

## Clean Energy Assessment Districts (CEAD) or Property Assessed Clean Energy (PACE) A Way To Finance Clean Energy Improvements

Vermont will not be able to shift to an energy efficient economy without addressing buildings. Nationally, the building sector accounts for 72% of electricity use and more than 36% of greenhouse gas emissions (*Buildings Energy Data Book, September 2007*). Around Vermont several municipalities have questions on their ballots today asking for permission to establish a Clean Energy Assessment District (Burlington, Lyndon, Putney, Westminster (adopted at Town meeting this past Saturday)) and two towns have items asking if voters are interested in investigating the option – Hardwick and Greensboro).

**Clean Energy Assessment Districts (CEADs)** are a mechanism for financing clean energy projects including weatherization, energy efficiency, solar or geo-thermal. In 2009, Vermont passed legislation enabling local governments to raise money to fund clean energy projects undertaken by private property owners. A town, either singly or with other towns has the opportunity to vote to establish a CEAD. The CEAD provides funds to make energy improvements on private properties and that financing is repaid over a number of years through an assessment on the property tax bill of *only* those who choose to participate in the program. Financing is secured by a lien on the property. There are few up-front costs to the property owner. If the property is sold before the end of the repayment period, the new owner inherits both the repayment obligation and the energy saving improvements.

CEADs allow local governments to address climate change locally by reducing local greenhouse gas emissions, to support residents' energy efficiency improvements at lower cost and to strengthen the local economy inefficiency/renewable energy construction. Because financing is repaid through an assessment on participants' property tax bills and secured by property liens, a CEAD poses minimal risk to the general fund.

Under a CEAD, a town or towns may provide financing for eligible projects:

- improvements that are permanently attached to the property;
- improvements that reduce net energy requirements of the building;
- repair, health or safety measures required as part of a comprehensive efficiency improvement project to secure energy savings.

Efficiency Vermont has established this list based on Vermont experience. A CEAD may elect to fund the following, subject to project-specific costs and savings assessments:

Residential Measures
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

efficiency (HVAC equipment, distribution, controls)
Comprehensive building re-commissioning
Compressed air system upgrade
Premium efficiency motors and controls
Variable speed drives
Refrigeration/hot water system upgrade
Heat-recovery ventilation system
Insulate pipes
Hot water heat recovery system
Ceiling fans
Daylighting and controls
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

**Eligible Renewable Energy Projects** Based on Vermont experience, the most likely types of projects to be able to use CEAD financing for renewable energy measures are.

<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** To be eligible for CEAD financing, a property owner must have an analysis performed to quantify project costs, 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 as Vermont’s designated “energy efficiency utility,” or other qualified entities the CEAD designates. All analyses will be reviewed by Efficiency Vermont.

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

*Compiled by Karen Horn, 3 1 10*