Department of Energy

Recovery Act State Memos

Vermont

For questions about DOE's Recovery Act activities, please contact the DOE Recovery Act Clearinghouse:
1-888-DOE-RCVY (888-363-7289), Monday through Friday, 9 a.m. to 7 p.m. Eastern Time

https://recoveryclearinghouse.energy.gov/contactUs.htm.

All numbers and projects listed as of June 1, 2010

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American Recovery and Reinvestment Act

U.S. DEPARTMENT OF ENERGY • VERMONT RECOVERY ACT SNAPSHOT

Funding for selected DOE projects: $138.7 million

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For total Recovery Act jobs numbers in Vermont go to www.recovery.gov

The **American Recovery & Reinvestment Act (ARRA)** is making a meaningful down payment on the nation's energy and environmental future. The Recovery Act investments in Vermont are supporting a broad range of clean energy projects from energy efficiency and the smart grid to solar power and biofuels. Through these investments, Vermont's businesses, universities, non-profits, and local governments are creating quality jobs today and positioning Vermont to play an important role in the new energy economy of the future.

EXAMPLES OF VERMONT FORMULA GRANTS

Program	State Energy Program	Weatherization Assistance Program	Energy Efficiency Conservation Block Grants	Energy Efficiency Appliance Rebate Program
Award (in millions)	$22	$16.8	$11.8	$0.6
	The Vermont Department of Public Service has been granted $22 million in State Energy Program funds to expand the size and scope of the Vermont Clean Energy Development Fund (CEDF).	The State of Vermont has been granted $16.8 million in Weatherization Assistance Program funds to scale-up existing weatherization efforts in the state, creating jobs, reducing carbon emissions, and saving money for Vermont's low-income families. Over the course of the Recovery Act, Vermont expects to weatherize more than 1,600 homes. The program also includes workforce training and education as part of the state's efforts to develop a green workforce.	Twenty-two communities in Vermont were granted a total of $11.8 million for Energy Efficiency and Conservation Block Grants (EECBG) to develop, promote, implement, and manage local energy efficiency programs.	The Vermont Department of Public Service has been granted $596,000 for the Energy Efficient Appliance Rebate Program, which offers consumer rebates for purchasing certain ENERGY STAR® appliances. These energy efficient appliances reduce energy use and save money for families, while helping the environment and supporting the local economy.

EXAMPLES OF VERMONT COMPETITIVE GRANTS AND TAX CREDITS

Award	$68.9 million	$11.9 million	$8.5 million	$8 million
	Vermont Transco LLC in Rutland has been awarded **$68.9 million** under the **Smart Grid Investment Grant** program to expand the deployment of Vermont smart meters, implement customer systems, secure control systems for substations and generation facilities, and automate the electric distribution and transmission system grids.	**GE Aviation** in Rutland has been awarded a **clean energy manufacturing tax credit** for **$11.9 million** to purchase machinery and equipment that will be used to manufacture the new GEnx aircraft engine.	**SBE, Inc.** in Barre has been awarded **$8.5 million** to support the outfitting of a high-volume manufacturing facility to build DC Bus Capacitors for the electric drive vehicle industry.	**The City of Montpelier** has been awarded **$8 million** for the installation of a 41 MMBtu combined heat and power district energy system fueled with locally sourced, renewable, and sustainably-harvested wood chips.

Funding Allocation Table (Figure 1)

Total dollar amounts in this document are accurate as of June 1, 2010. Please note that Recovery Act Programs are ongoing and the dollar amounts are subject to change. Recipient locations are based on project sites rather than recipients' headquarters locations.

Recovery Act Pillar	Flagship Program Names & Funding Type[1]	Number of Selections	Selected Amount (in millions)[2]
Energy Efficiency	*Weatherization Assistance Program (F)*	1	$16.8
	State Energy Program (F)	1	$22.0
	Energy Efficiency and Conservation Block Grant (F)	22	$11.8
	Energy Efficient Appliance Rebate (F)	1	$0.6
	TOTAL Energy Efficiency	25	$51.2
Renewable Energy	*Wind (CM)*	1	$0.7
	Additional Programs (F & CM)	1	$8.0
	TOTAL Renewable Energy	2	$8.7
Electric Grid	*Smart Grid Investment and Demonstrations Project (CM)[3]*	1	$68.9
	State and Local Energy Assurance and Regulatory Assistance (F)	2	$1.0
	TOTAL Electric Grid	3	$69.9
Transportation	*Advanced Battery Manufacturing (CM)*	1	$8.5
	TOTAL Transportation	1	$8.5
Science and Innovation	*Small Business Research (SBIR/STTR) (CM)*	3	$0.4
	TOTAL Science and Innovation	3	$0.4
TOTAL - DOE Programs[4]		**34**	**$138.7**
Tax Credits/ Payments[5]	*Payments for Renewable Energy Generation in Lieu of Tax Credits (1603)*	2	$0.04
	Clean Energy Manufacturing Tax Credits (48C)	1	$11.9
	TOTAL Tax Incentives	3	$11.9
TOTAL - DOE/Treasury + DOE		**37**	**$150.6**

