

EU GPP Criteria for Office IT Equipment (Draft revision v1: 30/04/14)

Green Public Procurement (GPP) is a voluntary instrument. This document provides the EU GPP criteria developed for the Office IT Equipment product group. The accompanying Technical Background Report provides full rationales supporting the reasons for selecting these criteria and references for further information.

The criteria are split into Selection Criteria, Technical Specifications, Award Criteria and Contract Performance Clauses, with the latter to be developed further based on stakeholder input. For each criteria area two sets of criteria are presented:

- The core criteria are those suitable for use by any contracting authority across the Member States and address the key environmental impacts. They are designed to be used with minimum additional verification effort or cost increases.
- The comprehensive criteria are for those who wish to purchase the best products available on the market. These may require additional verification effort or a slight increase in cost compared to other products with the same functionality.

Core criteria	Comprehensive criteria
TECHNICAL SPECIFICATIONS	
<p>A1. Minimum Energy performance for computers</p> <p>The energy efficiency performance of computers shall meet the appropriate energy-efficiency requirements set out in the Energy Star 6.0 standards.</p> <p>Tablet computers shall be exempted from this requirement.</p> <p>Verification: The tenderer shall submit a test report carried out according to the Energy Star v6.0 test methods for the computer models.</p>	<p>A1. Minimum Energy performance for computers</p> <p>The energy efficiency performance of computers shall meet the appropriate energy-efficiency requirements set out in the latest Energy Star standards.</p> <p>Capability adjustments allowed under the Agreement as amended by Energy Star v6.0 may be applied at the same level, except in the case of discrete graphics processing units (GPUs) where maximum additional allowance shall be given to:</p> <ul style="list-style-type: none"> • Desktop Computers: 90 W;

	<ul style="list-style-type: none"> • Notebook Computers: 33 W. <p>Tablet computers shall be exempted from this requirement.</p> <p>Verification: The tenderer shall submit a test report carried out according to the Energy Star test methods for the computer models and as applicable at the time of purchase.</p>
<p>A2. Minimum energy performance of displays</p> <p>The power demand of a computer displays shall not exceed the following Energy Efficiency Index (EEI) determinations in accordance to the equations as set out in Annex II of the <i>Commission Regulation (EU) No. ## of ## implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for electronic displays</i>¹:</p> <p>(a) For electronic displays with a visible area of the screen ≤ 15.9 dm²:</p> <p>(i) At the date of adoption of the Decision: $EEI \leq 0.50$</p> <p>(ii) Two years from the date of adoption of the Criteria: $EEI \leq 0.40$</p> <p>(b) For electronic displays with a visible area of the screen > 15.9 dm²:</p> <p>(i) At the date of adoption of the Decision: $EEI \leq 0.40$</p> <p>(ii) Two years from the date of adoption of the Criteria: $EEI \leq 0.30$</p>	<p>A2. Minimum energy performance of displays</p> <p>The on-mode power demand of a computer displays shall not exceed the following Energy Efficiency Index (EEI) determinations in accordance to the equations as set out in Annex II of the <i>Commission Regulation (EU) No. ## of ## implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for electronic displays</i>²:</p> <p>(a) For electronic displays with a visible area of the screen ≤ 15.9 dm²:</p> <p>(i) At the date of adoption of the Decision: $EEI \leq 0.40$</p> <p>(ii) Two years from the date of adoption of the Criteria: $EEI \leq 0.30$</p> <p>(b) For electronic displays with a visible area of the screen > 15.9 dm²:</p> <p>(i) At the date of adoption of the Decision: $EEI \leq 0.30$</p> <p>(ii) Two years from the date of adoption of the Criteria: $EEI \leq 0.20$</p> <p>Verification: The tenderer shall submit a test report carried out according to the measurement methods indicated in Annex III of the Commission Regulation (EU) No. ## of ## implementing Directive 2009/125/EC of the European</p>

¹ Not yet published.

² Not yet published.

