



CLEAN ENERGY DEVELOPMENT FUND

Annual Report to the Vermont Legislature

Fiscal Year 2012

Submitted to the House and Senate Committees on Natural Resources and Energy, the Senate Committee on Finance, and the House Committee on Commerce and Economic Development of the Vermont General Assembly

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■ Purpose and Scope of this Report

The purpose of this annual report is to account for the Fiscal Year (FY) 2012 activities (July 1, 2011 to June 30, 2012) of the Vermont Clean Energy Development Fund (CEDF). Specifically, the report shows how State CEDF and Federal American Recovery and Reinvestment Act (ARRA) monies were distributed to meet the goals of the CEDF, the State Legislature and the ARRA legislation. The report is intended to provide information to the Governor of Vermont, the State Legislature, stakeholders, and the citizens of Vermont.

■ FY 2012 Summary

The CEDF continued to deploy both Federal ARRA funds and State CEDF funds during the year. However, 2012 brought an end to the ARRA funding, which has accounted for the bulk of the CEDF's work during the past three years. During this time, the CEDF and the Public Service Department were successful in the effective and rapid deployment of thirty-one million dollars of federal ARRA funds.

During the year, a total 794 awards were provided, for a total of \$5,748,836.07 for clean energy projects across the state. These funds aided in the economic recovery by spurring investment in Vermont's clean energy economy while also increasing energy efficiency and local clean energy generation.

Highlights for the CEDF in FY 2012 included:

1. New CEDF Structure. The CEDF was brought back into the Public Service Department and a new Clean Energy Development Board was established and new Board members appointed. This new structure proved to be more efficient administratively for the CEDF and was a catalyst for a new strategic plan for the Fund.
2. The ending of ARRA funds. The tremendous efforts that went into administering the \$31 million of federal ARRA funds since 2009 wound down in FY 2012, with the final awards and reports being made in the first two quarters of FY 2013.
3. Funding from Entergy Vermont Yankee was suspended. Since its inception, funding for the CEDF came from two types of payments made by Entergy Vermont Yankee (VY). The last quarterly payment of \$625,000 – connected to the dry cask storage of nuclear waste at VY – was made in December, 2011. The last annual payment made by Entergy VY connected to the increased generation of the plant (AKA the “uprate”) was received in March of 2012 for the power generated in 2011. The CEDF expects one last payment from Entergy VY in March 2013 for the three months the plant was operating in 2012 under its prior license.

■ Mission, Authorities & Resources

The Vermont General Assembly established the CEDF through Act 74 of 2005 (30 V.S.A. § 8015). The purpose of the Fund is *“to promote the development and deployment of cost-effective and environmentally sustainable electric power and thermal energy or geothermal resources for the long-term benefit of Vermont consumers, primarily with respect to renewable energy resources, and the use of combined heat and power technologies.”*

Act 74 specified that the CEDF will be established and funded by the proceeds due to the state under the terms of two Memoranda of Understanding between the Vermont Public Service Department and Entergy VY, and by any other monies that may be appropriated to or deposited into the Fund.

The CEDF is administered by the Public Service Department, which employs a CEDF Manager to oversee the Fund and dedicates staff to CEDF tasks as needed. During the fiscal year the administration of the CEDF accounted for 2.7% of total CEDF funds expended, or \$142,357

In FY 2012, the CEDF received payments from Entergy VY of \$3,001,235. The Fund also received an additional \$79,762 from interest, application fees and loan repayments during the year. With the regular payments from Entergy VY suspended, the 2012 legislature appropriated \$3 million of General Funds to the CEDF for Fiscal Year 2013 to be disbursed to the CEDF in calendar year 2013.

➤ CEDF Board

The Board during FY 2012 consisted of the following members: Gaye Symington (Chair), Patty Richards (Vice Chair), Jo Bradley, Elizabeth Catlin, Jennifer Hollar (who resigned during the year and was replaced with Alex Ibey), Sam Swanson, and Will Wiquist. The Board met six times during the year. After establishing policies and procedures and educating themselves on the issues and activities of the CEDF, they started working with the Department to develop a new five-year strategic plan. Minutes of the CEDF Board’s meetings are posted on the Department’s CEDF web page (www.publicservice.vermont.gov). For more information on the CEDF see Appendix one.

■ Awards & Activities

The changes in structure and funding status for the CEDF were the catalyst for the creation of a new strategic plan for the CEDF. The planning process and drafting of the plan started in FY 2012, with completion and approval by the CEDF Board occurring in the first half of FY 2013.

