

High-Efficiency Dishwasher Guide

Dishwashers are one of the top four water-using appliances in most households. If you are in the market for a new dishwasher, make it Energy Star! Energy Star qualified high-efficiency dishwashers can save you water, energy, money, and time in the kitchen – and you can receive an extra \$50 back if you are a qualifying JCSA water customer.

Features

Shopping for a new Energy Star dishwasher? Look for the following features:

- Adaptive control, making use of sensors monitoring load size and soil level,
- Food disposers and sophisticated spray arms to blast away food so you don't need to pre-rinse,
- Finer filters allowing the same small volume of water to be cycled thousands of times during a wash cycle while reducing the re-deposition of food particles,
- Motor improvements from split phase or shaded pole motors to more efficient, longer-lasting split-capacitors,
- Improved insulation,
- A booster heater to increase the temperature of the water entering the dishwasher to the 140°F recommended for cleaning, and
- Improved drying cycle, through use of air drying or tighter control over length of heated drying.

Some high-efficiency dishwashers recirculate as little as 8 gallons of water at a rate of 42 to 50 gallons per minute – totaling 2,000 gallons recirculated per cycle.

Dishwashers with booster heaters typically cost more, but they pay for themselves with energy savings in about a year if you also lower the water temperature on your water heater to U.S. Department of Energy recommended 120°F.

What are Some Benefits of High-Efficiency Dishwashers?

Saving Water

With your new Energy Star qualified dishwasher, you can save 500 to 800 gallons per year compared to using an average model, and as much as 6,500 gallons more per year since you won't be pre-rinsing. If just half of James City Service Authority water customers replaced their dishwashers with Energy Star models, we'd save over 4 million gallons each year.

Performance

Replace your dishwasher with a high-efficiency Energy Star model and stop pre-rinsing today. Studies show that most people still pre-rinse dishes before loading them into a dishwasher, but powerful spray arm and food disposer technology means that even with a dishwasher up to ten years old, pre-rinsing is unnecessary. Consumer Reports' tests confirm that pre-rinsing before running a modern dishwasher doesn't improve cleaning, and by skipping this step, you'll save as much as 20 gallons per load, or 6,500 gallons per year. Just scrape dishes before loading them into the dishwasher.

Saving Energy

Energy Star dishwashers use at least 41 percent less energy than other dishwashers use.

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Saving Money

By replacing a pre-1994 dishwasher with an Energy Star qualified dishwasher, you can save more than \$30 a year in utility costs, or \$300 to \$350 over the lifetime of the appliance. By using your dishwasher's booster heater function and turning down your hot water heater to 120°F, you can save 10-20% on water heating costs.

Considerations

Finding an Energy Star Qualified High-Efficiency Dishwasher

JCSA does not rebate incorrectly-labeled appliances, so please bring a current list from www.energystar.gov to help you do your shopping. If you would like the list mailed to you, please contact JCSA at 253-6859 or bewatersmart@james-city.va.us.

Cost

Locally, a conventional dishwasher can cost between \$200 to \$1,550, with the average cost just under \$500. An Energy Star dishwasher can cost \$250 to \$1,550 with an average of \$600. The Consortium for Energy Efficiency reports that with some Energy Star models, payback period is less than the lifetime of a dishwasher.

What to Do with Your Old Dishwasher

Several local charities accept used dishwashers in working condition. Some provide free pick-up. Donation helps job training and self-sufficiency programs for people with disabilities and families in need.

If your dishwasher is broken, some appliance dealers and repair companies may still remove it for free, repair the item, and resell it.

If you are a James City County resident and your old dishwasher is more than 60% metal, then it is eligible for free scrap metal recycling. James City County Solid Waste Management recycles scrap metal at the Convenience Centers at 1204 Jolly Pond Road and 185 Industrial Boulevard in the Hankins Industrial Park. If you are a resident and your dishwasher is 60% metal or less, then you can use bulk disposal. Bulk disposal is available at the Convenience Center at 1204 Jolly Pond Road or may be available for pickup. One coupon charge is required. See www.jccegov.com/recycling for details.

In order to save additional water and energy, wash only full loads and use the shortest wash cycle necessary to get your dishes clean. Be sure to buy a dishwasher with a booster heater and read your manual to make sure you are using it. Energy Star advises avoiding use of the heat-dry, rinse-hold, and pre-rinse features. Use your dishwasher's air-dry function to dry your dishes.

