%	0.08%
Mendota Hills LLC - 1	IL	WND	194	0.02%	0.01%
PN ARMENIA MOUNTAIN 1 WF - 1	PA	WND	3,605	0.40%	0.11%
PN CASSELMAN 1 WF - 1	PA	WND	10,000	1.12%	0.30%
PN LOOKOUT 1 WF - 1	PA	WND	600	0.07%	0.02%
PN MEHOOPANY 1 WF - 1	PA	WND	21,159	2.36%	0.63%
PN PATTON 1 WF - 1	PA	WND	6,950	0.78%	0.21%
Settlers Trail Wind Farm- 2	IL	WND	35,682	3.99%	1.07%
Storm Lake Power Partners II	IA	WND	34,875	3.90%	1.04%
Talbot County Bio-Mass	MD	WND	68	0.01%	0.00%
Valfilm Wind Project	OH	WND	821	0.09%	0.02%

Whirlpool Corp - Ottawa Wind	OH	WND	303	0.03%	0.01%
Whirlpool Corp-Marion Wind	OH	WND	890	0.10%	0.03%
		Total	894,932	100.00%	26.73%
Facility Name	State	Fuel	Quantity	WAT %	Tier 2
AEP CALDERWOOD 1 H - 1	TN	WAT	257,271	23.97%	23.97%
AEP CHEOAH 1 H - 1	NC	WAT	108,999	10.16%	10.16%
Calderwood - Eligible - 1	TN	WAT	18,642	1.74%	1.74%
Cheoah - Eligible - 1	NC	WAT	12,337	1.15%	1.15%
Chilhowee - Eligible - 1-3	TN	WAT	75,685	7.05%	7.05%
Conowingo - 99	MD	WAT	1,357	0.13%	0.13%
Falls - IMPORT	NC	WAT	49,403	4.60%	4.60%
High Rock - IMPORT	NC	WAT	71,872	6.70%	6.70%
Narrows - IMPORT	NC	WAT	322,198	30.02%	30.02%
Safe Harbor - 6	PA	WAT	90	0.01%	0.01%
Santeetlah - Eligible - 1-2	NC	WAT	72,751	6.78%	6.78%
Tuckertown - IMPORT	NC	WAT	82,723	7.71%	7.71%
		Total	1,073,328	100.00%	100.00%
Tier 1 REC Total	3,347,917				
SREC Total	2,568,159				
Tier 2 REC Total	1,073,328				
Grand Total	6,989,404				
*Neither solar nor geothermal facilities are represented in this table. In 2024, 87,998 facilities accounted for 2,568,159 SRECs, and 1,134 facilities accounted for 53,721 GRECs.					

Appendix B Location of Facilities that Provided RECs for 2024 RPS Compliance

	D C	DE	IA	IL	IN	K Y	MD	MI	MN	NC	NJ	OH	PA	SC	TN	VA	WV	Total
<i>Tier 1</i>																		
Black Liquor	-	-	-	-	-	-	-	-	-	2	-	1	-	-	-	4	-	7
Geothermal	-	-	-	-	-	-	1,766	-	-	-	-	-	-	-	-	-	-	1,766
Landfill Gas	-	1	-	8	1	-	3	-	-	-	-	1	4	-	-	1	-	19
Municipal Solid Waste	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	1	-	3
Other Biomass Gas	1	-	-	-	-	-	-	-	-	-	-	3	-	-	-	1	-	5
Other Biomass Solids	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	2
Small Hydro	-	-	-	2	-	-	1	1	1	-	1	-	4	2	-	4	4	20
Waste Heat	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Wood Waste	-	-	-	-	-	1	-	-	-	2	-	-	-	-	-	2	-	5
Wind	-	-	1	10	5	-	2	-	-	-	-	10	5	-	-	-	1	34
<i>Tier 1 Solar</i>																		
Solar PV	-	-	-	-	-	-	87,310	-	-	-	-	-	-	-	-	-	-	87,310
Solar Thermal	-	-	-	-	-	-	688	-	-	-	-	-	-	-	-	-	-	688
<i>Tier 2</i>																		
Large Hydro	-	-	-	-	-	-	1	-	-	6	-	-	1	-	2	-	-	10
Total	4	1	1	20	6	1	89,775	1	1	10	1	15	14	2	2	13	5	89,872

Note: In order to prevent double counting, facilities using multiple fuels are only listed under their primary fuel.