The CEDF continued to administer the ARRA funds awarded to Vermont through two Department of Energy grants from the federal State Energy Program (SEP) and the Energy Efficiency and Conservation Block Grant (EECBG) program. During the year, the CEDF awarded ARRA funds to six new projects and continued to administer and close out awards from prior years.

In addition to the ARRA funds, the CEDF continued to administer the grants, loans, solar tax credits, and contracts funded with State CEDF funds. The Fund’s only new obligation in FY 2012 was \$2,800,000 allocated

to the Small-Scale Renewable Energy Incentive (SSREI) Program. In addition, the CEDF transferred \$1.5 million to the State's General Fund to cover the Vermont business solar tax credits claimed in 2011.

The ARRA and the SSREI Program projects funded during the year are displayed on the FY 2012 awards map (see pg. 6). Funding was distributed to projects around the state, approximately in proportion to population.

On these projects, the CEDF collaborated with Efficiency Vermont, Vermont Economic Development Authority, Department of Historic Preservation, and the Vermont Sustainable Jobs Fund as well as with dozens of grantees from the institutional, commercial, residential, and non-profit sectors. Together, these stakeholders provided the CEDF with further experience and insight into Vermont's clean energy markets and energy consumers.

Table 1. CEDF and ARRA Awards for FY 2012

Funding Source	Awardee Name	Funds Awarded \$	Total Project Costs, Est. Upon Award	Award Type	Technology	Project Description Detail
CEDF & ARRA	Multiple SSREI Projects	3,913,757	\$ 25,991,961	Grants	PV, Solar Thermal, & Wind	SSREI project installations
ARRA	City of Montpelier	1,000,000	\$ 14,616,000	Grant	Biomass	City's capacity portion of the new State biomass heating plant
ARRA	Long Wind Farm	308,000	\$ 413,059	Loan	Thermal Energy Efficiency	Green house insulation and heat recovery
ARRA	VEIC	430,578	\$ 430,578	Contract	Thermal Energy Efficiency	Interest rate buy-down for residential thermal efficiency retrofits participating in PACE
ARRA	Energy Code Compliance Plan	61,464	\$ 61,464	Contract	Energy Efficiency Code	Creation of a compliance plan for Vermont's energy codes
ARRA	VT Clean Cities Coalition	35,037	\$ 45,037	Grant	Transportation	Transportation energy efficiency and electric vehicle promotion
Totals		\$ 5,748,836	\$ 41,558,099			

The \$5.7 million awarded to projects will result in an estimated \$41 million in total project costs, which is a substantial investment in Vermont's clean energy infrastructure. These investments represent leveraging six dollars for each CEDF dollar expended on these projects.

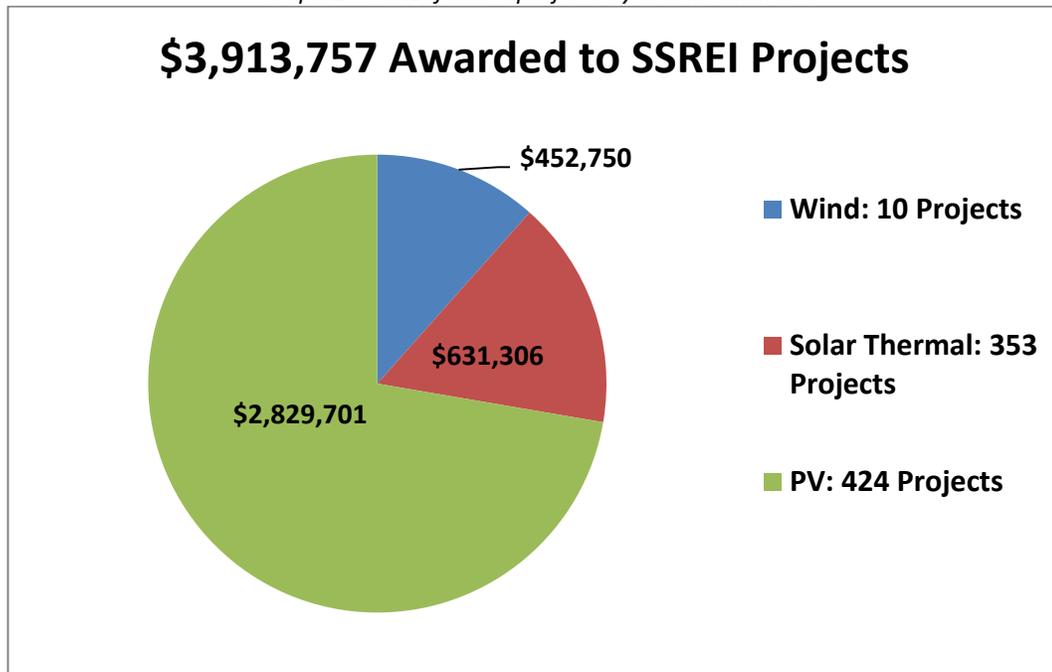
For a detailed look at the fiscal year financials for the CEDF please refer to the financial reports in Appendix Two.

