

FISCAL YEAR 2018 ANNUAL PROGRAM PLAN & BUDGET

FOR THE YEAR JULY 1, 2017 TO JUNE 30, 2018

EXECUTIVE SUMMARY

The Clean Energy Development Fund's (CEDF) plan and budget for fiscal year 2018 (July 1, 2017 through June 30, 2018) maintains and continues many of the programs and grants started in fiscal year (FY) 2017 or 2016.

In FY17, the CEDF invested approximately \$1.2 million in Vermont's clean energy sector, with a specific focus on building a market for advanced wood heating. The recently released 2017 Clean Energy Industry Report states that Vermont has the highest per capita number of employees in the clean energy sector, and the CEDF has played a central role in helping to build new employment sectors of our economy.

The \$1.2 million the CEDF invested in advancing renewable energy generation, while short of the \$5 million budgeted, helped lay important groundwork to accelerate building important new clean energy markets in FY18. It is important to note that several factors contributed to the shortfall in expenditures: low fossil fuel heating prices competing with advanced wood heat markets, the public school sector being occupied with Act 46 merger discussions (this sector was a specific target for bulk pellet/chip systems), and the type and number of programs and grants the CEDF planned to develop and administer in one year.

In FY18, the CEDF budgets approximately \$4 million to build on past programmatic support of building strategic clean energy markets while also focusing on Vermont's most vulnerable populations. The Fund's top programmatic goal for the year is to demonstrably grow the Vermont market for advanced wood heating with bulk pellets. This renewable energy technology helps build Vermont's sustainable forest products industry and clean energy sectors.

The FY18 plan also includes investing existing Federal funds in new credit enhancement programs in support of: residential low-income pellet heating, the existing Heat Saver energy efficiency and renewable energy interest rate buy-down program, and commercial rooftop solar and bulk pellet heating. Finally, new areas of CEDF emphasis include exploring the potential of new technologies such as energy storage, and new financing options to facilitate access to clean energy for all Vermonters.

The CEDF funds budgeted for FY18 are comprised entirely of State and Federal funds carried forward from FY17, the projected interest and principal payments from CEDF funded loans, and the small amount of interest earned on CEDF's balance of funds.

For the CEDF to make the most progress on its goals it will need to participate in broad cross-sector and cross-technology coordination. There are many players in the state who are seeking to advance specific renewable energy technologies and the clean energy economy generally. The CEDF will work to ensure that multiple players do not inadvertently diffuse or deflect the progress that could be made through cooperative action.

It is important to note that, without securing new funding sources, the programs in this plan will not likely continue much beyond FY18. The CEDF has demonstrated that early funding to new clean energy markets helps our economy grow, and that these funds can be phased out once a market has taken off in order to shift investments elsewhere to help new markets get started.

Given the importance that the clean energy industry has played in the past 5 years in Vermont's overall economy and employment (a 29% increase, with over 19,000 now employed or 6% of the State's workforce), ensuring continued funding for the CEDF is a priority.

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 funds.

The Annual Program Plan and associated budget represent the CEDF's efforts to use the funds available to meet the legislated purpose of the CEDF as well as the goals, objectives, and strategies as outlined below.

MANAGEMENT & GOVERNANCE

In accordance with 30 V.S.A. § 8015, the CEDF is administered by the Department of Public Service (PSD) with oversite 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.

The Board reviews and approves the CEDF Annual Program Plan, budget and programs. 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 members are appointed to four year terms, or for the remainder of a four year term if appointed to fill a vacancy.

The current Board members, the authority that appointed them, and the year each member's term expires are:

- Jared Duval, PSD Commissioner, 2019
- Linda McGinnis, Co-Chair, PSD Commissioner, 2017
- Johanna Miller, House Energy Committee Chair, 2017
- Janice St. Onge, PSD Commissioner, 2019
- Sam Swanson, Co-Chair, Senate Energy Committee Chair, 2019
- Gaye Symington, House Energy Committee Chair, 2019
- Mark Whitworth, Senate Energy Committee Chair, 2017

PLANNING FRAMEWORK

While this annual plan focuses on the programs and spending of one year, planning decisions are based on a framework that assumes multiple years of programmatic activity. Even though the CEDF does not have a secure on-going funding source, the Fund has chosen to plan its work as if successive years of fully funded budgets will evolve strategically. However, it should be noted that without additional funds the CEDF will not be able to continue the programs funded in this plan. Strategies for funding the CEDF after FY18 need to be developed if the CEDF is to continue.

