



Department of Energy Recovery Act State Memos

New Hampshire



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

TABLE OF CONTENTS

RECOVERY ACT SNAPSHOT..... 1

FUNDING ALLOCATION TABLE..... 2

ENERGY EFFICIENCY 3

RENEWABLE ENERGY 4

ELECTRIC GRID..... 5

RECOVERY ACT SUCCESS STORIES – ENERGY EMPOWERS

- *Out with the old, in with the new: N.H. town to upgrade to efficient lighting ... 6*
- *Green Launching Pad becomes resource for entrepreneurs ... 6*
- *Grants to help N.H. towns conserve energy ... 7*
- *New Hampshire weatherization gets a funding boost ... 7*



American Recovery and Reinvestment Act



U.S. DEPARTMENT OF ENERGY • NEW HAMPSHIRE RECOVERY ACT SNAPSHOT

Funding for selected DOE projects: \$84.5 million

DOE Recovery Act projects in New Hampshire: 27

Clean energy tax credits and grants: 1

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

New Hampshire has substantial natural resources, including wind, biomass, and hydroelectric power. 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 New Hampshire are supporting a broad range of clean energy projects, from weatherization and retrofits to the smart grid. Through these investments, New Hampshire's businesses, non-profits, and local governments are creating quality jobs today and positioning New Hampshire to play an important role in the new energy economy of the future.

EXAMPLES OF NEW HAMPSHIRE FORMULA GRANTS

Program	State Energy Program	Weatherization Assistance Program	Energy Efficiency Conservation Block Grants	Energy Efficiency Appliance Rebate Program
Award (in millions)	\$25.8	\$23.2	\$17.3	\$1.3
	The Executive Office of the State of New Hampshire has received \$25.8 million in State Energy Program funds to invest in state-level energy efficiency and renewable energy priorities.	The New Hampshire Office of Energy has received \$23.2 million in Weatherization Assistance Program funds to scale-up existing weatherization efforts in the state, creating jobs, reducing carbon emissions, and saving money for New Hampshire's low-income families. Over the course of the Recovery Act, New Hampshire expects to weatherize more than 2,600 homes. The program also includes workforce training and education as part of the state's efforts to develop a green workforce.	Twenty-one communities in New Hampshire received a total of \$17.3 million for Energy Efficiency and Conservation Block Grants (EECBG) to develop, promote, implement, and manage localized energy efficiency programs.	The Executive Office of the State of New Hampshire has received \$1.3 million 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 NEW HAMPSHIRE COMPETITIVE GRANTS AND TAX CREDITS

Award \$15.8 million
New Hampshire Electric Cooperative was awarded \$15.8 million under the **Smart Grid Investment Grant** program to modernize the utility's distribution and metering system. The project will be used to deploy an end-to-end communications system on the grid and will be used to install advanced meters for all members across New Hampshire.

Award \$2 million
Spire Semiconductor, LLC, in Hudson, was awarded a **clean energy manufacturing tax credit** for \$2 million. The funds will be used to manufacture a high-efficiency concentrator photovoltaic (CPV) cell and receiver assembly to be incorporated into CPV systems.

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	<i>Weatherization Assistance Program (F)</i>	1	\$23.2
	<i>State Energy Program (F)</i>	1	\$25.8
	<i>Energy Efficiency and Conservation Block Grant (F)</i>	21	\$17.3
	<i>Energy Efficient Appliance Rebate (F)</i>	1	\$1.3
	TOTAL Energy Efficiency	24	\$67.6
Electric Grid	<i>Smart Grid Investment and Demonstrations Project (CM)³</i>	1	\$15.8
	<i>State and Local Energy Assurance and Regulatory Assistance (F)</i>	2	\$1.1
	TOTAL Electric Grid	3	\$16.9
TOTAL - DOE Programs⁴		27	\$84.5
Tax Credits/ Payments ⁵	<i>Clean Energy Manufacturing Tax Credits (48C)</i>	1	\$2.0
	TOTAL Tax Incentives	1	\$2.0
TOTAL - DOE/Treasury + DOE		28	\$86.5
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 – 24 projects totaling \$67.6 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): \$23.2 million, Weatherization Assistance Program (WAP)

Location: Statewide

The New Hampshire Office of Energy received \$23.2 million in Weatherization Assistance Program funds to scale-up existing weatherization efforts in the state, create jobs, reduce carbon emissions and save money for New Hampshire's low-income families. Over the course of the Recovery Act, New Hampshire's goal is to weatherize more than 2,600 homes. The program also includes workforce training and education as part of the state's efforts to develop a green workforce.