<p>Verification: The tenderer shall submit a test report carried out according to the measurement methods indicated in Annex III of the Commission Regulation (EU) No. ## of ## implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for electronic displays and as applicable at the time of purchase.</p>	<p>Parliament and of the Council with regard to ecodesign requirements for electronic displays and as applicable at the time of purchase.</p>
<p>B1. Mercury in display backlights Mercury shall not be present in LCD backlights at a concentration of greater than 3.5 mg per lamp.</p> <p>Verification: Tenderers shall provide an analytical testing report for the LCD backlights showing compliance or shall demonstrate that an alternative technology is used that does not require mercury.</p>	<p>B1. Mercury in display backlights LCD backlights shall be mercury free.</p> <p>Verification: Tenderers shall demonstrate that an alternative technology is used that does not require mercury.</p>
	<p>B2. Flame retardants in Printed Circuit Boards and casings With reference to the EU Ecolabel hazard list (see Annex 1) where a flame retardant is used then the only hazard classifications they may carry are H412 and H413.</p> <p>Verification: The hazard classification or non-classification of the flame retardants used shall be independently verified by a third party toxicologist or by reference to Governmental or third party verified evidence studies. Evidence from the use of third party verified screening tools which provide results that are equivalent, shall be accepted.</p>
	<p>B3. Plasticisers in external cables With reference to the EU Ecolabel hazard list (see Annex 1) plasticisers used in external cables may only carry the hazard classifications H412 and H413</p>

	<p>Verification: The hazard classification or non-classification of the flame retardants used shall be independently verified by a third party toxicologist or by reference to Governmental or third party verified evidence studies. Evidence from the use of third party verified screening tools which provide results that are equivalent, shall be accepted.</p>
<p>C1. Warranty period The tenderer shall provide a minimum of a 2 year warranty or service agreement for the computer product. For rechargeable batteries, if applicable, the period should be at least one year.</p> <p>Verification: A copy of the warranty or service agreement shall be provided in the tender.</p>	<p>C1. Warranty period The tenderer shall provide a minimum of a 3 year warranty or service agreement for the computer product. For rechargeable batteries, if applicable, the period should be at least one year.</p> <p>Verification: A copy of the warranty or service agreement shall be provided in the tender.</p>
<p>C2. Continued availability of spare parts The tenderer shall guarantee the availability of spare parts for at least 3 years from the time of purchase.</p> <p>Verification: The tenderer shall provide a declaration that original or backwardly compatible spare parts, including rechargeable batteries (if applicable), will be available to the contracting authority or through a service provider.</p>	<p>C2. Continued availability of spare parts The tenderer shall guarantee the availability of spare parts for at least 5 years from the time of purchase. Parts with improved specifications shall be backwardly compatible.</p> <p>Verification: The tenderer shall provide a declaration that original or backwardly compatible spare parts, including rechargeable batteries (if applicable), will be available to the contracting authority or through a service provider.</p>

C3. Upgradeable and replaceable parts

The following components of computers, if applicable, shall be easily accessible and replaceable by the use of universal tools (i.e. widely used commercially available tools as screwdriver, spatula, plier, or tweezers):

Computers

- (i) HDD/SSD,
- (ii) Memory,
- (iii) Rechargeable battery,

Displays

- (i) Screen assembly and LCD backlight
- (ii) Power and control circuit boards
- (iii) Stands

Guidance to be provided in an Annex on tools and access to define easily replaceable.

Verification: A manual shall be provided by the tenderer which shall include an exploded diagram of the device illustrating the parts that can be accessed and replaced. It shall also be confirmed which parts are covered by service agreements under the warranty.

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The following components of computers, if applicable, shall be easily accessible and replaceable by the use of universal tools (i.e. widely used commercially available tools as screwdriver, spatula, plier, or tweezers):

Computers

- (i) HDD/SSD,
- (ii) Memory,
- (iii) Rechargeable battery,
- (iv) Screen assembly and LCD backlight,
- (v) Keyboard and mouse pad, and
- (vi) Cooling fan.

Displays

- (i) Screen assembly and LCD backlight
- (ii) Power and control circuit boards
- (iii) Stands

Guidance to be provided in an Annex on tools and access to define easily replaceable.

Verification: A manual shall be provided by the tenderer which shall include an exploded diagram of the device illustrating the parts that can be accessed and replaced. It shall also be confirmed which parts are covered by service agreements under the warranty.

