

ENERGY STAR Qualified Clothes Washer Calculator

Directions: This calculator approximates the annual savings of an ENERGY STAR qualified clothes washer compared to a non-qualifying clothes washer. To use this calculator, enter any values you know of from your washer in the input area. You can change the number of models, the capacity, the energy factor, the cost, the estimated product life, and your electric rate. If you know the kWh/year and want to determine the energy factor, energy factor is calculated by multiplying 392 by the volume in cubic feet and dividing the result by the kilowatt hours per year. 392 is the estimated cycles per year. Although the ENERGY STAR criteria requires the Modified Energy Factor (MEF) instead of the Energy Factor (EF), this calculator uses EF since it is easier to estimate energy savings from EF and non-qualified models do not list their MEF. So, enter the EF values. If you do not know any values, then leave the defaults since they are the national averages. Your annual operating costs, savings, and estimated payback period will appear below. If you have any questions, please contact Bill McNary of D&R International

INPUT AREA

<i>(Please insert the relevant figures in the input boxes)</i>	ENERGY STAR Qualified Unit	Non-ENERGY STAR Qualified Unit
Number of Clothes Washers	1	1
Clothes Washer Capacity	2.65	2.65
Energy Factor (EF) (not MEF)	2.5	1.18
Initial Cost per Unit	\$750	\$450
Assumed product life in years	12	12
Your Electric Rate	8.5 cents per kWh	
Discount Rate	4%	

Annual Operating Costs

Energy Consumption, kWh	416	880
Energy Cost	\$35.19	\$74.56
Lifetime Operating Cost	\$330.30	\$699.80
Total Purchase Price	\$750	\$450
Additional Investment	\$300	
Annual Energy Savings	\$39	
Approximate Lifetime Savings	\$369.49	
Net Savings	\$69.49	
Years to recoup initial investment	7.6	
kWh Saved	5,578	
Equivalent Cars Removed from Road	0.879644819	

EXHIBIT CT62

ENERGY STAR® QUALIFIED CLOTHES WASHERS

SUMMARY

- ENERGY STAR qualified clothes washers save more energy, water, and utility dollars than any other major ENERGY STAR home appliance
- The majority of ENERGY STAR qualified clothes washers are front-loading clothes washers. Compared to conventional washers, they use less water and less energy, cost less to operate, and do not have a central agitator, resulting in a larger capacity and less wear and tear to clothes. (Examples are the Maytag *Neptune* and the Whirlpool *Duet*.)
- A few top-loading clothes washers also meet the ENERGY STAR criteria. (Examples are the Whirlpool *Calypso*, and Fisher and Paykel's *Ecosmart*.)
- ENERGY STAR clothes washers have been the centerpiece of several press events and promotions, including a recent study in Bern, Kansas. US DOE found significant energy and water savings through the study.

MARKET CHARACTERISTICS

- Average lifetime: 12 years
- Typical ENERGY STAR price premium: \$300
- Time to recover ENERGY STAR premium: 4-5 years
- Approximate price range for ENERGY STAR qualified clothes washers: \$650 - \$1397
- Approximate price range for non-qualifying clothes washers: \$200 - \$893
- 2001 clothes washer shipments: 7,362,000

CURRENT ISSUES

- Water Factor
 - This water efficiency calculation is not included in the 2001 or 2004 ENERGY STAR specification.
 - Recent California legislation requires a residential clothes washer water factor of ≤ 9.5 in 2007. (The water factor is the number of gallons per cycle per cubic foot.)
- High Efficiency (HE) Detergent
 - Because front loaders use less water, regular detergent might not dissolve as easily in these machines.

ENERGY STAR Criteria/Federal Standards			
	Current Criteria	January 1, 2004	January 1, 2007
ENERGY STAR	MEF ≥ 1.26	MEF ≥ 1.42	To Be Determined
NAECA	EF* >1.18	MEF ≥ 1.04	MEF ≥ 1.26

**MEF mandatory in 2004. MEF includes dryer energy required to remove remaining moisture in clothes.*

Annual ENERGY STAR Savings Per Unit						
WATER HEATER FUEL	ELECTRIC (43% MARKET SHARE)			GAS (57% MARKET SHARE)		
	ENERGY STAR	Non-Qualifying	SAVINGS	ENERGY STAR	Non-Qualifying	SAVINGS
Energy/Water Usage						
Electricity (kWh)	297	829	532	30	83	53
Water (gallons)	8,080	16,640	8,560	8,080	16,640	8,560
Gas (therms)	NA	NA	NA	23	46	23
Utility Cost*	\$52	\$125	\$73	\$52	\$107	\$55

**Note: \$.0847/kWh, \$.988/therm, and \$.003275/gallon used to estimate dollar amounts.*

Market Share by Manufacturer		
Manufacturer	2000	2001
Whirlpool	50%	50%
Maytag	22%	22%
GE	16%	18%
Electrolux (Frigidaire)	10%	8%
Goodman (Speed Queen)	2%	2%

Source: Appliance Magazine

Market Penetration of ENERGY STAR Qualified Clothes Washers				
	Q1	Q2	Q3	Q4
1999	8.5%	7.7%	8.5%	9.4%
2000	8.3%	8.5%	10.2%	10.6%
2001	8.6%	9.8%	10.1%	12.8%
2002	14.9%	16.7%		

Source: Participating national ENERGY STAR retail partners.