➤ **Small-Scale Renewable Energy Incentive (SSREI) Program**

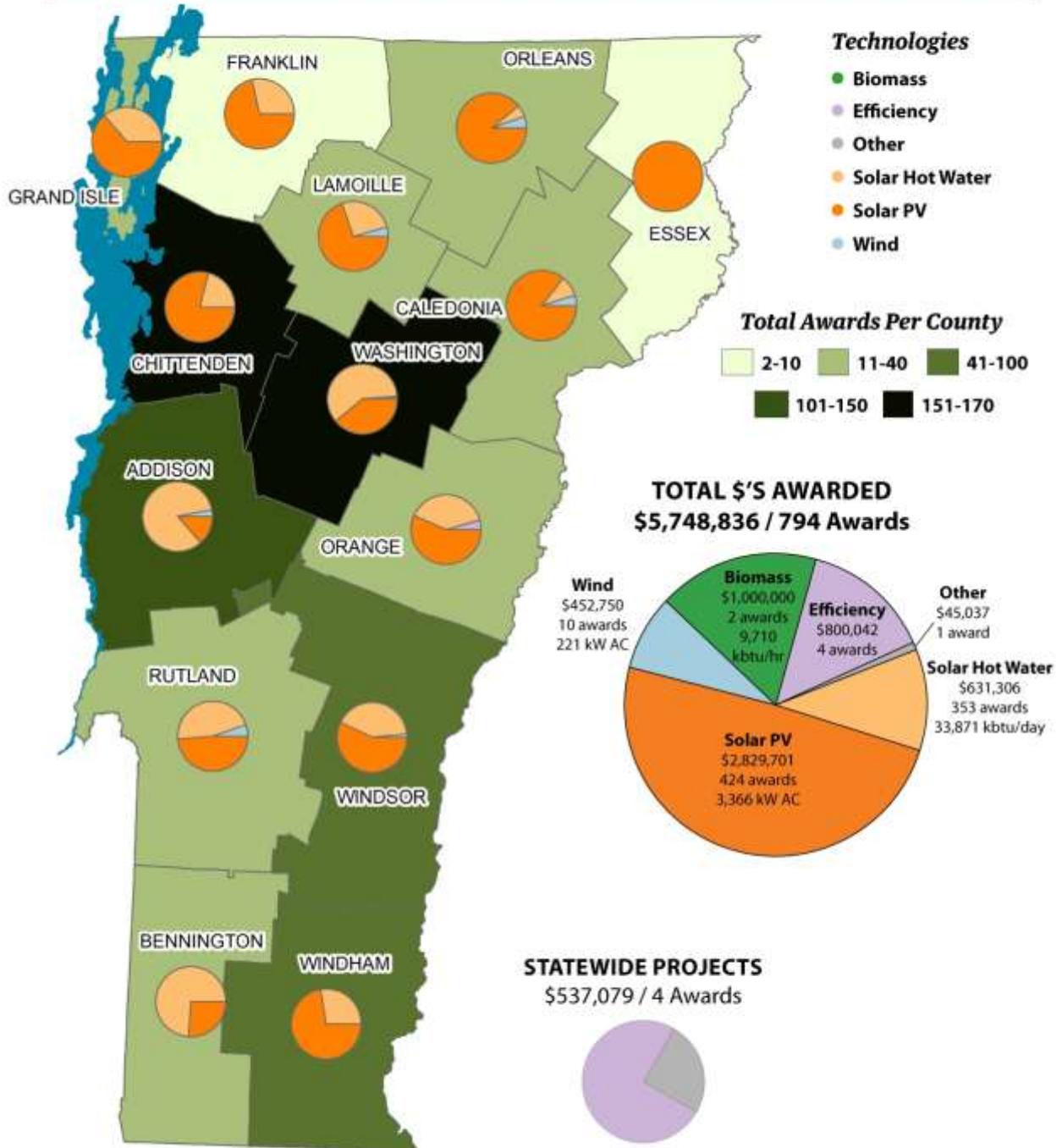
The Vermont Small Scale Renewable Energy Incentive Program, created in 2003, continued to help spur the development and production of clean energy in the state. The program provided rebates to individuals, businesses, municipalities, and multi-family low-income housing projects for grid connected and net metered solar electric and small wind systems, and solar hot water systems (see graph 1 on pg. 5). Of the \$3,913,757 in SSREI incentives paid, \$3,810,724 came from ARRA. Total projects built cost \$25,991,961, resulting in the SSREI program leveraging CEDF dollars at over 5.5 to 1. Although the CEDF allocated \$2.8 million to the SSREI in FY 2012, only \$103,033 of these funds were paid out for completed projects by June 30, the end of the fiscal year.

