

RESIDENTIAL HEAT PUMPS

ENERGY EFFICIENCY CASE STUDY:

Jessica and Dana Albrycht



BACKGROUND

In the fall of 2020, Jessica and Dana Albrycht eagerly moved into their new home in Simsbury, Connecticut. They knew from the previous homeowners that the monthly heating bills were high, so they decided to investigate alternative heating options that would reduce the cost. While the family had heard of heat pumps and the rebate offerings through Eversource, they thought it sounded too good to be true.

Contrary to their name, heat pumps can both heat and cool homes. They are also a clean, efficient heating and cooling option for many homeowners that currently heat with electricity, oil, or propane. To the Albrycht family, installing a ducted air-source heat pump seemed like a great option for the temperature challenges they faced in their new home. The home had existing ductwork as part of a central air conditioning system and an oil boiler for heating, and a new air-source heat pump was installed to provide both heating and cooling. Their oil boiler was left in place with integrated controls installed so that it could be used for heating during extremely cold temperatures in the winter. Once the Albrycht's learned about the benefits and potential rebates through the Heat Pump Pilot and the Home Energy SolutionsSM program, they contacted Eversource to get the process started.

"This past year our house has been so comfortable. It feels like we are spending a lot of money because the house is so cool or so warm when we need it, but we aren't. Even by just changing the thermostat by one degree we notice a big difference right away because it's so fast and efficient."

- Jessica Albrycht

GOAL

Jessica and Dana's goal was to work with Eversource to install an air-source heat pump and other energy efficiency improvements that would save them money and energy. In addition to installing a heat pump, Eversource-approved contractor, Beacon Mechanical, realized that the Albrycht's attic needed insulation upgrades. Heat was escaping from the living space, into the attic to the outside, making it one of the main contributors to their high heat bills.

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OUTCOME

In November 2020, Jessica and Dana began working with Tammy Wilson, an Energy Efficiency Consultant at Eversource, to start the process of installing a heat pump through the Heat Pump Pilot program. The Heat Pump Pilot provides rebates for customers with the goal of increasing customer adoption of heat pumps used within homes that heat with fuel oil and propane. Tammy guided Jessica and Dana through the entire process, sharing pertinent information, connecting them with contractors and helping with the paperwork necessary to qualify for the Heat Pump Pilot rebate. "Tammy was incredibly helpful throughout the entire process and clearly explained our options. I know we couldn't have done it without Eversource's help," said Jessica Albrycht.

Once Jessica and Dana knew the steps they had to take, they enlisted Beacon Mechanical, an HVAC company in Granby, Connecticut to install the heat pump and by December 2020, they had the new system in place. In addition to installing the heat pump and insulating the attic, they also installed integrated controls, which allow them to keep their existing oil system in place for supplemental heat if necessary. By installing integrated controls, the system can automatically switch from heating with the air source heat pump to the conventional oil boiler based on preselected outdoor temperatures. While the heat pump remains the primary heat source for the home, the integrated controls allow for them to keep the oil boiler as a heating option for extremely cold weather in the winter.

The Albrycht family received a \$3,000 rebate from Eversource for the heat pump and an additional \$3,000 in rebates for LED lighting as well as insulation. In addition to the financial rebates, the Albrycht family is estimated to save 8,886 kWh in energy and 57 gallons of oil annually.

Although the Albrycht family has only had the heat pump for about a year, they have already seen significant benefits and they have recommended the option to their friends and family.

For more information about how Eversource can help you install a heat pump pilot in your home, visit our Heating and Cooling page.

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