<p>C4. External interfaces</p> <p>The following interfaces and external device connections shall be provided as a minimum:</p> <p>(i) Notebook PCs and Mobile Thin Clients:</p> <ul style="list-style-type: none"> • Presence of at least 3 USB interfaces, of which at least one USB 3.0. <p>(ii) Tablet PCs:</p> <ul style="list-style-type: none"> • Presence of at least 1 USB interface. <p>Verification: The applicant shall declare the compliance of the product with these requirements to the competent body.</p>	<p>C4. External interfaces</p> <p>The following interfaces and external device connections shall be provided as a minimum:</p> <p>(i) Notebook PCs and Mobile Thin Clients:</p> <ul style="list-style-type: none"> • Presence of at least 3 USB interfaces, of which at least one USB 3.0. • One additional interface for an external monitor <p>(ii) Tablet PCs:</p> <ul style="list-style-type: none"> • Presence of at least 1 USB 3.0 interface. • Support for external monitor, keyboard and mouse. <p>Verification: The applicant shall declare the compliance of the product with these requirements to the competent body.</p>
<p>D1. Stationary computer drives</p> <p>The data storage drive or drives used in desktops, workstations and thin clients shall have an Annual Failure Rate (AFR) of less than 0.9%.</p> <p>For small-scale servers the Annual Failure Rate shall be less than 0.6% and a Bit Error Rate of <1 in 10¹⁶ bits.</p> <p>Verification: The tenderer shall provide a specification for the drive or drives integrated into the product. This shall be obtained from the drive manufacturer and shall be supported by a technical report</p>	<p>D1. Stationary computer drives</p> <p>The data storage drive or drives used in desktops, workstations and thin clients shall have an Annual Failure Rate (AFR) of less than 0.6%.</p> <p>For small-scale servers the Annual Failure Rate shall be less than 0.6% and a Bit Error Rate of <1 in 10¹⁶ bits.</p> <p>Verification: The tenderer shall provide a specification for the drive or drives integrated into the product. This shall be obtained from the drive manufacturer and shall be supported by a technical report verifying that the drive complies with the specified performance requirements.</p>

<p>verifying that the drive complies with the specified performance requirements.</p>	
<p>D2. Notebook computer drives The primary data storage drive used in notebooks shall be designed to withstand a shock of 400 G (operating) and 1000 G (non-operating). Verification: The applicant shall provide a specification for the drive or drives integrated into the product. This shall be obtained from the drive manufacturer and shall be supported by a test report verified according to IEC 62131.</p>	<p>D2. Notebook computer drives The primary data storage drive used in notebooks shall be designed to withstand a shock of 400 G (operating) and 1000 G (non-operating). Verification: The applicant shall provide a specification for the drive or drives integrated into the product. This shall be obtained from the drive manufacturer and shall be supported by a test report verified according to IEC 62131.</p>
	<p>E1. Notebook durability: Drop test The applicant shall submit the notebook model for durability testing. This shall consist of a 122 cm drop height onto a 5.0 cm of plywood surface on concrete, 4-6 drops per sample to a total of 26 drops covering each face, edge and corner. The notebook shall be non-operational during the test but shall function following the test. Verification: A third party verified test report shall be provided by the tenderer showing compliance with the requirements according to US Department of Defence standard MIL-STD-810G, 516.6, Procedure IV.</p>
	<p>F1. Notebook durability: Water ingress The applicant shall submit the notebook model for durability testing. This shall consist of 0.2 litres of water being poured evenly over the main body of the open keyboard face of the notebook, drained after 3 seconds, inverted on its side for 45 seconds and then tested after 2 minutes.</p>

	<p>The notebook shall be operational during and after the test.</p> <p>Verification: A third party verified test report shall be provided by the tenderer showing compliance with the requirements according to US Department of Defence standard MIL-STD-810G, 506.5, Procedure III or IEC 60529.</p>
	<p>G1. Secure computer sanitisation, re-use and recycling</p> <p>Tenderers shall be invited, either in separate or combined ITT's, to offer:</p> <ul style="list-style-type: none"> (i) a collection service that maximises the re-use of computers and their displays at the end of their useful operation, (ii) the recycling of components such as HDD or SSD, as well as displays, at the end of their useful life. <p>The re-use service shall be in full accordance with the contracting authorities security requirements for data protection and sanitisation.</p> <p>Points shall be awarded according to the proportion of computers that, following a cost effective process of sanitisation, can be successfully re-used and/or drives that can be recycled.</p> <p>Verification:</p> <p>The tenderer shall provide details of the software they will use to meet the required security protocol levels and the proposed re-use and/or recycling options. The end market for recycled products or components shall be confirmed.</p> <p>Performance shall be monitored during the contract period against the re-use and recycling rates estimated in the tender.</p>

