

2023



**FISCAL YEAR 2023 ANNUAL
PROGRAM PLAN & BUDGET**

FOR THE YEAR JULY 1, 2022 to JUNE 30, 2023

EXECUTIVE SUMMARY

The fiscal year (FY) 2022 (July 1, 2022, through June 30, 2023) plan and budget for the Clean Energy Development Fund (CEDF or Fund) is primarily a continuation of existing programs and grants from prior fiscal years. The only new program is a \$150,000 grant program for awarding grants to public serving non-profit institutions that are reducing fossil fuel use with the installation of advanced wood heating.

Activities of the CEDF will include the American Rescue Plan Act (ARPA) funds that were appropriated to the Department of Public Service (PSD) in FY22 and for FY23. Specifically, the CEDF will be coordinating the \$15 million of ARPA funded programs that were either to be allocated by the Clean Energy Development Board (\$5M) or were to be expended by the PSD “consistent with the parameters of the Clean Energy Development Fund (\$10M for an Affordable Community Renewable Energy Program for low-income Vermonters).

While the CEDF is involved in the ARPA funded programs no ARPA funds were appropriated to the CEDF. Thus, this plan and budget only pertain to the funds in the CEDF. These funds include State appropriated CEDF funds as well as the federal America Recovery and Reinvestment Act (ARRA) dollars allocated to the CEDF in 2009. Appendix B provides a list of ARPA funded programs that the CEDF will be working on.

For FY23 the CEDF itself was not appropriated any new funds. The funds allocated in the FY23 budget are carry-over funds from prior fiscal years plus payments to be made into the CEDF from loans and earned interest.

The CEDF programs that are continuing into FY23 are aligned with CEDF’s strategic goal of building the advanced wood heating market in Vermont. The CEDF is proposing a FY23 Budget of \$1,925,979. The bulk of the expenses are for existing programs and grants growing Vermont’s advanced wood heating market, specifically for local bulk wood pellets. Maturing and expanding the local advanced wood heating market will help Vermont to:

- Strengthen its sustainable forest products and clean energy industries
- Create new employment and economic investment
- Decrease the use of fossil fuels
- Keep heating dollars local

The CEDF will also continue to provide funding to support the removal of old coal heating systems still in use in Vermonters’ homes and businesses with an additional incentive if they replace the coal system with an advanced pellet or dried wood chip heating system.

While the FY23 plan continues the CEDF’s work to build the market and use of advanced wood heating in Vermont the CED Board is studying the greenhouse gas (GHG) emissions of wood heating and energy and whether the CEDF should make changes to its programs and/or to its strategic focus on wood heating.

Through the work of the Vermont Climate Council and the GHG emission reduction requirements in Vermont there has been an increased interest in the accounting of GHG emissions related to the burning wood for energy, including for heat. With the CEDF focused on advanced wood heating the Clean Energy Development Board started investigating the GHG

emissions of wood energy issue in FY22. The Board is interested in further investigations into the GHG emissions of advanced wood heating and reassessing the assumptions the CEDF made regarding the GHG impacts of wood energy when the CEDF selected advanced wood heating as a strategic focus of the CEDF in its 5-year strategic plan adopted in 2018.

The CEDF and CED Board will continue this investigation into the GHG impact of wood heating in FY23 and will consider its findings as part of its strategic planning for the next 5 years.

The Future of the CEDF

In FY23 the CEDF will engage in a process to determine if there are any structural changes to the CEDF and its statutory language that should be made. The CEDF is required to update its strategic plan every five years, which would require a new plan to be issued in 2023. However, with the CEDF no longer receiving dedicated funding and its existing funds not projected to be sufficient to maintain administrative capacities beyond 2023, a five-year strategic plan is not seen by the CEDF as the best use of time and effort. A five-year strategic plan could be developed after the review of the of the CEDF structure and purpose has concluded.

PURPOSE OF THE ANNUAL PROGRAM PLAN and BUDGET

The purpose of the Annual Program Plan is to describe the initiatives and programs that the CEDF will pursue during the fiscal year and to establish an annual budget for the expenditure of CEDF and federal funds under CEDF control.

