



Deep Retrofit

Encouraging innovation in deep energy retrofits

How will you select applicants?

First and foremost, applications will be judged by the strength of their plan. Efficiency Vermont will also work to create a diverse sample by including a variety of sizes and types of businesses from across Vermont.

What if a project isn't selected? Will that team get anything for their efforts?

Yes, we will provide support to all who show the interest and initiative to apply—including a designated energy consultant to assist with:

- Understanding energy use and identifying opportunities to help achieve 50% reduction
- Review of vendor proposals and savings estimates
- Providing financing support and traditional Efficiency Vermont custom and standard equipment rebates

How will you measure energy usage?

Total energy usage will be measured in MMBtu regardless of energy type. Electricity typically measured in kwh will be converted to MMBtu. Cords of wood, tons of pellets, gallons of fuel oil, and gallons of propane will also be converted to MMBtu. Efficiency Vermont will utilize the MMBTU conversion rates used by the ESPM. A subset of the table is listed below.

<https://portfoliomanager.energystar.gov/pdf/reference/Thermal%20Conversions.pdf>

Meter (Energy) Type	Input Units into ESPM	Multiplier to get kBtu
Electricity	kwh	3.412
Natural Gas	ccf	102.6
Fuel Oil (no. 2)	gallons	138
Fuel Oil (no. 4)	gallons	146
Diesel	gallons	138
Propane	gallons	92
Wood	tons	17,480

How will energy savings be determined?

Calculations will be based on total energy consumption of 12 months post-implementation as compared with total energy usage during baseline year using the ESPM weather-normalized total energy use index (EUI). ESPM weather normalized approach is described in the following portfolio manager reference.

<https://portfoliomanager.energystar.gov/pdf/reference/Climate%20and%20Weather.pdf>. EVT staff will manually adjust for weather at the 6 month verification phase.

How do I find out how much energy in MMBtu my building uses today?

To learn how much energy your building uses, enter your existing energy usage information into the Energy Star Portfolio Manager (ESPM). Contact Efficiency Vermont to obtain instructions on how to do this. You will have to create a meter for each energy source you have (electricity, propane, wood, fuel oil, kerosene, compressed natural gas, etc.). You will want to select the energy unit for which you have—kwh for electricity, gallons for propane, etc. Then you enter in the energy data for each of these meters. Once all the data's entered, on the energy tab, you will see the energy in kBtu for the various energy types you have. An MMBtu is 1000 kBtu. We will provide \$70/MMBtu or \$.070/kBtu for energy saved from the deep retrofit.



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What is a typical building's energy usage?

Energy usage varies considerably based on building type or purpose, number of occupants, operating hours, and operating practices. When you enter your building in ESPM, if your building is a common building type, they will compare your building to others in our climate.

How do I create an ESPM account, add a property, and share with VEIC?

VEIC stands for Vermont Energy Investment Corporation and is the private non-profit corporation that manages the Efficiency Vermont contract. Go to the energystar.gov website to create the Energy Star Portfolio Account. You will need to answer some questions about the property and enter its energy use. Search for "PM Admin" to find the PM Admin, VEIC account with which you will connect. Contact Efficiency Vermont for instructions, and assistance.

What if a project doesn't reach the 50% energy savings goal?

If a participating project does not achieve a 50% reduction, but has fulfilled all other obligations, payments will be scaled down if a minimum 40% savings is achieved.

How will incentives be paid?

Incentives are paid in 3 installments; a \$70/MMBtu will be paid in total if the owner demonstrates at least 50% total energy savings. Participants will receive \$20/MMBtu for detailed implementation plan. After implementing all the energy efficiency improvements participants will receive \$20/MMBtu. At the 12 month verification of energy use data, participants will receive \$30/MMBtu if 50% total energy savings is achieved. Payments will be \$7/MMBtu if 40%, but not 50% total energy savings is achieved. Deep retrofit incentives are paid in lieu of other Efficiency Vermont incentives. Deep Retrofit incentives are not in addition to standard rebates and incentives Efficiency Vermont provides.

Are projects eligible for financing?

Yes, projects are eligible for the same financing options available to all Efficiency Vermont business customers.

Can projects that are already underway be considered?

Yes, as long as the project is able to meet the requirements stated above.

What if my business grows such that the energy savings are not realized, but they would have been if conditions had stayed the same?

The business, in partnership with Efficiency Vermont, will work to determine a normalization method.