The CEDF uses a planning framework of knowledge, practice, and results (KPR). The KPR framework provides a multi-year guide to make the best use of public resources in accomplishing CEDF's goals.

The KPR framework provides for a program of continuous improvement towards achieving CEDF's goals. First, the CEDF seeks renewable energy market knowledge required to achieve market focused goals. Second, using this market knowledge the CEDF develops programs to achieve its goals. Finally, the CEDF takes a third important step, evaluating the results and the impacts of the programs. These evaluation results, in turn, drive changes to existing programs and inform the design of new initiatives.

The CEDF uses this KPR framework to guide annual program development and budgeting. Annual Plans are linked over time to provide a robust multi-year process to achieve CEDF clean energy goals.

VISION, GOALS AND OBJECTIVES

To guide CEDF decisions a five year strategic plan was developed in 2012 (published in January, 2013). A new five year plan will be developed in the first half of FY18 and published in January of 2018.

The 2012 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 Vermont consumers.¹ To prevent the strategic plan from becoming stagnant and forgotten until the next five year plan needs to be 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.

In this year's review of the strategic plan the CEDF determined that, for the most part, the existing vision, primary goal, objectives, and strategies should continue to provide guidance for the Fund's annual activities and expenditures. However, changes were made to reflect new knowledge and an interest to include an objective focused on supporting vulnerable Vermonters. The following two changes were made:

- 1. The Vision Statement wording was changed to include maximizing associated environmental benefits of renewable energy.
- 2. A fourth objective to support vulnerable Vermonters was added.

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¹ 30 V.S.A. § 8015 (c)

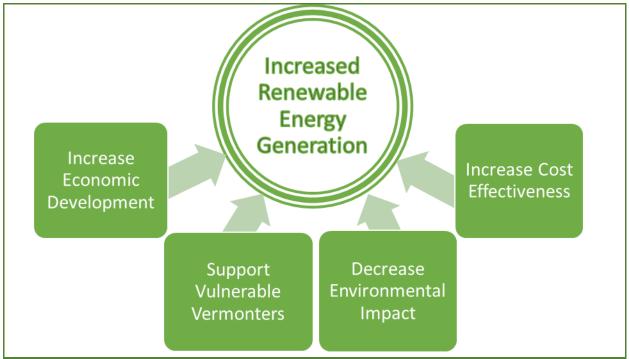


Figure 1. CEDF Goal & Objectives

The changes express the CEDF's increased interest in building renewable energy from the grass-roots up, and from the margins inward. With support for vulnerable Vermonters added to the objectives, the CEDF will work to improve access to renewable energy for low-income Vermonters and those most vulnerable to the negative impacts of fossil fuels. No changes were made to the ten Strategies listed in the 2012 Strategic Plan

The CEDF will re-evaluate the vision, goals, objectives, and strategies during the fiscal year as part of a new five year strategic planning process. The CEDF staff and Board will work on the new strategic plan during the first half of the fiscal year (July 1, 2017 to December 31, 2017) and put it into place by January 2018.

Below are the CEDF's vision, goals, objectives, and strategies that will guide the CEDF until the new strategic plan is adopted:

Vision

The CEDF serves the citizens of Vermont by increasing local small-scale renewable energy generation while maximizing associated economic and environmental benefits. The Fund coordinates with other state programs and private entities to integrate and advance renewable energy across all sectors of the State's energy economy.