Appendix C Disposition of 2024 Vintage RECs Generated in Maryland

Fuel Type and Tier	RECs Retired for RPS Compliance by State						Available	Other	Total RECs Generated
	DC	DE	MD	NJ	PA	Total			
Geothermal	-	-	32,757	-	-	32,757	55,912	-	88,669
Landfill Gas	-	-	-	-	2,945	2,945	52,225	-	55,170
Municipal Solid Waste	-	-	448,013	-	-	448,013	236,198	-	684,211
Biomass Solids	-	-	72,161	-	-	72,161	5,000	-	77,161
Small Hydro	-	-	725	-	-	725	16,918	-	17,643
Wind	-	46,673	23,885	109,956	2,500	183,014	383,930	-	566,944
<i>Tier 1 Non-solar Total</i>	-	46,673	577,541	109,956	5,445	739,615	750,183	-	1,489,798
Solar PV	12,307	-	2,222,194	-	649	2,235,150	123,859	4,039	2,363,048
Solar Thermal	-	-	2,045	-	-	2,045	298	-	2,343
<i>Tier 1 Solar Total</i>	12,307	-	2,224,239	-	649	2,237,195	124,157	4,039	2,365,391
Large Hydro	-	-	1,357	-	-	1,357	369,808	1,460,014	1,831,179
<i>Tier 2 Total</i>	-	-	1,357	-	-	1,357	369,808	1,460,014	1,831,179
<i>Grand Total</i>	12,307	46,673	2,803,137	109,956	6,094	2,978,167	1,244,148	1,464,053	5,686,368

Appendix D Number of Renewable Energy Facilities Located in Maryland

Maryland County	Tier 1	Solar	Tier 2	Total
Allegany	-	88	-	88
Anne Arundel	236	11,462	-	11,698
Baltimore	437	10,828	-	11,265
Baltimore City	18	1,620	-	1,638
Calvert	47	1,129	-	1,176
Caroline	1	453	-	454
Carroll	75	2,950	-	3,025
Cecil	58	2,171	-	2,229
Charles	35	3,873	-	3,908
Dorchester	3	486	-	489
Frederick	129	3,898	-	4,027
Garrett	6	86	-	92
Harford	324	5,154	1	5,479
Howard	212	5,817	-	6,029
Kent	8	443	-	451
Montgomery	224	16,570	-	16,794
Prince Georges	39	26,438	-	26,477
Queen Annes	17	904	-	921
Somerset	2	362	-	364
St Marys	29	1,986	-	2,015
Talbot	9	348	-	357
Washington	94	1,407	-	1,501
Wicomico	4	1,504	-	1,508
Worcester	5	650	-	655
Total	2,012	100,627	1	102,640

Note: This list includes all renewable generators that are both: 1) located within Maryland, and 2) registered to participate in any one of the PJM states' renewable energy programs as of June 1, 2025.

Appendix E Capacity of Renewable Energy Facilities Located in Maryland (MW)

Maryland County	Tier 1	Solar	Tier 2	Total
Allegany	-	35.9	-	35.9
Anne Arundel	12.6	174.1	-	186.7
Baltimore	83.7	184.8	-	268.5
Baltimore City	1.2	33.7	-	34.9
Calvert	1.8	14.4	-	16.2
Caroline	0.1	15.4	-	15.4
Carroll	3.1	76.9	-	80.0
Cecil	2.3	54.1	-	56.4
Charles	1.7	93.8	-	95.5
Dorchester	0.1	80.5	-	80.6
Frederick	5.1	115.8	-	120.9
Garrett	210.0	22.7	-	232.7
Harford	12.8	101.6	474.0	588.3
Howard	9.3	148.0	-	157.3
Kent	0.3	23.8	-	24.2
Montgomery	88.2	224.0	-	312.3
Prince George's	8.0	357.4	-	365.4
Queen Anne's	0.7	149.1	-	149.8
Somerset	3.8	154.8	-	158.6
St. Mary's	1.4	22.8	-	24.1
Talbot	69.6	15.6	-	85.2
Washington	3.7	106.3	-	110.0
Wicomico	13.4	56.1	-	69.5
Worcester	7.4	40.0	-	47.4
Total	540.2	2,301.7	474.0	3,316.0

Note: This list includes all renewable generators that are both: 1) located within Maryland, and 2) registered to participate in any one of the PJM states' renewable energy programs as of June 1, 2025.

