Annual Report on New Renewable Resource Portfolio Requirement

Report for 2024 Activity

Submitted to the Joint Standing Committee on
Energy, Utilities and Technology

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Maine Public Utilities Commission
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TABLE OF CONTENTS

I. EXECUTIVE SUMMARY

This report, prepared for the Joint Standing Committee on Energy, Utilities, and Technology, provides an overview of the State's Renewable Portfolio Standard (RPS) implementation and compliance during the 2024 calendar year. It highlights the development of renewable resources, compliance by competitive electricity providers (CEPs), cost to ratepayers, and areas for improvement.

In 2024, Maine statute required 55% of the state's electricity to come from renewable resources. Exemptions provided by statute reduced the actual requirement in each compliance category. CEPs met their compliance requirements, after exemptions, by offsetting 51.5% of electricity consumed with renewable energy credits (RECs) and about 3.1% with alternative compliance payments (ACPs). The total renewable energy compliance was about 54.6% of electricity consumed.

The state also required CEPs to acquire an amount of Thermal Energy Credits (TRECs) equal to 1.6% of electricity consumed. Statute provides further exemptions to this requirement. CEPs complied with this requirement by obtaining TRECs equal to 0.6% of electric consumption and making ACPs equal to 0.8% of electric consumption.

Electric generation facilities in Maine contributed 85% of Class I RECs, 67% of Class IA RECs, and 57% of Class II RECs. Most Class IA and Class II RECs came from hydroelectric generators while most Class I RECs came from biomass generators. All thermal renewable energy credits came from facilities in Maine, however 54% of the total TREC requirement was met using ACPs.

The total cost of compliance with the RPS for 2024 was about $110 million or 0.944 cents per kilowatt-hour. Of the total cost, the approximate cost of RECs in each category was:

- Class I: $40.6 million,
- Class IA: $44.3 million,
- Class II: $21.1 million,
- TRECs: $4.0 million.

The average price per REC in each category was:

- Class I: $37.00,
- Class IA: $27.23,
- Class II: $5.89,
- TRECs: $24.40.

Development of Class I and Class IA resources is sufficient to meet current requirements with significant contributions from resources located in Maine. However, persistent underdevelopment of thermal resources has led to reliance on ACPs despite substantial growth of these resources in recent years. The Commission recommends maintaining current incentives for Class I and IA resources.

II. INTRODUCTION

In 1997, the Maine Legislature enacted An Act to Restructure the State's Electric Industry[1] which in part requires competitive electricity providers (CEPs) to demonstrate that no less than 30% of their electricity supply comes from renewable resources. Such a requirement, also known as a Renewable Portfolio Standard (RPS), has been adopted in 27 states as a tool to reduce greenhouse gas emissions by the electric power industry.[2]

During its 2007 and 2019 sessions, the Legislature expanded the State's RPS. In 2007, the Legislature enacted an Act to Stimulate Demand for Renewable Energy (2007 Act).[3] The 2007 Act added a mandate that specific percentages of electricity used by Maine consumers come from Class I renewable resources. In 2019, the Legislature enacted An Act to Reform Maine's Renewable Portfolio Standard (2019 Act) which created two new categories: Class IA resources and Thermal renewable energy credits (RECs). Each of the new categories has its own increasing requirement schedule. [4]

The 2007 Act and 2019 Act (collectively "the Acts") require the Commission to report annually on the status of Class I and Class IA renewable resource development and compliance with the portfolio requirement. The Commission must submit the report by March 31st of each year. The reporting provisions for each category are identical and specify:

> Annual Reports. … the Commission shall submit a report regarding the status of Class I resources in the State and compliance with the portfolio requirement under paragraph A to the joint standing committee of the Legislature having jurisdiction over utilities and energy matters. The report must include, but is not limited to, a description of Class I resources available to meet the portfolio requirement under paragraph A, documentation of the loss of any existing renewable generation capacity in the State, the status of implementation of portfolio requirements under paragraph A, including any suspensions pursuant to paragraph B, and recommendations to stimulate investment in Class I resources.[5]

The reporting provision for Class IA resources further specifies:

> If the commission has reliable information about benefits and costs of the portfolio requirements under paragraph A, over both the short and long terms with respect to the State's economy, environmental quality or electricity consumers, the commission shall include that information in the report.[6]

The Commission includes in this report similar information on Class II and Thermal REC resources and compliance.

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[1] P.L. 1997, Ch. 316 (codified at 35-A M.R.S. § 3210).
[2] https://www.ncsl.org/energy/state-renewable-portfolio-standards-and-goals.
[3] P.L. 2007, Ch. 403 (codified at 35-A M.R.S. § 3210(3-A)).
[4] P.L. 2019, Ch. 477 (codified at 35-A M.R.S. § 3210).
[5] 35-A M.R.S. §3210(3-A)(C). This passage is identical in 35-A §3210(3-B)(C) except that references to Class I are instead to Class IA.
[6] 35-A M.R.S. § 3210(3-B)(C).

Additionally, the 2019 Act allowed customers receiving service at transmission or subtransmission voltage levels, who made an election prior to December 31, 2019, to exempt themselves from the Class IA and Thermal REC requirements. This provision specifies that "[t]he commission shall review and report on the use of the election allowed under this subsection as part of its annual report on Class IA resource portfolio requirements under subsection 3-B, paragraph C."[7]

This report is based on the most recently filed CEP annual compliance reports, which were filed in July 2025 for calendar year 2024. Therefore, this report generally presents information on implementation and compliance with the portfolio requirement for calendar year 2024. In 2024, Maine required CEPs to obtain 55% of electricity consumed in the state from renewable resources and useful thermal energy equal to 1.6% of electricity consumed.