Goals

Supporting the vision is a primary goal of increased renewable energy generation in Vermont (thermal and electrical). Supporting the primary goal are four objectives (*Figure 1*):

- 1. Increase economic development
- 2. Support vulnerable Vermonters
- 3. Decrease environmental impacts of Vermont's energy use

4. Increase cost effectiveness of renewable energy technologies in Vermont

Strategies

In pursuit of the primary goal and the three objectives the CEDF will implement the following strategies:

- 1) Focus on a select renewable energy technology where funds can have the greatest impact in reaching the CEDF's goals and objectives
- 2) Identify deployment barriers preventing increased generation of the selected renewable energy technology and coordinate with industry, state agencies, and private organizations to develop solutions that overcome those barriers
- 3) Build connections between renewable energy and energy efficiency
- 4) Increase jobs and revenue in the Vermont clean energy industry sector
- 5) Design Programs to increase access to renewable energy for low income Vermonters and/or the benefit of vulnerable Vermonters
- 6) Educate and support clean energy developers, businesses, and home owners in obtaining other/non-CEDF incentives and financing
- 7) Support and strengthen clean energy finance and investment related activities
- 8) Increase the leverage of CEDF funds while helping to lower the costs of renewable energy
- 9) Focus support on the CEDF programs that maximize the reduction of Vermont's energy related carbon emissions, and other environmental impacts
- 10) Promote lessons learned, success stories, impacts, and challenges associated with CEDF funding activities
- 11) Continually evaluate programs, activities, and outcomes in order to adjust programs as necessary to meet goals

BUDGETED REVENUES

The CEDF budgeted \$235,000 in revenues for FY18. These funds will come from loan principle and interest payments, as well as interest earned on the Fund's cash balance. The CEDF will use the revenue for the programs detailed below. See Appendix A for the FY18 budget of CEDF funds.

Separately, the CEDF continues to manage a renewable energy loan fund created in 2009 with American Recovery and Reconstruction Act (ARRA) funds. This ARRA loan fund is administered by the Vermont Economic Development Authority (VEDA). Principal and interest payments from the ARRA loans are budgeted to be \$147,711 during FY18. These funds, as well as funds paid back and not redeployed in prior years, will be redeployed as detailed below. See Appendix B for the FY18 budget for the ARRA funds.

OVERVIEW OF PLAN & BUDGET

The CEDF will continue to focus on advanced wood heating, and particularly bulk wood pellets, as the implementation of strategy #1, as listed above. The CEDF has chosen advanced wood heating as its focus renewable energy technology due to its many benefits that support the Fund's four objectives. For example, advanced wood heating:

- Keeps dollars spent on heating fuel in the local economy
- Supports the local forest products industry

- Supports the maintenance of forests as forests and Vermont's working landscape
- Creates and maintains a divers 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
- Reducing the use of fossil fuel
- Lowers carbon emissions
- Improves heating resiliency

The Fund's focus on wood heating was established in FY15 at which point the Fund began to build its knowledge of the market. In FY16 and FY17 the Fund established programs and awarded grants to grow the advanced wood heating market. In FY18 the CEDF budgets a majority of available funds towards the development of the advanced wood heating market in Vermont.

Progress on getting advanced wood systems installed and catalyzing the market has been slow compared to the dramatic rise in solar systems installed in the last several year. Continued low oil prices and other market factors have made the decision to transition to automated wood heat a more difficult one, even with CEDF's incentives. The CEDF anticipates that the market for advanced wood heating in Vermont and the Northeast will grow more rapidly in FY18 due to the foundational work done over the prior two fiscal years to increase the quality and quantity of advanced wood heating systems and fuel sources in Vermont, even if fossil fuel prices remain low.

The Fund will continue to fund the Small Scale Renewable Energy Incentive (SSREI) Program as its primary program to reach CEDF's goals and objectives.

In FY18 the CEDF plans to work with the other state agencies on wood stove change-out programs, possibly as a component of the SSREIP. The change-out program in FY17 was successful and the CEDF gained insights into the retail pellet stove market that will be used in developing any FY18 change-out programs.

While wood heating will be the focus the CEDF will continue to support other renewable energy technologies and will monitor and keep a pace with the overall clean energy sector. The CEDF will take a leadership role, together with the PSD, in coordinating the Vermont Clean Energy Finance Collaborative. CEDF staff will also be working closely with the PSD on an energy storage study that the CEDF will use to direct the budgeted funds in support of a clean energy storage project.

