Make Energy Efficiency Part of Your New Year’s Resolutions

Thankfully, no matter if you live in an apartment or house, there are several steps you can take to make your home more energy efficient. Doing so can reduce your energy usage and improve your comfort. Getting the job started isn’t always easy, especially if you’re not entirely sure where to begin. To help you build up your resolve, we’ve put together a list of New Year’s Resolutions for energy efficiency in the home:

1) Switch Out Incandescent Bulbs (and CFL Bulbs!) for LED Bulbs
   - A 60 watt incandescent bulb that puts out about 800 lumens (brightness) will cost about $9 a year using the bulb 4 hours a day.
   - A 13 watt CFL that puts out the same amount of lumens, meanwhile, will cost about $2 over the same amount of time.
   - A comparable 8 watt LED bulb will cost only about $1.25 over the same period.

*If you have CFL bulbs, start learning more about LED bulbs and color temperature so you’ll know the best ones to buy when your CFL bulbs burn out. Cheap CFL bulbs have a lifespan of about 24 months, while EnergyStar qualifying CFL bulbs last up to 6,000 hours. Meanwhile, LED bulbs are still a little bit more expensive, but they are rated to last more than 22,000 hours. That’s over 15 years! Become familiar with the product’s energy “nutritional” label on the box.

2) Seal Drafts and Cold Spots

Check entry doors for signs of drafts where cold air can leak into your home. This includes tightening loose door hinge screws and replacing worn, loose, or missing weatherstripping. Weatherstripping kits for doors and windows are inexpensive, and blocking up drafts will help make your home feel more comfortable and keep it warmer. Another thing you can do is to buy an inexpensive infrared thermometer and use it to detect temperature differences that indicate where drafts might be getting in, such as outlets, light switches, and window frames.

3) Install Thermal-Backed Drapes and Curtains

In a typical single-family home, 25% to 35% of the heat is lost through windows at night. Insulated drapes can cut this loss by 25%. Opening these during the day lets in the warming sunshine. In summer, close the curtains on west facing windows to keep out the sun’s intense summer heat.

4) Kill the Energy Vampires and Zombies

An energy vampire is anything like a power brick for a game console, battery charger, or any other kind of wall wart. These are inexpensive AC adapters that use transformers (induction coils) to convert wall current into low voltage DC. Even if you turn off the device or gadget, these power supplies stay on.

An energy zombie is any appliance that isn’t ON, but it’s also not OFF. Such devices linger in “standby mode” waiting for you to push a button to bring them to life. What’s “standby mode?” Any remote-controlled device must use a tiny bit of electricity to power its receiver circuit so it can pick up a signal to turn on at your merest whim. The zombie horde includes, TVs, cable boxes, home theatre systems, game consoles, Blu-ray players, wireless printers and scanners, and more.

How do you beat back these ravenous energy monsters? Simply control them by using inexpensive timers, smart power strips that turn off when levels fall to standby levels, smart outlets you can control with your smartphone, or just turn off the power to those that are plugged into a...
Manager’s Message...

An EF-1 and Fox Disrupt Power

I am pleased to report that weather events and outages over the Christmas holiday were minimal, allowing for FEC personnel to spend time at home with their families. While we are all aware that we live in a region known for wind, the months of November and December seemed to have more high-wind days than normal. Things got a little more interesting just after Christmas though, with two significant outages near year end worth mentioning.

Friday, December 27 was a cold, dreary day, with heavy fog over much of the area. Customer traffic in the office and on the phones was light, as most folks were still involved with after Christmas shopping sales or gift returns. FEC line construction activity was quiet as well, with several employees still out on holiday leave. Just before closing we saw the lights “flicker,” and the phones started ringing right away. FEC members in areas around Ranchvale, Grady and Broadview were out of power; some callers reported they had received warnings of severe weather and potential for tornado activity just before the lights went out. Line personnel began transmission line patrol from Clovis and out of San Jon, locating three transmission poles down some seven miles north of Ranchvale, and another pole damaged south of Grady. There was rain, lightning, thunder and a little hail, but a tornado in December? It has been very dry; the rain was certainly welcome!

Line personnel were able to isolate the damaged line section and restore service through switching, replacing poles and completing repairs the following day. On December 30 the National Weather Service confirmed the event/damage was, in fact, caused by an EF-1 tornado based on their on-site observations of damage to powerlines and several center-pivot irrigation systems along the storm’s path. EF-1 is classified as a “weak” tornado with wind speeds of 86 to 110 mph. Investigators were able to determine the tornado’s path to be some 13 miles in length and up to 75 yards wide in some locations. There were no injuries or damage to buildings reported, as the storm’s path was through sparsely populated areas. Setting a record, this was the first tornado to be reported in Curry County in the month of December.