Award(s): \$25.8 million, State Energy Program (SEP)

Location: Statewide

The Executive Office of the state of New Hampshire received \$25.8 million in State Energy Program funds to invest in state-level energy efficiency and renewable energy priorities. New Hampshire will include programs to increase building efficiency for businesses, commercial enterprises, institutions and non-profits through revised building codes, and competitive loan and grant programs. The state also provides technical and financial assistance to businesses and institutions as they work to reduce their energy use and energy costs through a variety of measures. The New Hampshire SEP also supports energy efficiency upgrades to state-owned buildings as well as colleges and universities, saving taxpayers' money and reducing energy use across the state. New Hampshire is using Recovery Act SEP funds to expand the Alternative Fuels Vehicle Program to increase the number of hybrid and alternative-fueled vehicles in the state fleet. The state is establishing a program to help first-time homeowners gain access to funds in order to complete home energy efficiency measures.

Award(s): 21 totaling \$17.3 million, Energy Efficiency and Conservation Block Grant Program (EECBG)

Location: Statewide

Recipients: New Hampshire State Energy Office, Hudson, Londonderry, Merrimack, Dover, Rochester, Salem, Derry, Coos County, Sullivan County, Carroll County, Concord, Strafford County, Belknap County, Cheshire County, Grafton County, Merrimack County, Hillsborough County, Nashua, Manchester, Rockingham County

Twenty-one communities in New Hampshire received a total of \$17.3 million for the Energy Efficiency and Conservation Block Grants Program (EECBG) to develop, promote, implement and manage localized energy efficiency programs.

This project assists states, U.S. territories, Indian tribes, counties and cities to develop, promote, implement and manage localized energy efficiency programs through individual program grants. The project funds programs which reduce fossil fuel emissions in a manner which is environmentally sustainable, maximizes cost savings, reduces the total energy use of eligible entities and improves energy efficiency in the transportation, building and other appropriate sectors. An example is:

- **Manchester - \$1 million**

Manchester is using funds in five specific categories: a revolving loan fund for local business to access money for energy related projects; contracting with an organization to audit all municipal buildings and schools to determine where the best energy conservation opportunities exist; a software program to track current energy usage and monitor any unusual situations, while at the same time measuring energy consumption; using professional services to create an energy awareness program within the local building communities and the general population; and generating retrofit projects which take results from energy audits and implement renovation work aimed at reducing the city's energy consumption.

Award(s): \$1.3 million, Energy Efficient Appliance Rebate Programs

Location: Statewide

The Executive Office of the state of New Hampshire received \$1.3 million 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 supporting the local economy. New Hampshire will implement, through its Office of Energy and Planning, a mail-in rebate program which will help residents replace older, inefficient hot water heaters and heating systems with new, ENERGY STAR qualified models, as well as certain solar thermal products and indoor boiler reset controls that fall outside the ENERGY STAR scope. Advance rebate reservations are required for the solar thermal products. Eligible products include gas storage water heaters, gas tankless water heaters, solar water heaters, gas furnaces, oil furnaces, gas boilers, oil boilers and indoor boiler reset controls (with the replacement of an existing boiler). Consumers are encouraged to recycle the replaced products.

Award(s): \$10 million, BetterBuildings

Location: Statewide

The New Hampshire Beacon Communities Project enables deep energy retrofits and complementary sustainable energy solutions in residential, commercial, municipal and industrial buildings throughout three diverse communities: Berlin, Nashua and Plymouth. The project includes a state-wide revolving loan fund to finance residential retrofits at favorable rates, along with public outreach efforts by field offices and community lenders.

RENEWABLE ENERGY – 1 project totaling \$2 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 million, Clean Energy Manufacturing Tax Credit (48C)

Location: Hudson

Spire Semiconductor, LLC, in Hudson received \$2 million to manufacture a high-efficiency concentrator photovoltaic (CPV) cell and receiver assembly to be incorporated into CPV systems.

