

# Efficiency Vermont K-12 Offerings



Start with scheduling a **free account manager walk-through of your facility** to identify potential savings opportunities and help prioritize based on savings and ease of project.

EVT Offering	Brief Summary/Qualifications	Full Cost Range	Estimated Savings	Variable Payback Periods Based on Site-Specific Conditions, After Rebate	Incentive* As of 1/1/19
<b>Boiler Room - If Natural Gas customer contact VGS</b>					
Efficient Boiler Burners	Example savings and cost is for small elementary school. Baseline burner can be on/off or high/low fire. Efficient burner has increased modulation or stages of firing than baseline.	Sample full cost for elementary school is \$7,000.	\$3,500/yr	2 yr before incentive when full cost used.	\$10/MMBTU of Annual Savings
Advanced Wood Heating Systems (AWHS)	Replacing oil/propane boilers. Must provide fuel usage data and sq ft of building that will be served by AWHS to confirm incentive.	Varies based on building size and existing systems. Call Efficiency Vermont for assistance.			\$1.25/sq ft \$50,000 cap
DDC Burner Controls	Must be larger than 50HP Boiler systems.	\$25,000 - \$60,000 typically larger schools only.	\$18,000 at high end Needs custom analysis.	3 yr before incentive when full cost is used only if highest savings achieved.	\$10/MMBTU of Annual Savings
Boiler Temperature Reset Control - Fossil Fuel Systems	More expensive and complicated for large wood pellet systems, but worth considering.	~\$2,000	5% - 15% savings	<2 yr when full cost is used.	\$500/controller
Optimize Scheduling & Setbacks	Contact Efficiency Vermont as well as Vermont Gas if looking to optimize scheduling and setbacks.	If existing BAS, low or no cost.	~7% savings w/ 5°F setback	Instant	Custom
Pipe Insulation	Steam Heating Systems	~\$9/LF	~1 MMBTU/LF	<1 yr before incentive	Custom
Steam Traps	Cost and savings depend on how existing traps are maintained and number of faulty ones found.	Sample full cost for elementary school with 180 steam traps replaced is \$11,000.	\$6,700/yr	2 yr before incentive when full cost used.	\$5 - \$10/MMBTU of Annual Savings
<b>Kitchen</b>					
Shut down walk-ins during summer months	Turn off refrigeration for walk-in for 2 months. (Assumes typical small walk-in is ~\$2,700/yr to operate.)	\$0	\$450/yr	Instant	N/A
Efficient Pre-Rinse Spray Valves	The Food Service Technology Center recommends a flow rate of 1.6 GPM or less, with a cleanability performance of 26 seconds per plate or less.	\$60 - \$70	\$100 - \$125 per year	<1 yr	N/A
Hood Controls	Low run hours: simple controls are best. Longer run hours: more complex heat and smoke sensing control with varying OA & fan speeds.	\$1 - \$3/CFM	\$5,250/yr but typically less; Sample project K12 kitchen had AC, which is rare.	Typically less than 3 yr	Up to \$1/CFM
Evaporator Fan Motors - ECM or QSync	Must be listed on QPL on <a href="http://efficiencyvermont.com/rebates/list/evaporator-fan-motors">efficiencyvermont.com/rebates/list/evaporator-fan-motors</a> , less than 1/15 HP, and replacing existing Shaded Pole or PSC motor.	\$100 - \$150	\$80 - \$200/yr	0.5 to 1.5 yr	up to \$100
Evaporator Fan Motor Controls	On/off or speed control w/EC motors	\$90/fan controlled	\$25 - \$100/fan	1.5 yr	\$30/fan
Add Strip Curtains or Swinging Doors to Walk Ins	PVC, metal or equivalent curtains	\$40 - \$42/LF	\$200/yr	<1 yr	\$6/LF
<b>Other</b>					
High Efficiency Condensing Units (1-5HP)	Scroll compressor & floating head pressure controls which modulate condenser fan speed & are certified for and installed outdoors (ex. Limitrol, Orbus, etc controllers).	\$4,500 - \$6,000 installed cost	\$400 - \$1,000/yr	2.5 - 5.5 years as retrofit, instantaneous when replacing failed unit.	Up to \$1,200
Consulting Engineering Assessment	To help advance an idea such as heat recovery or measure exploration.				50% cost share \$2,500 cap
Retrocommissioning	<a href="https://www.efficiencyvermont.com/services/project-support/retrocommissioning">https://www.efficiencyvermont.com/services/project-support/retrocommissioning</a>				
Custom Project Support	<a href="https://www.efficiencyvermont.com/rebates/list/custom-project-support">https://www.efficiencyvermont.com/rebates/list/custom-project-support</a>				
Curtable Load Riders	A tariff available to customers on Rate 63/65 in GMP territory. Contact GMP to ask for an analysis to show customers what their bill will be under CLR.				