The CEDF contracted out the administration of the program by competitive bid with the Renewable Energy Resource Center (a unit within the Vermont Energy Investment Corporation, VEIC). The CEDF has provided funding for this program since the Fund’s inception, and the CEDF statute highlights the program as one that the CEDF should strive to keep continually funded.

Graph 1 – SSREI funded projects by dollars awarded



CEDF Fiscal Year 2012 Projects (Includes ARRA Awards)



County and statewide pies show number of awards by Technology.

■ Carbon Reduction and Impact Metrics

The State of Vermont greenhouse gas reductions goals stipulate that the state shall reduce greenhouse gas emissions from the 1990 baseline by 25% by 2012 and 50% by 2028. (10 V.S.A. §578). Recent data demonstrate that while the state is decreasing the amount of greenhouse gas emissions, further steep reductions will be required to meet the 2028 goal of 50% reduction.¹ The energy efficiency and renewable energy activities funded via the CEDF contributed towards this goal.

Projects show potential reductions in greenhouse gas emissions by approximately 5,600 metric tons (CO₂ equivalents) with the generation of almost 5,000 MWh and millions of renewable Btus every year² (Table 2).

All electric generation projects awarded funds are required to be grid-connected. In addition to the energy saved through efficiency projects, renewable electrical generation projects representing over 3,700 kW of capacity will yield approximately 4.8 million kWh annually. Since the activities funded under ARRA cover a multi-year span, the DPS and CEDF will report on energy savings and generation for the full ARRA program upon completion of the program in the first quarter of 2013.

Table 2. Fiscal Year 2012 CEDF and ARRA Funded Projects Annual Impact Metrics

Funding Source	Project	Technology	Fuel Saved/yr	Electricity or Heat Generated	Greenhouse Gas Reductions (Metric Tons CO ₂ equivalent/yr)
CEDF & ARRA	Multiple SSREI Projects	PV & Wind	NA	4,817,518 kWh/yr	2,034
CEDF & ARRA	Multiple SSREI Projects	Solar Thermal	NA	33,871 kBtu/day	443
ARRA	Montpelier District Heating	Biomass	300,000 gallons of oil	9.71 MMBTU/hr	3,046
ARRA	Long Wind Farm Energy Efficiency	Thermal Energy Efficiency	27,473 gallons of propane	NA	159
ARRA	Interest Rate Buy-down	Thermal Energy Efficiency	TBD	TBD	TBD
ARRA	Energy Code Compliance Plan	Energy Efficiency Code	NA	NA	NA
ARRA	VT Clean Cities Coalition	Transportation	NA	NA	NA
Totals					5,682

¹ 2011 VT Comprehensive Energy Plan, December 2011. Vermont Department of Public Service Volume 2, Pg. 10.

² The estimates included assumptions and are based on preliminary data and are subject to revision.

■ Conclusion

During FY 2012 the CEDF continued to play a key role in advancing the development of renewable energy technologies such as PV, solar thermal, and wind systems, which are important elements of Vermont's energy and greenhouse gas reduction goals. The additional ARRA funding allowed the CEDF to also support biomass district heating and energy efficiency projects during the year.

The CEDF and PSD have clearly demonstrated the ability to advance the development of renewable technologies throughout Vermont's communities and have made great progress. However, there is still a tremendous distance to go to reach the goals of the State's Comprehensive Energy Plan and the CEDF Strategic Plan. The CEDF and PSD have helped many - developers, installers, planners, legislators, regulators and citizens who continue to express their desire for a clean, renewable energy future—to gain essential practical experience with clean energy in Vermont. Such experience, together with the work of the CEDF, will be necessary for the continued growth and advancement of the State's clean energy economy.