	<p>H1. Recyclability of plastics and metals</p> <p>The recyclability of the metal or plastic housings used and enclosures shall be verified.</p> <p>Plastic used for housings and enclosures shall consist of a maximum of two polymers and shall not have surface coatings or metal inlays.</p> <p>Verification:</p> <p>Recyclability shall be verified by a declaration from a permitted treatment operation in accordance with Article 23 of Directive 2008/98/EC (the WEEE Directive) that there is an end-market for the materials.</p>
<p>H2. Marking of plastics</p> <p>Plastic parts of greater than 200 grams shall be marked in accordance with ISO 11469 and ISO 1043, sections 1-4. Marking shall not be required where it would impact on the performance or functionality of the plastic part, including screen light guides.</p> <p>Verification:</p> <p>Documentation shall be provided showing conformity to the above mentioned ISO standards. A technical justification shall be provided where marking cannot be applied.</p>	<p>H2. Marking of plastics</p> <p>Plastic parts of greater than 100 grams shall be marked in accordance with ISO 11469 and ISO 1043, sections 1-4. Marking shall not be required where it would impact on the performance or functionality of the plastic part, including screen light guides.</p> <p>Verification:</p> <p>Documentation shall be provided showing conformity to the above mentioned ISO standards. A technical justification shall be provided where marking cannot be applied.</p>

AWARD CRITERIA

A1. Minimum energy performance of computers and displays

Additional points shall be awarded in proportion to the improvement in energy efficiency of stationary computer devices and displays relative to the minimum requirements in A1 or A2 (as applicable).

Verification: Submission by the tenderer of a test report that is in-line with the methods appropriate to the type of device, as specified in A1 and/or A2.

A1. Minimum energy performance of computers and displays

Additional points shall be awarded in proportion to the improvement in energy efficiency of stationary computer devices and displays relative to the minimum requirements in A1 or A2 (as applicable).

Verification: Submission by the tenderer of a test report that is in-line with the methods appropriate to the type of device, as specified in A1 and/or A2.

A2. Display power management

Additional points shall be awarded to tenderers who are able to supply displays with the following advanced power management features:

- (i) *Automatic Brightness Control:* The computer monitor shall have a light sensor that automatically adjusts the picture brightness to the ambient light conditions. In on mode at an ambient light level of ≤ 1 Lux the power consumption shall be at least 20 percent lower than in on mode at an ambient light level of 300 Lux.

(ii) Other options to be discussed

Verification:

The tenderer shall submit a test report demonstrating that the on mode power consumption measured according to EN 62087 is met.

	<p>B1. Flame retardants in other components</p> <p>With reference to the EU Ecolabel hazard list (see Annex 1) points shall be awarded according to the restriction of hazards in internal connectors, CPU's, disc drives, Optical drives (e.g. DVD) and power supply units.</p> <p>The flame retardant is used may only carry the hazard classifications H412 and H413.</p> <p>Verification: The hazard classification or non-classification of the flame retardants used shall be independently verified by a third party toxicologist or by reference to Governmental or third party verified evidence studies. Evidence from the use of third party verified screening tools which provide results that are equivalent, shall be accepted.</p>
<p>C1. Continued availability of spare parts</p> <p>The tenderer shall provide a price list for the main component parts (list to specified/inserted) that are replaceable during the 3 year period stated in C2. Points shall be awarded according to the competitiveness of the replacement costs.</p> <p>Verification: The tenderer shall provide a price list for original or backwardly compatible spare parts, including rechargeable batteries (if applicable).</p>	<p>C1. Continued availability of spare parts</p> <p>The tenderer shall provide a price list for the main component parts (list to specified/inserted) that are replaceable during the 5 year period stated in C2. Points shall be awarded according to the competitiveness of the replacement costs.</p> <p>Verification: The tenderer shall provide a price list for original or backwardly compatible spare parts, including rechargeable batteries (if applicable).</p>

