

2022



**FISCAL YEAR 2022 ANNUAL
PROGRAM PLAN & BUDGET**

FOR THE YEAR JULY 1, 2021 to JUNE 30, 2022

EXECUTIVE SUMMARY

The fiscal year (FY) 2022 (July 1, 2021 through June 30, 2022) 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. With few changes in the design and funding of existing programs the CEDF's will continue to focus on the development of the advanced wood heating market in Vermont.

This plan and budget only pertain to the funds in the CEDF and not the \$10 million of federal American Recovery Plan Act (ARPA) funds that the 2021 Vermont Legislature appropriated to the Public Service Department (PSD) for an Affordable Community-scale Renewable Energy Program or the \$5 million of ARPA funds to be allocated by the Clean Energy Development Board (CED Board) in FY 2022.

The PSD and the CEDF will conduct a public and stakeholder engagement process on how to best design the Affordable Community-scale Renewable Energy Program and how the CED Board should allocate the \$5 million. The engagement process for the ARPA funds will end in September and will be separate from the design and adoption of this FY 2022 plan and budget for the CEDF. Adopting the FY 2022 plan and budget for the CEDF funds separately will allow CEDF's current programs to continue into FY 2022 while plans for the new ARPA funds are discussed and designed.

The CEDF itself was not appropriated any new funds for Fiscal Year 2022. The funds in the CEDF, that are allocated in this Plan, are carry-over funds from prior fiscal years and the estimated payments to be made to the CEDF from outstanding loans and interest. The funds available to the CEDF consist of state and federal America Recovery and Reinvestment Act (ARRA) dollars. As mentioned above, the CED Board will allocate the ARPA funds it has authority over in a separate process (or processes) and document(s) then this CEDF Fiscal Year Plan.

The CEDF is proposing a FY 2022 Budget of \$2,259,256. 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
- Decrease the use of fossil fuels
- Keep heating dollars local

This FY 2022 plan includes monies to support low/moderate-income Vermonters with incentives for residential pellet heating, thermal energy efficiency measures for their homes, and wood stove change-outs for cleaner more energy efficient wood heating. The CEDF will continue to provide funding to support the removal of old coal heating systems still in use in Vermonter's homes and businesses and the installation of advanced pellet or (for non-residential applications) dried wood chips heating systems.

An important aspect of this year's plan is the incorporation of recommendations from a thorough third-party evaluation of the CEDF and its programs completed at the end of 2019. Amongst the conclusions and recommendations of the evaluation report was:

“Conclusion: If the priority is to offset the greatest amount of fossil fuels, then pellet boilers (both residential and nonresidential) are the primary measure to achieve that goal. In addition, the pellet manufacturing and distribution market experiences the greatest benefit.

Recommendation: To meaningfully drive down the payback period of residential pellet boiler systems, the program may want to consider increasing the incentive.”

The evaluation also included conclusions and recommendations regarding CEDF's incomplete data collection and the lack of consistent tracking of key performance indicators (KPIs). The CEDF will identify KPIs that it will be able to regularly track and report on. The CEDF needs to more easily identify and report year-over-year program accomplishments, which will allow it to adjust program design to better target specific areas of the market to reach its clean energy goals. Part of this work will be a new report on the assessment of the advanced wood heating market in Vermont, with recommendations for KPIs that the CEDF can track.

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

In accordance with 30 V.S.A. § 8015, the CEDF is administered by the Department of Public Service (PSD) with oversight by the Clean Energy Development Board (Board). A Fund Manager hired by the PSD, with assistance from other PSD staff, manages the day-to-day operations of the Fund and coordinates with the Clean Energy Development Board. Since 2009 the Fund Manager has been Andrew Perchlik.

The Board's role is to review the CEDF's Annual Program Plan & Budget, program designs, as well as any changes to programs that the PSD may propose during the year. The Board provides guidance and advice to the PSD regarding the programs of the Fund. The PSD/CEDF cannot proceed with the Annual Plan, Budget, or program designs unless approved by the Board.

