

CEN Reference:

[Annex 2 to BT N 9650](#)

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EUROPEAN COMMISSION

ANNEX

M/XXX, A standardisation request to draft harmonised standards for computers and computer servers in support of implementation of Commission Regulation (EU) No 617/2013 of 26 June 2013, implementing Directive 2009/125/EC of the European Parliament and of the Council on ecodesign

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1. OBJECTIVES

1.1. Requested standardisation activities

The Commission requests pursuant the European standardisation organisations (ESOs) in accordance paragraphs 1 and 2 of Regulation (EU) No 1025/2012 to develop harmonised standards, as defined in Article 2(1) point c) of Regulation (EU) 1025/2012, in support of Commission Regulation (EU) 617/2013 of 26 June 2013, implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for computers and computer servers.

The ESOs are requested to develop harmonised standards, which cover the requirements set out in Regulation 617/2013 (hereby called ‘the Regulation’), **for desktop computers, integrated desktop computers, notebook computers, workstations, mobile workstations, desktop thin client and computer servers** and as indicated in the requested work programme given in Appendix I. The requested harmonised standards shall incorporate relevant measurement and calculation methods, including measurement and calculation methods set out in relevant Commission Communications¹ on transitional methods of measurement for the implementation of Commission Regulation (EU) 617/2013 of 26 June 2013.

1.2. Public interests and policy objectives

Commission Delegated Regulation 617/2013 has been adopted under Directive 2009/125/EC establishing a framework for the setting of ecodesign requirements for energy-related products. This Directive establishes the framework for setting Community ecodesign requirements with the aim of ensuring the free movement of such products within the internal market. It contributes to sustainable development by increasing energy efficiency and the level of protection of the environment, while at the same time increasing the security of electricity supply and reducing use costs by consumers.

Commission Delegated Regulation 617/2013 has been adopted under Directive 2010/30/EU. This Directive establishes a framework for the harmonisation of national measures on end-user information on the consumption of energy (and where relevant other essential resources during use), and supplementary information concerning energy-related products, thereby allowing end-users to choose more efficient products.

The Regulation establishes ecodesign requirements for the placing on the market of computers and computer servers. The Regulation requires that the measurement and calculation procedures for establishing energy performance and other environmental impacts shall be reliable, accurate and reproducible and take into account the generally recognised state of the art, in order to ensure comparable measurement and calculation procedures for the product types in the scope of the Regulations and to facilitate market surveillance activities.

¹ OJ C 110, of 11.04.2014, pp. 108 to 113

2. ACCEPTANCE OF THE REQUEST

The ESOs are asked to inform the Commission within one month after the receipt of this request whether they accept it. Conditional acceptance is considered as a refusal.

The acceptance reply may include a request for Union funding or may indicate if Union funding available for activities pursuant to Article 15 of Regulation (EU) No 1025/2012 is applied later and informing also on estimated amount needed and estimated date for a possible request. Such a funding request shall respect deadlines set in this standardisation request and in the mandated work programme, as agreed with the Commission according to clause 5.4, for the execution of the standardisation work.

3. EXPIRATION

Where the standardisation request is not accepted by any of the ESOs, this request shall expire three (3) months after its notification to the ESOs.

4. DESCRIPTION OF THE REQUIREMENTS FOR THE REQUESTED DELIVERABLES AND FOR THE STANDARDISATION WORK

4.1. Requirements for the harmonised standards

The following sections detail the aspects for which harmonised test procedures and other measurement methods are required in order to support the Regulation.

They also specify the set of standards and other deliverables requested in this mandate. This includes description of expected deliverables and requirements for scope and content.

4.1.1. General requirements

The requested harmonised standards shall be based on reliable, accurate and reproducible procedures and methods, which take into account the generally recognised state of the art. As a priority the requested harmonised standards shall be based and built on the existing standards listed in the Commission Communication² on transitional methods of measurement for the implementation of the Regulation.

The harmonised standards shall include the definitions of the product types and their main characteristics and of the parameters to be measured and/or calculated as listed in the Regulation.