The Annual Program Plan and associated budget represent CEDF's efforts to effectively use its funds to meet the legislated purpose of the CEDF as embodied in CEDF's goals and objectives, and as outlined in the CEDF's multi-year strategic plan.

MANAGEMENT & GOVERNANCE

By law, the CEDF is administered by the Department of Public Service (PSD). The Clean Energy Development Board (Board) has decisional and approval authority regarding the plans, budget, and program designs of projects that are granted CEDF funding, and otherwise generally advises the PSD Commissioner on the administration of the CEDF and the implementation of its statutory mission. The day-to-day operations of the CEDF are carried out by a Fund Manager, who is a PSD employee and reports to the PSD Commissioner.

The Board consists of seven persons, three appointed by the PSD Commissioner, two by the Chair of the Vermont Senate Committee on Natural Resources and Energy, and two by the Chair of the Vermont House Committee on Energy and Technology. Board member terms are four years in length.

The current Board members, the authority that appointed each member, and the year each member's term expires (*terms end on June 30th*) are:

- Kate Desrochers, House Energy & Technology Committee, 2023
- David Farnsworth, PSD Commissioner, 2025

- Johanna Miller, House Energy & Technology Committee, 2025
- Paul Zabriskie, Senate Energy Committee Chair, 2023
- Sam Swanson, Co-Chair, Senate Energy Committee Chair, 2023
- Ken Jones, Senate Energy Committee Chair, 2025
- *Vacant*¹, PSD Commissioner, 2023

In FY23 the PSD Commissioner will appoint a new member to fill the current vacant position on the Board. The new appointee will complete the vacant term until it ends on June 30, 2023.

VISION, GOALS AND OBJECTIVES

To guide its decisions, the CEDF adopted a multi-year strategic plan in 2018. The strategic plan was built to advance the statutory purpose of the CEDF to promote the development and installation of cost-effective and environmentally sustainable renewable energy resources for the long-term benefit of Vermonters. The FY23 plan and budget is built to further the goals of the 2018 plan. The CEDF’s vision and supporting goals from the 2018 strategic plan are shown in Figure 1.

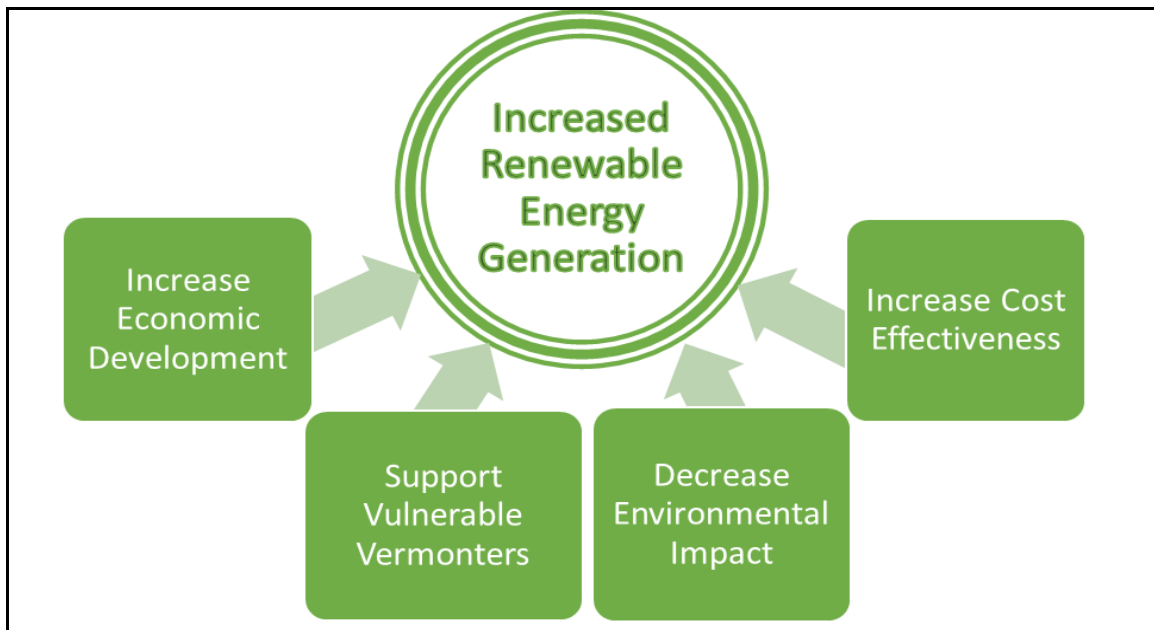


Figure 1. CEDF’s four goals in support of its mission of increased Renewable Energy Generation.