The Board consists of seven persons, three appointed by the PSD Commissioner, two by the Chair of the Senate Committee on Natural Resources and Energy, and two by the Chair of the 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 (*terms end on June 30th*) each member's term expires are:

- Kate Desrochers, House Energy & Technology Committee, 2023
- Jared Duval, Co-Chair, PSD Commissioner, 2023
- David Farnsworth, PSD Commissioner, 2021
- Johanna Miller, House Energy & Technology Committee, 2021
- Paul Zabriskie, Senate Energy Committee Chair, 2023
- Sam Swanson, Co-Chair, Senate Energy Committee Chair, 2023
- Ken Jones, Senate Energy Committee Chair, 2021

As this Plan is being written the three appointing authorities are each looking to appoint or re-appoint members for the three positions on the Board that expire in 2021.

PLANNING FRAMEWORK

While this annual plan focuses on the programs and spending of one year, CEDF's planning decisions are based on a framework that assumes multiple years of programmatic activity. The CEDF decided, for FY 2021, to maintain the programs and a 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 made towards CEDF goals, other options for the funds, and the funding available.

VISION, GOALS AND OBJECTIVES

To guide CEDF decisions, a multi-year strategic plan was developed 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. To prevent the strategic plan from becoming stagnant and forgotten until the next five-year plan is written, and to ensure that annual plans are aligned with the strategic plan, the CEDF reviews the strategic plan each year when creating its annual plan. For the FY22 Plan and Budget the vision and goals of the 2018 multi-year strategic plan are maintained, as described in Figure 1 below.

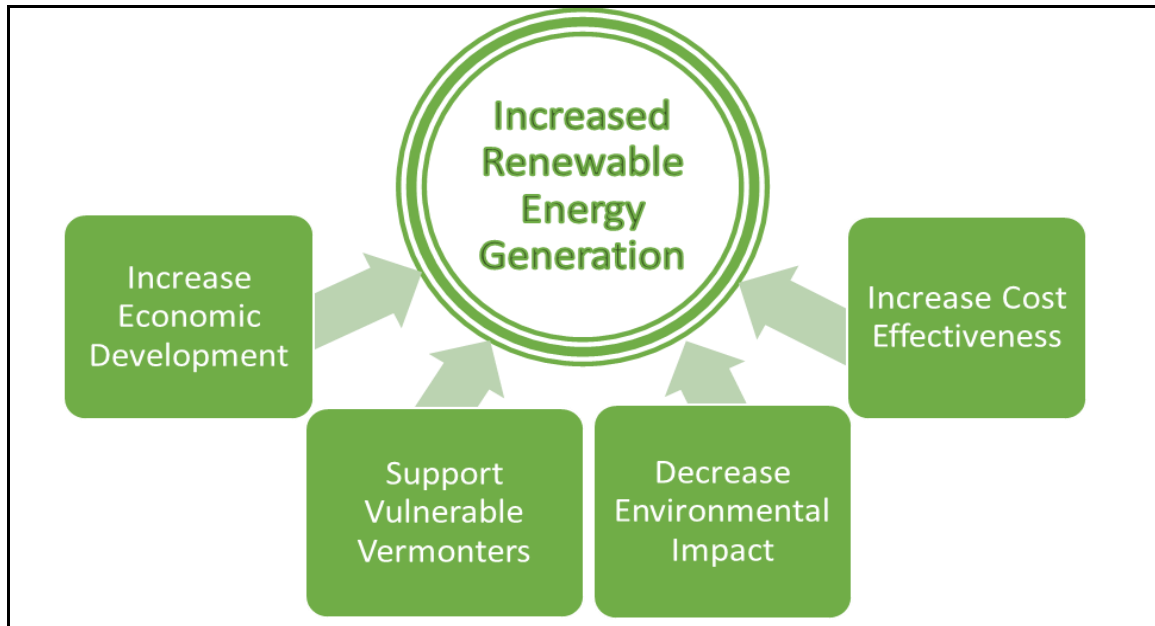


Figure 1. CEDF's four goals in support of its mission of increased Renewable Energy Generation.

BUDGETED FY 2021 REVENUES

The CEDF budget for FY 2022 is \$2,304,379. New revenue into the CEDF for FY 2022 are projected to be \$125,000 of loan principal and interest payments from loans CEDF made in the past, and an estimated \$3,000 of interest payments. See Appendix A for more details on the FY 2022 budget.