Appendix F Maryland Certified Renewable Energy Facilities³³

Plant Name	State	Date Online	Certification No.
ACE CUMBERLAND CTY 1 LF	NJ	11/01/2008	MD-40139-LFG-01
AE ONTARIO WF	NJ	12/01/2005	MD-20166-WND-01
AEP BITTER RIDGE 1 WF	IN	09/01/2020	MD-20208-WND-01
AEP BLUE CREEK 3 WF	OH	10/01/2011	MD-20141-WND-01
AEP BLUFF POINT 2 WF	IN	09/01/2017	MD-20182-WND-01
AEP BUCK-BYLLESBY 1 H	VA	01/01/1912	MD-90204-WAT-01
AEP CLOYDS MT 1 LF	VA	12/01/2014	MD-40197-LFG-01
AEP ELKHART 1 LF	IN	10/01/2010	MD-40206-LFG-01
AEP FOWLER RIDGE 1A WF	IN	02/01/2009	MD-20112-WND-01
AEP FOWLER RIDGE 1B WF	IN	02/01/2009	MD-20112-WND-01
AEP FOWLER RIDGE 1C WF	IN	02/01/2009	MD-20112-WND-01
AEP FOWLER RIDGE 2-1 WF	IN	12/01/2009	MD-20138-WND-01
AEP FOWLER RIDGE 2-2 WF	IN	12/01/2009	MD-20138-WND-01
AEP FOWLER RIDGE 2-3 WF	IN	12/01/2009	MD-20138-WND-01
AEP FOWLER RIDGE 3 WF	IN	02/01/2009	MD-20139-WND-01
AEP FOWLER RIDGE 4 WF	IN	12/01/2015	MD-20172-WND-01
AEP FRIES HYDRO	VA	01/01/1933	MD-90177-WAT-01
AEP GLEN FERRIS 1 H	WV	12/01/2011	MD-90220-WAT-01
AEP HEADWATERS 1 WF	IN	10/01/2014	MD-20163-WND-01
AEP HEADWATERS 2 WF	IN	01/01/2021	MD-20216-WND-01
AEP HOG CREEK 1 WF	OH	12/01/2017	MD-20186-WND-01
AEP JAY COUNTY 1 LF	IN	04/01/2005	MD-40205-LFG-01
AEP MEADOW LAKE 1 WF	IN	10/01/2009	MD-20131-WND-01
AEP MEADOW LAKE 2 WF	IN	06/01/2010	MD-20132-WND-01
AEP MEADOW LAKE 3 WF	IN	08/01/2010	MD-20133-WND-01
AEP MEADOW LAKE 4 WF	IN	10/01/2010	MD-20134-WND-01
AEP MEADOW LAKE 5 WF	IN	07/01/2017	MD-20181-WND-01
AEP MEADOW LAKE 6 WF	IN	11/01/2018	MD-20193-WND-01
AEP ORCHARD HILLS 1 LF	MI	01/01/2013	MD-40201-LFG-01
AEP PAULDING 3 WF	OH	11/01/2016	MD-20177-WND-01
AEP PAULDING 41 WF	OH	01/01/2020	MD-20215-WND-01
AEP PAULDING 42 WF	OH	03/01/2020	MD-20215-WND-01
AEP SCIOTO RIDGE 1 WF	OH	10/01/2020	MD-20213-WND-01
AEP SUMMERSVILLE 1-2 H	WV	01/01/2001	MD-90178-WAT-02
AEP TIMBER2 1 WF	OH	06/01/2011	MD-20221-WND-01

³³ This list excludes solar facilities, none of which was installed prior to 1998. Also excluded is geothermal, none of which was installed prior to 2006. A full list of facilities can be found here: <https://gats.pjm-eis.com/gats2/PublicReports/RenewableGeneratorsRegisteredinGATS>.