4.1.2. Requirements on the coverage of the regulated parameters of computers and computer servers.

The requested harmonised standards should provide reliable, accurate and reproducible procedure and methods for the following parameters for which requirements are laid down in the Regulation:

² OJ C 110, of 11.04.2014, pp. 108 to 113

All computers:

- i. Power demand measurement for Maximum power (W)
- ii. Power demand measurement for Idle state (W)
- iii. Power demand measurement for Sleep mode (with and without Wake-On-Lan (WOL) enabled (W))
- iv. Power demand measurement for Off mode (with and without Wake-On-Lan (WOL) enabled (W))
- v. Power demand measurement for Lowest Power State (W)
- vi. Calculation of "frame buffer bandwidth" (FB _BW) for discrete graphics card (dGfx) categories G1 to G7
- vii. Method to determine whether a reduction in the speed of any active Ethernet network links when transitioning to sleep or off-with-WOL mode occurs.
- viii. Method to determine power management capability to sleep mode
- ix. Method to determine computer power down to sleep mode times
- x. Method to determine computer wake times from sleep mode
- xi. Method to determine timing of display power management
- xii. Method to determine whether WOL functionality can be enabled and disabled in sleep mode
- xiii. Method to determine whether wireless network connection(s) can be activated and deactivated
- xiv. Method to determine whether users are given a clear indication with a symbol, light or equivalent, when wireless network connection(s) have been activated or deactivated.
- xv. Method to determine noise levels (the declared A-weighted sound power level) of the computer in suitable power modes (e.g. operation/active, idle etc)
- xvi. Method to determine the total content of mercury (to be recorded at X,X mg) in integrated displays

Mobile computers only:

- Method to determine the minimum number of loading cycles that any main internal batteries must withstand

- Method to identify compliance with the requirement to label external packaging where internal batteries cannot be easily replaced by non-professional users.

Internal power supply units:

- Efficiency measurements at:
 - 100% of rated output power
 - 50% of rated output power
 - 20% of rated output power
 - 10% of rated output power
- Power factor measurements at:
 - 100% of rated output
 - 50% of rated output
 - 20% of rated output
 - 10% of rated output

Different or identical procedures may be established for the different types of internal power supply units used in computers (such as, but not limited to the following):

- a) Internal power supply units
- b) Multi-output (AC-DC) internal power supply units
- c) Single output (AC-DC) internal power supply units

4.1.3. Verification of the declared parameters for market surveillance purposes.

Each harmonised standard shall include a verification procedure which can be used to verify the declared parameters listed above for each product type (also listed above), in particular for market surveillance purposes.

Such a procedure shall:

- identify the sources of variability to be considered for market surveillance purposes;
- provide values for measurement uncertainties for the purposes of the verification procedure for the measured parameters taking into account the different sources of variability to be considered when a specific product is taken from the market and measured for market surveillance purposes;

- indicate if, in order to reduce the impact of variability to the system, specific criteria should be met by laboratories involved in the verification of the declared data (e.g. quality management system, qualification system, personnel training);
- ensure that the tolerances set out in the Regulations are not being used by manufacturers to systematically place products on the market and/or put them into service that are not compliant with the requirements of the Regulations or that systematically result in lower energy performance compared to what can be inferred by the declared energy or power demand values.

4.1.4. Templates for test reports

Each harmonised standard shall contain a template for a test report which indicates the information to be declared by the manufacturers in order to fulfil the eco-design requirements in the Regulation.

4.1.5. Indication of the requirements aimed to be covered by the requested harmonised standards

Each harmonised standard shall provide a clear, precise and transparent indication of the relationship between its normative elements and the corresponding legal requirements which it aims to cover and which are set out in the Regulation.

4.1.6. Requirements for the requested harmonised standards taking into consideration existing international standards

The harmonised standards included in the work programme referenced in clause 4.2.2 should be based on existing international standards or on other globally used technical specifications developed by organisations whose development processes are based on the principles recognised by the World Trade Organisation in the field of standardisation.

4.2. Requirements for the standardisation work

4.2.1. Project planning

The Relevant ESO shall ensure that an appropriate and continuous overall project planning is in place for the execution of this standardisation request. A **joint work plan** which describes, among others things, tasks, milestones, estimated or allocated resources, estimated or actual deadlines and timeframes as well as contact points shall be made accessible for the Commission.

