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**COMMISSION DECISION 2011/330/EE**

**of 6 June 2011**

**on establishing the ecological criteria for the award of the EU Ecolabel for notebook computers**

*(notified under document C(2011) 3736)*

**(Text with EEA relevance)**

(2011/330/EU)

(OJ L 148, 7.6.2011, p. 5)

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**COMMISSION DECISION 2011/330/EE****of 6 June 2011****on establishing the ecological criteria for the award of the EU Ecolabel for notebook computers***(notified under document C(2011) 3736)***(Text with EEA relevance)**

(2011/330/EU)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No 66/2010 of the European Parliament and of the Council of 25 November 2009 on the EU Ecolabel<sup>(1)</sup>, and in particular Article 8(2) thereof,

After consulting the European Union Eco-labelling Board,

Whereas:

- (1) Under Regulation (EC) No 66/2010, the EU Ecolabel may be awarded to those products with a reduced environmental impact during their entire life cycle.
- (2) Regulation (EC) No 66/2010 provides that specific EU Ecolabel criteria are to be established according to product groups.
- (3) Commission Decision 2001/687/EC<sup>(2)</sup> has established the ecological criteria and the related assessment and verification requirements for portable computers. Following the review of the criteria set out in that Decision, Commission Decision 2005/343/EC<sup>(3)</sup> has established revised criteria which are valid until 30 June 2011.
- (4) Those criteria have been further reviewed in the light of technological developments. In addition, in 2006, the agreement between the Government of the United States of America and the European Community (hereinafter ‘the Agreement’), approved by Council Decision 2006/1005/EC<sup>(4)</sup>, as amended by Decision 2010/C 186/1 of 12 August 2009 of the Management entities under the Agreement between the Government of the United States of America and the European Community on the coordination of energy-efficiency labelling programmes for office equipment on the revision of the computer specifications in Annex C, part VIII, to the Agreement (hereinafter ‘ENERGY STAR v5.0’)<sup>(5)</sup> was concluded setting out the criteria for Energy Star.

<sup>(1)</sup> OJ L 27, 30.1.2010, p. 1.

<sup>(2)</sup> OJ L 242, 12.9.2001, p. 11.

<sup>(3)</sup> OJ L 115, 4.5.2005, p. 35.

<sup>(4)</sup> OJ L 381, 28.12.2006, p. 24.

<sup>(5)</sup> OJ C 186, 9.7.2010, p. 1.

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- (5) Those new criteria, as well as the related assessment and verification requirements, should be valid for 3 years from the date of adoption of this Decision.
- (6) Decision 2005/343/EC should be replaced for reasons of clarity.
- (7) A transitional period should be allowed for producers whose products have been awarded the Ecolabel for portable computers on the basis of the criteria set out in Decision 2005/343/EC, so that they have sufficient time to adapt their products to comply with the revised criteria and requirements. Producers should also be allowed to submit applications based on the criteria set out in Decision 2005/343/EC or on the criteria set out in this Decision until the lapse of validity of that Decision.
- (8) The measures provided for in this Decision are in accordance with the opinion of the Committee established by Article 16 of Regulation (EC) No 66/2010,

HAS ADOPTED THIS DECISION:

*Article 1*

1. The product group ‘notebook computers’ shall comprise devices which have the following characteristics:
  - (a) they perform logical operations and process data and are designed specifically for portability and to be operated for extended periods of time either with or without a direct connection to an AC power source;
  - (b) they utilise an integrated computer display and are capable of operation off an integrated battery or other portable power source. If a notebook computer is delivered with an external power supply this power supply is considered part of the notebook computer.
2. For the purpose of this Decision, tablet personal computers, which may use touch-sensitive screens along with or instead of other input devices shall be considered notebook computers.
3. Digital picture frames shall not be considered notebook computers for the purpose of this Decision.

*Article 2*

In order to be awarded the EU Ecolabel under Regulation (EC) No 66/2010, an item must fall within the product group ‘notebook computers’ as defined in Article 1 of this Decision and must comply with the ecological criteria as well as the related assessment and verification requirements, set out in the Annex to this Decision.

**▼ M1***Article 3*

The ecological criteria for the product group ‘notebook computers’, as well as the related assessment and verification requirements, shall be valid until 31 December 2015.

**▼ B***Article 4*

For administrative purposes the code number assigned to the product group ‘notebook computers’ shall be ‘018’.

*Article 5*

Decision 2005/343/EC is repealed.