[1]F=Formula Grant, CM=Competitive Grant, C=Contract

[2]"Selected" indicates DOE has selected a potential funding recipient, which begins the process of negotiating an agreement. This does not necessarily indicate that a final agreement has been reached.

[3]Projects may cross state boundaries, signifies HQ location.

[4]Total does not include administrative funds.

[5]Jointly administered by DOE and the U.S. Department of Treasury.

ENERGY EFFICIENCY – 25 projects totaling $51.2 million

Helping millions of American families cut utility bills by making homes and appliances more energy efficient, expanding the home efficiency industry in sales and manufacturing. For more information, visit http://www.energy.gov/recovery/energyefficiency.htm.

Award(s): $16.8 million, Weatherization Assistance Program (WAP)
Location: Statewide
The State of Vermont received $16.8 million in Weatherization Assistance Program (WAP) funds to scale-up existing weatherization efforts in the state, create jobs, reduce carbon emissions and save money for Vermont's low-income families. Over the course of the Recovery Act, Vermont's goal is to weatherize more than 1,600 homes. The funding also supports workforce training and education as part of the state's efforts to develop a green workforce. The funding increases Vermont's ability to contribute to the nationwide goal of weatherizing one million homes per year through a combination of workforce education, increased maximum per-home expenditure, raising eligibility standards, increased funding for training programs and expansion of WAP programs into U.S. territories.

Award(s): $22 million, State Energy Program (SEP)
Location: Statewide
The Vermont Department of Public Service received $22 million in State Energy Program (SEP) funds to expand the size and scope of the Vermont Clean Energy Development Fund (CEDF). These funds are part of the State Energy Program of the U.S. Department of Energy and supports work updating Vermont's Residential Building Energy Standards (RBES).

Award(s): 22 totaling $11.8 million, Energy Efficiency and Conservation Block Grant Program (EECBG)
Location: Statewide
Recipients : Addison County Regional Planning Commission, Bennington, Brattleboro, Burlington, Central Vermont Regional Planning Commission, Chittenden Regional Planning Commission, Colchester, Essex Junction, Milton, Northeastern Vermont Development Association, Northwest Regional Planning Commission, Vermont Department Of Public Service, Rutland Regional Planning Commission, Rutland, South Burlington, Essex, Hartford, Two Rivers-Ottauquechee Regional Commission, Windham Regional Commission

Twenty-two communities in Vermont received a total of $11.8 million for the Energy Efficiency and Conservation Block Grant Program (EECBG) to develop, promote, implement and manage local energy efficiency programs.

EECBG assists in the development, promotion, implementation and management of localized energy efficiency programs through individual program grants. The funding received by Vermont funds programs which: reduce fossil fuel emissions in a manner that is environmentally sustainable while maximizing cost savings for local and regional communities and Indian tribes, reduce total energy use by recipient communities, and improve energy efficiency in the transportation, building and other sectors.

Award(s): $596,000, Energy Efficient Appliance Rebate Programs
Location: Statewide
The Vermont Department of Public Service received $596,000 for the Energy Efficient Appliance Rebate Program, which offers consumer rebates for purchasing certain ENERGY STAR® appliances. Energy efficient appliances reduce energy use and save money for consumers, while supporting the local economy. Funding from this program assists state-level rebate programs by paying up to 50 percent of the administration costs of establishing and executing these types of programs. Though states and territories determine the appliances which apply, typically those include clothes washers, dishwashers, refrigerators, freezers, room air conditioners and water heaters.

RENEWABLE ENERGY – 5 projects totaling $20.6 million

Developing the clean renewable resources in order to double our supply of renewable energy and boost domestic renewable manufacturing capacity. For more information, visit http://www.energy.gov/recovery/renewableenergy.htm.