III. LEGISLATION AND IMPLEMENTATION

A. Portfolio Requirements

Maine's RPS consists of four categories: Class I resources, Class IA resources, Class II resources, and Thermal RECs.[8] Each category has its own percentage requirement each year. We show the annual percentage requirements for each resource category in Appendix A. The four resource categories are described in detail below.

1. Class I resources

The 2007 Act specifies the resource type, capacity limit and the vintage requirements for the Class I resource requirement. A new renewable capacity resource used to satisfy the Class I portfolio requirement must be of the following types:

- fuel cells;
- tidal power;
- geothermal installations;
- hydroelectric generators that meet all state and federal fish passage requirements;
- biomass generators that are fueled by wood, wood waste or landfill gas;
- anaerobic digestion of by-products of waste from animals or agricultural crops, food or vegetative material, algae or organic refuse;
- solar power installations; or

[7] 35-A M.R.S. § 3210(10). This provision also requires that no later than January 1, 2027, the joint standing committee of the Legislature having jurisdiction over energy and utilities matters shall review the elections that have been made under this subsection and examine whether the December 31, 2027, date established should be extended. It also allows the committee to report out a bill to the First Regular Session of the 133rd Legislature.

[8] In 2025, the Legislature enacted An Act to Advance a Clean Energy Economy by Updating Renewable and Clean Resource Procurement Laws, P.L. 2025, Ch. 386 (codified at 35-A M.R.S. § 3210). This legislation has not yet been implemented in Commission rules.

- wind power installations.

In addition, except for wind and solar power installations, the generating resource must not have a nameplate capacity that exceeds 100 MW. Moreover, the resource must satisfy one of four vintage requirements. These are specified under 35-A M.R.S. § 3210(2)(B-4) as:

1) Having an in-service date after September 1, 2005;
2) An addition to an existing facility after September 1, 2005;
3) Renewable capacity that has not operated for at least two years or was not recognized as a capacity resource by the New England Independent System Operator (ISO-NE) or the Northern Maine Independent System Administrator (NMISA) and has resumed operation or has been recognized by the ISO-NE or NMISA after September 1, 2005; and
4) Renewable capacity that has been refurbished after September 1, 2005, and is operating beyond its useful life or employing an alternate technology that significantly increases the efficiency of the generation process.

2. Class IA resources

The 2019 Act added Class IA resources to the RPS. Class IA resources are a subset of Class I resources consisting of those resources that qualify as "new" under paragraphs 1, 2, and 4 but exclude those that qualify under paragraph 3 of 35-A M.R.S. § 3210(2)(B-4).

3. Class II resources

Maine's original restructuring legislation, which went into effect in March 2000, included an eligible resource portfolio requirement.[9] The eligible resource portfolio requirement, now referred to as Class II, mandated that each competitive electricity provider obtain at least 30% of their load in Maine from "eligible resources." Eligible resources can be either "renewable resources" or "efficient resources". Renewable resources are defined in statute as fuel cells, tidal power, solar arrays, wind power, geothermal installations, hydroelectric generators, biomass generators, and municipal solid waste facilities. Renewable resources may not exceed a production capacity of 100 megawatts. Efficient resources are cogeneration facilities that were constructed prior to 1997, meet a statutory efficiency standard, and may be fueled by fossil fuels.

4. Thermal RECs

The 2019 Act added a thermal REC requirement to the RPS. A thermal REC represents 3,412,000 British thermal units (BTU) of useful thermal energy and is equivalent to one megawatt (MW) of electricity. Thermal energy that may be used to generate thermal RECs must come from heat, steam, hot water, or another form produced directly by a facility using sunlight, biomass, biogas or liquid biofuel or produced as a byproduct of electricity generated by a Class I or Class IA resource. The facility must also have begun operation after June 30, 2019. The energy must be delivered to an end user by an auditable means and be used to meet a need of the end user that would otherwise be met using another energy source.

[9] 35-A M.R.S. § 3210(3).

B. Implementing Rule

Chapter 311 of the Commission's rules implements the State's RPS. [10] The implementing rule establishes a certification process by which facilities pre-certify for Class I, Class IA, or Thermal RECs and requires that the Commission determine the eligibility of each resource.[11,12] The rule also specifies that the Commission may revoke a certification if there is a material change in circumstance that renders the generation facility ineligible. Under the rule, any generator which can deliver electricity to the ISO New England control area or the NMISA control area is eligible for certification and does not need to be physically located in Maine.

In accordance with statute, the rule includes an alternative compliance mechanism that allows CEPs to make an alternative compliance payment (ACP) instead of purchasing and retiring RECs. The ACP rates for 2024 are shown in Table III-1.

Table III-1: ACP Rates in 2024

	Class I[13]	**Class IA[14]**	**Class II[15]**	**Thermal[16]**
ACP Rate per MWh	$50	$50	$5	$25

The rule also allows CEPs who accrue a deficiency in one year but has satisfied at least two-thirds of its requirement using RECs, to satisfy or "cure" that deficiency the following year. In effect, this allows CEPs to defer up to one-third of their requirement to the following year. Additionally, a CEP may "bank" any excess renewable credits in a year to use the following year. However, a CEP may not satisfy more than one-third of their requirement in any year with RECs from the prior year.[17]

C. Renewable Energy Credits

Most of the compliance with Maine's RPS occurs through the retirement of RECs. The New England Power Pool (NEPOOL) has established a REC trading and tracking platform known as the Generation Information System (GIS). This platform enables trading of the renewable attribute of a MWh separately from the energy value of the MWh. The GIS simplifies compliance by CEPs and verification by regulatory commissions and avoids double counting. Consistent with statutory direction, the Commission requires CEPs in ISO-NE to verify

[10] Order Adopting Rule and Statement of Factual and Policy Basis, Docket No. 2023-00225 (Nov. 1, 2023).
[11] Chapter 311 § 3(C) for Class I and IA, § 5(B) for Thermal RECs.
[12] At the time of writing, the Commission has not yet adopted a rule implementing the 2025 legislation.
[13] Chapter 311 § 3(D).
[14] Chapter 311 § 3(D).
[15] Chapter 311 § 4(C)(2)
[16] Chapter 311 § 5(C).
[17] Chapter 311 § 8(A) and (B).

compliance with the portfolio requirement through the GIS.[18] In Docket No. 2017-00050, the NMISA requested and was granted permission to use a similar tracking and verification system in northern Maine known as the North American Renewables Registry (NAR).