\* Incentive is capped at 100% of equipment cost.  
New Construction must go through the Commercial New Construction Program.

For more information or to get started on a project,  
call us today at 855-317-2254

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# Control Optimizations get A+ Results at Stowe High School



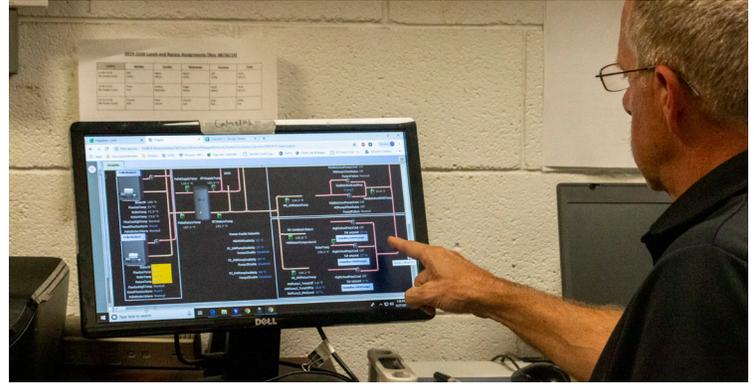
**FINANCIAL SAVINGS**  
**\$28,500** per year



**ENERGY SAVINGS**  
**530,000 kWh** per year



**David Bullis**  
Facilities Director for  
Stowe High School



## ENERGY EDUCATION NEVER STOPS

During the school year, nearly 450 students attend classes at Stowe High School. But during the summer and weekends, the building is mostly empty. Whether or not school is in session, David and his facilities team have about 153,000 square feet to maintain efficiently.

**“We hit a home run! The electric, oil, and pellet bills went down and the rebates from the savings went back to the school. Labor costs also dropped. Less time spent on maintenance, a lot less time spent on trouble-shooting.”**  
  
- Dave Bullis

## MAXIMIZING CONTROL OVER ENERGY USAGE

Stowe High School worked with Control Technologies, Inc. (CTI) and Efficiency Vermont to help reduce energy and improve operation of the HVAC equipment and Building Automation System (BAS). Now the team has oversight and control over the building’s varied systems.

**Savings: \$16,500 per year**

## UPGRADING THE WATER HEATER

The school had been using a 511,000 BTU pellet boiler to heat its 1,000-gallon water tank in the summer, when the need for hot water is very low. Now they’ve installed a high-capacity heat pump hot water heater. This meets the school’s hot water need in summer and saves a bundle on wood pellets and electricity.

**Savings: \$12,000 per year**

Stowe High School used retro-commissioning to identify and implement building improvements that result in **reduced operating costs, better equipment performance, increased control over building operations, and higher satisfaction from occupants.** As of today, the school has reduced its electric energy use by more than 25%.

**Vermont schools have energy-saving opportunities that help direct more funding to students and their educational mission.**

**Call Efficiency Vermont for a free assessment and a road-map to optimizing the efficiency of your school.**