MODERNIZING THE ELECTRIC GRID – 3 projects totaling \$16.9 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): \$321,000, Enhancing State and Local Governments' Energy Assurance

Location: Concord

The New Hampshire Office of Energy and Planning in Concord is using this grant on State Energy Assurance Planning. This project funds states to update and develop State Energy Assurance Plans that incorporate new energy portfolios such as wind, renewable and biofuels. This program also funds cities updating and developing Energy Assurance Plans within local areas. The funding is being used to hire or retrain staff, building in-house expertise in the areas of Smart Grids, critical energy infrastructure interdependencies and cyber-security.

Award(s): \$15.8 million, Smart Grid Investment Grant Program (EISA 1306)

Location: Plymouth

New Hampshire Electric Cooperative in Plymouth received \$15.8 million under the Smart Grid Investment Grant program to modernize the utility's distribution and metering system. The project is deploying an end-to-end communications system on the grid and is using advanced meters for all members of the Cooperative in the state.

Award(s): \$784,000, State Assistance on Electricity Policies

Location: Concord

The New Hampshire Public Utilities Commission in Concord received \$784,000. This project funds states and their Public Utility Commissions (PUCs) to hire staff trained to facilitate the review of time-sensitive requests approving electric utility expenditures undertaken as part of the Recovery Act.

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/NewHampshire



NEWFIELDS

Out with the old, in with the new: N.H. town to upgrade to efficient lighting

Newfields, N.H.'s town hall has a lot of old-time charm worth keeping, with its steeple, rusted-red brick and chimney stacks, but the town lights are ready for a makeover.

"Obviously, they don't have gas lamps from the 1800s," jokes Clay Mitchell, Newfields' town planner. "But the lights are old. In the town hall meeting room, they are awful. They are big, fat and hum when you turn them on."

Now, with a \$2,000 Energy Efficiency and Conservation Block Grant (EECBG) from the U.S. Department of Energy and New Hampshire Office of Energy and Planning and also a \$3,300 electric use rebate from the local utility company, the town will switch out 98 lights with energy-efficient T-5 and T-8 lights in the town hall and fire station. Exit signs in the town hall will be replaced with light-emitting diodes.

Originally built in the 1800s and early 1900s, the town hall and fire station, respectively, have never received lighting upgrades.

The town spends about \$40,000 on energy every year and will save about \$1,700 and 11,000 kWh per year, according to Mitchell, who works six hours a week for the town of only 2,000 people. The payback for upgrades to the town hall and fire station is just two years.

"It seems like a small amount, but this is a small town and that amount of money has a tremendous impact," he says.

The New Hampshire Office of Energy and Planning received almost \$10 million in EECBG grants from the American Recovery and Reinvestment Act

But the economic benefits are not the only reason to make the switch.

"It is also critical that the most public buildings have these kinds of lights upgraded and very much on display," Mitchell says. "We intend to make it real public outreach event, so that [residents of the town] can go back and look at their own houses and create energy savings solutions."

An energy audit found that the town hall and the fire station consumed the most electricity in town. The town's only other municipal building, the library, is occupied just a few hours a week, and is not a priority for energy efficient improvements, Mitchell says.

"After the successful grant application, the town has decided to schedule an additional energy audit for the town hall to look at insulation, windows and the HVAC system," says Mitchell. "The process of applying for the EECBG program has inspired this next step."

Green Launching Pad becomes resource for entrepreneurs

This summer, five green companies in New Hampshire are participating in an intensive business accelerator initiative called the Green Launching Pad (GLP). The University of New Hampshire (UNH) and the New Hampshire Office of Energy and Planning (NHOEP) sponsored program, offers funding and expertise to help grow environmentally-oriented companies.

The five companies participating in GLP are getting help on intellectual property, tax credits, market analysis and business planning. By providing innovators, entrepreneurs and businesses with the opportunity to meet with interdisciplinary teams of faculty and students from across the state, the GLP aims to boost the state's energy economy, create jobs and reduce energy use and carbon emissions.

To fund the project, the NHOEP is using \$750,000 of a \$25,827,000 grant from the U.S. Department of Energy's State Energy Program (SEP) and the American Recovery and Reinvestment Act (ARRA). The funding will support GLP for two years.

"We are really excited about this program and the Recovery Act opportunities in general," says Laura Richardson, the ARRA coordinator for State Energy Program in the NHOEP. "It's very interesting to see the projects that surface when the opportunities arise."

