NOW IS THE TIME: ENERGY STAR APPLIANCES MAKE MORE SENSE NOW THAN EVER BEFORE

by James E. Davidson, Architect

Are you replacing appliances or rebuilding your home after last year's hurricanes? Homes that were not damaged by the storms and flooding, that have the Energy Star label on the breaker box and Energy Star appliances serving their owners, have become rewarding investments. Due to the extent of new construction and flooded home refurbishments required across South Louisiana, and newly imposed structural code restrictions, including new elevation restrictions for homes in those areas, construction costs have escalated. In addition, the cost of natural gas has risen, causing utility rates to increase. These situations are boosting the cost of living for South Louisianians. Now is the time to own Energy Star appliances.

The Environmental Protection Agency (EPA), in concert with the drive to decrease the country's demand for energy produced from foreign oil and gas sources, is steadily improving the performance specifications for appliances. The latest improvements are in air conditioners, battery chargers (for cell phones and cordless drills, etc.), and clothes washers. The minimum required Seasonal Energy Efficiency Rating (SEER) for air conditioners before January 1, 2006 was 10, and an Energy Star model had a SEER of 12. After that date, the minimum requirement increased to SEER 13, and Energy Star models increased to SEER 14. The new Energy Star specifications include a minimum required Energy Efficiency Rating (EER) of 11.5. Each point increase in SEER is an approximate 10% improvement in efficiency. Thus, the minimum required efficiency has been improved 30% and is 10% better than the former threshold for an Energy Star model. Energy Star battery chargers are now 35% more efficient than the previous typical model. Energy Star clothes washers, on January 1, 2007, will be a minimum 37% more energy efficient than the current, minimally efficient model, and water usage efficiency will be specified. More information can be obtained from the Energy Star website (URL: http://www.energystar.gov). Information specific to the air conditioners, battery chargers and clothes washers is accessible under the *News Room* link.

Improvements are being stimulated by tax credits to manufacturers, established through the Energy Policy Act of 2005. The Act provides tax credits to homeowners that install Energy Star labeled air conditioners, windows, and tankless water heaters. It is limited to \$500 for the next two years, but there is a bill in Congress to extend it. Builders are able to obtain up to \$2,000 in federal tax credits for all houses and condominiums built and sold between August 8, 2005 and January 1, 2008, that are built to meet the International Energy Conservation Council (IECC) 2006 Code, and have a Heating, Ventilating, and Air Conditioning (HVAC) system that is 50% more efficient than the minimum requirement of the new code. Each home or condominium must be tested by a Certified Energy Rater.

Energy Star labeled appliances often cost more than non-Energy Star models with the same features

of operation. How much more depends on the manufacturer, the type of appliance, market demand, supply, and competition. This means that the consumer needs to shop for the best models that will meet his budget and provide the necessary functionality at the same time. Economic analysis of the energy savings over the expected life of the product is not something that most consumers do, but should in order to take the guess work out of purchases. Figure 1 compares Energy Star appliances with similar non-Energy Star applicances in 3 categories based on energy usage in kilowatt hours (kwhr) per year.

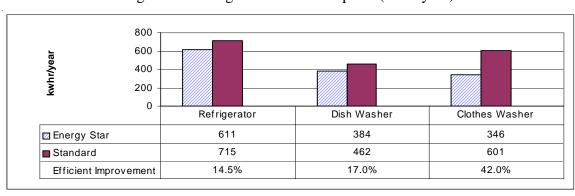
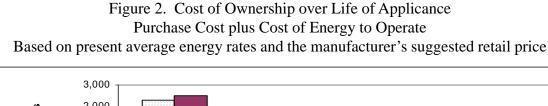
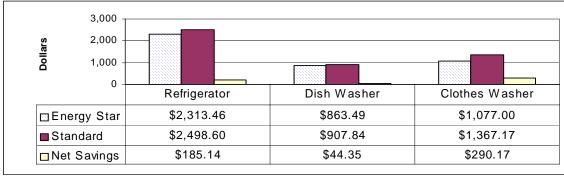


Figure 1. Average Power Consumption (kwhr/year)

Source URL: http://www.ge.com, August 3, 2006

In Figure 2, the cost of ownership of these appliances is graphed over the expected life of the model. The Energy Star models perform better and conserve significant energy, especially when you realize that they can all be in use, in the same house, at the same time.





Source URL: http://www.ge.com, August 3, 2006

Energy Star models often cost more, initially, and their individual energy savings are sometimes small, but if every appliance purchased for a home is an Energy Star appliance, then the cost of operating that home will be significantly less than one with cheaper appliances, and will pay increased dividends with every future rate increase.