AEP TRISHE 1 WF	OH	08/01/2018	MD-20189-WND-01
AEP WILDCAT 1A WF	IN	10/01/2012	MD-20158-WND-01
AEP WILDCAT 1B WF	IN	10/01/2012	MD-20158-WND-01
Allegheny 5	PA	10/01/1988	MD-90180-WAT-01
Allegheny Lock& Dam No 6 Hydro	PA	01/01/1989	MD-90181-WAT-01
Allegheny River Lock and Dam No. 8	PA	11/01/1990	MD-90799-WAT-01
Allegheny River Lock and Dam No. 9	PA	11/01/1990	MD-90798-WAT-01
Allentown Wastewater Treatment	PA	07/01/2014	MD-40187-OBG-01
AMP Wind Farm / OMEGA JV 6	OH	12/01/2004	MD-20183-WND-01
AP ARDEN 1 LF	PA	01/01/2009	MD-40145-LFG-01
AP BEECH RIDGE 1 WF	WV	01/01/2010	MD-20137-WND-01
AP BEECH RIDGE 2 WF	WV	03/01/2020	MD-20203-WND-01
AP BLACK ROCK 1 WF	WV	10/01/2021	MD-20217-WND-01
AP CRITERION 1 WF	MD	12/01/2010	MD-20124-WND-01
AP FAIR WIND 2 WF	MD	11/01/2015	MD-20170-WND-01
AP FOURMILE RIDGE 1 WF	MD	12/01/2014	MD-20167-WND-01
AP GREENLAND GAP 1 WF	WV	12/01/2007	MD-20109-WND-01
AP LAUREL MOUNTAIN 1 WF	WV	05/01/2011	MD-20136-WND-01
AP MISC HYDRO H	WV	06/01/1938	MD-90102-WAT-01
AP PINNACLE 1 WF	WV	11/01/2011	MD-20135-WND-01
AP ROTH ROCK 1 WF	MD	11/01/2010	MD-20122-WND-01
AP SOUTH CHESTNUT 1 WF	PA	11/01/2011	MD-20142-WND-01
AP TWIN RIDGES 1 WF	PA	09/01/2012	MD-20149-WND-01
AP UPTON DG 1 F	PA	11/01/2004	MD-40163-LFG-01
AP WILLOW ISLAND 1 H	WV	11/01/2015	MD-90258-WAT-02
Appomattox River Associates, LP.	VA	09/01/1992	MD-90214-WAT-01
Archbald Power Station	PA	09/01/1988	MD-40115-LFG-01
Atlantic Treatment Plant	VA	05/01/2013	MD-40203-OBG-01
Ball Metal Beverage Container Corp.	OH	08/01/2020	MD-20209-WND-01
Banister Hydro, Inc	VA	01/01/1915	MD-90212-WAT-01
Bavarian LFGTE	KY	09/01/2003	MD-40176-LFG-01
BC ALPHA RIDGE 1 LF	MD	07/01/2012	MD-40171-LFG-01
BC MILLERSVILLE 1 LF	MD	06/01/2012	MD-40168-LFG-01
Beaver Valley Patterson Dam	PA	09/01/1982	MD-90256-WAT-01
Beecher	IL	06/01/2006	MD-40138-LFG-01
Belleville	WV	04/01/1999	MD-90243-WAT-02
Berrien Springs	MI	01/01/1996	MD-90229-WAT-01
Big Shoals Hydro	VA	12/01/1925	MD-90183-WAT-01
Biodyne Pontiac	IL	12/01/1999	MD-40199-LFG-01
Blue Plains Wastewater Treatment	DC	10/01/2014	MD-20222-WH-01
Blue Ridge LFGTE	PA	11/01/2012	MD-40173-LFG-01

Blue Ridge LFGTE	KY	11/01/2013	MD-40204-LFG-01
Buchanan	MI	01/01/1919	MD-90226-WAT-01
Buckeye BioGas	OH	04/01/2010	MD-50500-OBG-01
Buzzards Roost Hydro	SC	01/01/1940	MD-90260-WAT-01
CCIA BTM	NJ	10/01/2008	MD-40139-LFG-01
CID	IL	03/01/1989	MD-40116-LFG-01
City of Radford Hydroelectric Project	VA	08/01/1934	MD-90249-WAT-01
City of Rock Falls Upper Sterling Hydro	IL	06/01/1998	MD-90196-WAT-01
Coleman Falls Hydro	VA	06/01/1983	MD-90184-WAT-01
Collinwood Bioenergy	OH	02/01/2012	MD-40204-OBG-01
COM ADAM 1 WF	IL	10/01/2007	MD-20160-WND-01
COM ALTA FARMS II 1 WF	IL	04/01/2023	MD-20220-WND-01
COM BIG SKY 1 WF	IL	08/01/2010	MD-20143-WND-01
COM BISHOP HILL 1 WF	IL	02/01/2012	MD-20159-WND-01
COM BISHOP HILL 2 WF	IL	02/01/2012	MD-20159-WND-01
COM BLOOMING GROVE 1 WF1	IL	10/01/2020	MD-20212-WND-01
COM BRIGHT STALK 1 WF	IL	12/01/2019	MD-20202-WND-01
COM CAMP GROVE 1 WF	IL	12/01/2007	MD-20140-WND-01
COM CAMP GROVE 2 WF	IL	12/01/2007	MD-20140-WND-01
COM CAYUGA RIDGE 1 WF	IL	12/01/2009	MD-20117-WND-01
COM ECO GROVE 1 WF	IL	06/01/2009	MD-20127-WND-01
COM GRAND RIDGE 1 WF	IL	10/01/2008	MD-20144-WND-01
COM GRAND RIDGE 2 WF	IL	12/01/2009	MD-20118-WND-01
COM GRAND RIDGE 3 WF	IL	11/01/2009	MD-20119-WND-01
COM GRAND RIDGE 4 WF	IL	12/01/2009	MD-20152-WND-01
COM GREEN RIVER 1 WF	IL	11/01/2019	MD-20200-WND-01
COM GREEN RIVER 2 WF	IL	11/01/2019	MD-20201-WND-01
COM HIGH TRAIL 1 WIND	IL	03/01/2007	MD-20107-WND-01
COM HILLTOPPER 1 WF	IL	11/01/2018	MD-20188-WND-01
COM KELLY CREEK 1 WF	IL	11/01/2016	MD-20176-WND-01
COM LONE TREE 3 WF	IL	11/01/2020	MD-20214-WND-01
COM MIDLAND 1 WF	IL	10/01/2023	MD-20226-WND-01
COM MINONK 1 WF	IL	10/01/2012	MD-20156-WND-01
COM OLD TRAIL 2 WF	IL	01/01/2008	MD-20108-WND-01
COM OTTER CREEK 1 WF	IL	01/01/2020	MD-20207-WND-01
COM PILOT HILL 1 WF	IL	07/01/2015	MD-20164-WND-01
COM PROVIDENCE HGTS 1 WF	IL	06/01/2008	MD-20155-WND-01
COM RADFORDS RUN 1 WF	IL	10/01/2017	MD-20184-WND-01
COM SHADY OAKS 1 WF	IL	05/01/2012	MD-20218-WND-01
COM SHADY OAKS 2 WF	IL	09/01/2023	MD-20223-WND-01
COM SUBLETTE 1 WF	IL	04/01/2007	MD-20145-WND-01