CEDF's largest program was established with the allocation of \$2.6 million for renewable energy development in Windham County. In FY18 the CEDF will continue the Windham Wood Heat Initiative that started in 2015 and underwent a structural change in FY 17. A separate Windham County program that started in FY17, the Renewable Energy Grant Program administered by the Windham Regional Commission, will continue into FY18 with an additional \$300,000. The CEDF will continue to take the same strategic approach to the Windham County funds as it does

with the state-wide funds with the addition of considering Windham County's regional economic development plans, interests, and local input.

Federal ARRA clean energy funds loaned out from 2010 to 2012 provide quarterly revenue to the CEDF as the borrowers pay back the loan principal and interest. No new loans have been issued since the CEDF stopped its loan program. In FY18 approximately \$1.6 million of these returned funds will be used to: establish commercial credit enhancement programs focused on commercial roof-top solar and advanced wood heating projects, a low-income residential program focused on pellet heating, and continued support of the Heat Saver Loan Program.

DESCRIPTION OF PROGRAMS & BUDGET

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

Windham County Programs

Over \$2.3 million is budgeted for renewable energy programs in Windham County. There will be three programs in Windham County in FY18:

- 1. The Windham Wood Heat Initiative
- 2. The renewable energy competitive grant program
- 3. Low-income residential pellet heating program

Windham Wood Heat Initiative: While a majority of the \$1.6 million allocated to Windham County in FY15 remains unspent there has been a continuing collaborative effort to build the advanced wood heating market in the County from the ground up. With the grant funds now under the management of the Windham Planning Commission, the CEDF is confident that in FY18 over \$1M will be granted in support of transitioning schools and other public serving institutions to advanced wood heating systems from fossil fuels.

<u>The Renewable Energy Competitive Grant Program</u>: The \$400,000 granted to the Windham Regional Commission for renewable energy projects will be drawn down as the granted projects announced in May of 2017 get completed.

In FY18 the CEDF will increase this grant program by \$300,000. This \$300K was budgeted in FY17 for anaerobic digestion projects in the county based on local interest in such projects, and comments expressed by entities in the County. However, the CEDF did not receive any proposals in response to a grant solicitation released in FY17 for anaerobic digestion. The CEDF continues to see promising potential for anaerobic digestion of farm and food waste in the County, but will allow any potential funding for such projects to be done by the Windham Regional Commission's renewable energy competitive grant program.

Low-income Residential Pellet Heating Program: The remaining Windham County funds (~\$270K) will be granted out to an organization to develop a residential advanced wood heat program targeted to support low-income residents. This new program will leverage State and County strategies to build the emerging advanced wood energy economy and helpto lower particulate emissions by changing-out non-EPA compliant wood stoves with EPA certified stoves.

<u>Program Evaluation:</u> Approximately \$75,000 of the Windham County Funds (2.8% of the total) will be used to evaluate the Windham County programs and provide recommendations for future investments in the County's clean energy sector. This evaluation work will be done as part of a state-wide evaluation of CEDF programs.

Small Scale Renewable Energy Incentive (SSREI) Program

The SSREI Program will continue with an allocation of \$1,020,000 in FY18. The program has been a proven mechanism to grow the residential and small commercial small-scale renewable energy technologies in a widely distributed and accessible manner. In evaluating past CEDF programs and incentives of the CEDF the SSREI Program was determined to be the most cost effective and impactful program in meeting the Fund's goal and objectives. This program's advantages include that it is market based, cost effective, simple, and access to the incentives is open and transparent.

The SSREI Program will continue to provide incentives for residential, commercial, and institutional wood pellet heating systems. The program will also continue to offer an incentive for solar hot water systems for the first half of the fiscal year. A wood stove change-out component of the incentive program is contingent on receiving funding from sources outside the CEDF.

The remainder of the funds will be for: paying incentives for reservations made in FY17, administration of the program, incentives for bulk pellet heating systems, and incentives for solar hot water systems.

New for FY18 will be an incentive for wood pellet fired maple syrup evaporators. The incentive will be for existing sugaring operations that switch from cord wood or fossil fuels to bulk pellets for their evaporators. The CEDF will make this incentive available early in the fiscal year, well before the 2018 sugaring season.

