Press Release No. 21/2009

Press Relations Officer: Martin Ittershagen
PR-staff: Anke Döpke, Dieter Leutert,
Fotini Mavromati, Theresa Pfeifer, Martin Stallmann
Address: Postfach 1406, 06813 Dessau-Roßlau
Telephone: +49 340/21 03-2122, -2827, -2250, -2318, -3927, -2507
E-Mail: pressestelle@uba.de
Internet: www.umweltbundesamt.de

Umwelt Bundes Amt
Für Mensch und Umwelt

TV sets to consume less energy

Requirements concerning efficiency and new labelling can reduce energy consumption

TV sets are to use less energy in future. Citizens can see just how much by means of new energy use labelling, which is the result of a resolution passed in late March by the EU Member States in a regulatory committee for eco-design in Brussels. Approval by the EU Parliament and Council is still pending. Once the regulations enter into force, a total of 43 terawatt hours (TWh) of energy over the current trend might be saved in 2020. This amount is equivalent to the energy produced by eleven power plants with an output of 800 megawatts, and emissions of 17.2 million tons of the climate gas carbon dioxide.

Upon approval by the EU Parliament and Council, the Eco-Design Directive will go into effect 20 days after publication in the Official Journal of the EU. The new requirements stipulate that one year after the directive enters into force all TV sets, depending on screen size, may not exceed a certain level of power consumption while in operation. For example, the power consumption of a standard screen set with a screen diagonal of 74 centimetres (29 inches) is limited to 145 watts in high-resolution sets, and to 133 watts in other non high-resolution sets. This amount corresponds to annual energy consumption of 210 and 195 kilowatt hours (kWh), respectively, based on daily operation of about four hours. The upper limits in sets with a screen diagonal of 107 centimetres (42 inches) are 283 and 256 watts, respectively, equivalent to an annual energy consumption of about 415 and 375 kWh.

The requirements are due to become even more stringent after April 2012. Another new regulation would set that after 7 January 2010, TVs on standby may not absorb more than 1 watt power, a maximum of 2 watts if an additional display is featured, and no more than 1 watt when switched off. Some devices still consume power even when switched off. Two years after the directive enters into force, the limit for standby mode would be 0.5 watts, 1 watt if there is an extra display, and 0.3 watts when switched off.

The regulation on energy consumption is highly relevant, for a study conducted by the Fraunhofer Institute for Reliability and Microintegration (IZM) reveals that consumers continue to purchase second or third TV sets that are becoming ever larger. As a result, energy consumption is rising steeply. Whereas the average tube TV with a 74-centimetre (29-inch) diagonal consumes about 210 kWh annually, an LCD television (flat-screen with liquid crystal display) measuring 81 centimetres (32 inches) runs at 230 kWh, and a 107-centimetre (42-inch) plasma TV is as high as 500 kWh (2007 data). In contrast, today's best refrigerators and freezer

units-- depending on volume- consume about 200 kWh or less. Forecasts have shown that the energy consumption of all the TV sets in the EU could rise from the roughly 60 billion kWh, or 60 TWh in 2007, to about 132 TWh in 2020. Even when the targeted savings of 43 TWh are taken into account, the 89 TWh power consumption of TVs in 2020 would still be well above 2007 levels.
The EU Parliament and Council approval of the new energy consumption labelling on TVs would mark the start of comparability of the energy consumption in various television models. It does depend, however, on the EU Member States' implementation into their national law once the directive enters into force. The new proposal to label energy consumption would be similar to the established practice for household appliances, namely into energy efficiency classes A-G. Energy classes A^{+} and A^{++} introduced for refrigerators is to be abolished across the board for all product groups and replaced instead by "A minus x percent (%)". This will mean A-20 %, A-40 %, A-60 % and A-80 % in the case of televisions, which are to be introduced gradually to label the most efficient sets on the market. A language-neutral symbol will show consumers at a glance what the power consumption is and whether the device has an 'off' switch or not. This labelling is aimed at further raising demand for more low-energy TVs, thus following suit with white goods. Consumers now have the means by which to better detect particularly energy-efficient devices from among the abundance of sets on the market with identical or similar features.
The labelling system is not dynamic in the sense that it allows new classification of efficiency classes according to market development, but rather that their energy consumption in operation mode, expressed as an energy efficiency index, is classified according to efficiency classes. The Federal Environment Agency believes it makes more sense to regularly re-classify the energy efficiency index, depending on how efficiency develops, by designating the best devices as efficiency class A. This would guarantee unequivocal adaptation to technological progress.

All available documents on the efficiency requirements and new power consumption labelling for TVs are available at www.ebpg.bam.de/de/produktgruppen/index.htm.

Dessau-Roßlau, 21 April 2009