COM TOP CROP 1 WF	IL	10/01/2009	MD-20125-WND-01
COM TOP CROP 2 WF	IL	07/01/2010	MD-20126-WND-01
COM WALNUT RIDGE 1 WF	IL	10/01/2018	MD-20196-WND-01
COM WBROOK 1 WF	IL	04/01/2007	MD-20145-WND-01
COM WHITNEY HILL 2 WF	IL	12/01/2019	MD-20194-WND-01
Conemaugh Hydro Plant	PA	04/01/1989	MD-90182-WAT-01
Conowingo	MD	03/01/1928	MD-90176-WAT-02
Constantine	MI	01/01/1923	MD-90255-WAT-01
Covanta Fairfax Energy	VA	03/01/1990	MD-80106-MSW-01
Covanta New Martinsville Energy	WV	10/01/1988	MD-90179-WAT-02
Covington Facility	VA	01/01/1989	MD-30010-BLQ-01; MD-30010-WDS-01
Cox Waste-to-Energy Cogeneration	KY	01/01/2001	MD-30114-WDS-01
Crescent Ridge	IL	05/01/2005	MD-20153-WND-01
Croda Atlas Point CHP	DE	08/01/2013	MD-40191-LFG-01
Croda Atlas Point CHP	DE	07/01/2021	MD-40213-LFG-01
Cushaw	VA	01/01/1930	MD-90231-WAT-01
DC Water Bailey Bioenergy Facility	DC	10/01/2014	MD-40189-OBG-01
DC Water Bailey Bioenergy Facility	DC	10/01/2014	MD-40189-OBG-01
DC Water Bailey Bioenergy Facility	DC	01/01/2016	MD-20225-WH-01
DC Water Bailey Bioenergy Facility	DC	01/01/2016	MD-20224-WH-01
DC Water Bailey Bioenergy Facility	DC	01/01/2016	MD-20226-WH-01
DC Water Bailey Bioenergy Facility	DC	01/01/2016	MD-20223-WH-01
Deep Creek	MD	07/01/1925	MD-90104-WAT-01
DEOK MELDAHL DAM 1 H	KY	08/01/2014	MD-90259-WAT-02
Dixon Hydroelectric Dam	IL	01/01/1988	MD-90195-WAT-01
Domtar Paper Co LLC Plymouth NC	NC	09/01/1952	MD-301180-BLQ-01; MD-30118-WDS-01
DPL CENTRAL 1 LF	DE	12/01/2006	MD-40113-LFG-01
DPL NEWLAND PARK 1 LF	MD	05/01/2007	MD-40167-LFG-01
DPL SOUTHERN 1 LF	DE	10/01/2006	MD-40114-LFG-01
Eastern Correctional Institution	MD	08/01/1987	MD-30117-WDS-01
Eastern LFG BTM	MD	06/01/2020	MD-40209-LFG-01
Eastern LFG BTM	MD	02/01/2021	MD-402010-LFG-01
Easton	MD	11/01/2004	MD-50001-OBL-01
Edge Moor	DE	12/01/1954	MD-40103-LFG-01
Edge Moor	DE	04/01/1966	MD-40104-LFG-01
Edge Moor	DE	08/01/1973	MD-40105-LFG-01
Elkhart	IN	01/01/1913	MD-90230-WAT-01
Falls	NC	12/01/1919	MD-90236-WAT-02
FE ERIE COUNTY 1 LF	OH	04/01/2010	MD-40174-LFG-01
FE GENEVA 1 LF	OH	07/01/2013	MD-40185-LFG-01
FE MAHONING 1 LF	OH	01/01/2013	MD-40186-LFG-01

