



ENERGY E-TIPS

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Dishwasher:

Many households utilize dishwashers in their homes. In this edition, of ENERGY E-TIPS we provide some required information that may help you save energy and money during your continuous use of the dishwasher in your home as well as when purchasing a new dishwasher.

Washing dishes in a dishwasher have the following advantages:

1. It does a better job of killing germs compared to hand washing.
2. It uses less water – about 6 gallons less per load – than doing the same number of dishes by hand.



Today's Energy Star dishwashers use at least 41% less energy than the federal minimum government standard. Improved spray arms and filtering systems that provide better movement and wash action (resulting in decreased hot water use) are two of the reasons for this increased efficiency. Old units use between 8-14 gallons of water per cleaning, compared to newer units using 7-10 gallons of water per cleaning cycle. Eighty percent of the total energy use goes towards water heating, so the best way to improve efficiency is to reduce the amount of water needed.

Buying a Dishwasher

- Look for the Energy Guide Label that tells how much electricity, in kWh, the dishwasher will use in one year. The smaller the number, the less energy it uses. Energy Star dishwashers use at least 25% less energy than required by federal standards.
- In addition, look for features that will reduce water use, such as booster heaters and smart controls. Purchasing a dishwasher model with its own heating elements has significant benefits. The booster will raise the water temperature to 140 °F (the required temperature to clean effectively), and can leave the household hot water heater temperature at 120 °F and save energy.
- Ask how many gallons of water the dishwasher uses during different cycles. Dishwashers that use the least amount of water will cost the least to operate.
- Try to find a model with the following features: Switch for turning off the heat drying cycle and booster heater.
- Also, be sure to utilize the different settings on the dishwasher – for both washing and drying. Remember that less water and air - drying will use much less energy than the heavy pots and pans cycle with heat drying.

Dishwasher Tips

- Read your manual – If your model has an internal booster, you can lower your hot water heater temperature to 120⁰F, and save energy on your home water-heating bill.
- Pre-Rinse / Scrape off food pieces – Before placing your dishes in the dishwasher, do a light pre-rinse and take off large chunks of food. Soaking and Pre-washing is generally recommended for burned-on and dried-on food.
- Load up – If you can run your dishwasher at full capacity (instead of with only a few dishes you will save energy. However, do not overload. While you may want to squeeze in every dirty dish in the kitchen, try to avoid overloading, as it can reduce the efficiency of cleaning of the entire load of dishes.
- Size – Standard Dishwashers are designed to hold up to 8 place settings, while compact dishwashers are designed to hold much less. If you are considering purchasing a smaller dishwasher, make sure you will not be running multiple loads, as this can increase energy usage rather than just utilizing a standard size.
- Do not use the "rinse hold" on your machine for just a few soiled dishes. It uses 3 to 7 gallons of hot water each time you use it.
- Let your dishes air dry – If you do not have an automatic air-dry switch, turn off the control knob after the final rinse and prop the door open a little so the dishes will dry faster.

References:

- More Frequently Asked Questions (and Answers September 2007. Presented at NASULGC/DOE “Building Capacity for a Southeast Region Building Science Community of Practice” Raleigh, NC, September 26-28, 2007.

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