AC to Heat Pump: An Easy Improvement

Jon and Karen Slote's central air conditioner was aging and in need of replacement. They discovered that for a small added cost they could install a whole-house, ducted heat pump rather than just a traditional AC, giving them efficient heating and cooling year round.

Karen and Jon Slote with the outdoor unit of their heat pump.

Project Stats

Type of house:
2-story, 1920s colonial

Upgrade:
Whole-home heat pump installation, including:
- Reused existing ductwork
- Replaced AC condenser
- Replaced air handler
- New smart thermostat

Preparation:
Insulated, checked electrical panel

Installation Cost:
$16,000 (before incentives)

Incentives:
$1,000 (2021 Mass Save existing gas rebate)

Energy Savings:
- 33% reduction in heating season gas and electricity use
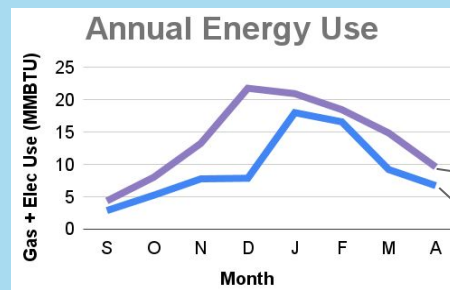- 56% reduction in greenhouse gases

Installation:
2 days, finished April '21

What advice would you give to someone looking to do a similar project?

"Once the whole house heat pump is installed, have the installers **adjust the airflow in each room** to ensure the temperatures balance appropriately. Initially when we heated, our upstairs was much warmer than our downstairs… that was easily fixed but we had to know to do it."

Annual Energy Use

33% Reduction in Heating Season Energy Use

Heating Season 1: Gas heat, elec AC
Heating Season 2: Heat pump year-round (gas backup when needed)

While overall energy use declined, in this case total costs were the same in heating season 2 because electricity had a higher cost per unit in 2022 than gas.

What benefits has this project brought you and your house?

"Our cooling is **much quicker than before**, so although we don't use the cooling that much, when it's really hot and humid we can get comfortable quite fast. I also like knowing that we're now **filtering our indoor air** in the winter (our previous heating was hot water, so no air filtering)."

4 Our Future

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