IV. RESOURCES AND COMPLIANCE

A. Available Resources

The implementing rules require generation facilities to obtain certification from the Commission as a Class I/IA or Thermal renewable resource before they can be used to satisfy Maine's renewable resource requirement. Class II resources are not certified by the Commission but are self-certified through NEPOOL GIS. Many of the facilities certified in Maine are also eligible for portfolio requirements in other New England states. Additionally, there are renewable generators located in Maine that are not certified as Maine renewable resources.[19]

As of January 1, 2026, there were 695 certified Class I facilities, with a total capacity of about 7,139 MW.[20] The Commission currently has nothing to report on the loss of any existing renewable generation capacity in the State.[21]

1. Class I

As shown in Table IV-1 below, RECs from 83 facilities were used by CEPs to comply with the 2024 Class I resource requirement. Nineteen of the facilities use biomass as the fuel source, 20 use hydro power, 36 use solar energy, and 7 use wind energy. Sixty-four of the facilities are located in Maine, which is a decrease from 70 facilities the prior year. These Maine facilities contributed about 85% of the total Class I RECs. The largest portion of Class I RECs came from biomass facilities (71.5%), followed by hydroelectric (22.5%), and the rest came from solar (3.2%) and wind facilities (2%).

[18] The portfolio requirement statute states that the Commission shall allow competitive electricity providers to satisfy the portfolio requirements using RECs if it determines that a reliable system of electrical attribute trading exists. 35-A M.R.S.§ 3210(8). The Commission has determined that the GIS is a reliable system.

[19] Based on data from NEPOOL-GIS Regulator Reports, 64% of the NEW (since 1/1/2019) solar generation physically located in Maine that registered with NEPOOL GIS only registered their RECs for sale outside the State of Maine.

[20] Information on the RPS Class I Renewable Resource Applications can be found at https://www.maine.gov/mpuc/regulated-utilities/electricity/renewable-programs/rps

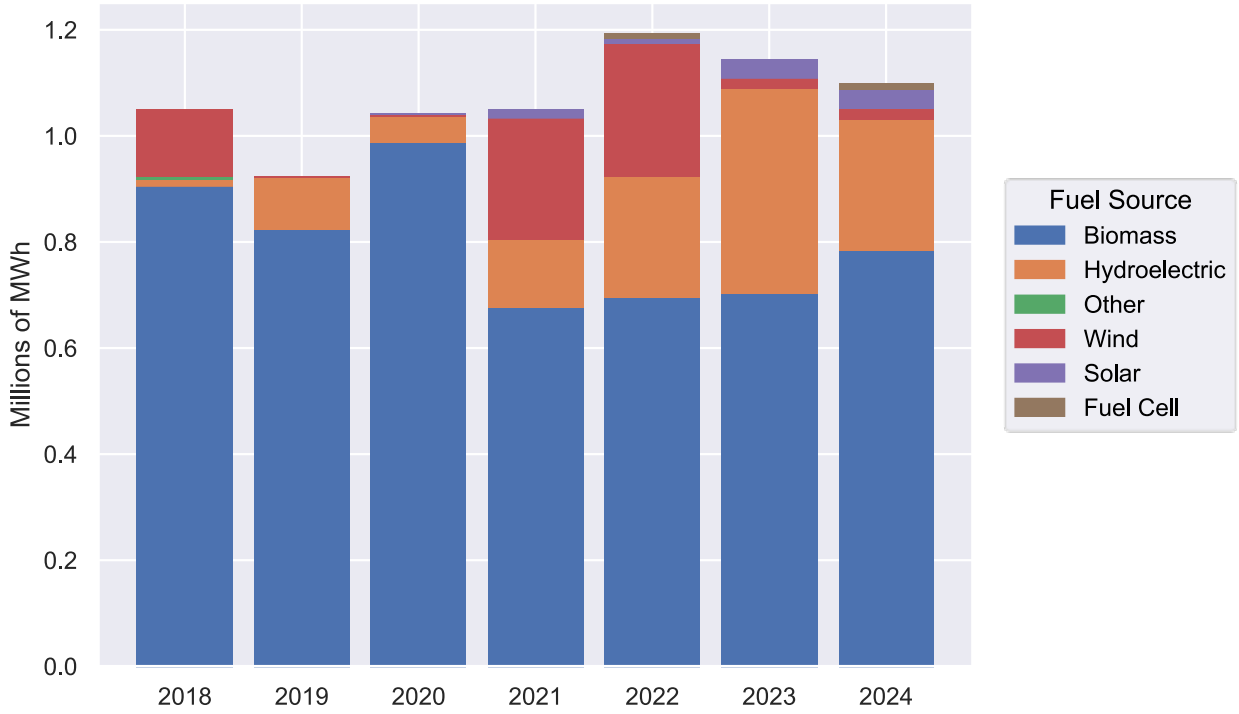
[21] In 2024, three RPS certified solar facilities requested that their certification be revoked because they had not ever marketed or sold Maine RECs and had no plans to do so in the future.