Findlay Wind Farm	OH	12/01/2015	MD-20175-WND-01
Fowler Ridge II Wind Farm - Vectren	IN	12/01/2009	MD-20138-WND-01
FPL E Somerset Windpower LLC	PA	10/01/2001	MD-20205-WND-01
Franklin Mill	VA	11/01/1977	MD-30106-BLQ-01
Freeborn Wind Farm	MN	05/01/2021	MD-20231-WND-01
French Paper Co	MI	02/01/2000	MD-90221-WAT-01
Frey Farm Landfill	PA	01/01/2006	MD-40141-LFG-01
Gaston	NC	02/01/1963	MD-90231-WAT-02
Great Falls Hydro Project	NJ	09/01/1984	MD-90215-WAT-01
Green Valley LFGTE	KY	09/01/2003	MD-40181-LFG-01
Greene Valley	IL	05/01/1996	MD-40102-LFG-01
Hardin County LFGTE	KY	01/01/2006	MD-40178-LFG-01
Harpster Wind	OH	01/01/2016	MD-20173-WND-01
Haviland Energy	OH	04/01/2012	MD-50503-OBG-01
Haviland Wind Farm	OH	12/01/2012	MD-20161-WND-01
Haviland Wind Farm	OH	12/01/2012	MD-20161-WND-01
Haviland Wind Farm	OH	12/01/2012	MD-20161-WND-01
High Rock	NC	12/01/1927	MD-90237-WAT-02
Holcim-Paulding Wind Project	OH	08/01/2020	MD-20210-WND-01
Holcomb Rock Hydro	VA	06/01/1920	MD-90185-WAT-01
Hopewell Mill	VA	12/01/1980	MD-30101-BLQ-01; MD-30101-WDS-01
HQO	DC	01/01/2019	MD-20221-WH-01
JC OCEAN CTY 1 LF	NJ	05/01/2007	MD-40207-LFG-01
Jersey-Atlantic Wind, LLC	NJ	12/01/2005	MD-20166-WND-01
John H Kerr	VA	12/01/1953	MD-90250-WAT-02
Johnsonburg Mill	PA	02/01/1993	MD-30133-BLQ-01
Kapstone Kraft Paper Corporation	NC	01/01/1999	MD-30116-AB-01; MD-30116-BLQ-01; MD-30116-WDS-01
KC Brighton	MD	07/01/1985	MD-90218-WAT-01
Lake Gas Recovery	IL	08/01/1988	MD-40101-LFG-01
Lake Lynn Power Station	PA	05/01/1926	MD-90101-WAT-02
Lakeview Gas Recovery	PA	06/01/1997	MD-40125-LFG-01
Laurel Ridge LFGTE	KY	09/01/2003	MD-40180-LFG-01
Lockhart Power Hydro	SC	10/01/1921	MD-90261-WAT-01
Lockport Powerhouse Hydroelectric	IL	02/01/1999	MD-90241-WAT-01
London	WV	12/01/1935	MD-90200-WAT-01
Lorain County Power Station	OH	12/01/2001	MD-40188-LFG-01
Lycoming Landfill	PA	08/01/2012	MD-40183-LFG-01
Marmet	WV	12/01/1935	MD-90201-WAT-01
Martin Marietta Wind Project	OH	12/01/2023	MD-20224-WND-01
Martinsville	VA	04/01/2017	MD-45000-OBG-01
ME NORTH LEBANON 1 F	PA	09/01/2007	MD-40142-LFG-01

