Assessment of Standby Power Utilisation in New Zealand

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Abstract

"Standby Power" refers to a product or appliance that is connected to a power source but does not produce any sound or picture, transmit or receive information or is waiting to be switched "on" by a direct or indirect signal from the consumer. This includes the "off" mode, even where there is no remote control.

Standby Power is currently a global problem in the developed world and is estimated to be responsible for 1.5 % of total electricity consumption. It contributes 0.6 % (68 million tons) of CO_2 emissions from the electricity sector. At the present time, standby power is a relatively new concept with very few statistics available on the standby power consumption in New Zealand.

To date New Zealand has not considered standby power to be important. While almost all first world countries are introducing legislation and making active movements toward reducing standby power in new appliances, New Zealand has yet to take action. There is a growing awareness of standby power in New Zealand that has gained some media coverage. However from this study it is clear that although 89% of surveyed consumers had heard of standby power, the general consumer was unaware of the extent to which standby power is emitted through appliances and the amount of power and money it consumes nationally per year. In the midst of a power crisis (at the time of writing, June, 2003), New Zealand has the capability to reduce power consumption by 10%, by turning all appliances off onto standby. Unfortunately, the lack of consumer education in regard to the extent of wastage in standby power in the average New Zealand household inhibits this saving from being made.
The possible future directions for New Zealand as a result of this study are as follows.

- Legislation needs to be put into place in New Zealand to encourage manufacturers to reduce standby power consumption of new appliances. This will help to bring New Zealand manufacturers up to standard with places like the USA, Europe, Australia, Japan and China, who are already taking active steps to reduce standby power. Legislation in other countries has shown that mandatory legislation is hard to police. A campaign educating the consumer on energy labelling and the cost of standby power teamed with a voluntary manufacturers' scheme to lower standby power consumption (using the worldwide energy star label) would be potentially effective. Previous studies

have called for a worldwide standardised standby power labelling scheme. This scheme is seen as being necessary as many New Zealand products are being manufactured overseas. The following changes need to take place to take an active approach to reducing standby power wastage:

- Research into the standby consumption of the commercial and industrial sectors within New Zealand.
- Improvements in energy labelling. Consumer education and awareness campaign with regard to energy labelling, needs to take place on a public arena.
  Energy labels need to be simplified so the average New Zealander can understand the energy emitted through standby power on market appliances and the amount that standby power costs both on a nation wide scale and to the individual consumer.

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Table of Contents

Tables

Figures