

New Hampshire Department of Energy



**NEW HAMPSHIRE  
RENEWABLE ENERGY FUND  
ANNUAL REPORT**

October 1, 2023

Submitted to:

THE SENATE ENERGY AND NATURAL RESOURCES COMMITTEE

Senator Kevin Avard, Chair

THE HOUSE SCIENCE, TECHNOLOGY AND ENERGY COMMITTEE

Representative Michael Vose, Chair

## Contents

Executive Summary .....	1
Renewable Energy Fund Programs.....	1
Sustainable Energy Division Non-Program Updates.....	3
Overview of New Hampshire’s Renewable Portfolio Standard Policy .....	5
Fiscal Year 2023: Legislative Summary .....	8
RPS Legislation.....	8
Net Metering Legislation .....	8
RPS Revenues and Costs .....	9
Revenues .....	9
Revenues by RPS Class .....	11
RPS Compliance Costs .....	14
REC Purchases .....	15
Rebate and Grant Program Summaries and Results.....	16
Renewable Energy Fund Rebate Programs .....	16
Non-Residential Competitive Grant Program.....	20
Low-Moderate Income Program .....	22
Revenues, Expenditures, and Statutory Funding Requirements.....	24
Administrative Costs.....	24
Revenues .....	24
Allocation of Funding Between Residential and Non-residential Sectors .....	25
Funding Cap for Residential Renewable Electricity Rebate Program .....	25
Use of Class II Revenues for Solar Technology Incentives.....	25
Use of Renewable Energy Fund Revenues for Low Moderate Income Program .....	25
Net Metered Capacity, Net Metered Facilities and Group Net Metering .....	26
Net Metered Facilities .....	26
Group Net Metering .....	27
Conclusion .....	28

## Executive Summary

Sixteen years ago, New Hampshire established a renewable energy policy, the Electric Renewable Portfolio Standard (RPS), the legislature having found it to be in the public interest to stimulate investment in low emission renewable energy generation technologies within the state. With the enactment of House Bill 2 (2021), on July 1, 2021 the administration and implementation of RPS policy and the Renewable Energy Fund (REF) transferred from the Public Utilities Commission (Commission or PUC) to the Department of Energy (Department). The Department is required to make an annual report to the Senate Energy and Natural Resources Committee, and the House Science, Technology and Energy Committee, detailing how the Renewable Energy Fund is used.

The report that follows is the New Hampshire Renewable Energy Fund Annual Report which describes program results for fiscal year 2023 (July 1, 2022 through June 30, 2023) and summarizes compliance data for calendar year (CY) 2022.

## Renewable Energy Fund Programs

### Competitive Grant Program

As required by RSA 362-F:10, XI, the Department issued an annual request for proposals (RFP) to fund renewable energy projects. The RFP for fiscal year (FY) 2023 (FY23) was issued by the Department on November 3, 2022, for certain non-residential renewable energy projects located in New Hampshire that are eligible to generate renewable energy certificates (RECs) and not eligible to receive funds from other REF incentive programs.

The Department received three proposals requesting a total of \$1.2 million in grant funds. Two projects were selected for funding: installation of a district heating and cooling plant fueled with locally sourced precision dry wood chips; installation of a wood chip biomass boiler in a high school. These two projects selected received \$800,000 in funding through grant contracts approved by the Governor and Executive Council on June 14, 2023.

### Low-Moderate Income Community Solar Grant Program

The “New Hampshire Clean Energy Jobs and Opportunity Act of 2017,”<sup>1</sup> included a funding allocation requirement for a program intended to reduce market barriers to solar energy participation by low and moderate income (LMI) residential customers. The FY23 RFP was issued twice by the Department on November 10, 2022 and March 16, 2023, seeking proposals for community solar photovoltaic (PV) projects providing direct benefits to New Hampshire LMI residential electric customers.

---

<sup>1</sup> See [https://gencourt.state.nh.us/bill\\_status/legacy/bs2016/billText.aspx?sy=2017&id=957&txtFormat=pdf&v=current](https://gencourt.state.nh.us/bill_status/legacy/bs2016/billText.aspx?sy=2017&id=957&txtFormat=pdf&v=current)

The Department received a total of five proposals in response to both RFPs requesting a total of \$1.14 million in grant funds. Four projects were selected for funding. These four projects selected received \$978,936 in funding through grant contracts approved by the Governor and Executive Council on June 14, 2023.

In FY23, an LMI Grant Program grantee became the second project to be approved as an LMI Community Solar Project eligible to receive the 2.5 cent/kWh addition as enabled through SB165 (2019). This project, Organization for Refugee and Immigrant Success received \$181,000 in grant funding through the LMI Grant Program in December of 2022. The project worked with their utility and DOE staff to register and is now the second LMI Adder Community Solar Project in the state.

### **Solar Rebate Programs**

Installed solar PV capacity continues to increase in New Hampshire. An additional 31.6 megawatts<sup>2</sup> (MW) of solar PV was interconnected in 2022. Net metering, the RPS, and REF programs are state incentives and drivers for participants in this market. During FY23, the incentive levels of the residential solar program remained at \$0.20 per watt, up to a maximum \$1,000; and \$0.20 per watt, up to a maximum \$10,000, for commercial and industrial (C&I) installations.

### **Wood Pellet Rebate Programs**

The growth and stability of the wood pellet industry in New Hampshire continues to depend, in part, on the wood pellet rebate programs and the federal tax credit. During FY23, the incentive levels for the wood pellet furnace and boiler programs remained at 40 percent of eligible project costs, up to a maximum \$10,000 for residential installations and \$65,000 for C&I installations. To encourage larger and more economical wood pellet deliveries, the residential program offers a supplemental rebate adder of \$100 per ton for fuel storage systems larger than the three-ton minimum requirement, up to a maximum of \$500. The C&I program offers additional incentives for the installation of a thermal storage tank and/or production meter to track thermal generation for REC certification.

Instead of heating oil or other fossil fuels, these homes and businesses are using wood pellets, a renewable fuel that is often locally sourced. Nearly 500 incentivized residential systems are operational in more than 150 municipalities, and the bulk storage containers installed with these systems have a total combined capacity of over 2,300 tons. On average, each residential wood pellet heating system replaces an estimated 627 gallons of heating oil each year. There are 66 incentivized C&I systems located in 38 New Hampshire municipalities; and the bulk storage containers installed with these systems have a total combined capacity of over 1,100 tons.

---

<sup>2</sup> See [Final 2022 PV Forecast](#) , slide 10,

## Sustainable Energy Division Non-Program Updates

### Net Energy Metering

The Department continues to participate in the Public Utilities Commission process to examine the current net metering structure, PUC Docket No. DE 22-060. The current procedural schedule has testimony, discovery, and technical sessions scheduled through the autumn and winter 2023, a hearing scheduled for March 2024, with an order presumably issued some time following that hearing.

### Senate Bill 270 (2022) Implementation

Senate Bill 270 (SB 270) (2022) was enacted on July 8, 2022 and became effective on September 6, 2022. Among other things, this bill establishes an opportunity for certain additional LMI electric customers, specifically residents who have enrolled in or are on the waitlist for the state Electric Assistance Program (EAP), to participate in designated community solar projects eligible for the 2.5¢ per kWh adder for net export compensation and allows for up to 6 MW per year in total capacity of projects to be designated as eligible through a process developed by the Department. It will enroll qualifying customers on an opt-out basis into designated eligible projects, which must meet the definition of LMI Community Solar Projects and will be eligible to receive the LMI Adder. The Department has engaged in an extensive stakeholder process related to the implementation of SB 270 (2022), and is in the process of finalizing an order approving the EAP LMI Community Solar Designation process.

### Bipartisan Infrastructure Law and Inflation Reduction Act

Though there is no direct impact on the Renewable Energy Fund by either the Bipartisan Infrastructure Law (BIL) or the Inflation Reduction Act, there are several programs administered by the Department that will likely impact Renewable Energy Certificate generation in the coming years. These include:

**40101 (d) Grid Resiliency Program-** these funds will be awarded by the Department to electric distribution companies and municipal electric companies to improve their distribution system, reducing the frequency and duration of outages. As part of the scoring criteria, points will be awarded for upgrades that also facilitate additional distribution energy generation on that circuit. Funding anticipated at roughly \$3.3 million per year for five years.

