

# Looking For A Silver Bullet?

**W**ith winter on its way and increased energy usage, some folks are busy looking for a silver bullet to lower their heating costs. Like most things in life, however, there is not a magical cure to what ails our energy use.

Several months ago, I wrote an article about a gentleman from DeSoto that had installed a geo-thermal heat pump in his 1890s Victorian home and had reduced his energy costs by \$2,630 per year. Most people would be happy with that savings and stop at there, but not this homeowner. When the home was moved and remodeled, meticulous steps were taken to ensure the exterior building envelope (the portion we want to heat/cool) was properly insulated and sealed.

As funds and timing allowed, a heat pump water heater was installed, a monster of a deep freeze was replaced with a smaller, more efficient model, a more efficient refrigerator replaced the old one (and the old one did not become a second unit in the basement or garage), a front load washing machine now uses less water and spins more water out of the clothes so less energy is used for drying and finally, a more efficient dishwasher was installed.

This didn't happen all at once, but rather as each item came into disrepair, a plan was in place to replace them with more efficient models. This sometimes means more is spent up front, but in the long run, less energy is used and bills are lower. This homeowner has not had a utility bill over \$100 in over a year, even as hot as it was in July and August – under \$100.

How do you reach this same point? Develop a plan. Do the research before appliances fail and a hasty decision is made. Know that if the refrigerator fails, you have an energy efficient model picked out ahead of time and then it's a matter of shopping for the lowest price for that model.

Same thing with your heating and cooling system and your home. Do

the research into heating and cooling systems. Know which is right for you and who the best installer for you is. That way if the unit fails in the middle of January, you've already made the tough decision; now all you have to do is make a call.

The most important thing is having a plan, then sticking to it as the time, funds and opportunities arise. You might call it your silver buckshot of energy reduction. As your electric co-operative, we can assist you with your list by performing an energy audit. An energy audit will help you identify and prioritize your list of energy improvements.

## Energy Checklist Building Envelope

- Basement and crawlspace walls are insulated properly (no fiberglass, please). Crawlspace have a sealed vapour barrier.
- All perforations to the exterior are sealed. If you can see daylight, caulk it.
- All intended openings, doors, windows, attic access hatches are insulated and have good weather seals.
- Attics should have eight-ten inches of insulation. If there is less than six inches, add more. (DOE recommends R-38 for our region). Make sure you cannot see any gaps in batt insulation or the ceiling below. Knee walls or ends of cathedral ceilings should be insulated the same as the rest of the attic, R-38. If you need more, consider using cellulose insulation.
- Attic is air-sealed. (Pull insulation back and caulk around plumbing, electrical and other openings, install insulated boxes over recessed can lights.)
- Hot water pipes are insulated with pipe insulation.

## Heating – Cooling System

- Filters are changed on a regular basis.
- The heating and cooling system is checked annually by a qualified technician.
- Heat pumps and air-conditioner coils outside are washed down on a regular basis (shut off electricity to the unit first).
- Duct work outside the building envelope (attics, crawlspaces) is sealed with duct mastic and insulated.
- Inefficient equipment is replaced with Energy Star rated systems as funds allow.
- Registers are not covered by furniture or drapes.
- Thermostats are not located near drafts or heat sources.

## Appliances

- Get rid of the second refrigerator in the basement or garage. Most of these units use over 20 dollars of electricity a month, some nearly a dollar a day. Clean refrigerator coils on a regular basis.
- Replace monster deep freezers with smaller units as children grow up and the family size reduces.
- Purchase well insulated water heaters (Marathon for example) and make sure they heat the water no higher than 120 degrees.
- Purchase Energy Star appliances and compare the yellow consumer energy guide when buying new appliances.
- Turn computers off when not in use or force them into sleep mode.
- Look for front load washing machines. These units use less water, spin faster for shorter drying cycles and are easier on your clothes.
- Use the pre-heat option on dishwashers and turn the water heater back to 120 degrees.

*Teamwork: We work together to provide excellent service.*