

**Voluntary agreement between the
Danish Electricity Saving Trust
and
Producers of IT equipment
concerning electricity savings for
standard computers
and computer monitors
2006**

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Introduction

Many computers and computer monitors consume electricity at a much higher rate than necessary in all three modes: off/standby power, sleep/low power and on/active power. The Danish Electricity Saving Trust (hereinafter the “Trust”) has estimated that the total potential for savings achievable through a revised procurement policy in the public sector, private industry and private households is approximately 15 GWh per year, increasing to approximately 40 GWh per year over a three-year period. This is equivalent to a total saving in the collective electricity bill of approximately DKK 150 million over three years.

The Trust and a number of suppliers of IT equipment have concluded that voluntary agreements can help to realise this potential saving for computers and monitors. The use of voluntary agreements is also supported by the Government’s January 2004 standby action plan and by its May 2003 energy-saving report, which set out the Government’s view that energy-saving efforts should be based on market-oriented initiatives in order to make it easy for consumers and businesses to choose energy-efficient products.

The September 2005 “Energy Action Plan for a Renewed Energy Saving Effort” published by the Ministry of Transport and Energy also includes the promotion of energy efficient devices and products through the use of voluntary agreements. In addition, the Ministry has issued a circular on “Improving Energy Efficiency in Danish Public Sector Institutions”. Amongst other areas covered, this stipulates that the public sector must only purchase energy-efficient products which conform to the procurement requirements laid down by the Trust.

Against this background, the Trust and a number of producers and suppliers have entered into a voluntary agreement that will contribute to energy savings by computers and monitors. ITB (the Danish IT Industry Association) and SKI (National Procurement Ltd – Denmark) have endorsed the intentions behind the agreement.

The “particularly energy-efficient standard computers and monitors” referred to in the agreement are the products that meet the requirements specified by the Trust (as listed in Appendix 1).

Objectives

The overall objective of the agreement is to reduce the electricity consumption of computers and computer monitors in both active and passive modes through a joint initiative by the parties.

The specific objectives of the agreement are:

- to ensure a well-defined market for energy-efficient IT equipment by introducing to the Danish market energy-efficient computers and monitors with low electricity consumption in standby, sleep and active modes which meet the requirements for public sector IT procurement,

- to increase the level of knowledge of consumers and buyers concerning energy-efficient IT products through suppliers' product information and marketing combined with information and campaigns by the Trust, and
- to ensure good offers for energy-efficient IT products by working with suppliers to focus special offers on energy-efficient IT products.

Common obligations and rights

- All parties to the agreement shall work positively to implement the agreement.
- All parties to the agreement may announce their participation in the agreement publicly.

The Trust's obligations

- The Trust shall finance and implement a number of information initiatives to publicise the voluntary agreements and the importance of buying and using the particularly energy-efficient computers and monitors.
- The Trust shall establish and publish product listings of computers and monitors from producers covered by this agreement. Products that meet the requirements specified in the agreement for particularly energy-efficient equipment are identified by an "Energy-efficient" declaration.
- The Trust shall provide secretarial assistance in coordinating the agreements, etc.

The Producer's obligations

- The Producer undertakes to specify electricity consumption in on mode/active power, sleep mode/low power and off mode/standby power for standard marketed computers and monitors in publicity material aimed at potential buyers and points of sale, such as advertisements, brochures, retailer circulars and newsletters as described in Appendix 1. Wherever possible, this also applies to web sites, electronic media, other technical information and other similar media where product data is given. The values specified for electricity consumption must follow the definitions in Appendix 1.
- The Producer undertakes to use most of its marketing budget for computers and monitors to market particularly energy-efficient computers and monitors.
- The Producer undertakes to focus the majority of its special offers relating to computers and monitors on particularly energy-efficient computers and monitors.
- For the particularly energy-efficient products, the Producer shall provide the above electricity consumption data, including a declaration of the accuracy of the data and, if necessary, other product data from the Trust's product listings.

Collaboration and organisation

A coordinating committee will be established comprising representatives of the signatories of the agreement which, among other things, will:

- execute and coordinate the information campaign and ensure reciprocal exchange of information between the parties to the agreement,
- be included in decisions concerning important activities under this agreement,
- continually assess the need for activities to support the agreement, and
- assess the potential for new initiatives, special information initiatives, demonstration projects, etc. covering this agreement.

Companies and organisations that have signed these voluntary agreements may participate in the coordinating committee.

Duration of the agreement

The agreement is binding on signature.

The agreement shall cease on 31 December 2006. The parties intend to extend the agreement. This will be clarified in the latter half of 2006.

If a party to the agreement fails to fulfil its obligations, even after being made aware of such failure, the other party may withdraw from the agreement.

