



Spring Cleaning Time for Energy Systems

We think of springtime as “spring cleaning” time for our household, so it’s a good time to make sure our energy systems get the attention they need too.

Water Heater

Most people probably aren’t aware of the maintenance needs of their water heater and the difference a little maintenance can make. Your water heater tends to accumulate a fair amount of sediment at the bottom from normal operation. This sediment can dramatically reduce the efficiency, as well as the service life, of your water heater. It can also improve living conditions for bacteria, helping them to survive and multiply. There are anaerobic bacteria (corrosion-inducing) as well as (the potential for) legionella bacteria (legionnaires disease), so let’s not encourage them to go forth and multiply.

To begin, turn the gas valve to “pilot” on your gas water heater. With an electric unit you must be absolutely sure it’s turned off at the breaker. Now you can hook a hose up to the hose bibb at the bottom of your water heater and put the other end outside; choose a location for the discharge that won’t be adversely affected by hot water. Next you’ll need to turn off the cold water supply to the heater and open up a hot water faucet in the house. Now you can open up the hose bibb at the water heater and drain the heater.

Once the heater is fully drained, turn on the cold water supply to the heater for a few minutes to finish flushing any remaining sediment. When the heater is done draining, close the hose bibb at the water heater and turn the cold water supply back on to fill the heater back up with water. You’ll know when the heater is full again because the hot water faucet in the house will be done blowing out air and only water will be coming out. Once the heater is full of water again it’s safe to turn the heater’s gas (or electricity) back on. After the heater is back up to temperature, the last step is to check your heater’s temperature/pressure relief valve for proper operation (refer to the manufacturers recommendations).

As a side note, many newer heaters come equipped with a (cold water) dip tube that’s curved at the bottom, which helps stir up the sediment for removal (they’ll usually have names like “hydroswhirl”) For heaters that don’t have this feature an after-market dip tube is available.

Most of the sediment found at the bottom of water heaters comes from the disintegration of the “sacrificial anode rod.” New heaters come with an aluminum anode which may (repeat “may”) be linked to Alzheimer’s disease. So use the higher-quality, less risky “combo” rod instead of an aluminum one for your replacement. Our practice is to replace the aluminum rod with a combo rod from the very beginning. We also replace the cheap plastic hose bib with a brass nipple and brass hose bib because the plastic units often fail (especially with regular maintenance).

You'll want to refer to your water heater manual before you go to replace the anode rod for several reasons. For one, the anode rod might be longer than the height you have above the heater needed for its removal – in such cases the heater must be disconnected and tilted forward before the anode can be switched out. But before you even get to that point you may need the manual to find out where the anode is located. In addition to straight anode rods there are “chain type” rods that might be your best choice if removal space is limited.

Taking these steps can add another 10 to 20 years to the life of your water heater and save on energy costs too. Unless you're a hardy, seasoned, do-it-yourselfer, I recommend hiring a plumber to help with this work.

Wood Heat Systems

For the many people heating with wood in Nevada County you probably already know this but, hey, it doesn't hurt to be reminded, right? Several years ago I spent half an hour putting out burning embers on a neighbors roof until the fire department showed up, so this issue is (literally and figuratively) “close to home.” Cleaning the creosote from your woodstove flue will help you avoid a costly flue fire.

Forced Air Systems

While you can (and should) regularly clean or replace your system's air filter, the rest is best left to a licensed professional. The air filter may need attention as often as once a month. The only way to know is to check the condition on a regular basis.

When was the last time you had your heating contractor provide a “tune-up” and “safety check” on your system? Older furnaces with failing heat exchangers can leak harmful flue gases into the air stream. We find that cooling systems, as a general rule, are either under or over charged with refrigerant. Improper refrigerant charge will reduce the cooling efficiency of your system and, in some cases, cause premature failure of the compressor. The insulation on one of the two small copper tubes, referred to as your “refrigerant line set,” might need replacing too. A thorough tune-up and safety check will help assure your system is operating safely and at peak efficiency.

Keeping your energy systems properly maintained is the key to reducing both energy and replacement costs, so be sure to add them to your spring-cleaning list. For more information see –

<http://www.waterheaterrescue.com>

<http://www.home-wizard.com/maintenance/forcedairheating.asp>



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