■ Appendix One – The Clean Energy Development Fund

In 2005, the Vermont General Assembly established the Vermont Clean Energy Development Fund (CEDF) through Act 74 (30 V.S.A. §8015).

PURPOSE (30 V.S.A. § 8015(c))

The purposes of the Fund shall be to promote the development and deployment of cost-effective and environmentally sustainable electric power and thermal energy or geothermal resources for the long-term benefit of Vermont consumers, primarily with respect to renewable energy resources, and the use of combined heat and power technologies.

ADMINISTRATION

Changes to statute by Act 47 of 2011 moved the CEDF back into the Public Service Department, which administers the Fund to facilitate the development and implementation of clean energy resources. (30 V.S.A. §8015) As stipulated by Act 47, a new Clean Energy Development (CED) Board will consist of seven members:

- Three members appointed by the Commissioner of the Department of Public Service
- Two members appointed by the chair of the Senate Natural Resources and Energy Committee
- Two members appointed by the chair of the House Natural Resources and Energy Committee

The new Board was appointed on July 9, 2011 with decision-making and approval authority with respect to the plans, budget and program designs. The Board also assists the fund manager in the review of grants and investments; determining the viability of a project, company, product or service; and evaluating marketing and business plans.

CEDF Board

- ❖ *Gaye Symington – High Meadows Fund, Chair*
- ❖ *Patty Richards – La Capra Associates, Vice Chair*
- ❖ *Jo Bradley – VT Economic Development Authority*
- ❖ *Elizabeth Catlin – Bluestone Wealth Management LLC*
- ❖ *Alex Ibey – VT Department of Economic, Housing and Community Development*
- ❖ *Sam Swanson – Pace Energy & Climate Center*
- ❖ *Will Wiquist – Green Mountain Club*

Public Service Department & CEDF Personnel Working on CEDF and ARRA Projects in FY 2012

Elizabeth Miller – Commissioner
Andrew Perchlik – CEDF Fund Manager
Asa Hopkins – Director, Energy Policy and Planning
Kelly Launder – Assistant Director, Energy Policy and Planning
Edward Delhagen – Energy Program Specialist
Karin McNeill – Energy Program Specialist
Sheri Rockcastle – Administrative Services Manager
Cathy Deyo – Financial Administrator
Diane Reynolds - Grant Specialist
Diane Cummings – Financial Administrator

Appendix Two – FY 2012 CEDF Financial Reports

**VERMONT CLEAN ENERGY DEVELOPMENT FUND
STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND
BALANCE
FOR FY2012 PERIOD ENDED JUNE 30, 2012**

REVENUES

Entergy VY Dry Cask Storage Payments	\$	1,250,000
Entergy Up-Rate Payments	\$	1,751,235
Interest Income	\$	16,204
Loan Interest Income	\$	11,232
Loan Repayments	\$	49,826
Loan Fees	\$	2,500
Total Revenues	\$	3,080,997

EXPENDITURES

Wages & Benefits	\$	139,424
Per Diem	\$	700
Meetings & Conferences	\$	-
Dues	\$	-
Travel	\$	476
Loan Fees	\$	-
Purchased Services	\$	-
Misc Administration	\$	1,757
Contracts	\$	167,210
Grants	\$	3,450,108
Loans	\$	81,000
Transfers Out	\$	1,500,758
Transfers In		
Total Expenditures	\$	5,341,433

Excess of revenues over (under) expenditures	\$	(2,260,436)
Net change in fund balance	\$	(2,260,436)
Fund balances, June 30, 2011		10,357,893
Fund balances, June 30, 2012	\$	8,097,458

**VERMONT CLEAN ENERGY DEVELOPMENT FUND
FY12 FUND BALANCE STATEMENT
June 30, 2012**

FUND BALANCE AS OF:

June 30, 2011	10,357,893
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CASH FLOWS:

Additions	3,080,997
Subtractions	<u>-5,341,433</u>

NET INCREASE/(DECREASE) IN CASH	<u>-2,260,436</u>
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FUND BALANCE AS OF:

June 30, 2012	<u>8,097,458</u>
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LESS CASH ENCUMBERED

Grants & Contracts	-424,208
Renewable Energy Rebate Program	-2,718,171
Village Green Incentives	-200,000
Solar Tax Credits	<u>-2,898,245</u>
	<u>-6,240,624</u>

CASH AVAILABLE	<u><u>1,856,834</u></u>
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Loan Balance - 6/30/2012	2,963,754
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