At the kitchen or bathroom sink, use the bucket method or plug the sink to avoid constantly running water. To hand wash cookware, first pour cooled oils and grease into an old glass jar or can and dispose of it in the fats, oils, and grease recycling container at James City County's Jolly Pond Convenience Center located at 1204 Jolly Pond Road. Then remove excess grease left on cookware with a paper towel and dispose of it in the trash and scrape excess food scraps left on cookware into the trash.

When washing cookware and dishes, detergent cuts the grease, but is typically not hot enough to kill germs (149-176°F) so consider using cold water to wash items that cannot be washed in the dishwasher. Use the dishwasher as much as possible, since the dishwasher running full loads is more water efficient than all but the most frugal hand washers.

High-Efficiency Dishwasher Rebate Form

Requirements

- Applicant must be a JCSA residential water customer. Account balance must be current.
- Energy Star qualified high-efficiency dishwasher must be purchased and installed on or after January 1, 2010 to be eligible for rebate.
- Dishwasher model must be on current list of Energy Star qualified dishwashers, as found at www.energystar.gov.
- Dishwasher must be purchased and installed prior to application for rebate.
- Applicant is solely responsible for purchase and installation arrangements and payments.
- Applicant agrees to allow JCSA inspector access to the premises in order to verify installation if selected for random inspection.
- Survey and form must be completed in their entirety and copy of receipt enclosed to be eligible for dishwasher rebate.
- JCSA will refund up to \$50, not exceeding the cost of one Energy Star qualified dishwasher.
- Rebated dishwasher must be a replacement appliance at customer's service address. New construction does not qualify. Rent-to-owns do not qualify.
- Rebate checks will be processed within 4-8 weeks of receipt.

Survey

- Type of structure: Single-family Multi-family Other: _____
- What is the main reason for installing your Energy Star qualified high-efficiency dishwasher? To save water To save energy Improved Performance To save utility costs Other: _____
- Do you plan on installing any other water conservation or low impact development features, such as WaterSense, or Energy Star qualified products, irrigation control technologies, green roofs, rain gardens, porous pavement, or retention ponds? Yes No
If yes, what features? _____
- Were you previously aware of the availability of Energy Star qualified dishwashers? Yes No
- How much did this rebate influence your buying decision? Completely Somewhat Not at all
- Is this a replacement appliance? Yes No
- Reason for this purchase? Old one not working Old one was sold Remodeling Other: _____
- Approximate age (in years) of appliance you are replacing? _____
- What will happen to your old appliance? Trash Recycle Sell Give away or donate Trade in to dealer Other: _____
- Approximate number of full-load equivalents per week? _____
- Capacity of dishwasher? _____
- Date of Installation? _____
- Brand/Model: _____
- Store/website of purchase: _____
- How did you hear about this rebate? _____

Applicant Information

Name: _____
 Mailing address: _____ City: _____ State: _____ Zip: _____
 Home phone number: _____ Email Address: _____
 Installation address (if different): _____ City: _____ State: _____ Zip: _____

Disclaimer

I certify that the listed Energy Star qualified high-efficiency dishwasher has been purchased and installed for use at the above named address and meet the requirements of the James City Service Authority (JCSA) High-Efficiency Dishwasher Rebate Program. I understand that if I am required by my neighborhood to fulfill the actions rebated, then I am not eligible for the rebate. I also acknowledge that my home may be subject to an inspection by the JCSA or its agent to verify the information provided herein.

The JCSA may deny any application that does not meet program requirements. The JCSA does not guarantee any of the benefits in the preceding guide; nor does it warranty freedom from defects, quality of workmanship, or suitability of the premises for the installation of Energy Star qualified high-efficiency dishwasher or associated products. The applicant will hold harmless James City County, JCSA, its agents, directors, officers, and employees against all loss, damage, expense and liability arising out of or in any way connected to the installation of the above Energy Star qualified high-efficiency dishwasher or associated products. The JCSA reserves the right to change or terminate this program at any time.

Signature _____ Date: _____

Please remit completed rebate form and copy of receipt to:

**'High-Efficiency Dishwasher Rebate Program
 c/o JCSA
 P.O. Box 8784
 Williamsburg, VA 23187-8784
 Fax: (757) 253-6850**

FOR JCSA USE ONLY

Date Received: _____ Date Approved: _____ Rebate Amount: _____
 Approved Denied. Reason denied: _____