Table IV-1: Class I Facilities and RECs by Fuel Source and Location

Fuel Source	Location	Number of Generators	Number of RECs	% of Total RECs
Biomass	Connecticut	1	58,661	5.35
	Maine	15	713,718	65.03
	New Hampshire	1	27	0.00
	New York	1	2,941	0.27
	Quebec	1	9,820	0.89
Fuel Cell	Connecticut	1	8,540	0.78
Hydroelectric	Connecticut	2	44,086	4.02
	Maine	11	175,818	16.02
	Massachusetts	1	1,269	0.12
	New Hampshire	5	9,920	0.90
	Vermont	1	16,136	1.47
Solar	Maine	36	35,177	3.21
Wind	Maine	2	8,207	0.75
	New Hampshire	1	853	0.08
	New York	4	12,302	1.12
Total		83	1,097,475	100.00

Figure IV-1 below shows how the fuel source mix of Class I RECs has changed over the last 7 years. During this period, most RECs used for Class I compliance have come from biomass facilities. The next most come from either hydroelectric or wind facilities. The share of RECs from solar facilities has been consistently small but growing slowly.

Figure IV-1: Class I REC Fuel Source Mix, 2018-2024



2. Class IA

As Table IV-2 below shows, RECs from 127 facilities were used by CEPs to comply with the 2024 Class IA resource requirement. Sixteen of the facilities use biomass fuel, 31 use hydro power, 72 use solar energy, and 7 use wind energy. One hundred seven of the facilities used to generate Class IA RECs in 2024 are in Maine which is an increase from 67 the prior year. Maine facilities contributed 67.1% of Class IA RECs. The largest share of RECs came from hydroelectric facilities (42.1%), followed by biomass facilities (27.9%), wind (25.0%), and solar facilities (3.1%).

Table IV-2: Class IA Facilities and RECs by Fuel Source and Location

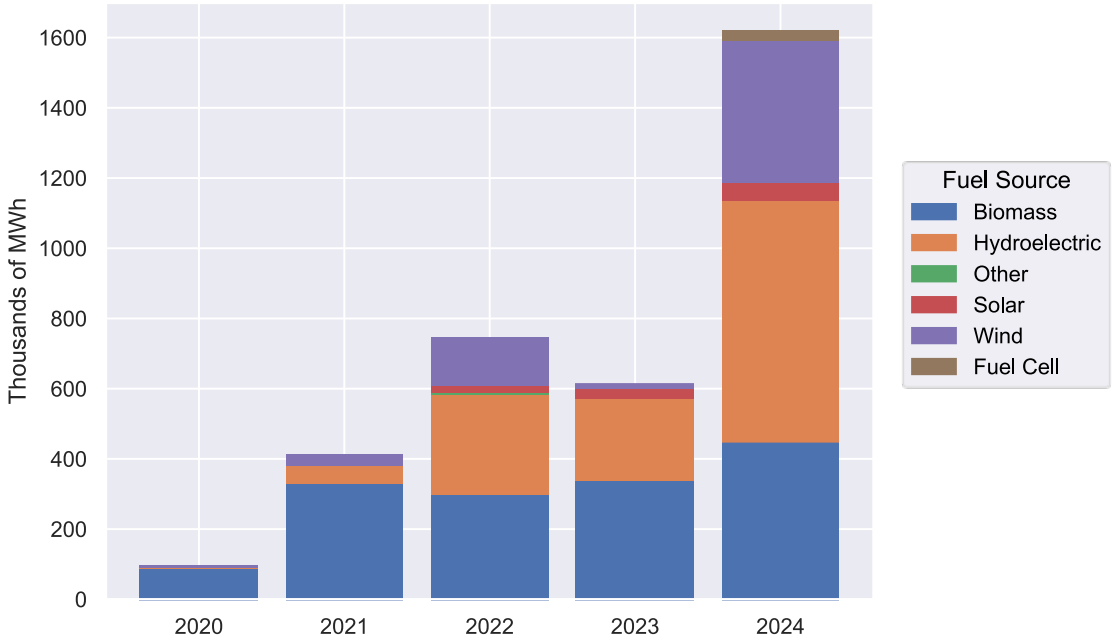
Fuel Source	Location	Number of Generators	Number of RECs	% of Total RECs
Biomass	Connecticut	1	37,812	2.34
	Maine	14	384,661	23.77
	Quebec	1	29,554	1.83
Fuel Cell	Connecticut	1	25,542	1.58
Hydroelectric	Connecticut	1	43,359	2.68
	Maine	20	524,886	32.44
	Massachusetts	3	15,255	0.94
	New Hampshire	5	93,098	5.75
	Vermont	2	8,808	0.54
Solar	Maine	71	50,792	3.14
	New Hampshire	1	15	0.00
Wind	Maine	2	124,654	7.70
	New Brunswick	3	276,703	17.10
	New Hampshire	1	594	0.04
	New York	1	2,430	0.15
Total		127	1,618,163	100.00

Below, Figure IV-2 shows how the fuel source mix of Class IA RECs has changed over the last 5 years. There was clearly a large increase in the number of Class IA RECs retired in 2024 compared to 2023. There are three reasons for this increase: (1) the increase in the Class IA percentage requirement from 11% in 2023 to 15% in 2024, (2) a large portion of Class IA requirement that was deferred from 2023 to 2024[22], and (3) a reduction in the amount of load exempt from the Class IA requirement.

Most Class IA RECs continue to come from biomass and hydroelectric resources. The number of Class IA RECs coming from wind generators has fluctuated but reached a high in 2024 and nearly matched the amount from biomass generators. While the contribution of solar resources has been growing over this period, they still contribute a relatively small portion of Class IA RECs.