*Article 6*

1. By derogation from Article 5, applications for the EU Ecolabel for products falling within the product group ‘portable computers’ as defined in Decision 2005/343/EC submitted before the date of adoption of this Decision shall be evaluated in accordance with the conditions laid down in Decision 2005/343/EC.

2. Applications for the EU Ecolabel for products falling within the product group ‘notebook computers’ submitted from the date of adoption of this Decision but by 30 June 2011 at the latest may be based either on the criteria set out in Decision 2005/343/EC or on the criteria set out in this Decision.

Those applications shall be evaluated in accordance with the criteria on which they are based.

3. Where the Ecolabel is awarded on the basis of an application evaluated in accordance with the criteria set out in Decision 2005/343/EC, that Ecolabel may be used for 12 months from the date of adoption of this Decision.

*Article 7*

This Decision is addressed to the Member States.



## ANNEX

### FRAMEWORK

#### The aims of the criteria

The criteria aim at promoting reduction of environmental damage or risks related to the use of energy (global warming, acidification, depletion of non-renewable energy sources) by reducing energy consumption, reduction of environmental damage related to the use of natural resources and reduction of environmental damage related to the use of hazardous substances by reducing the use of such substances.

### CRITERIA

Criteria are set for each of the following aspects:

- (1) energy savings;
- (2) power management;
- (3) mercury in fluorescent lamps;
- (4) hazardous substances and mixtures;
- (5) substances listed in accordance with Article 59(1) of Regulation (EC) No 1907/2006 of the European Parliament and of the Council<sup>(1)</sup>;
- (6) plastic parts;
- (7) noise;
- (8) recycled content;
- (9) user instructions;
- (10) reparability;
- (11) design for disassembly;
- (12) lifetime extension;
- (13) packaging;
- (14) information appearing on the Ecolabel.

#### Assessment and verification requirements

The specific assessment and verification requirements are indicated within each criterion.

Where the applicant is required to provide declarations, documentation, analyses, test reports, or other evidence to show compliance with the criteria, it is understood that these may originate from the applicant and/or his supplier(s) and/or their supplier(s), etc as appropriate.

Where possible, the testing should be performed by laboratories that meet the general requirements of EN ISO 17025 or equivalent. Where appropriate, test methods other than those indicated for each criterion may be used if the competent body assessing the application accepts their equivalence.

### FRAMEWORK

#### Criterion 1 — Energy savings

*Energy savings for notebook computers*

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<sup>(1)</sup> OJ L 396, 30.12.2006, p. 1.

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The energy-efficiency performance of notebook computers shall exceed the appropriate category energy-efficiency requirements set out in the Agreement as amended by ENERGY STAR v5.0 by at least:

- category A: 25 %,
- category B: 25 %,
- category C: 15 %.

Capability adjustments allowed under the Agreement as amended by ENERGY STAR v5.0 may be applied at the same level, except in the case of Discrete Graphics Processing Units (GPUs) where no additional allowance shall be given.

*Assessment and verification:* the applicant shall declare the compliance of the product with these requirements to the competent body.

**Criterion 2 — Power management**

Notebook computers shall comply with power management requirements <sup>(1)</sup> as follows:

- (a) Power management requirements
  - Notebook computers shall be shipped with the power management system enabled at the time of delivery to the customers. Power management settings shall be:
    - (i) 10 minutes to screen off (display sleep);
    - (ii) 30 minutes to computer sleep (system level S3, suspended to RAM).
- (b) Network requirements for power management
  - (i) Notebook computers with Ethernet capability shall have the ability to enable and disable Wake on LAN (WOL) for sleep mode.
- (c) Network requirements for power management (applies to notebook computers shipped through enterprise channels only)
  - (i) Notebook computers with Ethernet capability shall meet one of the following requirements:
    - be shipped with Wake On LAN enabled from the sleep mode when operating on AC power, or
    - provide control to enable WOL that is sufficiently-accessible from both the client operating system user interface and over the network if notebook computer is shipped to enterprise without WOL enabled.
  - (ii) Notebook computers with Ethernet capability shall be capable of both remote (via network) and scheduled wake events from Sleep mode (e.g. Real Time Clock). Manufacturers shall ensure, where the manufacturer has control (i.e. configured through hardware settings rather than software settings), that these settings can be managed centrally, as the client wishes, with tools provided by the manufacturer.

<sup>(1)</sup> As defined in ENERGY STAR v5.0 except for display sleep requirement.