FISCAL YEAR 2023 REVENUES

Total funds budgeted for FY23 equals \$1,925,979. New revenue into the CEDF for FY23 is projected to be just shy of \$50,000. This revenue consists of loan principal and interest payments made to the CEDF from one remaining CEDF loan as well as interest payments from CEDF’s cash balances. The remaining CEDF loan has a balance of \$267,831. See Appendix A for more details on the FY23 revenue.

¹ Jared Duval held this position until May of 2022.

The budget consists of CEDF and American Recovery and Reconstruction Act (ARRA) of 2009 funds. ARRA funds are accounted for separately but are included in the overall CEDF FY23 budget. The funds come from the repayment of ARRA funded loans the CEDF made prior to 2015. Vermont Economic Development Authority (VEDA) administers the one remaining ARRA loan for the CEDF which has a balance of \$750,000 with a 1% interest rate and terms that requires only interest payments be made for the next several years.

OVERVIEW OF PLAN & BUDGET

The FY23 plan is to maintain current programs and the technological focus on advanced wood heating. The CEDF made this decision after examining: the program data collected, the level of market development achieved in the targeted advanced wood heating sector, progress that can be made towards CEDF goals for each dollar invested, and the funding available.

The CEDF has chosen advanced wood heating as its focus due to its many benefits that support CEDF's four primary goals. The benefits of advanced wood heating include:

- Keeping dollars spent on heating fuel in the local economy
- Reducing the use of fossil fuel
- Supporting and building local businesses and a wood heating economic sector in VT
- Helping to maintain Vermont's forests and working landscape
- Creating and maintaining a diverse set of jobs ranging from those working in the forest to those selling pellets and installing heating systems
- Building on Vermont's traditional wood heating and wood products manufacturing base.
- Improving the quality and effectiveness of wood heating
- Improving heating resiliency
- Lowering heating costs
- Having a stable price and thus avoids exposing Vermonters to fuel price volatility

The CEDF defines advanced wood heating as wood heating that: 1) utilizes highly efficient combustion technology, 2) produces low levels of emissions, 3) supports healthy forest ecosystems, and 4) consumes local wood. For the CEDF to meet its goals it is important that all four of these conditions of advanced wood heating are built into program designs.

What is considered "highly efficient", a "low level of emissions", a "healthy forest ecosystem", and "local wood" will evolve with technology improvements and other factors affecting Vermont's forests. The CEDF's program requirements are updated periodically so that they are always leading the wood energy market to become more advanced and supportive of the State's carbon emission reduction requirements.

Currently CEDF's incentives for central pellet heating systems (mainly pellet boilers) require that the systems have at least an 85% efficiency rating (80% for wood chip systems) and have the best available emission control technologies that limit particulates to no more than a 0.1 lb./Million Btu output.

The EPA requires wood stoves to emit no more than 2.0 (or 2.5 depending on testing method) grams per hour of particulates. The CEDF requires wood heating to hold to the more stringent

requirement of 2.0 grams and requires the stoves meet an efficiency standard of at least 73% (with a goal of moving that to 75% once more efficient stoves are readily available).

The CEDF believes that wood heating can have a positive carbon emission impact through sustainable forest management practices that ensure long-term forest health, biodiversity, carbon storage (both in the forests and in wood products), and reduction of fossil fuel use. To help ensure this is the case, the CEDF will emphasize the use of local wood, such as wood primarily coming from a fifty-mile radius woodshed from where it is consumed. Using local wood makes it more possible for the State to sufficiently monitor and manage the forest resource used for wood heat. The CEDF is committed to working with the Vermont Department of Forest and Parks (and other stakeholders) to promote sustainable harvesting guidelines for forest management.

