Special Issue on Energy Efficiency

Consumer Info

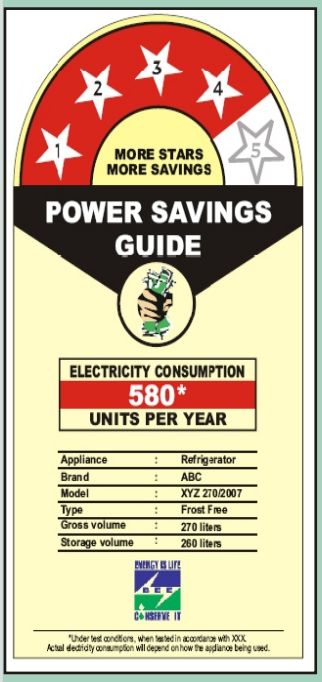
[Quarterly Newsletter of Consumer Rights Education & Awareness Trust (CREAT)]

No.2/2008 April-June 2008

ENERGY LABELING:

A HALLMARK OF ENERGY EFFICIENT & QUALITY PRODUCT:

The rate of economic development of a country is directly linked with the supply of energy. In fact, so important is energy to human society that the magnitude of energy consumed per capita is one of the indicators of a country's moder -nization.



Countries like India are in the midst of an energy crisis resulting from booming economic growth that led to rapid growth in the use of energy. However, the incre asing demand of energy in these countries often out strips limited supply.

ENERGY CONSERVED IS ENERGY SAVED

The cost of electric energy production is staggering. The simplest way out of this development challenge is to use energy more efficiently. Electricity conservation measures are typically cheaper than building new power plants. Energy demand can be managed most efficiently through a mix of energy conservation measures. Using more efficient lights and appliances, agricultural and industrial motors, better insulation etc. can significantly reduce the energy supply needed

SAVING ENERGY AND SAVING THE ENVIRONMENT

Production of energy by various means is associated with many environmental problems. For example, coal power plants have local effects such as air pollution particularly nitrogen oxide and sulphur oxide. They also have medium-distance effects such as acid rain along with long-range and long-term climate change impacts such as global warming from the emission of carbon dioxide and other 'greenhouse gases' Nuclear power plants have their own environmental consequences related to the handling of nuclear materials and the disposal of radioactive waste. For example, some radioisotopes have half-lives of thousands of years and need to be stored in geologically stable locations. To save our environment, it is all the more necessary to adopt energy conservation measures.

ENERGY-EFFICIENCY LABELS

Energy labels (or more explicitly called energy-efficiency labels) are infor mative labels affixed to man ufactured products to indicate the product's energy performance (usually in the form of relative rankings of energy performance, energy parameters that indicate quantitatively how much energy is consumed or the energy efficiency rating of that product and/or, other related requirements). Energy labels can stand alone or complement energy standards which typically set maximum levels of energy consumption for a product).

INSIDE >>

BENEFITS OF ENERGY EFFICIENCY LABELS

When designed and implemented well, their advantages are that:

- They can produce large energy savings;
- They can be very cost effective and helpful at limiting energy growth without limiting economic growth;
- They require change in the behavior of a manageable number of manufacturers rather than the entire consuming public;&
- The resulting energy savings are generally assured, comparatively simple to quantify, & readily verifiable

Other Benefits :

- Reducing capital investment in energy supply infrastructure
- Enhancing national economic efficiency by reducing energy bills;
- Enhancing consumer welfare, they provide consumers with data on which to base in formed choices encourage selection of the most efficient and suitable product available;
- Strengthening competitive markets;
- Meeting climate change goals; and
- Averting urban/regional pollution.
- Harmonization of elements of the energy labeling programs among nations often brings additional benefits primarily:
- Reducing program costs by adopting program elements from trade
- Avoiding or removing indirect barriers to trade; and
- Avoiding the dumping of inefficient products on trading partners.

When to turn off Personal Computers

If you're wondering when you should turn off your personal computer for energy savings, here are some general guidelines to help you make that decision.

Though there is a small surge in energy when a computer starts up, this small amount of energy is still less than the energy used when a computer is running for long periods of time. For energy savings and convenience, consider turning off a) The monitor if you aren't going to use your PC for more than 20 minutes b) both the CPU and monitor if you're not going to use your PC for more than 2 hours.

Make sure your monitors, printers, and other accessories are on a power strip/surge protector. When this equipment is not in use for extended periods, turn off the switch on the power strip to prevent them from drawing power even when shut off. If you don't use a power strip, unplug extra equipment when it's not in use.

Most PCs reach the end of their "useful" life due to advances in technology long before the effects of being switched on and off multiple times have a negative impact on their service life. The less time a PC is on, the longer it will "last." PCs also produce heat, so turning them off reduces building cooling loads.

For cost effectiveness, you also need to consider how much your time is worth. If it takes a long time to shut down the computer and then restart it later, the value of your time will probably be much greater than the value of the amount of electricity you will turning off the computer.

PROCEDURE FOLLOWED BY BEE FOR ENERGY LABELING

The manufacturers of appliances are empowered to test their appliances and affix labels based on the agreed categorical star rating plan in the Bureau of Energy Efficiency(BEE)prescribed format.

The veracity of the labels and their levels are verified by BEE through check testing and challenge testing in assigned NABL accredited laboratories.

If the test results are not consistent with the declared star rating on the label, BEE informs the concerned manufacturer.

The manufacturer has an option to go in for second verification testing. In this case, the sample size is twice the number of the first test and all the sample need to pass the test.

