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## Public Utilities Commission Announces 2012 Renewable Energy Grants

The Public Utilities Commission has awarded grant funds for seven renewable energy projects in New Hampshire.<sup>1</sup> Funded by the State's Renewable Energy Fund (REF), the grants will help fund a range of renewable energy installations, helping to reduce New Hampshire's dependence on fossil fuels and to meet the state's renewable energy goals.

The grants were awarded through a competitive process. The Commission issued a Request for Proposals (RFP) in February 2012, and received twenty-six applications requesting a total of nearly \$7 million. Applications were evaluated and rated by a screening committee consisting of staff from the Commission, Department of Environmental Services, and the Office of Energy and Planning. Ten of the applicants were interviewed by the screening committee. The committee then passed its findings on to the three PUC Commissioners, who in turn carried out their own review process and made final decisions on all grant awards.

The seven awards are as follows:

**Cartographic Associates, Inc - \$43,000:** Cartographic Associates will replace three oil-fired furnaces at its offices in downtown Littleton with a single, high efficiency wood pellet boiler. The wood pellets will be sourced from a New Hampshire pellet manufacturing plant. The wood for the pellets will be likewise harvested from nearby New Hampshire forests. This project is expected to displace 3,200 gallons of #2 heating oil per year, resulting in cost savings of approximately \$5,165 per year. This project will be leveraged with an investment of \$22,762 by the grantee, for a total project cost of \$65,762.

**Claremont Fire Department – \$52,000:** The Claremont Fire Department will install a high efficiency wood pellet boiler at its 1917 Vintage Fire Station. This project will displace 3500 gallons of #2 heating oil per year, and will reduce greenhouse gas emissions by 52 tons per year. The wood pellets will be supplied mainly by an in-state pellet manufacturer, with wood harvested from local forests. The pellet boiler will be showcased to town residents and school children during tours of the fire station. Total project cost is \$65,000.

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<sup>1</sup> An eighth proposal was selected for funding but has not yet been submitted to the Governor and Executive Council for approval. The applicant has experienced delays in obtaining financing for the project.

**Colby Solar, LLC - \$100,000:** Colby Solar will install solar electric panels on campus buildings at Colby-Sawyer College in New London. The solar arrays, also known as photovoltaic (PV) systems will have a combined electrical capacity of 125 kilowatts. Using an innovative financing arrangement, Colby Sawyer College will invest only a modest amount of capital up-front, and will purchase power from Colby Solar at below market rates for six years. The college will then purchase the solar arrays at a deeply discounted price. The solar system is expected to produce 150,000 kilowatt-hours of electricity per year, resulting in a savings of about \$20,000. Total project cost is \$474,622.

**Northeast BioEnergy Systems, LLC - \$93,000:** Northeast BioEnergy Systems will install a woodchip boiler at the Russell Elementary School in Rumney. The school will enter into a power purchase agreement (PPA) with Northeast BioEnergy Systems, thus allowing the school district to pay only for the heat that is delivered at no-upfront cost. At the end of the life of the PPA, the school district will have the option to purchase the system at fair market value, which will be greatly reduced from the original project cost of \$372,000. The new boiler will displace approximately 12,000 gallons of heating oil, resulting in cost savings of \$35,000 annually.

**Sullivan County - \$300,000:** The County of Sullivan will install a district energy system at the Sullivan County Complex. Wood chips will be used to generate both heat and electricity for several county buildings including a jail and nursing home. This renewable cogeneration system will use 1,900 tons of wood chips annually and will reduce the county's use of fossil fuel by 125,000 gallons of diesel fuel per year. The system will also generate 137,300 kilowatt hours of on-site electricity, reduce greenhouse gas emissions by 1,200 tons per year, and create energy savings of \$290,000 per year. Total project cost: \$3.18 million.

**University of New Hampshire - \$59,750:** UNH will install a solar hot air system on the façade of Kingsbury Hall on the Durham campus. This system will use sunlight to pre-heat the large volumes of fresh air that pass through the building's air handling units and thereby displace 890 million BTU's worth of heat energy per year. The technology will be especially effective in Kingsbury Hall as the building houses many laboratory spaces requiring frequent changes of air. The performance of the system will be carefully monitored with sensors that will measure and document energy production. Total project cost: \$119,500.

**Walker Wellington, LLC - \$100,000:** Working in partnership with the city of Dover, Walker Wellington will install a turbine generator in the outfall pipe at the city's wastewater treatment facility. Developed by Walker Wellington, the turbine is a working proto-type made in New Hampshire and specifically engineered for low head, variable flow applications, typically seen in municipal wastewater treatment facilities. This demonstration project is critical for generating performance data for the technology. The unit to be installed has a capacity of up to 20 kilowatts (kW), and has the potential to be scaled into units up to 100 kW or greater in size. The turbine will generate 80 megawatt hours of electricity per year, displace the use of 1,950 gallons of fossil fuel, and reduce greenhouse gas emissions by 52 tons per year. Total project cost is \$129,000.