[22] Pursuant to Chapter 311 § 8 (A).

Figure IV-2: Class IA REC Fuel Source Mix, 2020-2024



3. Class II

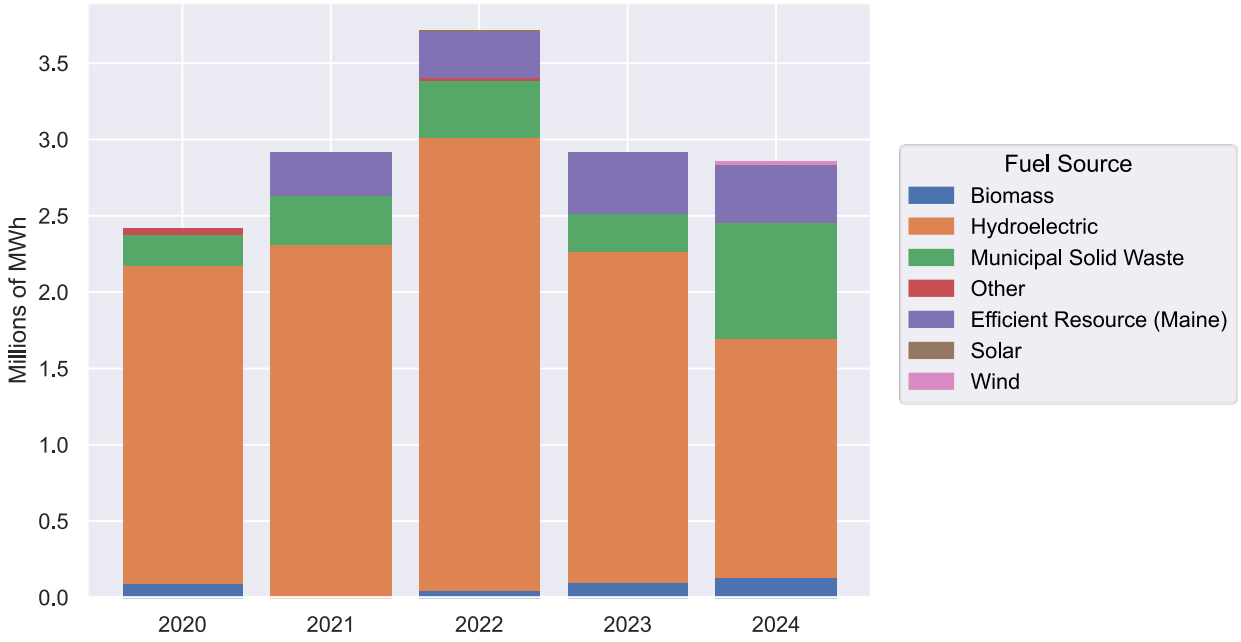
Table IV-3 shows the mix of resources used to satisfy Maine's Class II renewable resource portfolio requirement during 2024. Sixty-two of the 103 facilities are in Maine and contributed 57.2% of Class II RECs. Most of the Class II RECs in 2024 came from hydroelectric generators (54.9%). Municipal Solid Waste generators contributed 26.6%, Efficient Resource generators contributed 13.3%, and Biomass generators contributed 4.7%.

Table IV-3: Class II Facilities and RECs by Fuel Source and Location

Fuel Source	Location	Number of Generators	Number of RECs	% of Total RECs
Biomass	Maine	6	122,528	4.29
	New Hampshire	2	10,627	0.37
Efficient Resource (Maine)	Maine	2	59,833	2.10
	Massachusetts	1	320,228	11.22
Hydroelectric	Connecticut	6	76,554	2.68
	Maine	51	808,877	28.34
	Massachusetts	6	141,858	4.97
	New Brunswick	2	18,681	0.65
	New Hampshire	9	102,713	3.60
	Quebec	7	286,380	10.03
	Vermont	5	130,967	4.59
Municipal Solid Waste	Maine	3	639,902	22.42
	Massachusetts	1	100	0.00
	New Hampshire	1	119,473	4.19
Wind	Prince Edward Island	1	15,441	0.54
Total		103	2,854,162	100.00

Figure IV-3 below shows the change in the fuel source mix of Class II RECs over the last 5 years. The total number of Class II RECs has remained fairly flat over this period apart from 2022 when electric sales were somewhat higher. Hydroelectric resources have consistently contributed the most Class II RECs. RECs from municipal solid waste resources had been steady until 2024 when they approximately tripled from the amount in 2023.

Figure IV-3: Class II REC Fuel Source Mix, 2020-2024



4. Thermal

The Thermal REC requirement began in calendar Year 2021. The market for Thermal RECs is still forming, but 2023 saw a significant expansion of potential Thermal REC supply. In 2021, there was one certified facility able to generate and sell Thermal RECs. Five more were certified in 2022, 36 more in 2023, and two more in 2024. This brought the total number of Thermal REC certified facilities to 44 by the end of 2024 with a total thermal capacity of 38.7 MW-equivalent.[23]

B. Total Retail Sales, Exemptions, and Requirements

For the 2024 compliance period, CEPs reported a total of 10,921,571 MWh of retail electricity sales net of line losses. To obtain the gross sales subject to the RPS requirements, net retail sales must be grossed up to include line losses. Gross sales are then reduced by any applicable exemptions to obtain the adjusted gross sales subject to the RPS requirements.