Mendota Hills LLC	IL	03/01/2019	MD-20100-WND-01
Meyersdale Windpower	PA	12/01/2003	MD-20105-WND-01
Midshore I Regional Solid Waste	MD	06/01/2023	MD-40211-LFG-01
Mill Run Windpower	PA	10/01/2001	MD-20204-WND-01
Montgomery County Resource	MD	05/01/1995	MD-80001-MSW-01
Montgomery County Resource	MD	07/01/1995	MD-80001-MSW-01
Moomaws Dam	VA	01/01/1984	MD-90245-WAT-01
Morehead Generating Facility	KY	06/01/2019	MD-40203-LFG-01
Mother Ann Lee Hydroelectric Station	KY	03/01/2007	MD-90219-WAT-01
Mottville	MI	01/01/1923	MD-90227-WAT-01
Mountaineer Wind Energy Center	WV	12/01/2002	MD-20229-WND-01
Narrows	NC	12/01/1917	MD-90238-WAT-02
Niagara	VA	06/01/1954	MD-90202-WAT-01
O'brien Edgeboro	NJ	09/01/1997	MD-40172-LFG-01
Ocean County Landfill	NJ	02/01/1997	MD-40208-LFG-01
PE SE CHESTER COUNTY REFUSE 1 LF	PA	01/01/2007	MD-40135-LFG-01
Pendleton County LFGTE	KY	02/01/2007	MD-40177-LFG-01
Pennsauken Landfill	NJ	01/01/2005	MD-40148-LFG-01
PEP RITCHIE BROWN 2 LF	MD	12/01/2003	MD-40137-LFG-01
PEP RITCHIE PG COGEN 1	MD	10/01/1987	MD-40136-LFG-01
Philpott Lake	VA	08/01/1953	MD-90251-WAT-01
Piney	PA	06/01/1924	MD-90103-WAT-02
Pinnacles Hydro Power Project	VA	06/01/1938	MD-90246-WAT-01
Pixelle Specialty Solutions - Spring Grove	PA	10/01/1989	MD-30109-BLQ-01
Pixelle Specialty Solutions -Chillicothe	OH	07/01/1978	MD-30102-BLQ-01
PL ARCHBALD PEI 5 LF	PA	01/01/2010	MD-40115-LFG-01
PL ARCHBALD PEI 6 LF	PA	01/01/2010	MD-40115-LFG-01
PL LOCUST RIDGE 2 WF	PA	11/01/2008	MD-20115-WND-01
PL PINE GROVE 1 LF	PA	08/01/2008	MD-40165-LFG-01
PN ALLEGHENY RIDGE 1 WF	PA	06/01/2007	MD-20106-WND-01
PN ARMENIA MOUNTAIN 1 WF	PA	11/01/2009	MD-20114-WND-01
PN BIG LEVEL 1 WF	PA	11/01/2019	MD-20195-WND-01
PN CASSELMAN 1 WF	PA	12/01/2007	MD-20123-WND-01
PN HIGHLAND 1 WF	PA	06/01/2009	MD-20211-WND-01
PN HIGHLAND NORTH 2 WF	PA	02/01/2012	MD-20146-WND-01
PN LAUREL HILLS 1 WF	PA	09/01/2012	MD-20154-WND-01
PN LOOKOUT 1 WF	PA	10/01/2008	MD-20151-WND-01
PN MEHOOPANY 1 WF	PA	12/01/2012	MD-20148-WND-01
PN MEHOOPANY 2 WF	PA	12/01/2012	MD-20148-WND-01
PN NORTH ALLEGHENY 2 WF	PA	09/01/2009	MD-20190-WND-01
PN NORTHERN TIER 1 D	PA	01/01/2009	MD-40144-LFG-01

PN PATTON 1 WF	PA	11/01/2012	MD-20150-WND-01
PN RINGER HILL 1 WF	PA	12/01/2016	MD-20180-WND-01
PN SANDY RIDGE 1 WF	PA	03/01/2012	MD-20157-WND-01
PN SANDY RIDGE 2 WF	PA	08/01/2023	MD-20222-WND-01
PN SHIPPENSBURG 1 LF	PA	01/01/2009	MD-40143-LFG-01
PN STONY CREEK 1 WF	PA	11/01/2009	MD-20120-WND-01
Pocomoke Drying Plant	MD	03/01/2007	MD-50508-OBS-01
PS PENNSAUKEN 1 LF	NJ	12/01/2004	MD-40148-LFG-01
Racine	OH	01/01/1983	MD-90217-WAT-02
Ravenna Hydroelectric Project	KY	04/01/2021	MD-90252-WAT-01
Red Pine Wind Project, LLC	MN	12/01/2017	MD-20232-WND-01
Reusens	VA	01/01/1903	MD-90244-WAT-01
Roanoke Rapids	NC	09/01/1955	MD-90232-WAT-02
Rochelle Energy LLC	IL	12/01/2011	MD-40175-LFG-01
Safe Harbor	PA	12/01/1931	MD-90100-WAT-02
Safe Harbor	PA	12/01/1931	MD-90100-WAT-02
Safe Harbor	PA	01/01/1932	MD-90100-WAT-02
Safe Harbor	PA	01/01/1932	MD-90100-WAT-02
Safe Harbor	PA	10/01/1933	MD-90100-WAT-02
Safe Harbor	PA	11/01/1934	MD-90100-WAT-02
Safe Harbor	PA	10/01/1940	MD-90100-WAT-02
Safe Harbor	PA	04/01/1985	MD-90100-WAT-02
Safe Harbor	PA	06/01/1985	MD-90100-WAT-02
Safe Harbor	PA	09/01/1985	MD-90100-WAT-02
Safe Harbor	PA	02/01/1986	MD-90100-WAT-02
Safe Harbor	PA	04/01/1986	MD-90100-WAT-02
Salisbury Drying Plant	MD	09/01/2020	MD-50507-OBS-01
Schoolfield Dam	VA	12/01/1990	MD-90193-WAT-01
Settlers Hill	IL	10/01/1988	MD-40119-LFG-01
Settlers Trail Wind Farm- 2	IL	10/01/2011	MD-20227-WND-01
Snowden Hydro Site	VA	08/01/1987	MD-90186-WAT-01
Storm Lake Power Partners II LLC	IA	04/01/1999	MD-20225-WND-01
Suburban Landfill Generator	OH	01/01/2011	MD-40212-LFG-01
Swift Creek Hydro, Inc.	VA	10/01/1988	MD-90211-WAT-01
Talbot County Bio-Mass Facility	MD	04/01/2011	MD-20130-WND-01
Tatanka Wind Farm	ND	01/01/2008	MD-20169-WND-01
Tuckertown	NC	12/01/1962	MD-90239-WAT-02
Tullytown Landfill Gas-to-Energy	PA	03/01/2013	MD-40184-LFG-01
Twin Branch	IN	05/01/1989	MD-90228-WAT-01
Twin Cities Hydro LLC	MN	10/01/1924	MD-90253-WAT-01
Valfilm Wind Project	OH	09/01/2018	MD-20191-WND-01