Award(s): 2 payments totaling $38,000 from DOE / Treasury, 1603 Payments for Renewable Energy Generation
Location: Warren, Westminster Station
*For current number of 1603 awards, see the weekly update at http://www.treas.gov/recovery/1603.shtml

- **Wheeler Brook Housing Limited Partnership, Warren - $19,000**
  The Wheeler Brook Apartments in Warren received $19,000 for a solar thermal project.

- **Burtco, Inc., Westminster Station - $19,000**
  Burtco, Inc., in Westminster Station received $19,000 for a solar thermal project.

Award(s): $11.9 million from DOE / Treasury, Clean Energy Manufacturing Tax Credit (48C)
Location: Rutland
GE Aviation in Rutland received $11.9 million for the purchase of machinery and equipment that manufacture the new GEnx aircraft engine. The GEnx engine significantly reduces both greenhouse gas emissions and annual fuel consumption, saving money for the operator.

Award(s): $8 million, Community Renewable Energy Deployment
Location: Montpelier
The City of Montpelier received $8 million to support the installation of a 41 MMBtu combined heat and power district energy system fueled with locally sourced, renewable and sustainably-harvested wood chips. The combined heat and power (CHP) system will provide heating to a total of 176 buildings and 1.8 million square feet, including the Vermont Capitol Complex, city owned schools, the City Hall Complex and up to 156 buildings in downtown Montpelier. The city will conduct outreach to encourage, through its project partners, both regional and national replication of this CHP system. The partners in this project include the Biomass Energy Resource Center, the Vermont Energy Investment Corporation and Veolia Energy North America.

Award(s): $683,000, Wind Energy Technology R&D and Testing
Location: Barre
The City of Barre received $683,000 in funding to support advanced manufacturing and supply chain automation.

MODERNIZING THE ELECTRIC GRID – 3 projects totaling $69.9 million

Harnessing clean energy sources and integrating them onto a modernized electric grid, while giving consumers better choices and more control over their energy use. For more information, visit http://www.energy.gov/recovery/smartgrid.htm.

Award(s): $257,000, Enhancing State and Local Governments' Energy Assurance
Location: Statewide
The State of Vermont received $257,000 for building regional energy assurance capability through enhancing inter- and intra-state coordination and cooperation during energy emergencies. Funding allows States to update or develop State Energy Assurance Plans and allows cities to update or develop Energy Assurance Plans within the local areas. These plans incorporate new energy portfolios such as wind and biofuels, as well as other types of energy efficient and renewable technology. The funding is used to hire or retrain staff to build in-house expertise for dealing with Smart Grid technologies, critical energy infrastructure interdependencies and cyber-security.

Award(s): $68.9 million, Smart Grid Investment Grant Program (EISA 1306)
Location: Rutland
The City of Rutland received $68.9 million for a variety of programs aimed at enhancing and updating the grid. Some of these projects include expanding the deployment of Vermont "smart meters" from the current 28,000 to 300,000, implementing in-home customer displays and digitally controlled appliances, securing control systems for substations and generation facilities and automating the electric distribution and transmission system grids.

Award(s): $766,000, State Assistance on Electricity Policies
Location: Statewide
Vermont received $766,000 for hiring staff to review the expected large volume of time-sensitive requests to approve electric utility expenditures undertaken as part of the Recovery Act.

TRANSPORTATION – 1 project totaling $8.5 million

Investing in a new generation of advanced fuels and vehicles to reduce our dependence on foreign oil and revitalize domestic manufacturing. For more information, visit http://www.energy.gov/recovery/vehicles.htm.

Award(s): $8.5 million, Advanced Battery Manufacturing
Location: Barre
The city of Barre received $8.5 million to support outfitting a high-volume manufacturing facility which builds DC Bus Capacitors for the electric drive vehicle industry.

SCIENCE AND INNOVATION – 3 projects totaling $438,000

Renewing our commitment to science and innovation to ensure global competitiveness in the future. For more information, visit http://www.energy.gov/recovery/innovation.htm.

Award(s): 3 totaling $438,000, Small Business Innovation Research (SBIR) / Small Business Technology Transfer (STTR) Round 1
Location: Shelburne, Windsor, White River Junction

- **Versatilis, LLC, Shelburne - $150,000**
  Versatilis, LLC, in Shellburne received $150,000 to create the world's first "electric" solar cells. These innovative cells are based on the idea of incorporating electrets with a permanent electric charge into organic solar cell structures with a goal to dramatically improve their efficiency.