Currently, electricity sales to Pine Tree Development Zone (PTDZ) businesses established under Title 30-A and wholesale electricity sales to consumer-owned utilities are exempt from all RPS requirements.[24,25] Sales to certain transmission/subtransmission customers and sales under contracts executed prior to September 19, 2019 are exempt from the Class IA and Thermal

[23] MW-equivalent capacity from NEPOOL GIS State Regulator GIS Generators Report.
[24] PTDZ sales are exempt pursuant to Title 35-A M.R.S. § 3210-E(5). 35-A M.R.S. § 3207 (1) allows COUs to purchase electricity at wholesale which is not subject to the RPS requirements.
[25] Title 35-A § 3210-E (5) (B) also provides an exemption from the RPS requirements for businesses that meet certain employment expansion qualifications and are certified by the Department of Economic and Community Development. To date, no CEPs have claimed this exemption.

requirements.[26] Finally, sales under contracts executed prior to September 20, 2007 are exempt from the Class I requirement.[27]

In 2024, exemptions reduced total gross electricity sales subject to the RPS by 5.7% for the Class I requirement, 13.6% for Class IA, 2.0% for Class II, and 13.6% for Thermal. The Commission is required to report on the usage of the transmission/subtransmission exemption. CEPs claimed exemption of 217,614 MWh (1.9% of gross sales) sold to transmission/subtransmission customers from the Class IA requirement.[28] This is about 4.2 times more than the number of sales exempted under this provision the prior year.[29] Exemptions claimed for each category are summarized in Table IV-4 below.

Table IV-4: Exemptions

Exemption Type	**Class I**	**Class IA**	**Class II**	**Thermal**
Consumer-Owned Utility	330,495	330,495	0	330,495
Legacy Contracts	99,518	808,499	0	1,021,095
Pine Tree Development Zone	233,004	233,004	233,005	233,005
Transmission/Subtransmission	0	217,615	0	0
Total	663,017	1,589,612	233,005	1,584,594

After excluding exempt sales, the remaining adjusted gross sales multiplied by the applicable portfolio requirement percentages obtains the final requirement amounts. The requirement is the number of RECs that must be obtained to comply with the RPS.

Table IV-5 below shows exemptions and requirements for each category of the RPS during 2024.

[26] Transmission/subtransmission sales are exempt pursuant to 35-A M.R.S § 3210 (10). Sales under contracts executed prior to September 19, 2019, are exempt pursuant to 35-A § 3210 (3-B) and (3-C).
[27] 35-A M.R.S § 3210 (3-A).
[28] The transmission/subtransmission exemption does apply to Thermal RECs, but CEPs claiming this exemption did not apply it to their TREC requirement.

[29] The Commission is required to report on the use of the transmission/subtransmission exemption pursuant to 35-A M.R.S § 3210 (10).

Table IV-5: Sales, Exemptions, and Requirements Summary

Net Sales (MWh)	10,921,571			
Gross Sales (Including Line Losses)	11,646,359			
	Class I	**Class IA**	**Class II**	**Thermal**
Exemptions	663,016	1,589,612	233,004	1,584,594
Adjusted Gross Sales	10,983,343	10,056,747	11,413,355	10,061,765
Requirement Percentage	10%	15%	30%	1.6%
Subtotal Requirement	1,098,334	1,508,512	3,424,007	160,988
Deferred from Prior Year	514	115,599	655	0
Total Requirement	1,098,849	1,624,108	3,424,665	160,988

Note: Fields may not add to the total requirement due to rounding at the individual CEP level.

C. Compliance

CEPs successfully met the 2024 RPS requirement with a combination of RECs, ACPs and deferrals. Table IV-6 summarizes the methods used to fulfill the RPS requirements for 2024. The vast majority of the Class I requirement was fulfilled by retiring RECs. Only 0.05% of the Class I requirement was fulfilled using ACPs, and 0.08% was deferred to 2025. The remaining 99.87% was fulfilled using RECs plus 80 RECs retired in surplus of the Class I requirement.

Most of the Class IA RPS requirement was also fulfilled using RECs. About 0.3% of the Class IA requirement was fulfilled by ACP, and 0.08% was deferred. The remaining 99.6% was fulfilled using Class IA RECs plus a surplus of 11 RECs.

About 89.6% of the Class II requirement was fulfilled using RECs and 10.4% was fulfilled using the ACP option. This represents a significant increase in the use of ACPs to fulfill the Class II requirement from 0.2% in 2023. There was also a surplus of 212,928 Class II RECs retired by a small number of CEPs.

The large surplus of Class II RECs is unusual. Approximately one third of the Class II RECs used to fulfill the 2024 requirement had been banked by CEPs in 2023. This suggests that the surplus may be due to an overestimation of their expected requirements for 2024 leading them to bank more RECs than necessary. Banked RECs are not tradable, and the CEPs would have no other use for them than to retire them as surplus.

Of the total 2024 Thermal REC requirement, about 46% was fulfilled using RECs. The remaining 54% was fulfilled by ACPs (none of the requirement was deferred). The portion of the Thermal requirement fulfilled by RECs is an increase from 26% in 2023, and 23.2% in 2022. This indicates that the supply of thermal RECs has grown substantially but is still inadequate to fully meet demand.

Table IV-6: Requirement Compliance Summary

	Class I	Class IA	Class II	Thermal
Total Requirement	1,098,849	1,624,108	3,424,665	160,988
Fulfilled by:				
RECs	1,097,475	1,618,163	3,280,993	73,612
ACP	539	4,582	356,600	87,376
Deferred	915	1,374	0	0

Note: Fields may not add to the total requirement due to rounding at the individual CEP level.

D. Cost to Ratepayers

The cost to ratepayers of Maine's renewable portfolio standard is estimated by the cost of compliance reported by CEPs. The Commission understands that the cost of RECs paid by CEPs to generators and any ACP amount is passed on to ratepayers through their electric supply rates. Therefore, the cost of compliance with the RPS is a cost to ratepayers. During 2024, this cost includes RECs purchased and retired in 2024 and RECs purchased and banked in 2023 then retired in 2024.