Another significant outage occurred in the wee hours of Sunday morning, December 29 affecting all members served out of FEC’s Clovis Interchange, a transmission substation located in the Clovis area. Members impacted include the areas of Ranchvale, Grady, Broadview, Melrose, House and Fort Sumner. FEC personnel found that a fox had climbed onto the steel structure in the substation, apparently hunting birds roosting for the night in the steel structure, as evidenced by a bird in the dead fox’s mouth. Once the source of the outage was identified, personnel were able to restore power quickly. An insulator was damaged where the fox made contact with transmission voltage and was replaced as a precaution.

Over the years I have seen many a beast or fowl that have met their demise while contacting energized high-voltage lines and at lower consumer service-voltages. FEC spends a great deal of time working to inform members and school-age children about the dangers posed by electricity, including high-voltage powerlines. Photos of an EF-1 and Fox Disrupt Power

See FOX on PAGE 3
The injuries sustained by the fox drive that point home very well but, are much too graphic to print.

It appears the fox population, along with incidence of electrical contact, is on the rise; we have had several incidents in area substations in recent years. This past summer a pair of foxes raised a litter here at the FEC headquarters facility, and foxes are frequently sited after dusk throughout the Clovis community. While it is not possible to eliminate all potential for wildlife contact with electric infrastructure, we continue to look for ways to reduce the risk of outages, damage to FEC equipment, and unintentional loss of wildlife.

Until next month,

FOX from PAGE 2

What Can a Penny Buy? a lot!

For the price of a single penny, you can:

- Watch your favorite 30 minute TV show
- Dry your hair for five minutes
- Bake a potato in the microwave oven
- Mix a cake
- Listen to a podcast for two hours
- Vacuum for 10 minutes
- Brew a pot of coffee
- Make toast
- Puree for 20 minutes in a blender
- Iron for 10 Minutes
- Play your favorite CDs for one hour
- Read for ten hours by a 10 Watt LED bulb
- Stay snug under an electric blanket for two hours
- Ease pain for four hours with a heating pad
- Shave with an electric razor for one month
- Record 3 of your favorite TV shows on your DVR
- Fry food in an electric pan for 10 minutes
- Stay cool for one hour with a circulating fan
- Use an electric saw for one hour
- Tell time for three days with an electric clock
- Pump water for 15 minutes with a ½ HP pump

*Based on $.10/kWh
5) **Air Seal Your Attic**

Air sealing means sealing electrical and plumbing holes in walls, between floors, and even in the lighting fixtures and wiring in your attic. This stops the flow of air from your home's air conditioned living space out of your home, which can save an average of 11% or more off your energy costs. In particular, seal around the soil stack vent, lighting junction boxes, and install insulated covers for recessed lighting fixtures.

6) **Add More insulation to Your Attic**

By increasing the insulation amount from R11 (about 3 inches) to R49 (roughly 12” of cellulose or fiberglass batts), homeowners can save about $600 a year off heating and cooling bills. Needless to say, preparing for the job is of key importance, so make sure your attic has been thoroughly air sealed before you begin. Even though insulating is expensive, the job can be completed in stages. Simply begin by insulating over area that gets the most use and then build out from there.

7) **Seal Your Duct Work**

Unsealed or un-insulated ductwork loses up to 20% of the energy from your heating, ventilation, and air conditioner (HVAC) system. Worse still, if you have unsealed return duct work passing through crawlspaces, your furnace may be blowing mold, mildew, and fungus spores throughout your home. Sealing your duct work with aluminum duct tape or duct sealing mastic ensures that your HVAC system will blow the conditioned air to where it's supposed to go. Sealing the return ductwork as well means the system will be able to pull air more efficiently from all the rooms of your home.

8) **Stop Warm Air from Going Up the Flue**

Fireplaces in winter might add warmth and charm to a room, but when they're not in use, you could be sending heated air out of your house — even if you have closed the flue. Install a chimney-top damper that fully seals your chimney. It looks much like a hatch and uses a heat-resistant gasket. Another solution is to use an inflatable fireplace damper balloon or plug that gets stuffed up inside the chimney to reduce drafts.

9) **Inspect Your Windows**

Repair worn or cracked window glazing on older wood sash windows. Look for signs of moisture damage and rotten wood. If you discover a window that can't close properly or has damage to the window frame or sill holding the window in place, then it's time to replace it with one that's Energy Star qualified. Energy Star windows block solar heat gain in the summer, reflect radiant heat indoors during winter, and are designed to resist condensation problems.

10) **Fix that Dripping Faucet**

A leaky faucet that drips one drop per second will waste over 27,000 gallons of water in a single year. You probably wouldn't let a leak go for a full year, but it certainly puts a new perspective on that dripping noise! Save some water and preserve your sanity by fixing any leaky faucets in your house.