**Energy Efficiency Conservation Block Grants-** these funds will be awarded by the Department to disadvantaged municipalities as grants to install solar arrays on municipally owned buildings. Funding is one time, at \$1.4 million.

**Solar for All-** The Department is leading a coalition of state entities to apply for the EPA's Solar for All program. The EPA is awarding \$7 billion nationwide on a competitive basis, with at least one award for each state, territory, and federal district. This program is designed to provide low- and moderate-income households

reductions in their electricity bills by providing them the benefits of owning a solar array, that would otherwise be out of reach financially. It is impossible to predict the funding that New Hampshire will receive given that the EPA will be making awards on a competitive basis. A portion of New Hampshire's application proposes scaling up the current LMI Community Solar Grant program. Applications are due to the EPA on October 12, 2023.

*This Space Intentionally Left Blank*

## Overview of New Hampshire's Renewable Portfolio Standard Policy

New Hampshire's Renewable Portfolio Standard statute established the renewable energy policy for the State. Common renewable energy sources are solar, wind, hydropower, biomass, and methane gas. These energy sources provide a sustainable and affordable power supply. Renewable energy enables New Hampshire municipalities, schools, businesses, and residents to realize economic and energy security benefits.

Renewable energy generation technologies provide fuel diversity to the state and the region through the use of renewable fuels sourced locally, lowering regional dependence on fossil fuels. Renewable resources also have the potential to lower and stabilize future energy costs by reducing exposure to rising and volatile fossil fuel prices.

The use of local and renewable fuels also allows more energy dollars to be retained in the state instead of being spent on imported fuels. In addition, utilizing renewable technologies can help reduce the amount of greenhouse gases, nitrogen oxides, and particulate matter emissions generated in the state, which helps improve air quality and public health.

The RPS statute established four classes of renewable energy resources (summarized in the box to the right). Class I is split into a separate electricity requirement and thermal energy requirement. Electricity suppliers must obtain RECs for each of the four classes as a set percentage of their retail electric load. One REC represents

### New Hampshire RPS Class Definitions\*

**Class I - New Renewable Energy.** Sources producing electricity or "useful thermal energy" (i.e., Class I Thermal) generated by any of the following resources, provided the generator began operation after January 1, 2006, except as noted below:

- Wind energy;
- Hydrogen derived from biomass fuels or methane gas;
- Ocean thermal, wave, current, or tidal energy;
- Methane gas;
- Eligible biomass;
- Class II solar electric energy not used to satisfy the minimum Class II obligation;
- The incremental new production of electricity in any year from an eligible biomass, eligible methane source, or hydroelectric generating facility of any capacity, over its historical generation baseline;
- The production of electricity from Class III or IV sources that have been restored through significant investment.
- The production of biodiesel in New Hampshire meeting all requirements.

**Class I Thermal - Useful Thermal Energy.** Class I Thermal resources must be used to meet a set percentage of the total Class I RPS obligation as outlined in RSA 362-F:3. Eligible Class I Thermal sources include the following technologies that began operation after January 1, 2013 except as noted below:

- Geothermal systems that began producing thermal energy; Solar-thermal systems that produce useful thermal energy only;
- Eligible biomass generators that meet emissions criteria;
- The production of useful thermal energy from certain biomass thermal sources which began operation prior to January 1, 2013 and have been upgraded or replaced through significant investment;
- Renewable forms of methane gas if the output is in the form of useful thermal energy.

**Class II - New Solar.** Solar technologies; provided the electric generator began operation after January 1, 2006.

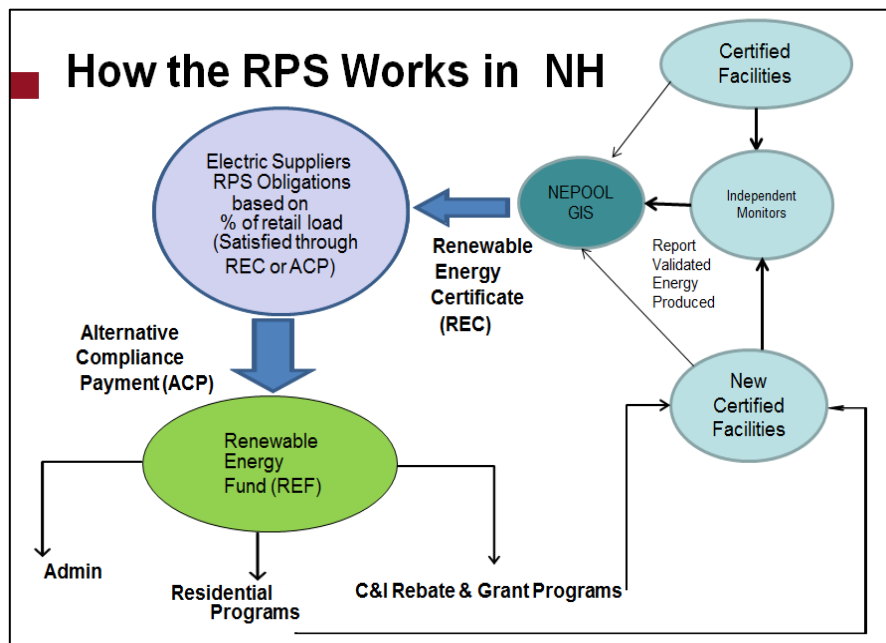
**Class III - Existing Biomass/Methane.** Eligible biomass systems of 25 MW or less, and methane gas, provided the generator began operation before January 1, 2006. Methane gas sources which began operation prior to 2006 and exceed an aggregated gross nameplate capacity of 10 MW at any single landfill site are not eligible.

**Class IV - Existing Small Hydroelectric.** Hydro facilities up to 5 MW, provided the generator began operation before January 1, 2006, and complies with certain environmental protection criteria; and hydroelectric facilities up to 1 MW that are interconnected to the distribution grid in New Hampshire.

renewable attributes of one megawatt-hour of electricity or the equivalent amount of thermal energy.

RECs are generated by certified renewable energy facilities and sold into a regional market. Renewable energy facilities must apply for New Hampshire RPS eligibility. Facility owners submit to the Department a class-specific application for review and approval. The Department certifies the systems as eligible under state statutes and rules (Puc 2500 administrative rules<sup>3</sup>) to generate RECs. Facility owners must purchase and install a revenue quality meter to record the gross output and retain the services of an independent monitor to be eligible for certification. All classes of applications that are considered complete must be approved or rejected within 45 days of receipt.

Upon certification, the Department notifies the New England Power Pool Generation Information System (NEPOOL GIS), which issues and tracks RECs for the region. Gross output from certified customer-sited facilities is verified and reported by independent monitors to NEPOOL GIS. On a quarterly basis, NEPOOL GIS issues RECs for reported generation and administers a two-month trading period. RECs generated in one state may be sold in another provided the facility is certified in that state as well.



If electricity suppliers cannot, or choose not to, purchase or obtain sufficient RECs to comply with the RPS law, they must make Alternative Compliance Payments (ACP) to the REF. On an annual basis, the Department reviews electricity suppliers' compliance with the previous calendar year's RPS requirements. Electricity suppliers include New Hampshire's competitive electric power suppliers and electric distribution utilities (Eversource, Liberty Utilities (Liberty), Unitil Energy Systems, Inc. (Unitil), and the New Hampshire Electric Cooperative (NH Electric Cooperative)).

The REF is a continually appropriated, dedicated, non-lapsing fund which is used to support electrical and

<sup>3</sup> Note: Despite the title, these rules are enforced by the Department. The reorganization of the rules to accurately reflect the split between the Department and the Public Utilities Commission is underway.



thermal renewable energy initiatives. ACPs and the interest accrued on the REF are the only sources of funding and fluctuate from year to year, depending on the price and availability of RECs in the regional market.

The Department administers three residential rebate programs, two C&I rebate programs, and two competitive grant programs with funding from the REF. Projects installed with incentives from the REF are eligible facilities which may become certified, thereby generating additional RECs to trade in the NEPOOL GIS market. Incentivizing the installation of new renewable facilities enables New Hampshire to continue to meet its increasing RPS goals.

*This Space Intentionally Left Blank*

## Fiscal Year 2022: Legislative Summary

### RPS Legislation

In 2023, the RPS law was amended and the change in law is summarized below.

House Bill 233<sup>4</sup> (HB 233) allows the Department to approve an alternative method to verify the output of thermal renewable energy certificate eligible units with a nameplate capacity of 1 million btu per hour or less.