Table IV-7: Cost of Compliance Summary

	Class I	Class IA	Class II	Thermal
Minimum Price per REC ($)	24.47	0.00	0.00	24.14
Maximum Price per REC ($)	42.00	42.50	39.75	25.00
Average Price per REC ($)	37.00	27.23	5.89	24.40
REC Cost ($)	40,610,723	44,058,959	19,321,368	1,795,850
ACP Cost ($)	26,950	229,100	1,783,000	2,184,400
Total Cost ($)	40,637,673	44,288,059	21,104,368	3,980,250
Cost per kWh (cents)	0.349	0.380	0.181	0.034

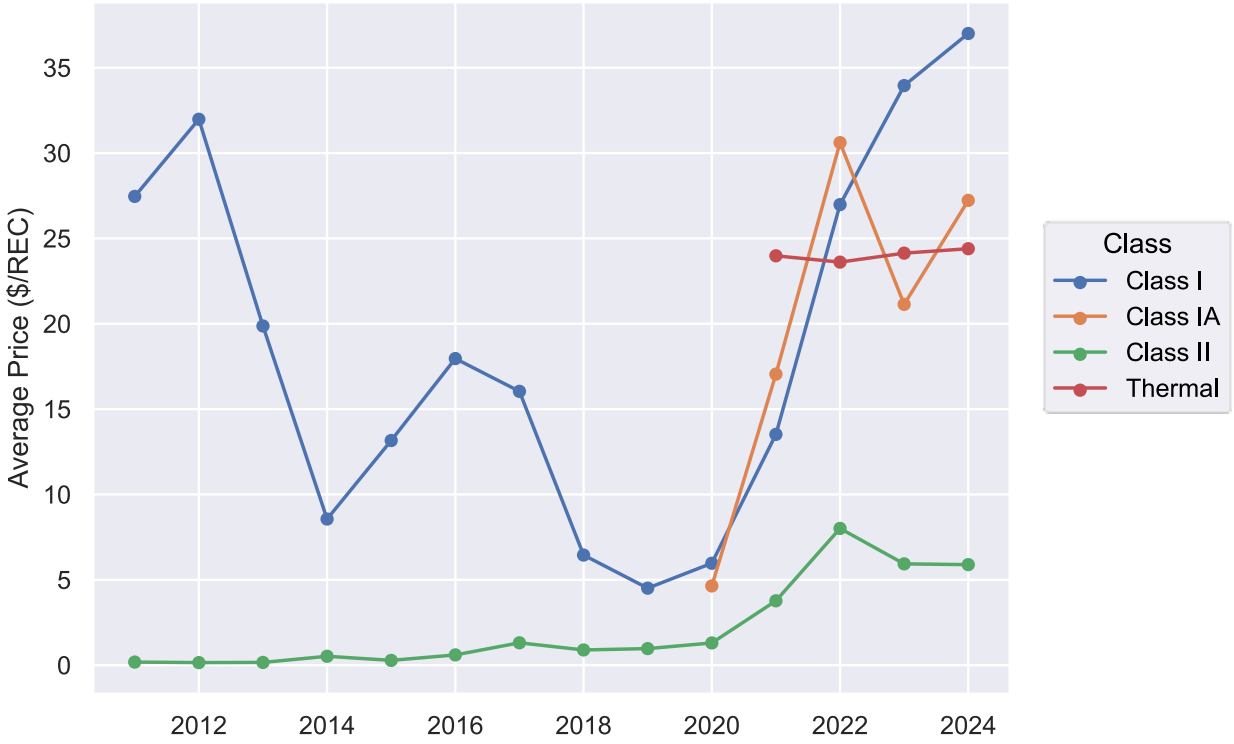
The total cost of RPS compliance in 2024 was $110,010,350 or 0.944 cents per kWh[30]. This cost includes about $105.8 million spent on RECs and about $4.2 million spent on ACPs. The ACPs for Class I, Class IA, and Class II provided about $2 million in financial assistance for low-income households. The Thermal REC ACPs provided about $2.2 million for the Thermal Energy Investment Fund.

Figure IV-4 below shows the change in the average cost of RECs paid by CEPs over the last ten years. The average price of Class I RECs climbed from a low in 2019 to a new high in 2024 with

[30] The cost per kWh is calculated as total cost divided by total sales including line losses. It is possible that large customers that are exempt from the RPS may negotiate supply contracts that specifically exclude the costs of RPS compliance from their supply rate. If this were the case, the reported cost of compliance per kWh would be understated. However, the Commission has no direct knowledge of the content of these contracts.

an increase of $3.05 (about 9%) from 2023. The average price of Class IA RECs rose in 2024 with an increase of $6.09 (about 29%) from 2023. Class II average REC prices decreased slightly in 2024 by $0.04 (about -1%) from 2023. The average price of Thermal RECs increased slightly by $0.26 (about 1%) from 2023 but remained close to its 2021 introductory year average price. Thermal REC prices will likely remain high, close to the ACP price of $25, due to slow development of thermal energy resources and the slowly increasing percentage requirement.

Figure IV-4: Average REC Price by Class, 2011-2024



E. Portfolio Requirement Percentage Suspension

The Acts allow the Commission to suspend scheduled increases of the Class I and Class IA requirements if it finds that (1) investment in new renewable resources has not been sufficient for CEPs to satisfy the requirement, (2) the requirement has burdened electricity customers without providing the benefits from new renewable resources, or (3) that there has been an overreliance on the ACP. As shown above, most of the Class I and Class IA requirements were fulfilled with RECs at an average REC price that is substantially less than the ACP rate. This shows that investment in these resources has been sufficient for CEPs to satisfy the Class I and IA portfolio requirement without reliance on the ACP. Also, the Commission interprets the statutory maximum ACP price of $50 as a suggestion of what the legislature thinks would be burdensome to electricity customers. As such, current REC prices so far below the maximum are not considered burdensome. Accordingly, the Commission did not act to suspend percentage increases in the portfolio requirement in 2024.