The Vermont Small-Scale Renewable Energy Incentive Program will continue to be administrated under a contract with the Renewable Energy Resource Center, a division of the Vermont Energy Investment Corporation (www.rerc-vt.org).

During FY17 the PSD/CEDF, together with the Northern Forest Center, was awarded a \$77,000 grant from the U.S. Northern Border Regional Commission (NBRC). , to provide incentives for Public Serving non-profit institutions, located in the Northern Border Region, to install bulk wood pellet heating systems. The CEDF is using the SSREI Program to match the federal NBRC funds and to qualify projects for the NBRC grant. This program will continue into FY18 when the grant funds will be dispersed to the projects once they are installed.

Competitive Grants for Bulk Pellet Infrastructure & Advanced Wood Heating Systems

The CEDF issued three different grant solicitations in FY16. The grants issued were largely completed and the funds paid to the grantees in FY16 and FY17 but a few have run into delays and will extend into FY18. The biggest is a \$250,000 grant in support of bulk pellet supply generated from new pellet mill to be built in Lunenburg, Vermont. The CEDF knew in FY16 that this project would extend into FY18 and was willing to issue the grant as one of first funding

pieces that the new pellet plant needed so that it could gather the financing and support necessary to make the project successful.

In addition there are two grants awarded for advanced wood heating in affordable housing projects being built by Housing Vermont. One should be completed in the summer of 2017 and the other will not be completed until the spring/summer of 2018. CEDF is willing to be patient with the non-profit affordable housing projects as a way to provide extra support for the larger, more complicated multi-family housing projects that can take years to organize before the construction can start.

There will not be any new competitive grants for advanced wood heating in FY18. Financial support for new projects will be made available exclusively through the SSREI Program. However, the CEDF will continue to collaborate with and leverage the projects of, the many organizations working on promoting wood heating, such the State Wood Energy Team, Biomass Energy Resource Center, Sustainable Jobs Fund, and the Northern Forest Center. The CEDF will also continue to collaborate across State Government to promote advanced wood heating.

Program Evaluation

The CEDF has budgeted \$150,000 to sustain its commitment to program evaluation. The CEDF has regularly tracked and reported how CEDF's resources have been used and the resulting accomplishments, including the number and types of projects that have been funded, the renewable energy capacity that has been constructed, and the environmental benefits these projects provide.

However, while these reports effectively track progress made toward increasing the installation of new renewable energy capacity in Vermont, a more comprehensive assessment of program effectiveness including a continuous learning cycle consisting of planning, action and reflection, is warranted. Data gleaned from funded activities will enable the CEDF to improve program performance and will help the Fund to communicate its successes and difficulties, for the benefit of similar efforts.

Accordingly, the CEDF will dedicate funds to measuring progress toward the CEDF goal and objectives, identifying barriers facing the programs, and revealing program delivery problems. Based on the data collected the CEDF staff will recommend action to overcome barriers, to address problems and to improve overall CEDF program performance. The successful conduct of this monitoring and evaluation should produce benefits in program productivity that far exceeds the costs. These monitoring and evaluation efforts will primarily assess CEDF's programs:

- 1. Contributions to increasing the amount of renewable energy in Vermont
- 2. Progress being made toward CEDF's four objectives
- 3. Effective use of the CEDF funds

Farm Energy Program

The CEDF will continue to collaborate with the Agency of Agriculture, Food and Markets and the Agency of Natural Resources to promote renewable energy projects that strengthen local farms and support State environmental goals to improve water quality and to eliminate organic solid waste from landfills.

There is one \$40,000 grant for a compost heat recovering system at a dairy farm issued in FY17 that when completed in FY18 will receive the grant funds. In addition the Fund will issue a solicitation for one or more additional farm based compost heat recovery projects. Compost heat recovery technology can be used to displace fossil fuels used for space and/or water heating and can increase the efficiency of the compost making process, allowing more food waste to be composted.