House Bill 2 (HB 2)<sup>5</sup> changes the dates required for electric providers to provide RPS compliance reports to the Department.

Senate Bill 161 (SB 161)<sup>6</sup> Allows public housing authorities and certain housing projects with master meters to be considered eligible entities for low-moderate income community solar projects funded from the Renewable Energy Fund.

### Net Metering Legislation

In 2023, the net metering law was amended and the changes in law are summarized below.

House Bill 281 (HB 281)<sup>7</sup> permits all municipal hosts, regardless of date in service, to serve group members that are outside of the host's municipal boundaries, provided the group members are in the same utility service territory.

Senate Bill 40 (SB 40)<sup>8</sup> permits certain hydroelectric generators to be customer-generators as a matter of law without regard to whether such hydroelectric generator is the electric utility customer account of record at the point of interconnection to the electric grid within certain conditions. It also requires the hydroelectric generator to submit their proposed metering process to the NHDOE and the relevant utility for approval.

---

<sup>4</sup> See [Bill Status \(state.nh.us\)](#); effective October 3, 2023.

<sup>5</sup> See [Bill Status \(state.nh.us\)](#); effective October 7, 2023.

<sup>6</sup> See [Bill Status \(state.nh.us\)](#); Section 1 effective July 28, 2023, balance effective September 26, 2023.

<sup>7</sup> See [Bill Status \(state.nh.us\)](#); effective June 30, 2023.

<sup>8</sup> See [Bill Status \(state.nh.us\)](#); effective August 6, 2022.

## RPS Revenues and Costs

### Revenues

Alternative compliance payments and the interest on the REF are the only sources of revenue for the REF. The ACP rate is paid for each megawatt hour of RPS compliance obligation not met by purchasing a REC. The ACP rate serves as a ceiling price in the REC market. Generally, REC prices trading at or near the ACP rate indicate an under-supply of RECs in the market, whereas RECs trading below the ACP rate indicate an adequate supply of RECs in the market.

ACP rates are defined by RPS Class and are adjusted annually. In accordance with RSA 362-F:10, III (b), the Class III ACP was \$45 for 2015 and 2016, and \$55 for 2017, 2018, and 2019. In accordance with RSA 362-F:10, III (c), the 2020 Class III ACP rate equaled the 2013 ACP rate adjusted by each year's Consumer Price Index (CPI) for the years 2014 through 2019 and have been adjusted by the CPI in following years. In accordance with RSA 362-F:10, III (a), the ACP rate for Classes III and IV are adjusted by the CPI and for Classes I and II by one-half of the CPI.

#### Basic Class Definitions

##### Class I (Non-Thermal)

- New Renewable
- Production of Biodiesel

##### Class I Thermal

- New Useful Thermal

##### Class II

- New Solar PV

##### Class III

- Existing Biomass
- Existing Methane

##### Class IV

- Existing Hydro

*(See RSA 362-F for detailed definitions)*

**Table 1: Inflation Adjusted Alternative Compliance Payment Rates (\$ per Megawatt Hour)**

Inflation Adjusted Alternative Compliance Payment Rate (\$ per Megawatt Hour)												
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<b>Class I (Non-thermal)</b>	\$64.02	\$55.00	\$55.37	\$55.75	\$55.72	\$56.02	\$56.54	\$57.15	\$57.61	\$57.99	\$59.12	\$61.18
<b>Class I Thermal</b>		\$25.00	\$25.17	\$25.34	\$25.33	\$25.46	\$25.69	\$25.97	\$26.18	\$26.35	\$26.86	\$27.80
<b>Class II</b>	\$168.13	\$55.00	\$55.37	\$55.75	\$55.72	\$56.02	\$56.54	\$57.15	\$57.61	\$57.99	\$59.12	\$61.18
<b>Class III</b>	\$31.39	\$31.50	\$31.93	\$45.00	\$45.00	\$55.00	\$55.00	\$55.00	\$34.54	\$34.99	\$36.36	\$38.89
<b>Class IV</b>	\$31.39	\$26.50	\$26.86	\$27.23	\$27.20	\$27.49	\$28.00	\$28.60	\$29.06	\$29.44	\$30.59	\$32.72

ACPs from electricity suppliers are made annually between July 1 and July 15 for the prior calendar year. For example, ACPs for calendar year 2022 (CY22) were to be paid by July 15, 2023. Entities with RPS compliance obligations who might pay ACPs include New Hampshire's electric utilities as well as competitive electric power suppliers. The ACP funding to the REF, as designed, is expected to, and does, fluctuate over time.

ACP revenues for compliance year 2022 were \$7,358,995 as compared to the prior year's revenue of \$7,190,044. The overall compliance obligation increased from 14.6 percent for calendar year 2021 (CY21) to

15.0 percent for CY22. The increased total RPS obligation was due to the annual, legislatively defined increases for Class I, Class I Thermal, and Class II; and the Department’s Order (April 23, 2023)<sup>9</sup> to reduce the Class III obligation from 8% to 0.5%, pursuant to RSA 364-F:4,

**Table 2: ACP Revenues by Compliance Year**

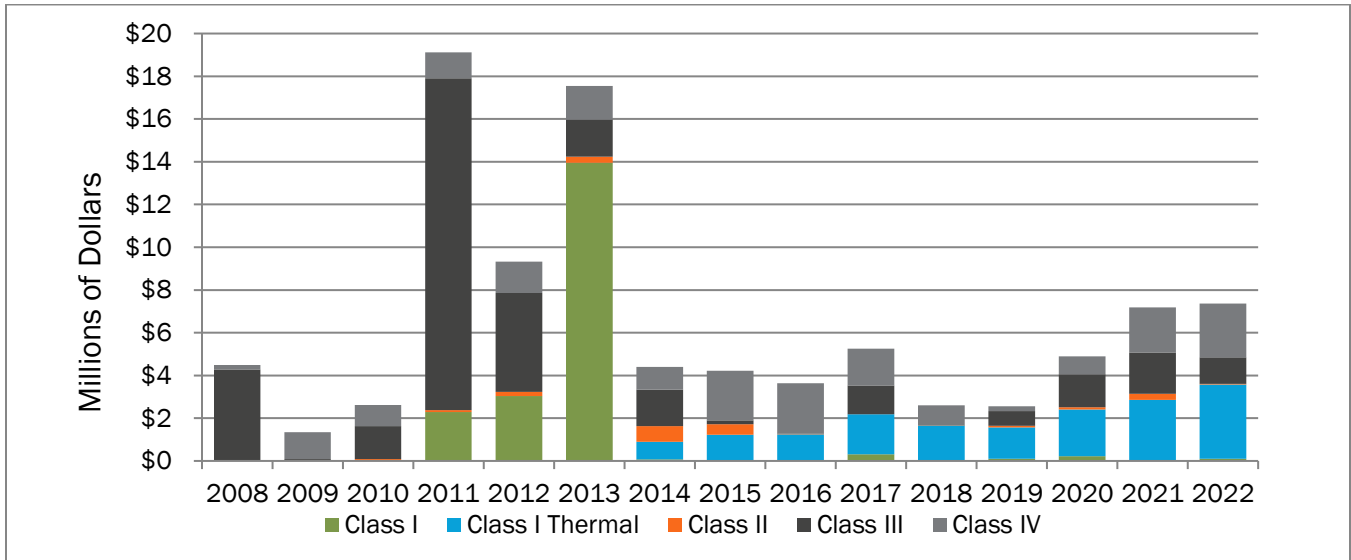
Compliance Year	ACP Revenue	Total RPS Obligation
2008	\$ 4,483,917	4.00%
2009	\$ 1,348,294	6.00%
2010	\$ 2,625,499	7.54%
2011	\$ 19,121,853	9.58%
2012	\$ 9,323,198	5.55%
2013	\$ 17,458,196	5.80%
2014	\$ 4,406,804	7.20%
2015	\$ 4,224,339	8.30%
2016	\$ 3,633,342	8.50%
2017	\$ 5,258,420	17.60%
2018	\$ 3,101,432	18.70%
2019	\$ 2,558,411	19.70%
2020	\$ 4,890,883	14.70%
2021	\$ 7,190,044	14.60%
2022	\$ 7,358,995	15.00%

**ACP Revenues by Class, and Trend by Compliance Year**

The chart below illustrates the fluctuating nature of the annual ACP revenue while providing a year-to-year comparison of ACP revenues by RPS Class.