The Commission is not allowed by statute to suspend the scheduled increases of the Thermal REC requirement. However, there does appear to be a substantial shortage of them on the

market. This is likely driving the high percentage of the Thermal REC requirement being fulfilled by ACPs.

F. Recommendations for Resource Development

Maine's portfolio requirement exists in community with the portfolio requirements in the other New England states.[31] The ISO-NE interconnection queue, which includes proposed generation projects that have initiated the review process for interconnection to the regional grid, includes a significant number of renewable projects.[32] Although all of the projects in the queue may not be developed, there appears to be adequate renewable resource development in the region to meet the requirements of the RPS.

The Commission makes no recommendations regarding mechanisms to stimulate investment in Class I/IA renewable resources beyond those that already exist on the state, regional, and federal levels.

Thermal resources have been in short supply since the Thermal REC requirement was established. There was a significant expansion of thermal REC capacity in 2023, but not enough to relieve the supply shortage. It may still be too early to determine whether existing incentives to develop Thermal resources are sufficient to keep pace with the growing requirement. The Acts do not direct the Commission to make recommendations to stimulate investment in Thermal resources, but they do direct the Commission to take resource investment, prevailing market prices, reliance on ACP, and other factors into account when setting ACP rates.[33]

G. Benefits and Costs of Class IA Requirement

In 2023, the Legislature enacted An Act to Promote Economic Reuse of Contaminated Land Through Clean Energy Development.[34] This Act included a provision that the responsibility for reporting on the impacts of the RPS including the benefits and costs on greenhouse gas emissions and the State's economy be given to the Governor's Energy Office (GEO) and changed the frequency of that reporting from every 5 years to every 3 years. The GEO report was completed in March 2024.[35]

[31] Generally, newly developed renewable resources located within or adjacent to New England can be used to satisfy the various New England state's portfolio requirements once certified by the State authority.
[32] MW values represent net generating capacity and are obtained from ISO New England Interconnection Request Tracking Tool at https://www.iso-ne.com/system-planning/transmission-planning/interconnection-request-queue In calculating these numbers, projects listed with an operational or withdrawn date before 3/1/2023 have been removed.
[33] 35-A M.R.S. § 3210(9)(A).
[34] P.L. 2023, c 321.; 35-A M.R.S. § 3210(11).
[35] https://www.maine.gov/energy/sites/maine.gov.energy/files/inline-files/Maine-RPS-Impacts-and-Procurement-Policy-Options-Report-Master-FINAL.pdf

V. CONCLUSION

Maine's competitive electricity providers complied with the State's 2024 renewable portfolio requirements. Renewable compliance for that year amounts to 54.6% of electricity consumed in the state, after exemptions. Thermal energy compliance amounts to 1.4% of electricity consumption. The total cost of compliance was $110,010,350 or 0.944 cents per kWh ($9.44 per MWh). For Class I, the cost of compliance was about $40.6 million, $44.3 million for Class IA, $21.1 million for Class II, and $4.0 million for Thermal. CEPs' Class I, Class IA, and Class II requirements were mostly fulfilled by purchasing and retiring RECs which supported renewable generation facilities. For TRECs, CEPs fulfilled their requirements mostly by ACPs but the largest portion of compliance by TRECs occurred in 2024.

The growth of Class IA resources appears to have kept pace with the rising Class IA requirement as evidenced by the average price paid for RECs remaining well below the ACP rate. The market price of Class II RECs changed very little, but use of the ACP increased significantly. There is likely still an adequate supply of these RECs. However, with a static, perhaps dwindling, pool of Class II resources it is possible that a shortage of Class II RECs could occur.

Thermal resources are growing slowly and there are substantially less Thermal RECs than are required to fulfill CEPs' requirements. The majority of compliance with the Thermal requirement by ACPs rather than RECs is expected to continue, but the prevailing market price just below the ACP rate should provide incentive for growth in this category. It may take longer for development of Thermal resources to take off.

APPENDIX

RPS Requirements by Calendar Year

Calendar Year	Class I	Class IA	Class II	Class III	Thermal RECs
2008	1%		30%		
2009	2%		30%		
2010	3%		30%		
2011	4%		30%		
2012	5%		30%		
2013	6%		30%		
2014	7%		30%		
2015	8%		30%		
2016	9%		30%		
2017	10%		30%		
2018	10%		30%		
2019	10%		30%		
2020	10%	2.50%	30%		
2021	10%	5%	30%		0.40%
2022	10%	8%	30%		0.80%
2023	10%	11%	30%		1.20%
2024	10%	15%	30%		1.60%
2025	10%	19%	30%		2.00%
2026	10%	23%	30%		2.40%
2027	10%	27%	30%		2.80%
2028	10%	31%	30%		3.20%
2029	10%	35%	30%		3.60%
2030	10%	40%	30%		4.00%
2031	10%	41%	30%	1%	4.00%
2032	10%	42%	30%	2%	4.00%
2033	10%	43%	30%	3%	4.00%
2034	10%	44%	30%	4%	4.00%
2035	10%	45%	30%	5%	4.00%
2036	10%	46%	30%	6%	4.00%
2037	10%	47%	30%	7%	4.00%
2038	10%	48%	30%	8%	4.00%
2039	10%	49%	30%	9%	4.00%
2040 and each year thereafter	10%	50%	30%	10%	4.00%