Clean Energy Storage Grants

Senate Bill 52 (Act 53), An Act Relating to the Public Service Board, Energy, and Telecommunications, was passed by the Vermont Legislature and signed by Governor Scott in in May 2017. In it, the Department was tasked with producing a report to the Legislature on the state of energy storage, its costs and benefits, and barriers to and opportunities for deployment. Act 53 also authorized, "energy storage projects that facilitate utilization of renewable energy resources" as a category of eligible expenditures for the CEDF.

The CEDF has allocated \$70,000 to support the PSD's clean energy storage development work. Once the energy storage study is complete, the CEDF will use it to identify the most effective deployment of at least \$50,000. The funds will likely be awarded to one or more projects through a competitive solicitation process, possibly starting with a request for information to gather additional details about the range of possible storage projects CEDF grant could assist with. The overarching goal of any storage grant from the CEDF will be to help optimize the integration of renewable energy into the electric grid while realizing maximum benefit for ratepayers, and to potentially explore diversification of the types of storage technologies and applications deployed in the state.

Clean Energy Finance Collaborative

The Fund will provide \$20,000 in support to the PSD for the development and management of the Vermont Clean Energy Financing Collaborative in FY18. The Collaborative is composed of volunteer member entities engaged in clean energy finance in Vermont. The goal and purpose of the collaborative is to improve the effectiveness and significantly increase the state's capacity for clean energy finance and investment to support State's clean energy goals.

The objectives of the collaborative are to:

- Align existing clean energy/efficiency finance and investment programs to extend their reach, improve their effectiveness, close market gaps, and minimize program overlap.
- Build on prior activities to evaluate finance tools currently available that have potential to accelerate renewable energy and energy efficiency deployment and expand the use of those tools as appropriate.
- Propose, prioritize and support creation of new and/or enhancement of existing finance and investment tools to advance clean energy projects and businesses that are consistent with Vermonters' diverse values and aspirations for the future of our communities.
- Pursue prioritized and cost effective public/private partnerships or other structures.

In addition to coordinating the meetings and activities of the Collaborative the PSD will propose to the Collaborative an annual survey of clean energy financing in Vermont to better understand the current base-line level of clean energy financing and to develop consistent and agreed upon metrics for the sector. The CEDF will provide up to \$43,000 for a three year contract to develop this survey and report annually for the next three years.

Competitive Community Solar Grant

The CEDF has one remaining grant from the competitive grants issued to Hyde Park Electric Department (HPED) in FY16. The project to create a voluntary community solar program for HPED has \$67,000 remaining that will carry forward into FY18. Hyde Park is working with the Vermont Public Power Supply Authority (VPPSA) on the project.

<u>Vermont Clean Energy Industry Survey</u>
The Fund has budgeted \$40,000 to continue the annual Vermont Renewable Energy Industry Survey, as it has since 2014. Over the past four years the survey data and analysis provided specific market information that was helpful to the Fund and others to gauge the effectiveness of state clean energy policies and incentives designed for growing this sector of the economy. In FY17 the report was based on data collected by the US Department of Energy (DOE) as part of a 50 state survey of employment in all energy sectors. DOE had said they were going to complete the 50 state survey in FY18 as well, but that is now uncertain.

If DOE does not conduct a survey of Vermont as part of a national survey, or does so but doesn't allow access to the data then the CEDF will contract with a company to conduct a Vermont survey, based on past reports and methodology, and issue a report of the clean energy industry employment in Vermont.

Forest, Parks, & Recreation (FPR) Wood Energy Coordinator

The CEDF will provide \$10,000 per year for the next three years under an MOU with Vermont FPR in support of a new staff position at FPR focused on wood energy. The full \$30,000 for the next three years is being budgeted for FY18. The PSD, Agency of Commerce and Community Development, and FPR are all contributing funds for this position to reach the matching funds necessary to secure a federal US Forest Service grant in support of the position.

Solar Permitting Training

The CEDF has \$14,000 that a solar developer paid to the CEDF due to a Public Service Board issued fine resulting from 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).