CEDF will continue to work collaboratively with Efficiency Vermont (EVT) on incentives for advanced wood heating. The CEDF will seek to work with others to build consumers' awareness of advanced wood heating options and local wood heating businesses. The CEDF will work for continued increases in advanced wood heating installations and progress towards the goal of a self-sustaining market of equipment providers and local fuel suppliers for advanced wood heating in Vermont.

The Fund will continue the Small-Scale Renewable Energy Incentive (SSREI) Program as the primary program to promote advanced wood heating. Incentives will continue to grow the bulk pellet sector of the wood heating market in Vermont through pellet bins, coal heating change-outs, and direct incentives for pellet boilers – including those used in maple sap evaporators.

The CEDF will continue to collaborate with and leverage the projects of the many organizations working on promoting wood heating in Vermont and New England such as the State Wood Energy Team, the Biomass Energy Resource Center, the Vermont Sustainable Jobs Fund, and the Northern Forest Center. The CEDF will also continue to collaborate across State Government to promote advanced wood heating.

The only new program for FY23 will be \$150,000 for competitive grants for the installation of advanced wood heating systems at non-profit public serving institutions. These grants will be available only to those institutions that are receiving technical assistance from Efficiency Vermont to help ensure proper mechanical designs of the systems.

CEDF Planning

The CEDF, with input from the CED Board, will engage in a process to determine if there are beneficial structural changes to the CEDF, which could also include changes to the CED Board, for the Vermont General Assembly to consider in 2023. The process will include outreach and solicitation of ideas from stakeholders and state entities engaged in work similar to the CEDF.

The current statutory construct of the CEDF is outdated and no longer effectively serves the clean energy requirements and goals of the State. The current structure of the CEDF was created in 2008 before many of the current clean energy programs and requirements, like the Renewable Energy Standard and the Global Warming Solutions Act, were in place. Most importantly the

current structure and purpose of the CEDF was predicated on annual payments into the Fund from Entergy Vermont Yankee. Those funds stopped in 2014 and no new funding source has been identified since.

The current statute requires the CEDF to update its strategic plan every five years, which would require a new plan to be issued in 2023. However, a five-year strategic plan is not seen by the CEDF as the best use of time and effort. With the CEDF no longer receiving dedicated funding and its existing funds not projected to be sufficient to maintain administrative capacities beyond 2023, the CEDF will first investigate possible changes to the CEDF. If the CEDF determines that changes should be made it will present recommendations to CED Board and then to the Vermont General Assembly in 2023. A five-year strategic plan could be developed after the process to determine possible changes to the CEDF is concluded.

DESCRIPTION OF PROGRAMS

The programs described below provide details on the Fund's planned programs for FY23 and provide a narrative for the budgeted line items in Appendix A.

Windham County Programs

For FY23 \$371,698 is budgeted for the remaining renewable energy program in Windham County, the Windham Wood Heat Initiative administered by the Windham Regional Commission.

For several years there has been a continuing collaborative effort to build an advanced wood heating market in Windham County from the ground up. The remaining funds available in FY23 will be granted to municipalities, public schools, or non-profit public serving institutions in support of new advanced wood heating systems. The program has tentative grants in place for a couple large and complicated projects and will be working for the next year to get grant agreements in place as the details and funding for the projects are further developed.

Small Scale Renewable Energy Incentive (SSREI) Program

The SSREI Program will continue in FY 2023 with an allocation of \$842,079. These CEDF and ARRA funds will provide a market-based incentives to home and business owners to install advanced wood heating systems.

The SSREI Program has proven to be an effective policy tool to grow the residential and small commercial small-scale renewable energy technologies in a widely distributed and accessible manner. Given the program's advantages of being market-based, cost effective, simple, and with open and transparent access, the CEDF will continue to fund this program.

The funds budgeted for the SSREI Program support program administration, incentives for the installation of residential and commercial pellet boilers, maple sap evaporators fueled with wood pellets, and an additional incentive for businesses and homeowners that heat with coal to switch to pellets.

The SSREI Program will continue to be administered by the Renewable Energy Resource Center (www.nerc-vt.org) for FY23. The RERC is a division of the Vermont Energy Investment

Corporation which was awarded the administration contract for the program as part of competitive bid process in 2021.