Signatures

Date:

Date:

Head of Secretariat, Göran Wilke
Danish Electricity Saving Trust

(Authorised signatory of partner)
(Partner Company)

Appendix 1: Scope, Definitions, Technical Requirements and Declaration of Electricity Consumption

Scope

The agreement concerns normal types of computers and computer monitors used at workplaces in the private and public service sector, in the commercial sector and at home, and which are supplied by the Producer to the Danish market. The products must be mains-connected, which includes products sold with an external power supply and products, which could be both mains-operated and battery-operated.

The agreement covers products including personal computers, workstations, computers with integrated monitors and laptop computers, regardless of the operating system used.

Servers, industrial computers, etc. are not covered by the agreement.

Definitions of Consumption Modes

The definitions are based on the “Energy Star Computer Memorandum of Understanding” and “Energy Star Program Requirements for Computer Monitors”.

Computers

Standby: Off mode/standby power is where the computer is plugged in but has been switched off by the user. If there are several ways of turning the computer off, it is the method the supplier recommends to the user for normal daily use.

Sleep: Sleep mode/low power is the electricity-saving mode that the computer automatically switches to after a maximum of 30 minutes with no user activity, such as use of the keyboard and/or mouse.

On: On mode/active power is the computer mode immediately after it has been switched on and components that have been built into the computer, such as the operating system and drivers have started, and the computer has reached a stable level for computer activity without other user activity.

The computer must be a standard PC, as supplied by the Producer, and the consumption must be measured on the basis of a stand-alone environment.

The measurements must be taken when the power consumption is stable. Measurements are considered to be stable when the wattage values do not vary by more than one per cent over three minutes. The measurement period must be sufficiently long to determine the correct average value in accordance with the method stated in “Energy Star Program Requirements for Computer Monitors (Version 4.0)”.

For laptop computers with a rechargeable battery, no charging must take place.

Test conditions must generally comply with “Energy Star Computer Memorandum of Understanding (Version 3.0)” (can be downloaded from www.energystar.gov).

The definitions above and methods of measurement will be replaced by equivalent definitions and methods of measurement from the Energy Star program, where these are

available in a final version of “Energy Star Program Requirements for Computers: Version 4.0”, in situations where both parties (the signatory and the Trust) agree this to be appropriate.

Monitors

The definitions of off /standby power, sleep/low power and on/active power modes, measuring method and test conditions conform to the “Energy Star Program Requirements for Computer Monitors (Version 4.0)” (in the latest version, which can be downloaded from www.energystar.gov).

The Danish terms correspond to the following Energy Star terms:

- “Slukket” (standby): Off mode/Standby Power
- “Dvale” (sleep): Sleep Mode/Low Power
- “Aktiv” (on): On Mode/Active Power

Technical Requirements for ‘Particularly Energy-efficient Computers’

Particularly energy-efficient computers are defined on the basis of their electricity consumption in the off /standby power, sleep/low power and on/active power modes.

Computers:

- Off mode/standby power: 2 W
- Sleep mode/low power which is achieved after 30 minutes without use: 5 W
- On mode/active power (idle): 80 W

Computers with integrated monitors running in on mode/active power must not use in excess of the sum of the power consumption used separately by computers and monitors.

Technical Requirements for ‘Particularly Energy-efficient Monitors’

Particularly energy-efficient monitors are defined on the basis of their electricity consumption in the off /standby power, sleep/low power and on/active power modes.

Computer monitors:

- Off mode/standby power: 1 W
- Sleep mode/low power which is achieved after 30 minutes without use: 2 W
- On mode/active power:
 - 23 W for resolutions (megapixels) of less than 1
 - 28 W * resolution (megapixels) W for resolutions greater than or equal to 1

The resolution is calculated as the horizontal resolution multiplied by the vertical resolution in megapixels.

Declaration of Electricity Consumption

The electricity consumption shall be declared using graphics or text-based energy declarations, as shown in the examples below.

The text-based declaration can be used if it is not possible to use the graphics declaration. Further material for the declaration can be found in the Trust’s design

manual, which can be sourced on the partner area at www.it.sparel.dk and directly from the Trust's offices.

Energy declaration – graphics

If the product complies with the requirements for “energy-efficient”, the following graphics in colour or black and white should be used:



If the product does not comply with the requirements for “energy-efficient”, the following graphic should be used:



Green colour:

- CMYK: C 92 – M 0 – Y 84 – K 20
- RGB: R 49 – G 136 – B 79

The actual wattage figures for the particular product should be inserted in the appropriate space on the declaration graphic using the font Arial Narrow.

Minimum size in print: 30 x 8 mm.

Minimum width on web: 120 pixels. The declaration shall not be rotated.

Text-based energy declaration

If the product complies with the requirements for “energy-efficient”, the electricity consumption should be declared in the following way (using examples of electricity consumption):

On/sleep/standby: 52,3W/2,9W/1,8W (energi-effektiv)

(“Energi-effektiv” = energy-efficient)

If the product does not conform to the “energy-efficient” requirements, electricity consumption should be declared in the following way:

On/sleep/standby: 99,8W/6,2W/3,4W