*This Space Intentionally Left Blank*

<sup>9</sup> [order-rps-2023-01.pdf \(nh.gov\)](https://www.nh.gov/order-rps-2023-01.pdf)



### Revenues by RPS Class

This next section provides a discussion of possible market conditions contributing to the 2022 ACP revenues.

#### Class I & Class I Thermal: New Renewable Energy Production of Electricity or Useful Thermal ACPs

ACPs for Class I increased from \$3,305 for CY21 to \$101,509 for CY22, with an increased obligation requirement of 12.3 percent for CY22 versus 11.40 percent for CY21.

In addition, pursuant to RSA 362-F:6, II-a and Puc 2503.04(d), each year the Department computes an estimate of a percentage credit an electricity supplier may take for Class I based on the capacity of customer-sited sources that are net metered but are not certified to create Class I RECs. For CY22, the credit for Class I was 0.0058 percent against a total obligation of 10.3 percent. At the time of its RPS compliance filing, an electricity supplier may claim this Class I REC credit in an amount equal to the percentage credit for Class I times the total electricity (megawatt-hours (MWh)) provided to end-use customers by that electricity supplier.

ACPs for the Class I Thermal were \$3,474,260 for CY22 compared to \$2,853,969 for CY21. The obligation for Class I Thermal increased to 2 percent from 1.8 percent.

#### Class II: New Solar Electric ACPs

ACPs for Class II were \$28,791 due to the credit for Class II net metered facilities that are not Class II REC-certified, similar to that described above for Class I. For CY22, the credit for Class II which an electricity supplier may claim at the time of its RPS compliance filing was 0.5977 percent compared to the total obligation of 0.70

percent.<sup>10</sup> The ACPs paid were likely due to decisions by competitive electric power suppliers not to pursue purchase of small quantities of RECs but to expedite their compliance process by paying small ACP amounts.

### **Class III: Existing Biomass/Methane Electric Technologies (Prior to January 1, 2006) ACPs**

The Commission did not reduce the Class III requirement for compliance year 2017, 2018 or 2019; however, the obligation was reduced to 2 percent for CY20<sup>11</sup> and reduced by the Department to 1 percent for CY21<sup>12</sup> and again to 0.5 percent for CY 22<sup>13</sup>. With a Class III obligation equal to 1 percent in CY21 and 0.5 percent in CY22, ACP revenue was \$1,238,712 in CY22 compared to \$1,930,433 for CY21.

### **Class IV: Existing Small Hydroelectric (Prior to January 1, 2006) ACPs**

Class IV ACPs increased to \$2,515,722 in CY22 from \$2,122,477 in CY21.

Table 3 lists the distribution utilities and competitive electric power suppliers (CEPS) that filed E-2500 compliance reports for calendar (compliance) year 2022, documents each company's total ACPs, and further breaks down these payments by renewable energy class. Where no revenue appears for a class, it is because the company obtained RECs to satisfy its obligation for that class. Totals may not sum due to rounding.

---

<sup>10</sup> [2021 HB309](#), updated RSA 362-F:6, II-changing the capacity factor rating used in the Class II estimate from 20% to a capacity factor equal to the annual [PV Energy Forecast](#) issued by the Distributed Generation Working Group under the ISO New England, or its successor.

<sup>11</sup> See PUC [Order No. 26,472](#) dated April 20, 2021 under PUC [Docket No. DE 21-037](#).

<sup>12</sup> <https://www.energy.nh.gov/sites/g/files/ehbemt551/files/inline-documents/sonh/class-3-order-adjusting-2021-class-3-obligation.pdf>

<sup>13</sup> <https://www.energy.nh.gov/sites/g/files/ehbemt551/files/inline-documents/sonh/order-of-notice-rps-adjustment-compliance-year-2022.pdf>

---

**Table 3: ACP Obligations by Supplier and RPS Class for Compliance Year 2022**

2022 Company	Alternative Compliance Payments (ACPs)					
	Class I	Class I Thermal	Class II	Class III	Class IV	Total
Liberty Utilities	\$ 23,175	\$ -	\$ -	\$ 57,631	\$ 66,380	\$ 147,186
New Hampshire Electric Cooperative	\$ -	\$ 245,017	\$ -	\$ 125,806	\$ 91,403	\$ 462,225
Eversource Energy	\$ -	\$ 1,290,005	\$ -	\$ 632,991	\$1,027,273	\$ 2,950,270
Unitil Energy Systems, Inc.	\$ -	\$ 176,739	\$ -	\$ 87,664	\$ -	\$ 264,403
<b>Distribution Utilities Subtotal</b>	<b>\$ 23,175</b>	<b>\$ 1,711,761</b>		<b>\$ 904,091</b>	<b>\$1,185,057</b>	<b>\$ 3,824,084</b>
Actual Energy	\$ 18,445	\$ 1,638	\$ 177	\$ 545	\$ 1,377	\$ 22,183
Ambit Energy, L.P.	\$ -	\$ 16,492	\$ -	\$ -	\$ -	\$ 16,492
BP Energy Retail Company, LLC f/k/a EDF Energy	\$ -	\$ 198,442	\$ -	\$ -	\$ -	\$ 198,442
Calpine Energy Solutions LLC	\$ -	\$ 106,983	\$ -	\$ -	\$ 91,372	\$ 198,356
Champion Energy Services LLC	\$ -	\$ 14,263	\$ -	\$ -	\$ 12,175	\$ 26,437
CleanChoice Energy Inc fka Ethical Electric	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Clearview Energy	\$ -	\$ 3,814	\$ -	\$ 1,273	\$ -	\$ 5,087
Constellation New Energy, Inc.	\$ -	\$ 174,832	\$ -	\$ -	\$ 728,562	\$ 903,394
CS Berlin Ops, Inc.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Devonshire (Fidelity)	\$ -	\$ 15,042	\$ -	\$ 3,563	\$ 8,993	\$ 27,598
Direct Energy Business, LLC	\$ -	\$ 381,358	\$ -	\$ 99,445	\$ -	\$ 480,803
Direct Energy Business Marketing (Hess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Direct Energy Services, LLC	\$ -	\$ 144,265	\$ -	\$ 48,831	\$ 5,720	\$ 198,817
ENGIE Resources LLC	\$ -	\$ 189,068	\$ 21,283	\$ 63,994	\$ 161,485	\$ 435,829
ENH Power	\$ -	\$ 52,807	\$ -	\$ 17,853	\$ -	\$ 70,660
Energy Rewards	\$ -	\$ 28,633	\$ -	\$ -	\$ -	\$ 28,633
Everyday Energy	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
First Point Power, LLC	\$ 59	\$ 142,439	\$ 59	\$ 48,213	\$ 121,687	\$ 312,457
Mega Energy of New Hampshire*	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
MP2 Energy NE, LLC	\$ -	\$ 10,019	\$ -	\$ 3,381	\$ 8,565	\$ 21,965
NextEra Energy Services New Hampshire, LLC	\$ -	\$ 126,108	\$ -	\$ 25,234	\$ 74,670	\$ 226,012
North American Power and Gas, LLC	\$ -	\$ 66,828	\$ -	\$ -	\$ 57,081	\$ 123,909
Reliant Energy Northeast, LLC (NRG)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Smart Energy Holdings, LLC	\$ 5,794	\$ 19,957	\$ 887	\$ 4,727	\$ 887	\$ 26,458
Summer Energy Northeast	\$ -	\$ 672	\$ -	\$ 218	\$ 428	\$ 7,112
Texas Retail Energy	\$ 11,055	\$ 41,042	\$ 4,611	\$ 13,890	\$ 35,056	\$ 105,655
Think Energy (ENGIE Retail, LLC)	\$ 42,980	\$ 3,787	\$ 414	\$ 1,273	\$ 3,243	\$ 51,696
Town Square Energy, LLC	\$ -	\$ 17,593	\$ 1,360	\$ -	\$ 13,888	\$ 32,841
Viridian (Crius Energy)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Xoom Energy New Hampshire, LLC	\$ -	\$ 6,420	\$ -	\$ 2,182	\$ 5,476	\$ 14,077
<b>Competitive Energy Suppliers Subtotal</b>	<b>\$ 78,334</b>	<b>\$ 1,762,499</b>	<b>\$ 28,791</b>	<b>\$ 334,621</b>	<b>\$1,330,665</b>	<b>\$ 3,534,911</b>
<b>TOTAL</b>	<b>\$ 101,509</b>	<b>\$ 3,474,260</b>	<b>\$ 28,791</b>	<b>\$ 1,238,712</b>	<b>\$2,515,722</b>	<b>\$ 7,358,995</b>

\* Mega Energy of New Hampshire recorded electric sales in New Hampshire in calendar year 2022; however, as of the filing of this annual report, Mega Energy of New Hampshire has not submitted payment as required.