- **Seldon Technologies, Inc., Windsor - $138,000**
  Seldon Technologies, Inc., in Windsor received $138,000 to develop a cost-effective solution to the inseparability of water from biodiesel, by using its proprietary technology of carbon nanotube containing media (nanomesh). The development of this cost-effective solution is very important for the future of a biodiesel market.

- **Concepts ETI, Inc., White River Junction - $150,000**
  Concepts ETI, Inc., in White River Junction received $150,000 to deduce the engineering feasibility of a self-actuated, blade articulation mechanism. The mechanism needs to be studied in order to determine its engineering feasibility as well as the real cost of creating a prototype system in mass-produced quantities.

ENERGYEMPOWERS.GOV

Recovery Act Success Stories

Energy Empowers is a U.S. Department of Energy clean energy information service. Our team produces stories featuring the people and businesses that are fueling the energy transformation and economic recovery in America.
For more stories from your state, go to energyempowers.gov/Vermont

An SB Electronics groundbreaking ceremony in Barre, Vt. for a new factory producing electric and hybrid car technology. | Photo courtesy of SBE

BARRE

SB Electronics breaks ground on new factory

A Vermont company broke ground on a new factory that will produce cutting-edge technology for electric and hybrid cars and create more than 100 jobs.

The event ushering in SB Electronics' power ring capacitor facility in Barre was attended by Vermont Gov. Jim Douglas and federal, state and local officials.

Cathy Zoi, the assistant secretary of Energy Efficiency and Renewable Energy at the U.S. Department of Energy, hailed SBE as a model for America's clean energy economy: "Here in Vermont, your innovation is a great benchmark that others around the country should be replicating."

Production of the new power ring capacitors, which will be used on power trains of hybrid and electric vehicles, is expected to begin early next year. The capacitors will convert direct current from batteries to alternating current, which powers the vehicles' motors. About 130 jobs will be created, according to SBE.

"This is an example of jobs that are going to stay here rather than go to China," Douglas said.

SBE was awarded a $9.1 million matching grant from the Recovery Act to help pay for the 52,800 square-foot facility. The company also received state tax credits and municipal tax incentives.

Sam Matthews, head of the Central Vermont Economic Development Corporation, praised the work of SBE and the government. "This morning we are celebrating government and private-sector collaboration at its very best," he said.

The new facility will help address the country's needs for alternative-fuel vehicles, said Ed Sawyer, SBE's president and CEO. "In the middle part of this decade, I think we'll see a lot of electric vehicles," he said. "We're hoping that many vehicles have that product in them."

U.S. Rep. Peter Welch said SBE's new factory has many benefits for America. "It is an opportunity for us to take on the challenge of energy independence and see it as a way of building the economy and making us stronger, not weaker."

"We've got SB Electronics showing us how taking on that challenge is tremendous for the local economy."

MONTPELIER

Sustainable heating coming to Vermont capital

Montpelier, Vt., netted $8 million in American Reinvestment and Recovery Act funding in January for a woodchip-fired combined heat and power system. The money will help build a 1.8 million kWh-generating plant that will heat the Capitol Complex, the city's schools, City Hall and as many as 156 other buildings in the downtown area.

The plant runs off locally grown, sustainably harvested wood chips from central Vermont, and City Manager William Fraser estimates as many as 35 new jobs will be created as a result of this project.

"People are excited, and we certainly expect with construction and once this plant is up-and-running to see new jobs in the community," William says. "We're working out all of the partnerships between the municipality and the state, and we're looking at who will manage and operate the plant."

The city manager expects the plant to be operational by the 2012 fiscal year, an aggressive timeline considering all the work that must be done connecting properties to the system.

"We're working with property owners and doing a massive amount of infrastructure work to get combined heat and power in the individual buildings," William says.

The CHP project has been in the planning process for 10 years, but the funding to make it a reality wasn't available until the stimulus came along.

"People have been hearing about this for a decade, and it's part of the city's broad energy goals to push toward sustainability in the capital," William says.