4.2.2. Provision of the work programme

On the basis of the requirements given in this request and on the basis of Appendix I to this request the relevant ESO shall prepare a **joint preliminary work programme** indicating all requested work items, responsible technical bodies and a tentative timetable for the execution of the work.

It is at the discretion of the relevant ESOs to decide how many harmonised standards are needed for each product type in order to implement the requested work programme as given in Appendix I.

4.2.3. *Development of standards*

The **mandated work programme** as agreed with the Commission according to clause 5.4 will be the basis for the standardisation work.

This is without prejudice to other standardisation requests that are applicable in support of Union harmonised legislation other than Regulation 814/2013 and Regulation 812/2013.

Relevant ESOs shall report annually to the Commission on the execution of the mandated work programme. The reporting shall, in particular, contain information on the progress of the tasks set out in this request and indicate any difficulties encountered during the work.

Relevant ESOs shall inform the Commission before a work item is removed from the agreed work programme together with a rationale.

5. ARRANGEMENTS FOR THE EXECUTION OF THIS REQUEST

5.1. General conditions for executing this standardisation request

General conditions for the execution of the Commission's standardisation request apply during the standardisation work.

5.2. Project planning

The **work plan** shall be made available for the Commission at the same time when communicating annual reports according to clauses 5.3 and 5.5

5.3. Provision of the work programme

The **preliminary work programme** shall be sent to the Commission no later than **four (4)** months after the notification of this standardisation request by the Commission.

5.4. Agreement on the mandated work programme

The Commission will inform relevant ESO no later than **one (1)** month after receiving the preliminary work programme on the work items to be included in the mandated work programme including any priorities to be observed during the work.

5.5. Reporting

Relevant ESOs shall give the first **annual report 14** months after the notification of this standardisation request by the Commission and every 12 months afterwards.

Subsequent reporting shall be done on an annual basis and submitting a joint annual report which covers the execution of all eco-design related standardisation requests.

5.6. Other provisions

Relevant ESO shall maintain continuous liaisons with the Commission service responsible for this standardisation request during the execution of the request.

Possible disagreements and disputes on the interpretations of the requirements given in this standardisation request shall be addressed to the Commission service responsible for this standardisation requests and always informing the standardisation unit of Enterprise and Industry Directorate General.

Relevant ESO shall provide to the Commission the titles of harmonised standards in all the official languages of the European Union.

**APPENDIX I -
REQUESTED WORK PROGRAMME**

Reference information (title, subject matter, source document etc.)	Publication³
<p>Measurement of idle state (desktop computers, integrated desktop computers, notebook computers, workstations, mobile workstations, desktop thin clients, small-scale servers and computer servers) Adaptation of standard EN 62623:2013 - Desktop and notebook computers – Measurement of energy consumption - and any other relevant standard</p>	12/2015
<p>Measurement of sleep mode (desktop computers, integrated desktop computers, notebook computers, workstations, mobile workstations, desktop thin clients, small-scale servers and computer servers) Adaptation of standard EN 62623:2013 - Desktop and notebook computers – Measurement of energy consumption - and any other relevant standard</p>	12/2015
<p>Measurement of lowest power state (desktop computers, integrated desktop computers, notebook computers) Adaptation of standard EN 62623:2013 - Desktop and notebook computers – Measurement of energy consumption - and any other relevant standard</p>	12/2015
<p>Measurement of lowest power state (desktop computers, integrated desktop computers, notebook computers) Adaptation of standard: EN 50564:2011 Electrical and electronic household and office equipment - and any other relevant standard</p>	12/2015
<p>Measurement of off mode (desktop computer, integrated desktop computer, notebook computers, workstations, mobile workstations, desktop thin clients, small-scale servers and computer servers) Adaptation of standard EN 62623:2013 - Desktop and notebook computers – Measurement of energy consumption - and any other relevant standard</p>	12/2015
<p>Measurement of maximum power (workstations, mobile workstations, desktop thin clients, small-scale servers and</p>	12/2015

³ ‘Publication’ makes reference to the moment when the relevant ESO makes a standard available for its members or to the public.

