Ask Jon Eakes

Is a Dual Energy electrical rate program worthwhile?

Last Updated: Monday, October 12th, 2009, Created: Monday, October 12th, 2009

Many electrical utilities across the country offer a "Dual Energy" rate program. Before trying to decide if it is appropriate for your house, you should understand why the utilities have created this system. Electrical utilities have to be able to supply all the electricity needed at their moments of highest demand, or what they call their "peaks". In areas like Quebec where electricity is used extensively for heating, the peak will be in January. In areas where most heating is done with gas, oil and propane, like Ontario, the electrical peaks will come with the air conditioning loads in August. The catch is that the entire system of production and distribution has to be build to handle that peak load, while most of the year is not getting maximum use out of its production and distribution infrastructure. The bottom line is that the cost of electricity has to include the cost of all that stuff when it is not being used. If there was a way for the electrical utility to lower some of the electrical demand as the "peak" approached, they could actually do their job with a smaller less expensive system -- or in more realistic terms, not have to increase their size as rapidly as they are presently doing with no "peak" control. So they did the math and the science and came up with what is called a Dual Rate system. Details vary across the country, but in Quebec, if you sign up for a Dual Energy rate, the utility will sell you electricity at a 40% discount most of the time. This means 40% off of your lighting bills, your cooking bills, your clothes dryers etc. and 40% off of your electrical heating bills. If your electrical heating is done with a heat pump, which is already about 1/3rd the cost of straight electrical heating, you are really getting a deal. Then in very cold weather they will charge you as much as 300% the going rate for electricity. The idea is they want to force you to use as little electricity as possible during their peak demand period -- so to qualify for this rate system you need to also have a heating system that runs on something other than electricity. In practice that means that your heat pump or electrical furnace or electrical boiler stops working when it reaches the utilities cold weather limit and your gas or oil furnace or boiler automatically kicks in to handle the heating during those coldest periods. At this moment a little light turns on in your kitchen to tell you that you are on the expensive rate, and you need to avoid drying clothes or running any major optional electrical devices. Actually that light doesn't go on very often and people who have this system tell me that it really isn't much of a bother to work around that light. Some rate systems may be even more advantageous in exchange for the ability of the utility to "drop" your heating load automatically from a distance forcing your system from electricity to your back-up furnace/boiler - which allows them to manage difficult demand periods even better. This is all called "peak demand management" and it makes great sense for the utilities, so they price it so that it makes good sense to the homeowners. One interesting side effect of only using your furnace/boiler a few weeks of the year is that it will last longer -- so an old fuel fired heating system might be stretched out to several more years of service before replacing it. Generally this is a good idea for anyone with a fuel fired heating system, but to be sure in your particular case, ask a heating company to come in and do the calculations: capital cost -- annual savings -- payback.

Keywords:
Boiler, Electrical, Energy Conservation, Environmental, Financial, Furnace, Heat Pump, Heating