CEDF Administration & Program Management

Starting in FY18 the PSD will collect its federal approved indirect rate on wages and benefits paid to the CEDF Fund Manager and any other PSD staff time work on CEDF funded grants or contracts. This will allow the PSD to cover the costs of processing CEDF invoices and general administrative services provided to the CEDF. In FY18 the budget for program administration and management is \$181,040. These funds will cover the salary and benefit costs of PSD staff, including the CEDF Fund Manager, managing CEDF programs as well as the administrative costs covered by the indirect rate discussed above

Loan Servicing Fees

The CEDF has budgeted \$19,000 for payment to Vermont Economic Development Authority (VEDA) to service existing CEDF 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.

American Recovery and Reinvestment Act (ARRA) Revolving Loan Funds

As part of the ARRA funded programs the CEDF created a \$3.8 million revolving loan fund in 2010, administered by VEDA. In 2012 the Fund ended the loan program. Loan principle and interest that borrowers pay back to the CEDF will be re-deploy to other financial incentive programs. The CEDF continues to believe the greatest benefit of these ARRA funds is to leverage other financial products available and not through direct loans. Approximately \$1.6 million of the ARRA funds loaned out have been repaid and are available to the CEDF in FY18.

The CEDF will use \$500,000 of the returned ARRA loan funds for a credit enhancement program with VEDA. The program will provide the best leverage of other funds to support the development of the renewable energy finance market in Vermont. The program will provide credit enhancement for commercial loans to construct commercial solar PV projects on rooftops and parking canopies and commercial/institutional advanced wood heating projects.

In FY18 the CEDF will use \$500,000 of the returned ARRA loan funds for a financial program directed to benefit low-income Vermonters. The program will be designed to increase the use of bulk pellet heating and to increase the thermal energy efficiency of the participating homes.

The CEDF will also continue its support of the Heat Saver loan program administered by the Public Service Department. For FY18 the CEDF has budgeted \$500,000 of CEDF-ARRA funds towards this program that provides an interest rate buy-down for residential energy efficiency, solar hot water, and wood heating projects.

The CEDF has reserved \$235,000 for a possible wood stove change-out program for State Weatherization recipients. This would allow weatherization crews to change out dangerous and polluting wood stoves with new safe, efficient, and cleaner EPA certified cord or pellet stoves.

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. The CEDF will build upon its current role as a virtual clearinghouse for state government for information about renewable energy technology and funding options. By doing so, the CEDF strengthens interagency relationships, coordination, and program leverage to help generate collective benefits from increased renewable energy such as economic development, affordability, and the reduction of energy poverty.

APPENDIX A Fiscal Year 2018 CEDF Budget	
CEDF Carry Forward	4,536,569
CEDF Loan Repayments (P&I)	215,091
Interest	20,000
TOTAL FY '17 Revenue & Carry Forward	4,771,660
CEDF Program Allocations & Exper	nses
Programs	\$
Windham County Programs	2,244,247
Small-Scale Incentive Program (Program contract & Incentives)	1,293,283
Advanced Wood Heat - Competitive Grants	452,405
Program Evaluation	125,000
Farm Energy-Compost Heat Recovery	185,095
Clean Power Storage Project	70,000
Competitive Community Solar Grant	67,630
Clean Energy Industry Survey	40,000
Clean Energy Finance Collaborative	63,000
Grant to FP&R for Wood Energy Coordinator	10,000
Solar Permitting Training	14,000
Baseline Study of Advanced Wood Heating	5,758
Program Management and Administration	181,040
Loan Servicing Fees	17,868
TOTAL	4,769,326

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APPENDIX B Fiscal Year 2018 ARRA-CEDF Budget	
ARRA-CEDF Carry Forward	1,700,135
FY '18 Anticipated Revenue	
Loan Repayments (P&I)	147,711
Interest on Cash Balance	5,000
TOTAL ARRA Funds	1,852,846
FY '18 ARRA Funds Allocation & Expenses	
Programs	\$
Commercial Solar Roofs and Advanced Wood Heating Interest Rate Loss Fund	500,000
Residential Credit Enhancement - Heat Saver Loan	500,000
Residential Low Income Pellet-stove IRB and Grant Program	500,000
Weatherization Wood Stove Change-out Program	335,000
ARRA Loan Administration Fees	15,000
TOTAL ARRA \$ ALLOCATIONS	1,850,000