## RPS Compliance Costs

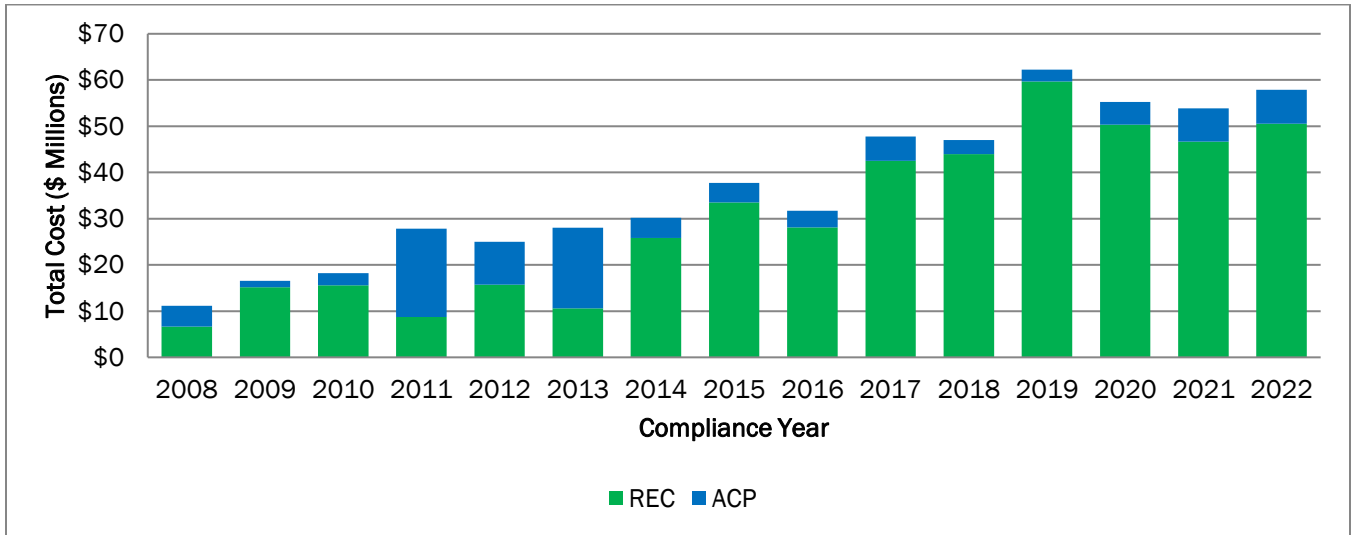
The RPS is a market-based policy where RECs are traded through the NEPOOL GIS. NEPOOL GIS tracks certificates for all megawatt-hours of generation and load produced in the ISO New England control area, as well as imported MWh from adjacent control areas. Electricity suppliers comply with RPS requirements by purchasing RECs or making ACPs. Therefore, the total cost of RPS compliance is equal to the cost of RECs plus the ACPs. The average rate impact for CY 2022 RPS compliance costs is \$0.0055 per kWh.

**Table 4: Annual RPS Compliance Costs and Rate Impact**

Compliance Year	Total RPS Obligation	Total REC Costs	Total ACP Costs	Total RPS Compliance Cost	Average per kWh Rate Impact
2008	4.00%	\$ 6.65	\$ 4.48	\$ 11.14	\$ 0.0011
2009	6.00%	\$ 15.19	\$ 1.35	\$ 16.54	\$ 0.0016
2010	7.54%	\$ 15.57	\$ 2.63	\$ 18.19	\$ 0.0017
2011	9.58%	\$ 8.70	\$ 19.12	\$ 27.82	\$ 0.0026
2012	5.55%	\$ 15.70	\$ 9.32	\$ 25.02	\$ 0.0023
2013	5.80%	\$ 10.59	\$ 17.46	\$ 28.05	\$ 0.0026
2014	7.20%	\$ 25.81	\$ 4.41	\$ 30.21	\$ 0.0028
2015	8.30%	\$ 33.51	\$ 4.22	\$ 37.73	\$ 0.0035
2016	8.50%	\$ 28.12	\$ 3.63	\$ 31.75	\$ 0.0030
2017	17.60%	\$ 42.53	\$ 5.26	\$ 47.79	\$ 0.0046
2018	18.70%	\$ 43.94	\$ 3.10	\$ 47.04	\$ 0.0043
2019	19.70%	\$ 59.65	\$ 2.56	\$ 62.21	\$ 0.0061
2020	14.70%	\$ 50.35	\$ 4.89	\$ 55.24	\$ 0.0053
2021	14.60%	\$ 46.68	\$ 7.19	\$ 53.87	\$ 0.0051
2022	15.00%	\$ 50.52	\$ 7.36	\$ 57.88	\$ 0.0055
Totals		\$ 453.51	\$ 96.98	\$ 550.49	

*All costs presented in millions and rounded.*





### REC Purchases

In accordance with RSA 362-F:8, IV, the annual REF report includes the number of RECs that were purchased during the prior compliance year by RPS class. Pursuant to RSA 362-F:7, I, purchased RECs not used for compliance may be banked for up to two years. Banked RECs may be used in future compliance years to meet up to 30 percent of a supplier’s RPS requirements for a given class obligation. Table 5 below presents the quantity of RECs purchased during calendar year 2022.

**Table 5: RECs Purchased During 2022 by Class**

Class I Non-thermal	Class I Thermal	Class II	Class III	Class IV	Total
1,102,468	81,971	34,135	13,907	73,187	1,305,668

## Rebate and Grant Program Summaries and Results

Pursuant to RSA 362-F:10, the Department administers three residential renewable energy rebate programs, a low moderate income grant program, two C&I renewable energy rebate programs, and a competitive grant program for non-residential renewable energy projects. For all rebate programs and grants, projects funded must be located in New Hampshire.

### Renewable Energy Fund Rebate Programs

Rebate programs funded by the REF are described in Table 6.

**Table 6: Summary of Renewable Energy Fund Rebate Programs**

Rebate Program	Eligible Technologies and Capacity Limits	Incentive Levels (Rebate)	Authority, Date of Inception
Residential Electrical Renewable Energy <a href="#">Rebate</a> (PV and Wind)	Solar electric PV and wind turbines systems	\$0.20 per watt up to a maximum of \$1,000, or 30% of the total cost of the facility, whichever is less  <i>(Effective January 2, 2018)</i>	RSA 362-F:10, V  July 2009  <i>Program was modified in PUC Order No. 26,075 in Docket No. DE 15-302. (November 2017)</i>
Residential Solar Water Heating <a href="#">Rebate</a>	Solar water heating systems with annual production capacity of 5.5 MMBtus/hour or greater	\$1,500, \$1,700, or \$1,900 depending on system capacity	RSA 362-F:10, VIII  April 2010 <i>(Program closed)</i>
Residential Wood Pellet Boiler/Furnace <a href="#">Rebate</a>	High efficiency, bulk-fed wood pellet central furnaces/boilers	40% of the eligible system cost and installation, up to a maximum rebate of \$10,000.  The program also provides a supplemental adder of \$100 per ton for fuel storage systems larger than the 3 ton minimum requirement, up to a maximum of \$500.  <i>(Effective July 9, 2016)</i>	RSA 362-F:10, VIII  April 2010  <i>Program was modified in PUC Order No. 25,921 in Docket No. DE 16-614 (July 2016).</i>