<p>computer servers Adaptation of standard EN 62623:2013 - Desktop and notebook computers – Measurement of energy consumption - and any other relevant standard</p>	
<p>dGfx category for desktop computers, integrated desktop computers and notebook computers Adaptation of "Categories to be used with ECMA-383 Measuring the Energy Consumption of Personal Computing Products, 3rd edition (December 2010)" and any other relevant standard</p>	12/2015
<p>Measuring internal power supply efficiency (desktop computer, integrated desktop computer, thin client, workstation, small-scale server, computer servers) Adaptation of "Generalized Test Protocol for Calculating the Energy Efficiency of Internal Ac-Dc and Dc-Dc Power Supplies Revision 6.6 (April, 2012)" and any other relevant standard</p>	12/2015
<p>Measuring internal power supply efficiency (desktop computer, integrated desktop computer, thin client, workstation, small-scale server, computer servers) Adaptation of EN 50564:2011 Electrical and electronic household and office equipment - Measurement of low power consumption - and any other relevant standard</p>	12/2015
<p>Identifying power management function desktop computer, integrated desktop computer, notebook computer Adaptation of EN 62623:2013 - Desktop and notebook computers – Measurement of energy consumption - standard and any other relevant standard</p>	12/2015
<p>Measuring minimum number of loading cycles that batteries can withstand (notebook computers) Adaptation of standard EN 61960:2011 Secondary cells and batteries containing alkaline or other non-acid electrolytes - Secondary lithium cells and batteries for portable applications - and any other relevant standard</p>	12/2015
<p>Measuring total content of mercury (computers with an integrated display) Adaptation of one of the below standards: IEC 62321-1 ed1.0 - Determination of certain substances in electrotechnical products - Part 1: Introduction and overview IEC 62321-2 ed1.0 - Determination of certain substances in electrotechnical products - Part 2: Disassembly, disjunction and mechanical sample preparation and any other relevant standard</p>	12/2015

Adaptation of standard IEC 62321-3-1 ed1.0 - Determination of certain substances in electrotechnical products - Part 3-1: Screening - Lead, mercury, cadmium, total chromium and total bromine using X-ray fluorescence spectrometry - and any other relevant standard	12/2015
Adaptation of standard IEC 62321-4 ed1.0 - Determination of certain substances in electrotechnical products - Part 4: Mercury in polymers, metals and electronics by CV-AAS, CV-AFS, ICP-OES and ICP-MS - and any other relevant standard	12/2015
Adaptation of standard IEC 62554 ed1.0 - Sample preparation for measurement of mercury level in fluorescent lamps - and any other relevant standard	12/2015
Measuring noise levels (the declared A-weighted sound power level) (desktop computer, integrated desktop computer, notebook computer, workstation, mobile workstation, desktop thin client, small-scale server, computer server) Adaptation of one or more of the below standards and any other relevant standard: ECMA-109 2 nd edition (December 1987) Declared Noise Emission Values of Computer and Business Equipment	12/2015
ECMA-74 11 th edition (December 2010) Measurement of Airborne Noise emitted by Information Technology and Telecommunications Equipment	12/2015

**APPENDIX II -
LIST OF REFERENCED STANDARDS**

ECMA-109 2nd edition (December 1987)	Declared Noise Emission Values of Computer and Business Equipment
ECMA-74 11th edition (December 2010)	Measurement of Airborne Noise emitted by Information Technology and telecommunications Equipment
IEC 62554 ed1.0	Sample preparation for measurement of mercury level in fluorescent lamps.
IEC 62321 ed1.0	Determination of certain substances in electrotechnical products
EN 61960:2011	Secondary cells and batteries containing alkaline or other non-acid electrolytes — Secondary lithium cells and batteries for portable applications
EN 50563:2011	External a.c. — d.c. and a.c. — a.c. power supplies — Determination of no-load power and average efficiency of active modes.
EN 62623:2013	Desktop and notebook computers — Measurement of energy consumption:
EPRI and Ecova	Generalized Test Protocol for Calculating the Energy Efficiency of Internal Ac-Dc and Dc-Dc Power Supplies Revision 6.6 (April, 2012). Online at www.plugloadsolutions.com
EN 50564:2011	Electrical and electronic household and office equipment – Measurement of low power consumption
ECMA-383	Categories to be used with ECMA-383 Measuring the Energy Consumption of Personal Computing Products, 3rd edition (December 2010). Online at http://www.ecma-international.org/publications/standards/Categories_to_be_used_with_Ecma-383.htm