	<p>C2. Warranty period</p> <p>Additional points shall be awarded to each additional year of warranty or service agreement offered more than the minimum technical specification for the computers and batteries, where applicable, and for displays.</p> <p>Verification: A copy of the warranty or service agreement shall be provided in the tender.</p>
<p>D1. Battery life and endurance</p> <p>Points shall be awarded for additional battery life and endurance cycles greater than a minimum of 7 hours and 400 cycles (with 70% capacity retention) respectively. Cycle endurance shall be weighted higher than battery life.</p> <p>Verification:</p> <p>The tenderer shall provide test reports showing the batteries performance in the areas chosen:</p> <ul style="list-style-type: none"> (i) Battery life shall be verified and benchmarked using Mobilemark software or an equivalent tool (see Annex x for minimum software requirements – <i>to be defined</i>). (ii) Battery endurance shall be verified according to the IEC EN 61960 ‘endurance in cycles’ test carried out at 25°C and at a rate of either 0.2 I_t A or 0.5 I_t A (accelerated test procedure). 	<p>D1. Battery life and endurance</p> <p>Points shall be awarded for additional battery life and endurance cycles greater than a minimum of 7 hours and 500 cycles (with 80% capacity retention) respectively. Cycle endurance shall be weighted higher than battery life.</p> <p>The cycle performance may be achieved using software which partially charges the battery. In this case the applicant shall pre-install the software as the default charging routine. The maximum partial charge shall provide a minimum battery of 7 hours.</p> <p>Verification:</p> <p>The tenderer shall provide test reports showing the batteries performance in the areas chosen:</p> <ul style="list-style-type: none"> (i) Battery life shall be verified and benchmarked using Mobilemark software or an equivalent tool (see Annex x for minimum software requirements – <i>to be defined</i>). (ii) Battery endurance shall be verified according to the IEC EN 61960 ‘endurance in cycles’ test carried out at 25°C and at a rate of either 0.2 I_t A or 0.5 I_t A (accelerated test procedure).

	<p>E1. Notebook computer drives</p> <p>Additional points shall be awarded if notebook primary data storage drives meet one of the following specifications:</p> <ul style="list-style-type: none"> (i) The HDD drive head should retract within a maximum of 300 milliseconds upon detection of the notebook having been dropped. (ii) The drive installed is Solid State. <p>Verification: The applicant shall provide a specification for the drive or drives integrated into the product. This shall be obtained from the drive manufacturer and shall be supported by a technical report verifying that the drive complies with the specified performance requirements.</p>
	<p>F1. Notebook durability: Screen resistance</p> <p>The applicant shall submit the notebook model for durability testing. This shall consist of a 25kg loading to be applied to the centre of the screen lid with the notebook placed on a flat surface. The screen to then be inspected for lines, spots and cracks.</p> <p>Verification: The applicant shall provide test reports showing that the model has been tested and has met the benchmarks for durability. Testing and verification shall be carried out by a third party.</p> <p><i>No formal test method exists as a reference: stakeholder input is required. There is potential to refer to panel pressure test methods.</i></p>

	<p>F2. Notebook durability: Keyboard lifespan</p> <p>The applicant shall submit the notebook model for durability testing. This shall consist of a 10 million random keystrokes simulation for <i>(to be specified)</i> product samples. The keys to then be inspected for their integrity.</p> <p>Verification: The applicant shall provide test reports showing that the model has been tested and has met the benchmarks for durability. Testing and verification shall be carried out by a third party.</p> <p><i>No formal test method exists as a reference: stakeholder input is required.</i></p>
	<p>G1. Secure computer sanitisation, re-use and recycling</p> <p>Tenders shall be invited, either in separate or combined ITT's, to offer:</p> <ul style="list-style-type: none"> (iii) a collection service that maximises the re-use of computers and their displays at the end of their useful operation, (iv) the recycling of components such as HDD or SSD, as well as displays, at the end of their useful life. <p>The re-use service shall be in full accordance with the contracting authorities security requirements for data protection and sanitisation.</p> <p>Points shall be awarded according to the proportion of computers that, following a cost effective process of sanitisation, can be successfully re-used and/or drives that can be recycled.</p> <p>Verification: The tenderer shall provide details of the software they will use to meet the required security protocol levels and the proposed re-use and/or recycling options. The end market for recycled products or components shall be</p>

