

Can I save money by turning my hot water tank off at night?

Last Updated: Tuesday, October 2nd, 2012, Created: Thursday, January 31st, 2002

Thomas from London, Ontario writes: "We have an electric water heater. To conserve electricity, I turn the heater OFF at its circuit breaker at night before retiring and then ON when I return from work. This usually gives plenty of hot water while at home. Does this cause any premature "wear and tear" on the tank or reduce its life expectancy?" Well Thomas, it is not going to be hard on your tank, but it will wear out your circuit breaker. Although they can function as switches, they were not designed for continuous turning on and off. To do that properly, you should actually have an electric relay. However a more serious question would be just how much you save by doing this. During the heating season, all the stand-by heat that escapes from the hot water tank goes into heating the house. Now if electricity is much more expensive than gas, this could be a concern but remember you are not talking about the total heat of the tank, only what is escaping from the tank. Where electricity and gas are the same cost, there would be no advantage at all. You are ahead when you get into Air Conditioning season because any heat lost from the tank now has to be taken away by the Air Conditioner. A Hot Water Insulating blanket might be the simpler answer and save almost as much money without the trouble. These are still available for electric hot water tanks, although they are no longer sold for gas fired tanks simply because too many people ended up blocking the oxygen flow for either the burner or the chimney. The real solution is to do as most of the rest of the world does -- only North America has hot water tanks -- and use either electric or gas fired instantaneous water systems. The reason for not bringing the instantaneous units into our culture has always been that they could not supply hot water fast enough for our very wasteful showers. But today, everyone has a water conserving shower head, and now the standard European or Japanese equipment can keep up with a shower for as long as you want to take one. Any plumber has access to these appliances although you rarely see them on store shelves. The only problem some people have had is that they have to run the tub (particularly the hot tub) water slower to keep the temperature up, and this will take more time to fill it. You never run out of hot water, you just have to let the water flow a bit slower. Although a bit more expensive to install, instantaneous water heaters have no standby losses in either season.

Keywords:

Circuit Breakers, Water Tank, Alternative, Energy Conservation, Hot Water Tank, Electrical