

Ask Jon Eakes

Should I change to All Electric heat?

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All-Electric heating can mean many things: baseboard heating / baseboard with split head high wall mounted non-ducted heat pumps / an electric central forced air furnace with or without a heat pump / or an electric central boiler for a hydronic system.

If you are thinking of removing your Oil or Gas furnace or boiler and replacing it with an all-electric furnace or boiler, often recommended by heating contractors, you may want to look closer at the options rather than just having a knee jerk reaction to getting rid of a fuel fired appliance. When you have "all electric" heating, you no longer qualify for the reduced Dual Energy electrical rate. This means you pay more for using your appliances all year long, including a significant increase in air conditioning costs. Factor all of that in and "all electric", even with the relatively low Hydro Quebec standard rates, turns out to be the most expensive option after an oil furnace without dual energy.

What about All-Electric systems with no ducting or piping – Zone heating?

One common form of all electric heating is baseboard heating, but you can also have high wall heat pumps. The common detour of these is that they heat one house space at a time and each zone has its own thermostat. The advantage of that is you can have many different temperature zones in your house, and turn things down where you don't need maximum heating, like the bedrooms. With wall mounted electronic thermostats these become efficient heating systems – but as with any all-electric system, you have no access to utility billing deals like Dual Energy. So everything in the house, all year long including heating, air-conditioning, cooking, computers and TV are running at the full standard utility rates. This is generally more expensive than any of the central heating systems with central heat pump assist.

ALL-ELECTRIC heating can be the most expensive choice

With today's energy prices and the utility Dual Energy rate structures, all electric heat, even with a heat pump, is not the most economical option even if the oil furnace is at the end of its service life and needs replacing. Instead, TRI-ENERGY heating -- a high efficiency gas furnace, heat pump and a plenum heater -- with the 3-Flex controller is most economical because gas is cheap and no chimney is required. In case no city gas is available, propane can be used, requiring only a small gas tank because the furnace runs little. Even if oil is your only option to all electric, today's new oil furnaces are worth taking a look at when combined with Tri-Energy. It's really all about control.

In the case where that fuel fired appliance still has service life in it (and if you go to tri-Energy that service life is extended because the furnace will run so little) you can have access to the very low Dual Energy rate offered by Hydro – or you may already have the dual energy system in operation. Moving to all-electric heating moves you back up to paying the full electrical rate for your heating and all other domestic electricity consumption as well, including air conditioning, which could wipe out the savings you thought to get by scrapping the oil or gas furnace.

Choose your mix and then control it well.

When you have forced-air heating, using a heat pump always makes sense, but a heat pump with an electric furnace does not qualify for the Dual Energy rate. So a Heat Pump together with an electric furnace is better than an electric furnace or baseboard heaters all by themselves, but not more economical than keeping your fuel fired furnace which qualifies you for the Dual Energy electrical rate.

Any time you do have Dual Energy – moving to Tri-Energy is always a winner because you use the heat pump more and the fuel fired furnace considerably less.

I am really impressed with how ABC Hybrid has developed the ability to integrate everything you have

into a system with controllers for a number of different heating configurations from any manufacturer, always squeezing the most out of those appliances that cost the least to operate. In fact, running an electric furnace by measuring comfort and predicting changes, as does the ABC Hybrid 3-FLEX controller, rather than just using temperature as a guide, can actually save you money on your utility bills in a house that has nothing more than an electric furnace.

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