

Alaska HomeWise: Ask a Builder
By Cold Climate Housing Research Center Staff

The "Ask a Builder" series is dedicated to answering some of the many questions Fairbanks residents have about building, energy and the many other parts of home life.

Often times if you get an energy rating done, replacing the boiler is the top recommendation. Is it worth the money and effort?

Boilers need to be looked at on a case-by-case basis, so before you do anything, speak with a heating professional. Often there are little things you can do to a boiler that will make them more efficient. A lot of these little fixes include where your boiler exhausts, whether you can add an outdoor reset, how much baseboard you have and whether it's time to have your system tuned. Sometimes small changes or additions in controls can help increase the efficiency of the boiler, and sometimes it just needs to be replaced with new technology. However, fixing your old boiler won't help if you are trying to gain points on your energy rating. Consult your energy rating paperwork to determine if the payback from replacing your boiler is worth the effort.

Since we are in an Arctic climate, are there any challenges to having a wind system way up here?

There are not a lot of problems with most home-sized wind turbines and their materials due to the cold, dry Interior Alaska climate. That being said, wetter parts of Alaska do have problems with ice collecting on towers and blades. When that happens, it throws the blades out of balance and causes problems.

One way to gauge the effectiveness of a wind system is to check where it is made or where this type of system is installed. If a system is successfully installed in the cold regions of Canada, it's probably okay for Alaska. Some systems are designed for areas that do not see cold temperatures and they may not supply the right parts or materials, such as cold-weather grease, to function well in our climate.

Most double and triple pane windows have gas between the panes. If a pane breaks, the gas will leak out. Is this any type of hazard?

Today most window gases are Krypton or Argon. These gases are inert, so they pose no threat to human health. Still, multiple-paned windows are more energy efficient with the gas inside. As gas leaks out, air will leak in along with a little moisture. The moisture will cause frost or fog inside your window.

On that note, a window pane doesn't have to be broken to let the gas escape. If the seal around the edge of the window fails, the gas can leak out as well. You can tell when a seal is broken because condensation will build up inside the window between the panes even if no glass is broken. Again, any frost or foggy windows are a sign that you could have a broken seal. Seals break down over time due to age, building settling, hot/cold exposure, and a variety of other factors. Fortunately, windows can be refilled with gas and resealed by a professional.

Alaska HomeWise articles promote home awareness for the Cold Climate Housing Research Center (CCHRC). If you have a question, e-mail us at akhomewise@cchrc.org. You can also call the CCHRC at (907) 457-3454