VP AMELIA 1 CT	VA	08/01/2001	MD-40157-LFG-01
VP BETHEL 1 LF	VA	10/01/2007	MD-40132-LFG-01
VP BRUNSWICK 1 LF	VA	10/01/2007	MD-40158-LFG-01
VP CHARLES CITY 1 CT	VA	11/01/2003	MD-40159-LFG-01
VP CHESTERFIELD 1 LF	VA	06/01/2004	MD-40160-LFG-01
VP DESERT 1 WF	NC	11/01/2016	MD-20178-WND-01
VP EMPORIA 1 H	VA	01/01/1986	MD-90213-WAT-01
VP HENRICO 1 LF	VA	09/01/2010	MD-40161-LFG-01
VP KING AND QUEEN 1 D	VA	01/01/2008	MD-40162-LFG-01
VP KING GEORGE 1 LF	VA	05/01/2010	MD-40149-LFG-01
VP NEW CREEK 1 WF	WV	11/01/2016	MD-20179-WND-01
VP NORTHEAST 2 LF	VA	12/01/2011	MD-40154-LFG-01
VP OCCOQUAN 2 LF	VA	03/01/1993	MD-40107-LFG-01
VP PENINSULA 3 LF	VA	09/01/2009	MD-40146-LFG-01
VP SOUTH BOSTON 1 F	VA	09/01/2013	MD-30113-WDS-01
VP TIMBERMILL 1 WF	NC	11/01/2024	MD-20230-WND-01
Waymart Wind	PA	10/01/2003	MD-20206-WND-01
West Point Mill	VA	10/01/1985	MD-30112-BLQ-01; MD-30112-WDS-01
Wheelabrator Baltimore Refuse	MD	05/01/1985	MD-80101-MSW-01
Whirlpool Corporation - Greenville Wind Farm	OH	10/01/2018	MD-20192-WND-01
Whirlpool Corporation - Ottawa Wind	OH	01/01/2018	MD-20187-WND-01
Whirlpool Corporation-Marion Wind	OH	10/01/2017	MD-20185-WND-01
Winfield	WV	01/01/1938	MD-90203-WAT-01
Woodland	IL	05/01/1992	MD-40121-LFG-01
XIC FARMER CITY 1 WF	MO	02/01/2009	MD-20171-WND-01
York Haven	PA	12/01/1905	MD-90240-WAT-01
Yough Hydro Power	PA	12/01/1989	MD-90242-WAT-01
Zanesville Energy	OH	10/01/2010	MD-50502-OBG-01
Zephyr Wind	OH	12/01/2015	MD-20174-WND-01

Appendix G Price of RECs by Fuel Source

Fuel Source	Price/REC
Black Liquor	\$30.44
Geothermal	\$25.17
Post-2022 Geothermal	\$94.03
LMI Post-2022 Geothermal	\$94.47
Landfill Gas	\$26.34
Municipal Solid Waste	\$26.66
Other Biomass Gas	\$20.69
Other Biomass Solids	\$22.00
Solar Hot Water	\$58.97
PV Solar	\$58.56
Tier 1 Hydroelectric	\$23.53
Wood and Waste Solids	\$27.63
Waste Heat	\$26.75
Wind	\$25.38
Tier 2 Hydroelectric	\$11.16