Rebate Program	Eligible Technologies and Capacity Limits	Incentive Levels (Rebate)	Authority, Date of Inception
<p>C&amp;I Solar Technologies <a href="#">Rebate</a></p>	<p>PV systems less than or equal to 500 kW AC, and solar thermal systems less than or equal to 100 kW AC or thermal equivalent</p>	<p>Incentive levels for PV systems are as follows:</p> <ul style="list-style-type: none"> <li>• \$0.20/watt (lower of AC and DC) for new solar electric facilities</li> <li>• Up to a maximum rebate of \$10,000</li> <li>• Expansions to existing solar systems are not eligible</li> </ul> <p>Incentive levels for solar thermal systems are as follows:</p> <ul style="list-style-type: none"> <li>• \$0.12/rated or modeled kBtu/year for new solar thermal facilities fifteen collectors in size or fewer;</li> <li>• \$0.07/rated or modeled kBtu/year for new solar thermal facilities greater than fifteen collectors in size; and</li> <li>• Expansions to existing solar systems are not eligible</li> </ul>	<p>RSA 362-F:10, VIII</p> <p>October 2010</p> <p><i>Program modified and opened in PUC Order No. 26,336. In Docket No. DE 10-212 (March 2020).</i></p>
<p>Commercial and Industrial Wood Pellet Furnace/Boiler <a href="#">Rebate</a></p>	<p>Non-residential bulk-fuel fed wood pellet boilers and furnaces rated 2.5 MMBtus/hour or less</p>	<p>40% of the eligible system cost and installation, up to a maximum rebate of \$65,000. The program also provides supplemental adders for storage and metering.</p> <p><i>(Effective July 9, 2016)</i></p>	<p>RSA 362-F:10, VIII</p> <p>December 2013</p> <p><i>Program was modified in PUC Order No. 25,922 in Docket No. DE 13-298 (July 2016).</i></p>

New Hampshire’s solar electric market continues to grow. Net metering, the RPS, and REF programs are incentives and drivers for participants in this market. Specific program results for the REF rebate programs in FY22 are summarized in Table 7.

**Table 7: REF Rebate Program Results for Fiscal Year 2023**

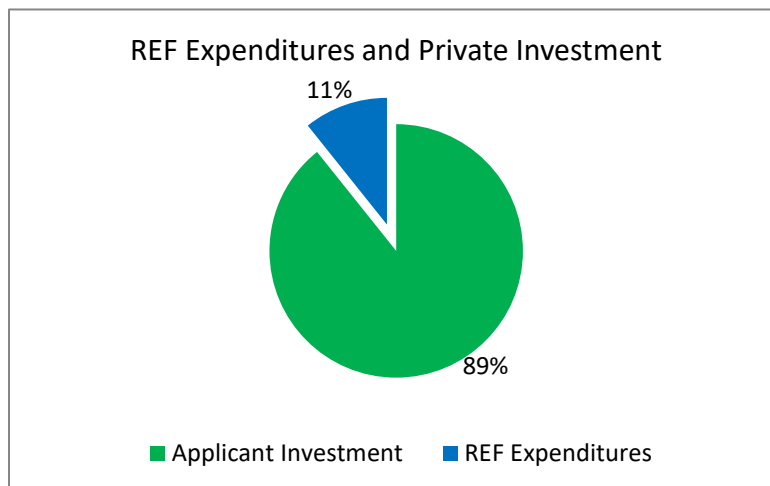
<b>REF Rebate Program</b>	<b>Number of Applications Received</b>	<b>Number Rebates Awarded</b>	<b>Rebate Funds Disbursed</b>	<b>Average Rebate Award</b>
Residential Electrical Renewable Energy (PV and Wind)	351	427	\$423,844	\$993
Residential Solar Water Heating*	n/a	n/a	n/a	n/a
Residential Wood Pellet Furnace/Boiler	41	40	\$406,450	\$10,161
C&I Solar Technologies (Electric and Thermal)	65	30	\$238,752	\$7,958
C&I Wood Pellet Furnace/Boiler	4	3	\$51,903	\$17,301
<b>Totals</b>	<b>461</b>	<b>500</b>	<b>\$1,120,949</b>	<b>n/a</b>

*\*Program closed to new applications during FY23.*

Cumulative results for the rebate programs, since their inception through June 30, 2023, are shown below in Table 8. The program rebates have leveraged private investment in a ratio greater than six to one.

**Table 8: Cumulative Rebate Program Results through June 30, 2023**

REF Rebate Program	Number of Applications Received	Number of Rebates Awarded	Rebates Funds Reserved or In-Process	Rebate Funds Disbursed	Aggregate Applicant Investment	Total Capacity of Incentivized Systems
Residential Electrical Renewable Energy (PV and Wind)	8,340	7,714	\$276,324	\$ 17,224,092	\$210,861,024	60.6 MW DC
Residential Solar Water Heating	510	494	\$0	\$1,008,100	\$3,292,000	0.92 MMBtu/hr
Residential Wood Pellet Boiler/Furnace	548	489	\$267,320	\$3,561,109	\$8,809,879	45.23 MMBtu/hr
C & I Solar Technologies (Electric and Thermal)	1077	737	\$631,274	\$15,237,136	\$95,973,827	42.98 MW DC
C&I Wood Pellet Boiler/Furnace	93	66	\$194,094	\$2,105,877	\$6,459,718	29.29 MMBtu/hr
<b>Totals</b>	<b>10,568</b>	<b>9,500</b>	<b>\$1,369,012</b>	<b>\$39,136,314</b>	<b>\$325,396,448</b>	<b>n/a</b>



**Non-Residential Competitive Grant Program**

RSA 362-F:10, XI, requires the Department to issue an annual RFP for non-residential renewable energy projects that are not eligible to participate in incentive and rebate programs developed under RSA 362-F:10, V and RSA 362-F:10, VIII.

The Department issued the annual RFP for renewable energy projects on November 3, 2022, stating that the RFP program had \$1,250,000 in available grant funds. This RFP sought project proposals which would increase the supply of RECs from thermal renewable energy or non-photovoltaic electric renewable energy projects located in New Hampshire. Specifically, projects which would qualify to generate Class I, Class I Thermal, or Class IV Renewable Energy Certificates were eligible to apply. Three grant proposals were received by the Department. These proposals represented approximately \$6.823 million of total investment and requested \$1.2 million in grant funds. The Department recommended, and the Governor and Executive Council approved, two grant awards totaling \$800,000.<sup>14</sup> Once installed and certified, these projects are estimated to create 8,180 Class I Thermal RECs annually. A complete list of grants awarded is shown in Table 9.

**Table 9: Non-residential Competitive Grants Awarded in Fiscal Year 2023**

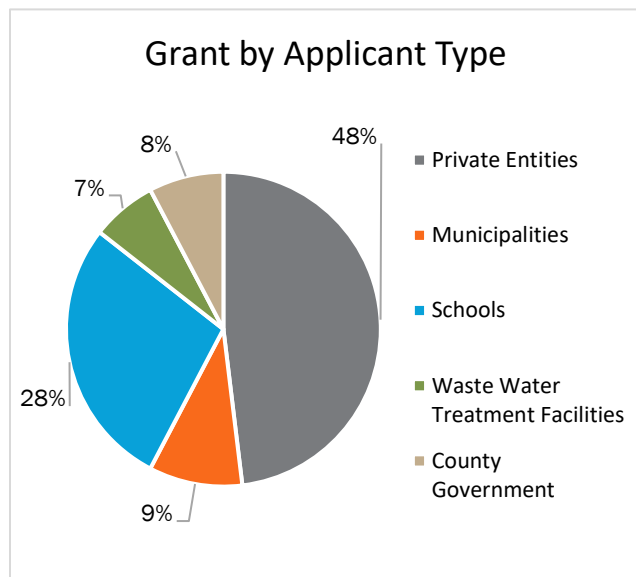
Grantee	Technology	Project Description	Total Project Costs	Grant Amount	Estimated Annual RECs
Continuum at North Conway, LLC	Biomass Thermal	Installation of district heating and cooling plant utilizing locally sourced wood chips for heat and hot water.	\$ 5,500,000	\$ 400,000	6,440 Class I Thermal
Sunapee School District	Biomass Thermal	Installation of district heating plant including a precision dry chip biomass boiler.	\$ 700,000	\$ 400,000	1,740 Class I Thermal

<sup>14</sup> See [NH-SOS - June 14, 2023](#), Governor and Executive Council agenda items #85 and #90

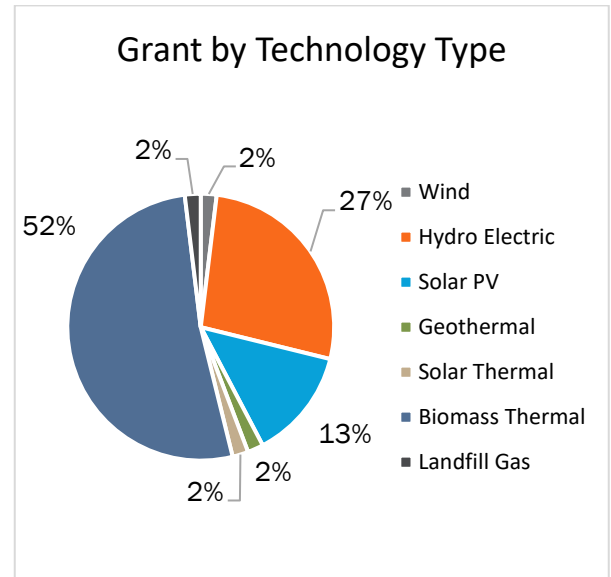
Table 10 and the subsequent charts summarize all grant awards since program inception.