If the appliance fails the second verification test, the concerned manufacturer has the option to:

i) correct the label level or remove defects or deficiencies found; or

ii) change particulars/information on the advertisement material and the label.

In addition to the check tests carried by BEE, consumers through consumer associations or any manufacturer or any person can challenge the star rating label. In this case, the BEE Implementation Committee would look into the history of verification test results and see if it is a fit case for taking up the challenge. If the manufacturer fails to comply with the directions of BEE, then the use of the label for that model is prohibited, and wide publicity about the failure can be made in the press. In addition, the manufacturer would be debarred from participa ting in public tenders.

SIGNIFICANCE OF ENERGY LABELING

- ★Aims to shift markets for energy-using products and appliances toward greater energy efficiency.
- ★Helps consumers to understand which products are most efficient and hopefully influence him/her to choose more energy-efficient products.
- ★Creates competition among manufacturers to produce and market the most energy-efficient models and thus promotes energy efficiency.
- ★Energy labeling is generally linked with the general performance and safety parameters as prescribed in the national standards. Products qualified for the energy labeling are first supposed to meet these requirements, thus linking energy efficiency and high-quality performance.

Current "BEE"(Bureau of Energy Efficiency) Energy Label Coverage

BEE has selected target products for the energy labeling program based on the criteria that: (1) the appliance uses a significant amount of energy, (2) it contributes to the peak load and (3) it is commonly used in households.

BEE has already launched energy labeling for refrigerators, tubular fluorescent lamps and air-conditioners.

The schedule of products to next be targeted include: compact fluorescent lamps, general purpose electric motors, ceiling fans, ballasts for fluorescent lamps to be followed by geysers, gas stoves etc.

Air Conditioners:

The key measure of energy performance for labelling of air conditioners is the product's EER (Energy Efficiency Ratio). EER is the cooling capacity versus the power consumed.

Thus, the higher the EER, the higher the energy efficiency of an air conditioner.

Both types of air conditioners (window and split) are covered by BEE energy labelling program. Due to the presence of large and organized manufacturers, some major brands have already qualified for a 5-star rating.

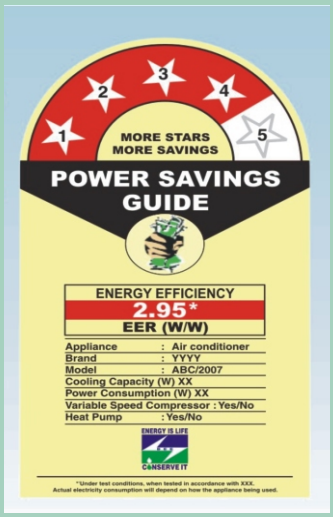
Refrigerator Labelling:

Energy efficiency standards and labelling for refrigerators in India was implemented initially, as a pilot project, for frost free refrigerators, keeping in view the growing market share of this category. For refrigerators, comparative labelling was considered and implemented (and not endorsement labeling) keeping in view of the wide range of energy consumption of different brands. The energy label affixed to refrigerators includes information on brand, model, type, gross & storage volume as well as the standard test method used for arriving at average annual energy consumption as marked on the centre of the energy label.

Due to the encouraging response from manufacturers, most of the brands manufactured in India are covered under the energy labelling scheme of BEE. Energy labelling for the direct cool category of refrigerators has also been implemented This extends the star label to the product category (Direct Cool refrigerators) that presently has the major market share. Since refrigerators remain switched-on throughout the year, the nominal consumption and star rating has been calculated based on the annual electricity consumption.

Potential Savings of Money on Efficient Products

More star means more energy efficiency and more savings on your monthly energy bill! On an average, there is an annual savings of about Rs.2800/- saving in the use of a 5 star refrigerator versus a 1 star refrigerator and about Rs.3500/- saving in the use of 5-Star air conditioner versus a 1 star air conditioner. That mean saving to individual consumers of about 700 units (kWh) of electricity use on most efficient refrigerator and 750 units (kWh) on use of most efficient air conditioners. Since refrigerators & air conditioners constitute more than 50% of the domestic electricity consumption, can significantly bring down India's national electricity consumption and energy costs..



Your valuable feed back on energy labeling scheme & suggestion on how more benefits can be passed on to you, is desired.

1.Before you read this article, had you ever heard of the BEE Star Label?	*Yes/ No*
2.Did this article provide you with information that was helpful and/or interesting?	*Yes/ No*
3.Did this article improve your understanding of the BEE Star Label?	*Yes/ No*
4.In a sentence or two, what do you think is the main purpose of the BEE Star Label?	
5.Have you seen products with the BEE Star Label in Stores?	*Yes/ No*
6.Will you recommend your Friends/Relatives to buy labeled products?	*Yes/ No*
7.Do you think the BEE Star Label is a good idea?	*Yes/ No*

Name & address: *Contact no:*

You may mail to: VOICE, 441, Jangpura, New Delhi 110 014. or email to cvoice@vsnl.net

(The above outreach material has been made possible by the generous support of the US government through the Asia-Pacific Partnership on Clean Development and Climate. The study is also supported by the Renewable Energy and Energy Efficiency Partnership (REEEEP). The contents are the responsibility of VOICE and the Collaborative Labeling and Appliance Standards Program (CLASP) and do not necessarily reflect the views of any of the APP partner countries.

Published by :

CONSUMER RIGHTS EDUCATION & AWARENESS TRUST (CREAT)

No.239,5th 'C' Main Remco Layout, Hampinagar, Bengaluru-560104

Tel : 91-80-23357280,E.mail : creatorg@sify.com , Website : www.creatindia.org