



Your Spring Time “To Do List” For Energy Savings

By the time you read this the weather should be sunny and spring-like and the downpours of last week a faint memory. This is a good time to take care of some very important things before the weather gets hot and you discover your cooling system is having issues. It happens every year. Ask any heating and air conditioning contractor! They go from sitting around wondering when the phone is going to ring to “running around like a chicken with its head cut off” the first day of the cooling season (note to PETA members out there – this is just a figure of speech – I actually like chickens more than most folks). And it’s no wonder your contractor can’t jump right over to your house the day you call - everyone with a cooling system problem – and many people without cooling that don’t want to suffer even one more day in stifling heat – all start calling at the same time.

If you don’t have cooling this is a great time of year to shop for seasonal sales on air-conditioning units, evaporative coolers and fans. It never fails: a few days after a heat wave starts there’s not a fan or cooler to be found in the entire western hemisphere.

If your cooling system is approaching 10-20 years of life you should seriously consider upgrading it to a higher efficiency unit. It’s also a good time to change your furnace filter, have the “refrigerant charge” of your air conditioner checked, and get fresh pads for your evaporative cooler.

The minimum efficiency of a (central) air conditioning system is a SEER (seasonal energy efficiency ratio) of 13. Ask your contractor for the incremental (added) cost to upgrade from a SEER 13 to a SEER 16 unit. With a SEER 16 unit the 30% tax credit will significantly reduce your total (equipment and installation) cost and it may (emphasis on “may”) actually pencil out. There’s a web site - www.hvacopcost.com – to help you estimate the savings; use 7% for “average utility increase” and note their value for “increased value of home” before you say “nope, too expensive”. I should add that – more often than not – I’ll calculate that it’s a better investment to upgrade the efficiency of the home rather than the air conditioner when accounting for the higher initial cost, maintenance and repair costs of an SEER 16 unit over an SEER 13 unit.

I should add that, if you use this site, do not take the estimated size of air conditioner it comes up with seriously. Sizing should be done by a trained professional or you’re likely to end up with a unit that’s too large (bigger is not better in heating and air conditioning as covered in a previous article). I would expect that, with proper sizing, you’ll find your existing air conditioner (and furnace) is several sizes too big already. In roughly 10 out of 10 cases a problem with inadequate heating or cooling isn’t the result of undersized equipment; it’s typically the duct system.

You should also consider having your furnace replaced and your duct work tested and repaired. Notice I didn’t say “have your duct work tested and repaired - if necessary”? If your ten to twenty year old duct system doesn’t test out as leaky as a spaghetti strainer, call me and let me know so I can take you

out to lunch (obviously I don't expect any takers). The average duct system leaks 30% of the air moving through it. Reducing the leakage to 5% reduces energy use by about 19%.

If you've already got a pretty efficient system replacing the equipment may not pencil out but fixing the duct system is likely to. You'll also want to change the filter in your system; these aren't typically changed often enough, causing less air to flow and less heating and cooling of your home. Clean any debris or leaves off the outdoor (condenser) unit located outside. Have the "refrigerant charge" of your system tested; most systems don't have a proper charge which will reduce the efficiency and performance of your system.

In my next article I'll cover "advanced evaporative air conditioning systems". No, these aren't "your father's swamp mobiles". These coolers use 1/3 to 1/5 the energy of a (refrigerant-based) air conditioner and can maintain comfort in our climate under the worst of conditions. And some don't even increase the humidity of the air. Stay tuned!



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