Launching the pad

The idea for GLP was sparked in part by UNH professors Ross Gittell and George Hurtt, after they successfully brought their entrepreneurship and global biological change courses together for a class session for a discussion on green entrepreneurship.

The University of New Hampshire faculty subsequently partnered

Green Launching Pad companies:

- Green Clean Heat LLC of Newton Junction
- EnerTrac, Inc. of Hudson
- Revolution Energy, LLC of Dover
- Innovacene of Durham
- Compressor Energy Solutions, Inc. of Bedford

with NHOEP and organized a leadership team that also included industry and community experts. The GLP was launched and began accepting proposals in February. Five company/projects out of 71 submissions were selected in May.

Gittell, who is also Co-Principal Investigator of GLP, says the judges considered how the companies could contribute to carbon reduction and job creation and their speed to market as a viable business venture.

Planting the seed

Each of the five winners was awarded funds for development costs and is now participating in the summer accelerator program.

“There are a lot of resources in the state that don’t usually get tapped for start-up businesses,” Richardson says. “That expertise is being brought in.”

UNH professor Gittell says each company is assigned two people from the team, and can work with other experts as needed. In addition, each winner has at least one student intern. “It’s a great learning experience for our students,” Gittell says.

At the end of the summer, the companies will present their projects to potential funders such as venture capitalists and private angel funders. “They will have impressive businesses,” Gittell says. The goal is to have each company partnered with potential funders by the close of the summer so that they can continue to grow and contribute to the state’s clean energy economy.

The next round of proposals will be accepted next year, says Richardson. The program plans to continue in the future and one of their tasks is to secure funding. “We are looking to have multiple funding sources to keep this a sustainable project,” Richardson says.

According to Gittell, the companies are benefiting New Hampshire now and will have positive long-term effects as they expand.

“They are already creating jobs this summer and they all have potential to grow,” Gittell says. “We’re planting the seed for the future, particularly with firms that contribute to the economy and also help the environment.”

Grants to help N.H. towns conserve energy

New Hampshire has a plan to lower expenses and create jobs, all while conserving energy. In all, the state has received \$17.3 million in Energy Efficiency and Conservation Block Grant (EECBG) funding. Of that, \$9.6 million has been sent to the New Hampshire Office of Energy and Planning (NHOEP) to launch several energy saving projects.

NHOEP established a subgrant program to award \$6.6 million of the EECBG grant funding to local municipalities and counties. New Hampshire municipalities and counties submitted over 270 applications, totaling over \$21 million in grant requests.

“Substantial energy efficiency improvements will be made throughout the state,” says Dari Sassan, EECBG coordinator for NHOEP. “Through this program, we are going to be able to fund 116 innovative projects in 67 communities that will save money and stimulate the local economy,” he explains.

Solar panels and solar hot water heaters will be installed at several schools and municipal buildings. There are 26 different lighting upgrade projects to install energy efficient lights in traffic signals, at schools, and government buildings. Energy audits will be performed at about 90 different buildings to determine additional ways to save energy.

“These are just some of the many projects that will bring jobs and work to local contractors,” says Dari. He adds, “We want to ensure New Hampshire has a more efficient and sustainable energy future.”

New Hampshire weatherization gets a funding boost

Community Action Program Belknap-Merrimack Counties’ (CAP-BM) weatherization program is changing rapidly. The nonprofit received an additional \$3,661,355 in funding, from the Recovery Act in an effort to help residents lower energy costs.

New Hampshire based CAP-BM is named for the two counties it serves, both a mix of rural and urban areas. With the funding, more low-income residents can have their homes weatherized, free of charge.

A growing program means a growing workforce. Dana Nute is the weatherization director for CAP-BM. “We now employ more people. We needed more square footage so physically we had to expand,” he says. 72 new positions have been created within the Community Action Agencies and over 220 contractors to meet the demand for weatherization throughout New Hampshire and the numbers are continually increasing.

Typical home energy upgrades include adding insulation to attics, walls, and floors, air sealing, and upgrading appliances. These small changes can make a big difference. Dana says, on average, homeowners can lower monthly energy bills by \$250-\$300.

New Hampshire residents are sure to notice the changes as more take advantage of the expanded program. Says Dana, “Now that we have more funding, there’s more we can do.”