Advanced Wood Heating Grants for Public Serving Institutions

This competitive grant solicitation is the only new program proposed in this plan. The CEDF is budgeting \$150,000 of CEDF funds to be used as grants for non-profit public-serving institutions (i.e., affordable housing, community organizations, hospitals and health-care centers). The grants will be up to \$50,000 and will require that the institution receive funding and technical assistance from Efficient Vermont (EVT). Efficient Vermont's mechanical engineers have years of experience working on advanced wood heating systems in Vermont and the CEDF wants to leverage their expertise and the EVT incentives. The CEDF grants will be for larger projects where the EVT incentive is not an efficient incentive for the non-profit institutions targeted in this program.

SEMP Expansion Grant to the Department of BGS

In FY 2021 the CEDF signed a Memorandum of Understanding (MOU) with the Department of Building and General Services (BGS) for the expansion of their State Energy Management Program (SEMP) to support municipalities in making their buildings more efficient and to transition to renewable fuels. The CEDF agreed to provide \$150,000 per year for two years for BGS to hire additional staff to expand their services to municipalities in Vermont. CEDF is using ARRA funds for these payments.

Due to the Covid-19 Pandemic BGS did not expand the program in FY21 but did hire new staff for the expansion of the program at the end of FY22. BGS will begin to expend the CEDF funds in FY23. New legislation from the 2022 legislative session created additional requirements on BGS for the expansion of the SEMP program and this may impact the MOU between the CEDF and BGS².

Vermont Clean Energy Industry Report

The Fund will provide support for the development and management of the ninth annual Vermont Clean Energy Industry Report (VCEIR). Coming out the Covid-19 pandemic the Fund wants to gauge the effectiveness of State clean energy policies and incentives designed for growing the clean energy sector of the economy.

The CEDF has budgeted \$20,000 which include \$10,000 to cover the 2022 report which was delayed and will not be issued until the start of FY23.

The report's data and analysis of Vermont's Clean Energy Industry provide specific market information that is helpful to the Fund, State agencies, and the Vermont legislature. The data collected in Vermont is part of a multi-state effort to gather this data across the country. The CEDF will coordinate with the National Association of State Energy Offices, the CEDF's contractor on the previous VCEIR, and the US Department of Energy on possible changes to the multi-state effort to collect clean energy job data that will lessen the need for CEDF/state funds.

ANR's Solar Permitting Training

² Act 172. An act relating to municipal energy resilience initiatives.

In 2013 the CEDF acquired \$14,000 from a Public Utility Commission issued fine for an environmental violation committed during the installation of a solar project. The funds are required to be spent on environmental permitting training of solar PV installers in consultation with the Agency of Natural Resources (ANR). As net metering and solar permitting has changed over the past several years the training has been postponed numerous times. A series of webinars has been planned by ANR that will train solar installers in the proper disposal of solar photovoltaic modules and batteries. The CEDF will continue to work with ANR to expend these funds in FY23.

Advanced Wood Heating Market Assessment

In 2016 when the CEDF had just started to focus its program investments in growing the wood heat market it commissioned a base-line report of the sector. In FY22 the CEDF budgeted funds for this project. A request for proposals was issued and near the end of the '22 fiscal year VEIC/Biomass Energy Resource Center was selected as the contractor to complete the report. Work on the report will start in early FY23 and the report issued before the end of the calendar year.

This new assessment of Vermont's advanced wood heating market will be key to identify key performance indicators that the CEDF can use to better track the market maturity of the wood heating market in Vermont.

CEDF Administration & Program Management

In FY23 the budget for program administration and management is \$160,000. These funds will cover the salary and benefits of the CEDF Fund Manager, as well as other staff costs incurred by the PSD for the administration of CEDF programs. These funds will not cover any additional staffing or administrative costs associated with the ARPA funds appropriated to the PSD.

A portion of these funds may be used to pay the CEDF Fund Manager for hours worked on renewable energy programs and planning activities at the PSD. As the CEDF programs and grants end and there is less CEDF work for the Fund Manager the PSD may assign clean energy tasks to the CEDF Fund Manager. In FY23 these tasks will include work related to the ARPA funds appropriated to the PSD for clean energy programs.