**Table 10: Non-residential Competitive Grant Program Summary**

Year	Number of Grants Awarded	Total Grant Amount	Total Value of Projects
2011	4	\$ 467,890	\$ 1,280,923
2012	6	\$ 654,750	\$ 4,035,424
2013	9	\$ 3,637,890	\$ 28,888,905
2014	5	\$ 2,107,199	\$ 7,683,400
2015	3	\$ 825,000	\$ 2,327,000
2016	6	\$ 1,272,425	\$ 6,106,790
2017	3	\$ 895,000	\$ 2,425,000
2018	2	\$ 950,000	\$ 5,077,300
2019	5	\$ 1,250,000	\$ 2,910,996
2020	4	\$ 1,170,000	\$ 16,422,000
2021	3	\$ 750,000	\$ 1,953,900
2022	2	\$ 800,000	\$ 6,200,000
<b>Totals</b>	<b>52</b>	<b>\$ 14,780,154</b>	<b>\$ 85,386,238</b>



**Grant Award Recipients by Type**



**Grants by Technology by Type**

### Non-residential Competitive Grant Completed in Fiscal Year 2023

310 Marlboro Street, LLC, in Keene, with the help of a grant from the Renewable Energy Fund installed a processed dried wood chip boiler system that will provide heat and hot water to business and residential units in an 80,000 square foot building. The innovative, two-phase project will result in a net-zero, carbon neutral, live-work community that provides housing and mixed use commercial space. The precision dried wood chips, called PDCs are manufactured from locally sourced, forest waste wood. The chips are provided by Froling Energy, LLC a Keene based company that processes and delivers the screened dried wood chips to many schools and industrial buildings in New Hampshire and Vermont. The boiler is tied to the existing hot water system and will be the hot water source for the entire building. The project (outside of the scope of the grant) also includes installation of a 100 kW rooftop solar facility. The original heating system consisted of an oil-fired steam boiler supplemented by six propane fired rooftop units and older heat pumps. As of the writing of this report, the project has generated 810 NH Class I Thermal RECs.

### Low-Moderate Income Program

The Department is required to provide no less than 15 percent of the Renewable Energy Fund (REF) to program(s) which annually benefit low-moderate income (LMI) residential customers. The program(s) may finance or leverage financing for low moderate income community solar projects in manufactured housing communities or in multi-family rental housing.

The Department issued an RFP on November 10, 2022 and March 16, 2023, for Community Solar Photovoltaic Projects Providing Direct Benefits to Low and Moderate Income Residential Electric Customers, stating that the LMI program had \$1,000,000 in available grant funds. A total of five proposals were received in response to both RFPs, requesting total grant funding in the amount of \$1.14 million. Four projects were selected for funding. These four projects selected received \$978,936 in funding through grant contracts approved by the Governor and Executive Council on June 14, 2023. Once installed, these projects will provide direct benefits, including on-bill-credits resulting in a reduction to electric bills for 61 LMI families. A list of grants awarded is shown in Table 11.

**Table 11: Low Moderate Income Community Solar Grant Program Summary**

Grantee	Town	Total Project Costs	Grant Funding	Total Projected Annual Benefits to LMI	Number of LMI Participant Households
<b>Plymouth Area Renewable Energy Initiative</b>	Center Harbor	\$ 171,605	\$ 109,000	\$376 - \$418	12
<b>Newmarket Housing Authority</b>	Newmarket	\$ 375,661	\$ 370,188	\$916	21
<b>The Regenerative Roots Association</b>	Weare	\$ 480,094	\$ 375,000	\$1,388	20
<b>Laconia Area Community Land Trust, Inc. d/b/a Lakes Region Community Developers</b>	Laconia	\$ 203,860	\$ 124,748	\$916	8



### **Low Moderate Income Community Solar Grant Completed in Fiscal Year 2023**

The Organization for Refugee and Immigrant Success (ORIS), with the help of a grant from the Renewable Energy Fund, installed a community solar facility which became operational in December of 2022. The ORIS project model is structured to provide direct benefits to the LMI farmers that participate in ORIS' Fresh Start Farms Program. Through selection of ORIS' proposal submitted to the REF funded LMI Grant Program and additional leveraged funding from the New Hampshire Charitable Foundation, ORIS was able to purchase the array and owns the community solar project outright allowing for maximum direct benefits of compensation for energy produced to LMI farmers by providing community ownership of a ground-mounted solar system.

Under New Hampshire's group net metering program, ORIS is the "host" and receives monthly payments from the utility for the array's generation at a rate that is higher per kWh than the net metering tariff with the inclusion of the adder. ORIS in turn provides direct benefits to its participating residents in the form of on-bill credits from the income received from generation. By providing on-bill credits, the LMI residents reduce their monthly expenses and avoid any unintended consequences to any other public benefits received. This community solar project was installed on land owned by the ORIS and located where participating LMI farmers are allocated plots of land for growing fresh fruits and vegetables for the New Hampshire Food Markets. The array consists of 352 panels and has a total capacity of 100 kW AC, generating an estimated 181,231 kWh annually.

The direct ownership model, as well as LMI Grant Program Funding, enable essentially all of the benefit of this project to go directly to the LMI community and ORIS Food Hub & Farms.

*This Space Intentionally Left Blank*

## Revenues, Expenditures, and Statutory Funding Requirements

### Administrative Costs

Administrative costs are estimated and include, for example, personnel, organizational dues, and IT services. REF administrative expenditures cover the cost of managing the various rebate and grant programs, monitoring and validating facility and supplier compliance with the RPS and working on RPS related dockets such as Puc 2500 rules, Puc 900 rules, net metering, and REF program revisions. Administrative budgeted and actual costs are provided in Table 12.

**Table 12: Budgeted and Actual Administrative Costs by Fiscal Year**

Fiscal Year	Budget	Actual	Difference
2018	\$ 894,835	\$ 683,341	\$ 211,494
2019	\$ 916,102	\$ 696,411	\$ 219,691
2020	\$ 768,750	\$ 517,274	\$ 251,476
2021*	\$ 425,864	\$ 428,598	\$ (2,734)
2022	\$ 380,629	\$ 319,902	\$ 60,727
2023	\$ 409,216	\$ 458,409	\$ (49,193)
2024**	\$ 742,131		

\*FY 2021 appropriated \$788,069 for administrative expenses. The Governor's Efficiency Budget proposed an administrative expense appropriation of \$425,864.

\*\* In FY 2024, as part of HB 2, all expenses related to the Office of Offshore Wind Industry Development were moved to the Renewable Energy Fund.

### Revenues

Table 13 below summarizes the REF revenues recorded for fiscal year 2022.

**Table 13: Renewable Energy Fund Revenues**

Revenues Recorded in FY23 and Carry Forward Funding	
Calendar Year 2022 ACP received	\$ 7,358,995
ACP Compliance Adjustments	\$ 0
Net Calendar Year 2022 ACPs	\$ 7,358,995
Interest Earned (June 30, 2023)	\$ 303,432
Carry Forward from FY22 for In-house/Approved Step 1 Rebate Applications	\$ 1,369,012
Carry Forward from Encumbrances	\$ 2,997,507

### **Allocation of Funding Between Residential and Non-residential Sectors**

In 2010, the New Hampshire Legislature required the Commission (now Department) to balance REF expenditures between the residential and non-residential sectors over each two-year period beginning July 1, 2010, in proportion to each sector's share of total retail electricity sales. In 2012, the requirement was modified such that the Commission (now Department) must reasonably balance the amounts expended, allocated, or obligated during each two-year period.<sup>15</sup>

In FY23, the first year of the two-year period, new revenues deposited into the REF consisted of ACP revenues and interest. In 2022, retail electricity sales for the residential sector represented 45 percent of the total retail sales, while sales for the non-residential sector accounted for 55 percent of total retail sales. Adjustments were then required to account for the moving of funds between the residential and nonresidential programs made on June 1, 2023. Accordingly, based on these percentages and adjustments, the new revenues (less ACP adjustments and administrative cost) were allocated as follows: Residential Programs, \$1,736,000 or 43.4 percent of allocated funds; Non-Residential Programs, \$2,264,000, or 56.6 percent of allocated funds.