The CEDF budget contains just over \$1 million of American Recovery and Reconstruction Act (ARRA) funds. These funds are accounted for separately but are included in the overall CEDF FY22 budget. The funds come from the repayment of ARRA funded loans the CEDF made prior to 2015. Vermont Economic Development Authority (VEDA) administers these loans for the CEDF.

OVERVIEW OF PLAN & BUDGET

The CEDF will continue to strategically focus on the development of the advanced wood heating market in Vermont. The CEDF has chosen advanced wood heating as its focus due to its many benefits that support the CEDF's four goals. Specifically, advanced wood heating:

- Keeps dollars spent on heating fuel in the local economy
- Reduces the use of fossil fuel
- Supports and builds local businesses and a wood heating economic sector in VT
- Supports maintaining forests as forests and Vermont's working landscape
- Creates and maintains a diverse set of jobs ranging from those working in the forest to those selling pellets and installing heating systems
- Builds on Vermont's traditional wood heating manufacturing base and rich wood heating history
- Improves the quality and effectiveness of wood heating, a fuel system that serves the needs of many low to moderate income families in Vermont

- Improves heating resiliency
- Lowers heating costs

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/or “local wood” will evolve with technology improvements and the CEDF’s program requirements will be adaptive in order that its programs are always leading the wood energy market to improve its performance.

For CEDF’s pellet heating programs systems receiving incentives are required to meet a 85% efficiency standard (80% for wood chip systems) and have best available emission control technologies that limit particulates to no more than a 0.1 lb./Million Btu output.

The EPA’s 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 also requires the stoves meet an efficiency standard of at least 75%.

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, 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 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 with Efficiency Vermont (EVT) on coordinated 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.

CEDF’s work building the advanced wood heating market in FY 2022 builds on its foundational work completed over the prior five years. Vermont is seeing slow but 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 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 administer the grants issued in prior fiscal years to expand and strengthen the supply side of the Vermont wood pellet market and for advanced wood heating in Windham County.

The Windham Wood Heat Initiative that started in 2015 and a separate Windham County renewable energy sub-grant program that started in 2017 will continue and be completed in FY2022. Both grant programs are administered by the Windham Regional Commission and will continue to support advanced wood and possibly other renewable energy projects in Windham County.

CEDF will continue its existing grants that support stove change-outs for low-income households that need a higher incentive to afford a new stove and that might also need repairs to their chimney or stove ventilation system. In FY22 NeighborWorks of Western Vermont will continue to operate a program with CEDF funds in five selected counties of the state: Rutland, Bennington, Orleans, Caledonia, and Essex counties.

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.

DESCRIPTION OF PROGRAMS & BUDGET

The programs described below provide details on the Fund's planned programs for FY 2022 and provide a narrative for the budgeted line items in Appendix A.

Windham County Programs

For FY 2022 over \$588,653 is budgeted for the two remaining renewable energy programs in Windham County:

1. The Windham Wood Heat Initiative
2. The Renewable Energy Competitive Grant Program

Windham Wood Heat Initiative: 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 program is administered by the Windham Regional Commission. While progress has been slower than wished for, the CEDF is confident that the slow and steady up-take of advanced wood heating systems is providing positive long-term economic benefits for the County and a lasting transformation of the local heating markets. The approximately \$490,000 of remaining funds available in FY 2022 will be granted in support of schools, other public serving institutions, and businesses installing advanced wood heating systems.

The Renewable Energy Competitive Grant Program: The WRC also manages this program. The remaining \$98,000 of this program is from previously granted projects that were not able to be completed the WRC issued new grants in FY 2021 that will be completed in FY 2022,

Small Scale Renewable Energy Incentive (SSREI) Program

The SSREI Program will continue in FY 2022 with an allocation of just over \$565,937. These 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, and simple, 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.erc-vt.org) for at least the first half of FY 2022. The RERC is a division of the Vermont Energy Investment Corporation which was awarded the contract as part of competitive bid process in 2018. That contract will end on December 31st, 2021. Before November 1st, 2021 the CEDF will go out to bid for a new contract to administer the SSREI Program. The new contract will incorporate any changes made to the program made in the CED Board’s allocation plan of the Climate Action ARPA funds.