	<p>confirmed.</p> <p>Performance shall be monitored during the contract period against the re-use and recycling rates estimated in the tender.</p>
<p>H1. Plastic recycled content</p> <p>Points shall be awarded for post-consumer recyclate content incorporated into internal and external housings, casings and structures at or greater than 10%.</p> <p>This criteria shall not be applied to products with metal casings.</p> <p>Verification: The tenderer shall provide documentation verifying traceability for the post-consumer recycled content according to ISO 15343 or equivalent standards or schemes.</p>	<p>H1. Plastic recycled content</p> <p>Points shall be awarded for post-consumer recyclate content incorporated into internal and external housings, casings and structures at or greater than 25%.</p> <p>This criteria shall not be applied to products with metal casings.</p> <p>Verification: The tenderer shall provide documentation verifying traceability for the post-consumer recycled content according to ISO 15343 or equivalent standards or schemes.</p>
<p>I1. Dismantling potential of devices</p> <p>Points shall be awarded for time efficient manual disassembly and extraction of the following listed components from devices:</p> <p><i>All products</i></p> <p>(i) Printed Circuit Boards relating to computing functions >10 cm²</p> <p><i>Stationary computer products</i></p> <p>(i) Internal Power Supply Unit (ii) HDD drives</p>	<p>I1. Dismantling potential of devices</p> <p>Points shall be awarded for time efficient manual disassembly and extraction of the following listed components from devices:</p> <p><i>All products</i></p> <p>(i) Printed Circuit Boards relating to computing functions >10 cm²</p> <p><i>Stationary computer products</i></p> <p>(i) Internal Power Supply Unit (ii) HDD drives</p>

<p><i>Portable computer products</i></p> <p>(i) Rechargeable battery</p> <p><i>Displays (including integrated units)</i></p> <p>(i) Printed Circuit Boards >10 cm²</p> <p>(ii) Thin Film Transistor unit and film conductors in display unit >100 cm²</p> <p>Extraction shall be possible using widely used commercially available tools (i.e. pliers, screw-drivers, cutters and hammers as defined by ISO 5742, ISO 1174, ISO 15601).</p> <p>The time required to extract display components shall not exceed the following:</p> <ol style="list-style-type: none"> 220 seconds for screen sizes smaller than 25 inches; 320 seconds for screen sizes greater than or equal to 25 inches and smaller than 40 inches; 480 seconds for screen sizes greater than or equal to 40 inches and smaller than 55 inches. <p>For stationary computers and notebooks the threshold shall be 600 seconds.</p> <p>Verification: The tenderer shall provide a 'test dismantling report' detailing the dismantling sequence, the reported timings and the tools</p>	<p><i>Portable computer products</i></p> <p>(i) Rechargeable battery</p> <p>(ii) HDD drive</p> <p><i>Displays (including integrated units)</i></p> <p>(i) Printed Circuit Boards >10 cm²</p> <p>(ii) Thin Film Transistor unit and film conductors in display unit >100 cm²</p> <p>(iii) Polymethyl Methacrylate (PMMA) film light guide (screen size >15 inches)</p> <p>Extraction shall be possible using widely used commercially available tools (i.e. pliers, screw-drivers, cutters and hammers as defined by ISO 5742, ISO 1174, ISO 15601).</p> <p>The time required to extract display components shall not exceed the following:</p> <ol style="list-style-type: none"> 220 seconds for screen sizes smaller than 25 inches; 320 seconds for screen sizes greater than or equal to 25 inches and smaller than 40 inches; 480 seconds for screen sizes greater than or equal to 40 inches and smaller than 55 inches. <p>For stationary computers and notebooks the threshold shall be 600 seconds.</p> <p>Verification: The tenderer shall provide a 'test dismantling report' detailing the dismantling sequence, the reported timings and the tools needed for the</p>
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<p>needed for the disassembly.</p> <p>The disassembly sequence shall be provided for verification by either:</p> <ul style="list-style-type: none">(i) A third party, testing body.(ii) A specialised recycling firm that is a permitted treatment operation in accordance with Article 23 of Directive 2008/98/EC. <p>The report may be submitted either in writing or in digital format, supported by photos, drawings and/or videos.</p>	<p>disassembly.</p> <p>The disassembly sequence shall be provided for verification by either:</p> <ul style="list-style-type: none">(i) A third party, testing body.(ii) A specialised recycling firm that is a permitted treatment operation in accordance with Article 23 of Directive 2008/98/EC. <p>The report may be submitted either in writing or in digital format, supported by photos, drawings and/or videos.</p>
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