



## Eligibility of Projects for Vermont Clean Energy Assessment District (CEAD) Financing

July 1, 2009

### Eligible Energy Efficiency Projects

H.446, the Vermont Energy Act of 2009, states that “energy efficiency projects shall be those that are eligible under section 3267 of this title”.

### **§3267. ELIGIBLE ENERGY EFFICIENCY PROJECTS**

Those entities appointed as energy efficiency utilities under subsection 209(d) of Title 30 shall develop a list of eligible energy efficiency projects and shall make the list available to the public on or before July 1 of each year.

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### **Eligible energy efficiency improvement projects shall be limited to:**

- measures or combinations of measures that are permanently attached to the property for which CEAD financing is being secured
- measures that reduce the net energy requirements of the affected building
- energy-related repair, health and safety measures that may be required to be included in a comprehensive energy efficiency improvement project to secure the energy savings of the project

Based on Vermont experience, efficiency measures that meet these requirements might include the following, subject to project-specific costs and savings assessment:

<b>Residential Measures</b>
Blower-door guided air sealing
Insulate walls, attic, basement
Energy efficient light fixtures (hard-wired)
Seal and insulate ducts
Insulate pipes
Upgrade heating system to higher efficiency (boiler, furnace, heat pump, distribution, controls)
Replace/switch water heater
Ceiling fans
Replace/renovate windows or doors
Heat-recovery ventilation system
Efficient exhaust-only ventilation system
Hot water heat recovery system
Services of energy expert / professional

<b>Commercial Building Measures</b>
Energy efficient light fixtures (hard-wired)
Seal and insulate building envelope
Upgrade HVAC system to higher efficiency (HVAC equipment, distribution, controls)
Comprehensive building re-commissioning
Compressed air system upgrade
Premium efficiency motors and controls
Variable speed drives
Refrigeration system upgrade
Heat-recovery ventilation system
Insulate pipes
Water heating system upgrade
Hot water heat recovery system
Ceiling fans
Daylighting and controls
Services of energy expert / professional



## Eligible Renewable Energy Projects

Renewable energy projects and/or measures may be eligible for CEAD financing, either alone or in combination with eligible efficiency measures, provided they fall under the definition in subdivision 8002(2) of Title 30, where "renewable energy means energy produced using a technology that relies on a resource that is being consumed at a harvest rate at or below its natural regeneration rate," specifically including "flammable gases produced by the decay of sewage treatment plant wastes or landfill wastes and anaerobic digestion of agricultural products, byproducts, or wastes" but excluding "solid waste, other than agricultural or silvicultural waste," any "form of nuclear fuel" and hydroelectric energy from a plant over 200 MW.

Based on Vermont experience, the most likely types of projects to be able to use CEAD financing are listed below. It should be noted, however, that for most of these types of projects, only solar water heating is likely to be supportable with financing alone. Other small-scale renewable energy projects will likely need to have their installed cost reduced by owner investment, grants, tax credits, or other funding sources to the level where annual savings can cover the annual financed payments. Efficiency measures, when combined with renewable energy measures, may also help a combined package to meet minimum benefit/cost requirements.

<b>Renewable Energy Measures (Residential &amp; Commercial)</b>
Solar water heating systems
Biomass energy heating systems
Small wind systems
Micro-hydro systems
Solar water or space heating system
Solar electric (photovoltaic) system
Small wind or micro-hydro system



## Cost Effectiveness and Cost Limitations on Projects

To be eligible for CEAD financing, a property owner must have an analysis performed to quantify the project costs and energy savings and estimated carbon impacts of the proposed energy improvements, including an annual cash-flow analysis. This analysis may be conducted by Efficiency Vermont or Burlington Electric Department (in Burlington), as Vermont's designated "Energy Efficiency Utilities," or other qualified entities designated by participating cities and towns. All analyses will be reviewed by Efficiency Vermont or Burlington Electric Department.

For resident owned properties, the cost of the project financed through CEAD can not exceed \$30,000 or 15% of the assessed value of the property, whichever is less. In addition, the loan-to-value ratio (any outstanding mortgages plus the amount of CEAD financing) can not exceed 90% of the assessed property value. For commercial properties, CEAD financing can not exceed 15% of the assessed property value and the loan-to-value ratio (any outstanding mortgages plus the amount of CEAD financing) can not exceed 90% of the assessed property value.