Competitive Grant Awards for Bulk Pellet Infrastructure

There are no new competitive grant solicitations planned for FY 2022. One of three pellet supply infrastructure grants issued in FY 20 is being extended into FY22:

Grantee	Project	Total Project Cost \$	Grant Award Amount \$
Vermont Energy Systems	Bulk pellet storage and loading facility in St. Johnsbury	\$375,000	\$150,000

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). 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.

SEMP has been a successful project within state Government saving the State money and energy in heating and powering its own buildings. BGS had secured a grant from the Vermont Low Income Trust for Electricity (VLITE) to work with municipalities, but BGS needed funds to hire the staff to expand the program to make use of the VLITE grant.

Due to the Covid-19 Pandemic BGS did not expand or hire new staff in FY 2021. BGS can now resume its plans and will do expend the CEDF funds in FY 2022 and '23.

Vermont Clean Energy Industry Report

The Fund will provide support for the development and management of the eighth 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 after the 2021 VCEIR showed steep losses in clean energy jobs in Vermont.

The CEDF has budgeted \$20,000 to continue the annual Clean Energy Industry Report for another year. 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 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.

The CEDF will work with the PSD, the Agency of Commerce and Community Development, the Vermont Dept. of Labor, and others to identify information most useful to informing the State's clean energy workforce development efforts. Particularly the CEDF will work with the Vermont Climate Council and PSD's development of the Comprehensive Energy Plan to ensure the VCEIR provides useful information. The CEDF will engage with these groups in September before the annual survey of Vermont clean energy businesses by the end of calendar year.

ANR's Solar Permitting Training

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. As the permitting process for solar PV has settled the hope is that ANR will be able to hold a training and expend these funds in coming fiscal year.

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 FY 2022 the CEDF will ask for bids to conduct a new assessment of Vermont's advanced wood heating market and 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 FY 2022 the budget for program administration and management is \$150,000. 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 contracts needed to administer the ARPA funds appropriated to the PSD.

However, a portion of these funds may be used to pay the CEDF Fund Manager for hours worked on non-CEDF clean 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 FY 2022 these tasks will include work related to the \$15M in ARPA funds appropriated to the PSD for clean energy programs.

Loan Servicing Fees

The CEDF has budgeted \$15,000 for payment to Vermont Economic Development Authority (VEDA) to service the five 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 FY22 this will include working on programs to be funded with the \$15M of ARPA funds appropriated to the PSD, that reference the CEDF. In addition, the CEDF will build upon its current role as a resource for the PSD regarding renewable energy technologies, policy options, and funding options. 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.

Furthermore, as mentioned above in the CEDF Administration section, CEDF funds may be used to pay the CEDF Fund Manager for time spent working on PSD renewable energy related tasks.

Appendix A

Fiscal Year 2022 Combined CEDF and CEDF-ARRA Budget			
CEDF Carry Forward and Estimated Revenue	CEDF \$	ARRA \$	Total Draft Budget \$
Carry Forward/Fund Balance	1,180,576	994,958	2,175,534
Loan Repayments (P&I)	64,000	61,844	125,844
Interest	2,000	1,000	3,000
TOTAL FY '22 Estimated Funds	1,246,576	1,057,802	2,304,378
FY 22 Program Allocations & Expenses			
Programs	CEDF \$	ARRA \$	Total Draft Budget \$
Windham County Programs (Existing Grants)	588,653	-	588,653
Small-Scale Incentive Program (Program contract & Incentives)	265,937	300,000	565,937
Competitive Grants for Bulk Pellet Infrastructure (Existing Grants)	159,816	-	159,816
Low-income Stove Change-out and Weatherization Program (Existing Grants)	18,311	387,579	405,890
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	-	40,000	40,000
Program Management and Administration	135,000	15,000	150,000
Loan Servicing Fees	5,000	10,000	15,000
TOTAL Budgeted Expenses	1,206,717	1,052,579	2,259,296