### **Funding Cap for Residential Renewable Electricity Rebate Program**

RSA 362-F:10, VI places a cap on spending for the residential rebate program for solar and wind turbines. No more than 40 percent of the REF can be allocated to this program, measured over two-year periods commencing July 1, 2010.

### **Use of Class II Revenues for Solar Technology Incentives**

RSA 362-F:10, I requires that "Class II moneys shall primarily be used to support solar energy technologies in New Hampshire." For CY22, Class II ACPs equaled \$28,791.

### **Use of Renewable Energy Fund Revenues for Low Moderate Income Program**

RSA 362-F:10, X requires allocating "no less than 15 percent of the REF annually to program(s) that benefit low-moderate income residential customers, including, but not limited to, the financing or leveraging of financing for low-moderate income community solar projects in manufactured housing communities or in multi-family rental housing." \$1,000,000 was allocated in FY23, which included carryforward from FY22. This allocation exceeded the 15% minimum.

---

<sup>15</sup> See RSA 362-F:10, X.

## Net Metered Capacity, Net Metered Facilities and Group Net Metering

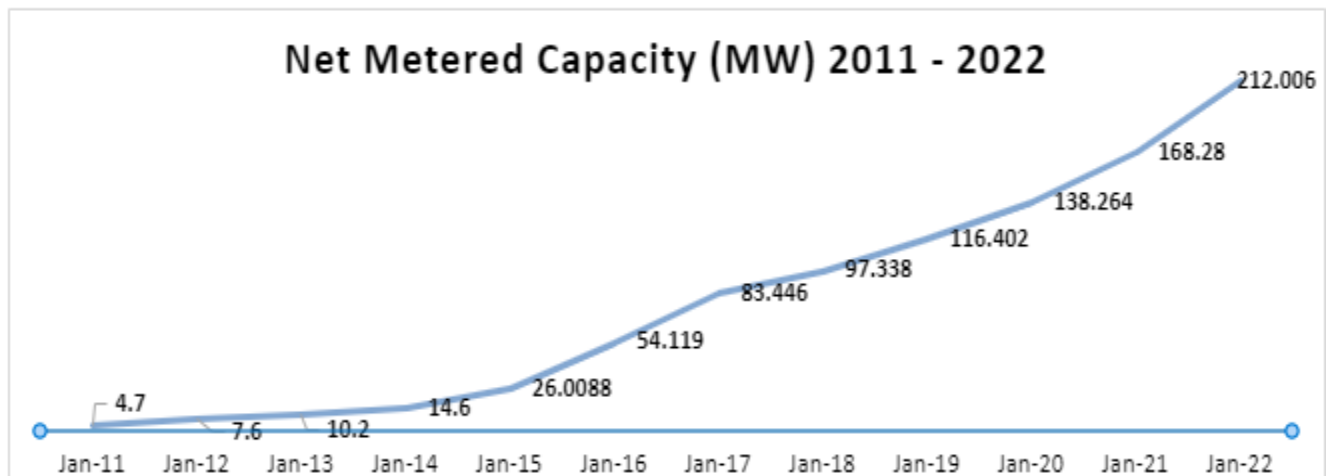
### Net Metered Facilities

Each utility’s total installed capacity of net metered facilities is listed in Table 14. The facility data includes PV, small wind, and small hydroelectric net metered installations.

**Table 14: Total Net Metered Facilities as of December 31, 2022<sup>16</sup>**

Electric Distribution Utility	Total Installs in CY2022	Total Installs (End of CY2022)	Capacity Added (MW) in CY2022	Total Capacity (MW) (End of CY2022)
Liberty	198	998	2.078	13.948
NH Electric Cooperative	176	1,513	2.115	15.763
Eversource	1,889	10,779	26.581	156.674
Unitil	374	1,564	12.952	25.621
<b>Total Net Metered Facilities</b>	<b>2,637</b>	<b>14,854</b>	<b>43.726</b>	<b>212.006</b>

The chart below illustrates the historic trend of installed net metered capacity in New Hampshire starting in January 2011 through December 2022. The total installed net metered capacity was 212.006 MW with 43.726 MW being added or installed in 2022.



<sup>16</sup> Based on the utility reports to US DOE (EIA Form 861M (formerly Form 826) without adjustment) and includes system expansions. Cumulative total.

## Group Net Metering

In July 2009, the Legislature enacted Senate Bill 98, amending RSA 362-A:9 to allow for group net metering and rules were developed to govern group net metering in section 909 of Puc 900 administrative rules. The law permits net-metered renewable energy facilities, known as hosts, to share the proceeds from sales of surplus electricity generation with other electric utility account holders, known as group members. In some cases, the group host and the group members may be the same party. For instance, a town might net meter a solar array and use the proceeds to offset utility expenses associated with other town electric meters. The host and the group members must all be customers of the same distribution utility. Group net metering applications are reviewed and approved by the Department.

Table 15 provides information about group net metering applications registered by the Department.

**Table 15: Group Net Metering Applications Registered as of December 31, 2022**

Electric Distribution Utility	Total Cumulative Number of Applications Approved				Total Cumulative Capacity of Approved Host Installations (Kilowatts AC)				2022 Net Generation By Host (kWh)*	2022 Total Member Load (excluding Host) (kWh)
	Solar	Hydro	Landfill Gas	CHP	Solar	Hydro	Landfill Gas	CHP		
Eversource Energy	205	40	1	1	23,153	27,417	4,600	110	107,034,333	196,208,210
Liberty Utilities	24	--		--	1,652	--		--	680,340	1,119,514
New Hampshire Electric Cooperative	11	--		--	297	--		--	152,229	877,916
Unitil Energy Systems, Inc.	25	2		--	698	9,000		--	11,096,598	18,166,227
<b>Total</b>	<b>265</b>	<b>42</b>	<b>1</b>	<b>1</b>	<b>25,959</b>	<b>36,417</b>	<b>4,600</b>	<b>110</b>	<b>118,963,500</b>	<b>216,371,867</b>

\*Approved indicates facilities registered in the calendar year. Facilities with registrations removed during the calendar year are removed the following year.

\*\* "Net Generation by Host" is the amount of electricity generated and available for the group members, excluding any usage by the host.

## Conclusion

Since its inception in July 2009, the Renewable Energy Fund has been used to establish seven grant and rebate programs that have experienced substantial demand. The Renewable Energy Fund has been utilized to fund 9,500 rebates for renewable energy systems to New Hampshire homeowners, businesses, schools, towns, non-profit organizations, and other eligible entities. In addition, the competitive grant program has provided nearly \$14.78 million in funding for 52 renewable energy projects for schools, businesses, and municipalities, featuring technologies from biomass heating systems to hydroelectric project upgrades to photovoltaic arrays and solar hot air, among others.

As this report illustrates, demand for rebates and grant awards continues to be strong. Rebate and grant funds have leveraged over \$410 million in private investment, providing a boost to the state's economy and creating jobs for electricians, plumbers, and alternative energy businesses. In addition, there has been substantial growth in distributed generation renewable energy systems that serve to diversify our energy supply, reduce our reliance on fossil fuels, reduce greenhouse gas emissions, and increase our energy independence.

The Department continues to monitor industry and renewable energy certificate market trends, and technological developments. The Department will continue to work with stakeholders to develop new methods and programs to support the renewable energy industry and incentivize renewable energy system installations.



New Hampshire Department of Energy • 21 South Fruit Street, Suite 10 • Concord, NH 03301  
Phone: (603) 271-3670 • FAX: (603) 271-3878 • TDD Access: Relay NH (603) 1-800-735-2964

Internet: <http://www.energy.nh.gov>