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*Assessment and verification:* the applicant shall provide the competent body with a declaration to certify that the computer has been shipped in the power management settings stated above or better.

**Criterion 3 — Mercury in fluorescent lamps**

Mercury or its compounds shall not intentionally be added to the backlights of the notebook computer.

*Assessment and verification:* the applicant shall declare to the competent body that the backlights of the notebook computer do not contain more than 0,1 mg mercury or its compounds per lamp. The applicant shall also provide a brief description of the lighting system used.

**Criterion 4 — Hazardous substances and mixtures**

In accordance with Article 6(6) of Regulation (EC) No 66/2010 the product or any part of it shall not contain substances referred to in Article 57 of Regulation (EC) No 1907/2006 nor substances or mixtures meeting the criteria for classification in the following hazard classes or categories in accordance with Regulation (EC) No 1272/2008 of the European Parliament and of the Council <sup>(1)</sup>.

List of hazard statements and risk phrases:

Hazard Statement <sup>(1)</sup>	Risk Phrase <sup>(2)</sup>
H300 Fatal if swallowed	R28
H301 Toxic if swallowed	R25
H304 May be fatal if swallowed and enters airways	R65
H310 Fatal in contact with skin	R27
H311 Toxic in contact with skin	R24
H330 Fatal if inhaled	R23/26
H331 Toxic if inhaled	R23
H340 May cause genetic defects	R46
H341 Suspected of causing genetic defects	R68
H350 May cause cancer	R45
H350i May cause cancer by inhalation	R49
H351 Suspected of causing cancer	R40
H360F May damage fertility	R60
H360D May damage the unborn child	R61
H360FD May damage fertility. May damage the unborn child	R60/61/60-61
H360Fd May damage fertility. Suspected of damaging the unborn child	R60/63
H360Df May damage the unborn child. Suspected of damaging fertility	R61/62
H361f Suspected of damaging fertility	R62
H361d Suspected of damaging the unborn child	R63
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child	R62-63
H362 May cause harm to breast fed children	R64

<sup>(1)</sup> OJ L 353, 31.12.2008, p. 1.

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Hazard Statement <sup>(1)</sup>	Risk Phrase <sup>(2)</sup>
H370 Causes damage to organs	R39/23/24/ 25/26/27/28
H371 May cause damage to organs	R68/20/21/22
H372 Causes damage to organs through prolonged or repeated exposure	R48/25/24/23
H373 May cause damage to organs through prolonged or repeated exposure	R48/20/21/22
H400 Very toxic to aquatic life	R50
H410 Very toxic to aquatic life with long-lasting effects	R50-53
H411 Toxic to aquatic life with long-lasting effects	R51-53
H412 Harmful to aquatic life with long-lasting effects	R52-53
H413 May cause long-lasting effects to aquatic life	R53
EUH059 Hazardous to the ozone layer	R59
EUH029 Contact with water liberates toxic gas	R29
EUH031 Contact with acids liberates toxic gas	R31
EUH032 Contact with acids liberates very toxic gas	R32
EUH070 Toxic by eye contact	R39-41

<sup>(1)</sup> As provided for in Regulation (EC) No 1272/2008.

<sup>(2)</sup> As provided for in Council Directive 67/548/EEC (OJ 196, 16.8.1967, p. 1).

The use of substances or mixtures which change their properties upon processing (e.g. become no longer bioavailable, undergo chemical modification) so that the identified hazard no longer applies is exempted from the above requirement.

Concentration limits for substances or mixtures meeting the criteria for classification in the hazard classes or categories listed in the table above, and for substances meeting the criteria of Article 57(a), (b) or (c) of Regulation (EC) No 1907/2006, shall not exceed the generic or specific concentration limits determined in accordance with Article 10 of Regulation (EC) No 1272/2008. Where specific concentration limits are determined, they should prevail over the generic ones.

Concentration limits for substances meeting criteria of Article 57(d), (e) or (f) of Regulation (EC) No 1907/2006 shall not exceed 0,1 % weight by weight.

The following substances/uses of substances are specifically derogated from this requirement:

Homogenous parts with weight below 10 g	All hazard statements and risk phrases listed above
Nickel in stainless steel	

*Assessment and verification:* for each part above 10 g the applicant shall provide a declaration of compliance with this criterion, together with related documentation, such as declarations of compliance signed by the suppliers of substances and copies of relevant Safety Data Sheets in accordance with Annex II to Regulation (EC) No 1907/2006 for substances or mixtures. Concentration limits shall be specified in the Safety Data Sheets in accordance with Article 31 of Regulation (EC) No 1907/2006 for substances and mixtures.