Loan Servicing Fees

The CEDF has budgeted \$11,400 for payment to Vermont Economic Development Authority (VEDA) to service the 2 remaining CEDF and CEDF-ARRA loans. The fees are based on a \$900 per quarter flat fee plus 1% of the outstanding balance of all CEDF loans VEDA is servicing.

ACTIVITIES AS PART OF THE PUBLIC SERVICE DEPARTMENT

As part of the PSD, the CEDF will continue to be a resource for the PSD on renewable energy matters. In FY23 this will include working on programs to be funded with ARPA dollars appropriated to the PSD that reference the CEDF. Appendix B below provides a list of the ARPA funded programs that the CEDF is managing as part of the PSD.

In addition, the CEDF will build upon its current role as a resource for the PSD regarding renewable energy technologies, policy, and incentive program design. In doing so, the CEDF strengthens interagency relationships, coordination, and program leveraging to help generate collective benefits from increased renewable energy such as economic development, affordability, and the reduction of energy poverty.

Appendix A - Budget

Fiscal Year 2023 Combined Budget			
Carry Forward and Estimated Revenue	CEDF \$	ARRA \$	Total FY '23 Draft Budget \$
Carry Forward/Fund Balance	935,498	945,836	1,881,334
Loan Repayments (P&I)	40,316	7,500	47,816
Interest	1,000	1,000	2,000
TOTAL FY '23 Estimated Funds	976,814	954,336	1,931,150
FY 23 Program Allocations & Expenses			
Programs	CEDF \$	ARRA \$	Total FY '23 Budget \$
Windham County Programs	371,698	-	371,698
Small-Scale Incentive Program (Incentives & the program contract)	240,453	601,626	842,079
AWH at Public Serving Institutions - Grants	150,000		150,000
SEMP Expansion Grant to BGS (\$150K/yr. for 2 years)	-	300,000	300,000
Vermont Clean Energy Industry Survey	20,000	-	20,000
ANR's Solar Permitting Training	14,000	-	14,000
2022 Advanced Wood Heating Assessment	-	30,000	30,000
Program Management and Administration	150,000	10,000	160,000
Loan Servicing Fees	3,000	8,400	11,400
TOTAL Budgeted Expenses	949,151	950,026	1,899,177

Appendix B

American Recovery Plan Act Funded Programs Managed by the CEDF

While the CEDF is involved in the planning, development, and administration of the ARPA funded programs no ARPA funds were appropriated into the CEDF. Thus, this plan and budget did not provide details on those funds. This appendix is design to provide a list of what ARPA funded programs the CEDF, as part of the PSD, is managing.

The CEDF is coordinating the following \$15 million of ARPA funded programs:

1. **The Affordable Community Renewable Energy Program for low-income Vermonters** (\$10 million).

This is also known as the low-income community solar program. The program has been in design since 2021. Design of the program was finalized in the Summer of 2022 and an RFP to the distribution utilities was issued. The utilities will use grant funds to operate separate community renewable energy programs for the benefit of low-income customers.

2. **Small-Scale Renewable Energy Program (SSREIP) Adders for Low- and moderate-income Households** (\$1 million).

Additional funds added to SSREIP grants for low- and moderate-income households for:

- wood pellet boilers/furnaces and associated pellet storage
- cord or pellet stoves when part of changing-out old stoves. Can include funds for hearth and chimney repair
- the use of (and costs to convert to) bio-diesel heating fuel

3. **Aid to Impacted Industries** (\$250,000)

Competitive grants for heating and ventilation systems (or repairs for to such systems) for businesses in the hospitality, tourism, or travel sector. Focused on rural small businesses.

4. **Advanced heating grants to high-poverty school districts** (\$3.75 million)

Grants to lower heating fuel costs with new (and repairs to existing) clean heating/HVAC systems (pellets, chips, bio-diesel, efficient electric systems). Grants to cover 50-90% of project costs based on a sliding scale of the percentage of students in the school eligible for the federal free and reduced priced lunches program. Maximum grant will be \$250,000.