

COLUMN FOR JANUARY 18, 2003.  
HEADLINE; ELECTRIC BASEBOARD HEATING

*Q; We are considering an addition on our home. It will have a bedroom, bathroom and a small den. Our heating contractor says we have to replace our furnace because it is too small, we think he may be trying to sell us a new furnace. A friend says we should go to electric baseboard heaters. We are inclined to go this route, what can you tell us about this type of heating?*

A; If a heat loss calculation was done to your home including the addition and your heating contractor has the number to support this suggestion, he may have just done you a favour. I cannot remember the number of times in my former life I was asked to quote on building an addition and when I got to the house and had a look at the present heating and electrical system, they were already at their operational capacity. It was not uncommon to see a client forge ahead and then find out later, to their regret I might add, that an additional 3-6000.00 was needed for a proper sized furnace or electrical supply.

With respect to baseboard heaters for an addition, this is a common heating system. Baseboard heaters come in a wide range of sizes and their biggest advantage is that you can control the temperature in each room individually. The largest negative is their operational cost. However with the recent price freeze on electricity, this would at least be a fixed cost for a while. Electric baseboard heaters distribute heat by convection. A gentle floor to ceiling curtain of warm air blankets the outside walls and windows. Some units produce a portion of their heat by radiant, but the newer ones often have a shield for this. The proper place to install these is on your outside wall, about ¾" off the floor. The electrical code states that each room should have its own thermostat in the room. Some heaters have a control built into the actual unit. I personally do not recommend these. The control ends up being about 4" from the floor, on the outside wall and are not easy to adjust. The best idea is a wall-mounted thermostat positioned on an interior wall on the opposite wall from the heater. If you are trying to save space in the bathroom and are going to use a vanity, look into a fan forced unit that fits in the kick-space. It is nice when you get out of the shower to have some quick heat. As a rule of thumb, installation cost for this type of heating is around 0.70-1.00 per square foot of floor space.

Once installed, the maintenance level is very small. I recommend to my clients that have this type of heating to do an annual cleaning. Turn the heaters off at your electrical panel, remove the front covers and taking the small tip nozzle from your vacuum cleaner, gently vacuum the "fins" inside the heater. You would be shocked how much dust collects around these and this has a great affect on your heating efficiency. Do not place furniture in front of them; it greatly restricts their operation. If you have drapes in front of them, they should end at least 12" above the heater. These units can get very hot, some reach over 300. F, this can cause odours from the scorched dust as the air travels over them. If you notice dust streaks above the heaters, this is not uncommon. A regular vacuum of the area will go a long way to keep this down. They can be a little noisy when the start up and then cool down.

One of the biggest things that I notice in an electric home, they are dry. They lack air exchange and ventilation. I have seen homes with electric baseboard heaters that have had an HRV unit installed. This heat recovery ventilation unit has its own small duct system installed and they can be very effective if done right. Lastly, this is a job for a licensed electrician. Try and find one who holds a masters license, generally these electricians have the training to do heat loss calculations and then complete a proper heating design for your addition. One last thought, is your electrical supply large enough to support these new heaters? Ask your electrician.

Are you considering a New Home? A Professional Home Inspection by a Registered Home Inspector (RHI) as licensed by the Ontario Home Inspectors Act is a wise part of your home buying plans. Go to [www.oahi.com](http://www.oahi.com) and click on the area you are moving too.

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