**▼B****Criterion 5 — Substances listed in accordance with Article 59(1) of Regulation (EC) No 1907/2006**

No derogation from the exclusion in Article 6(6) may be given concerning substances identified as substances of very high concern and included in the list foreseen in Article 59 of Regulation (EC) No 1907/2006, present in mixtures, in an article or in any homogenous part of a complex article in concentrations higher than 0,1 %. Specific concentration limits determined in accordance with Article 10 of Regulation (EC) No 1272/2008 shall apply in case it is lower than 0,1 %.

*Assessment and verification:* the list of substances identified as substances of very high concern and included in the candidate list in accordance with Article 59 of Regulation (EC) No 1907/2006 can be found here:

[http://echa.europa.eu/chem\\_data/authorisation\\_process/candidate\\_list\\_table\\_en.asp](http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp)

Reference to the list shall be made on the date of application.

The applicant shall provide a declaration of compliance with this criterion, together with related documentation, such as declarations of compliance signed by the suppliers of substances and copies of relevant Safety Data Sheets in accordance with Annex II to Regulation (EC) No 1907/2006 for substances or mixtures. Concentration limits shall be specified in the Safety Data Sheets in accordance with Article 31 of Regulation (EC) No 1907/2006 for substances and mixtures.

**Criterion 6 — Plastic parts**

- (a) If any plasticiser substance in the manufacturing process is applied, it must comply with the requirements on hazardous substances set out in Criteria 4 and 5.

Additionally, DNOP (di-n-octyl phthalate), DINP (di-isononyl phthalate), DIDP (di-isodecyl phthalate) shall not intentionally be added to the product.

- (b) Plastic parts shall not contain a chlorine content greater than 50 % by weight.
- (c) Only biocidal products containing biocidal active substances included in Annex IA to Directive 98/8/EC of the European Parliament and of the Council<sup>(1)</sup>, and authorised for use in computers, shall be allowed for use.

*Assessment and verification:* a certificate signed by the manufacturer declaring compliance with these requirements shall be submitted to the awarding competent body. A declaration of compliance signed by the plastic and biocides suppliers and copies of relevant safety data sheets about materials and substances shall also be provided to the awarding competent body. All biocides used shall be clearly indicated.

**Criterion 7 — Noise**

The 'Declared A-weighted Sound Power Level' (re 1 pW) of the notebook computer, in accordance with paragraph 3.2.5 of ISO 9296, shall not exceed:

- (1) 32 dB (A) in the idle operating mode;
- (2) 36 dB (A) when accessing a hard-disk drive.

*Assessment and verification:* the applicant shall provide the competent body with a report, certifying that the levels of noise emissions have been measured in accordance with ISO 7779 and declared in accordance with ISO 9296. The report shall state the measured levels of noise emissions in both the idle operating mode and when accessing a disk drive, which shall be declared in accordance with paragraph 3.2.5 of ISO 9296.

<sup>(1)</sup> OJ L 123, 24.4.1998, p. 1.

**▼B****Criterion 8 — Recycled content**

The external plastic case of the system unit, monitor and keyboard shall have a post consumer recycled content of not less than 10 % by mass.

*Assessment and verification:* the applicant shall provide the competent body with a declaration stating the percentage post consumer recycled content.

**Criterion 9 — User instructions**

The notebook computer shall be sold with relevant user information that provides advice on its proper environmental use. The information shall be located in a single, easy-to-find place in the user instructions as well as on the manufacturer's website. The information shall include in particular:

- (a) energy consumption: TEC value in accordance with ENERGY STAR v5.0, as well as the maximum power demand in each operating mode. In addition, instructions must be provided on how to use the devices energy-saving mode;
- (b) information that energy efficiency cuts energy consumption and thus saves money by reducing electricity bills and that unplugging your notebook computer reduces energy consumption to zero;
- (c) the following indications on how to reduce power consumption when the notebook computers are not being used:
  - (i) putting the notebook computer into off mode will reduce energy consumption, but will still draw some power;
  - (ii) reducing the brightness of the screen will reduce energy use;
  - (iii) running the disk fragmentation on the notebook computer will reduce energy use and increase the life of your notebook computer (this is not applicable to Solid State Device machines);
  - (iv) screen savers can stop notebook displays from powering down into a lower power mode when not in use. Ensuring that screen savers are not activated on notebook computers can therefore reduce energy use;
- (d) information should be included in the user instructions or the manufacturer's website to let the user know who is qualified to repair and service the notebook computer, including contact details as appropriate;
- (e) end-of-life instructions for the proper disposal of notebook computers at civic amenity sites or through retailer take-back schemes as applicable, which shall comply with Directive 2002/96/EC of the European Parliament and of the Council (1);
- (f) information that the product has been awarded the EU Ecolabel with a brief explanation as to what this means together with an indication that more information on the Ecolabel can be found at the website address <http://www.ecolabel.eu>
- (g) any instruction/repair manual(s) should contain recycled content and should not contain chlorine bleached paper.