Montpelier is acting as a model for other municipalities nationally showcasing the reduced carbon emissions and increased jobs. The U.S. Department of Energy estimates that this project, along with

A woodchip-fired combined heat and power system will be built in Montpelier, Vt. | File photo

four other similar ones, will leverage a total of about $167 million in local government and private funding, and provide enough clean, renewable energy to displace the emissions of about 10,700 homes. Montpelier plans to retrofit 20 percent of residents' homes by 2015 and 50 percent of the downtown area.

HINESBURG

Vermont wind measurement company still strong

NRG Systems, of Hinesburg, Vt., has made products to help its customers measure and understand the potential of wind energy since 1982. Now, because of additional opportunities the Recovery Act has created for renewable energy companies, small businesses such as NRG Systems are poised to grow with the increased demand for proven wind measurement and turbine control equipment.

NRG Systems' customers are primarily developers, utilities and research institutions who want to measure the wind resources at a particular site to determine if the area is viable as a future wind farm.

"We didn't receive any grants directly from the Recovery Act, but some of our customers did," Abby White, the company's corporate communications lead, says. "Even without being a direct recipient, the fact that our customers were able to gain access to grants helped us continue to operate and hold our ground during the economic downturn."

Jan Blittersdorf, NRG Systems' CEO, made a commitment to keep every employee on board during the recession, and not a single one of the company's 112 employees, a mix of manufacturing and office workers, was laid off. The company was growing at about 30 percent each year until the recession when access to capital became scarce, affecting its customers dramatically. However, the Recovery Act and programs such as its 1603 renewable energy grants enabled those customers to move forward with some projects.

"We've remained steady, and the Recovery Act has helped," Abby says. "Now that credit is becoming easier to access, we're seeing an uptick in sales. This is looking to be a better year already."

David Blittersdorf founded NRG Systems in the '80s, after growing up near the first large grid-connected wind turbine at Grandpa's Knob in Vermont. He noticed the opportunities in wind measurement as a niche in the industry because, just as with oil and natural gas, renewable energy developers need to know what resource potential is present before they begin extracting. During the next several years, NRG Systems saw energy policy in the U.S. lag and had to sell much of its products overseas, but current policies and programs — such as the Recovery Act — are making renewable energy a priority in America. Today, NRG Systems is up to selling 50 percent of its goods domestically.

"The Recovery Act sustained the industry in a tough year," Abby says, "but what we need now is consistent, long-term federal policy to create the certainty manufacturers, like NRG Systems, need to continue to grow and create new jobs."

WESTMINSTER

Regional Vermont agency provides work in tight-knit communities

Morgan McKane spent most of his career in southeast Vermont working in the construction business but started looking elsewhere last year when it became less and less stable. "I needed work – something steady with a paycheck," says McKane.

He found that stability at the Southeastern Vermont Community Action (SEVCA) agency, where he now works as a full-time weatherization auditor, helping low-income residents increase their energy efficiency and quality of living. McKane conducts energy audits, looking at insulation, air leaks and other factors that impact a home's energy efficiency, heating and cooling.

Because of increased funds to the U.S. Department of Energy's Weatherization Assistance Program from the American Recovery and Reinvestment Act, the community action agency, one of five in Vermont, has hired eight new workers and weatherized 113 more homes than last year.

One office, one cohesive community

While some community action agencies in other states work with contractors and subcontractors, SEVCA remains at one central location in Westminster, Vt., and functions entirely on its own crew of auditors, crew technicians, and office workers.

"It allows for really tight knit communication across the agency," Harald Schmidtke, SEVCA weatherization director, says.

McKane adds that the weatherization team works like "a brain trust," which helps facilitate the growth and success of the program. He notes that weatherizing homes with SEVCA has shown him how these houses are "not just a bunch of pieces that work individually – it's all part of a system."

In contrast to his previous work as a private builder, McKane says that the weatherization program of SEVCA has allowed him to share and build off the experiences of his weatherization peers, some of whom have worked for the agency for nearly 20 years.

"Everyone works like a team; everyone is willing to share," says McKane. "I think everyone has their heart in it. I think we see weatherization as a really worthy process."

Hitting the milestone

The Vermont state weatherization recently hit a significant milestone. Working with the five agencies, the state has weatherized an additional 840 homes -- more than 50 percent of the state's total Recovery Act target of servicing 1,600 eligible homes. The Vermont state weatherization office received $16.8 million under the Recovery from the U.S. Department of Energy's Weatherization Assistance Program.

Of the 840 homes Vermont has weatherized under the Recovery Act through June 2010, SEVCA has completed 113.