(1) OJ L 37, 13.2.2003, p. 24.

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*Assessment and verification:* the applicant shall declare compliance of the product with these requirements and shall provide a copy of the instruction manual to the competent body. These user instructions should then be pre-loaded onto the computer for the user to read and available for access on the manufacturers website.

**Criterion 10 — User reparability**

The applicant shall provide clear instructions to the end-user in the form of a manual (in hard or soft copy) to enable basic repairs to be undertaken. The applicant shall ensure that spare parts are available for at least 5 years from the end of production of the notebook computer.

*Assessment and verification:* the applicant shall declare the compliance of the product with these requirements to the competent body.

**Criterion 11 — Design for disassembly**

The manufacturer shall demonstrate that the notebook computer can be easily dismantled by professionally trained personnel using the tools usually available to them, for the purpose of repairs and replacements of worn-out parts, upgrading older or obsolete parts, and separating parts and materials, ultimately for recycling or reuse.

To facilitate dismantling:

- (a) fixtures within the notebook computer shall allow for its disassembly, e.g. screws, snap-fixes, especially for parts containing hazardous substances;
- (b) circuit boards, and/or other precious metal-containing components, shall be easily removable using manual separation methods both from the product as a whole and from specific components (such as drives) that contain such boards to enhance recovery of high value material;
- (c) all plastic materials in covers/housing shall have no surface coatings incompatible with recycling or reuse;
- (d) plastic parts shall be of one polymer or be of compatible polymers for recycling and have the relevant ISO11469 marking if greater than 25 g in mass;
- (e) metal inlays that cannot be separated shall not be used;
- (f) data on the nature and amount of hazardous substances in the notebook computer shall be gathered in accordance with Council Directive 2006/121/EC<sup>(1)</sup> and the Globally Harmonised System of Classification and Labelling of Chemicals (GHS).

*Assessment and verification:* a test report shall be submitted with the application detailing the dismantling of the notebook computer. It shall include an exploded diagram of the notebook computer labelling the main components as well as identifying any hazardous substances in components. It can be in written or audiovisual format. Information regarding hazardous substances shall be provided to the competent body in the form of a list of materials identifying material type, quantity used and location.

**Criterion 12 — Lifetime extension**

Notebook computers shall have facilities that enable the following:

- (i) exchangeable and upgradeable memory,
- (ii) expansion capability: presence of at least three USB interfaces as well as a connection for an external monitor.

<sup>(1)</sup> OJ L 396, 30.12.2006, p. 850.

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The computer shall also be designed so that major components (including memory drives, CPUs and cards) can be exchanged and/or upgraded easily by the end-user. For example using snap, slide in/slide out or cartridge-style housing for components.

*Assessment and verification:* the applicant shall declare the compliance of the product with these requirements to the competent body.

**Criterion 13 — Packaging**

Where cardboard boxes are used, they shall be made of, at least, 80 % recycled material. Where plastic bags are used for the final packaging, they shall be made of, at least, 75 % recycled material or they shall be biodegradable or compostable, in agreement with the definitions provided by the EN 13432 or equivalent.

*Assessment and verification:* a sample of the product packaging shall be provided on application, together with a corresponding declaration of compliance with this criterion. Only primary packaging, as defined in European Parliament and Council Directive 94/62/EC <sup>(1)</sup>, is subject to the criterion.

**Criterion 14 — Information appearing on the Ecolabel**

Optional label with text box shall contain the following text:

- ‘— High energy efficiency,
- designed to facilitate recycling, repair and upgrading,
- mercury free backlights’.

*Assessment and verification:* the applicant shall declare the compliance of the product with this requirement, and shall provide a copy of the Ecolabel as it will appear on the packaging and/or product and/or accompanying documentation to the competent body.

<sup>(1)</sup> OJ L 365, 31.12.1994, p. 10.