

Office Building Design, Construction and Management

Definition:

This GPP criteria set addresses the procurement process for construction works and other related services, including their building design, site preparation, construction, servicing and ongoing management. The following Product Groups are included in these guidelines:

- Detailed design and performance requirements
- Construction of the building or major renovation works

Major renovations of buildings are also addressed within the scope of the criteria. Such renovations are defined by the Energy Performance of Buildings Directive 2010/31/EU as instances where:

- the total cost of the renovation relating to the building envelope or the technical building systems is higher than 25 % of the value of the building, excluding the value of the land upon which the building is situated; or
- more than 25 % of the surface of the building envelope undergoes renovation.

List of product items:		Pages:
1	Detailed Design and Performance requirements	1
2	Construction of the building or major renovation works	3

Detailed Design and Performance requirements		
1.1	Subject Matter (suggestion on how to draft the tender title)	
	The construction of new office buildings to high energy and environmental performance standards or The carrying out of major renovations to exiting office buildings to high energy and environmental performance standards	
1.2	Technical Specification (to be included in the terms of reference / technical specifications)	
	Minimum Energy performance For new-build and major renovation projects, the cost optimum primary energy demand for a public office building expressed in kWh/m ² as calculated according to the methodology in Commission Delegated Regulation No 244/2012. Where the national minimum requirement is stricter than these requirements, the award criterion 8.1 shall be used instead of this criterion to encourage further cost effective improved performance.	
	Verification:	The Design team or the Design & Build tenderer or the DBO tenderer shall submit information demonstrating that the building design to be submitted to the local building control for permitting complies with the GPP requirements. This shall consist of the energy performance of the building calculated according to EN 15603 or equivalent, or the national calculation methodology applicable where the building is situated.

	Recyclable waste storage Dedicated storage space shall be provided within the building, or within the curtilage of the building, to facilitate the segregation of organic, recyclable and mixed materials and end-of-life products by occupiers. The waste collection area(s) shall be sized based on the likely level of occupation in order to accommodate sufficient containers to maximise recycling whilst also handling residual waste.					
	Verification:	Design teams or contractors shall provide plans of the building showing the space(s) that have been designated for waste segregation and collection as well as the assumptions made in order to estimate the space provision.				
	Incorporation of recycled content in concrete and masonry A minimum of 15% by value of recycled content, reused content and/or by-products shall be incorporated for the sum of the main building elements in the table below. <table><tr><th>New-build</th><th>Renovation</th></tr><tr><td><ul style="list-style-type: none">- The structural frame, including beams, columns and slabs- External walls- Floors and ceilings- Internal walls- Roofs- Foundations and substructure</td><td><ul style="list-style-type: none">- External walls- Internal walls- Re-roofing<p>Where additional floors or building extensions are foreseen that account for .25% of the existing useable floor area the list of new-build elements shall also apply.</p></td></tr></table> The recycled content shall be calculated on the basis of an average mass balance of re-used, recycled materials and/or by-products according to how they are produced and delivered to site (as applicable): <ul style="list-style-type: none">- For each ready mixed batch from which deliveries are dispatched to the construction site, in accordance with EN 12620 (aggregates for concrete) and EN 206 (concrete) or equivalent;- On an annual basis for factory made panels, columns, blocks and elements with claimed content levels, in accordance with EN 12620 (aggregates for concrete) and EN 206 (concrete) or equivalent;		New-build	Renovation	<ul style="list-style-type: none">- The structural frame, including beams, columns and slabs- External walls- Floors and ceilings- Internal walls- Roofs- Foundations and substructure	<ul style="list-style-type: none">- External walls- Internal walls- Re-roofing <p>Where additional floors or building extensions are foreseen that account for .25% of the existing useable floor area the list of new-build elements shall also apply.</p>
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	Verification:	<p>The tenderers for main contractor, the Design & Build contractor or the DBO contractor shall indicate the total recycled content quantifying the proportional contribution of the total recycled content to the overall value of the specified building elements, based on the information provided by the producer(s) of the construction product.</p> <p>The tenderers for main contractor, the Design & Build contractor or the DBO contractor shall describe how the overall value will be calculated and verified, including, as a minimum, batch documentation, factory production control documentation and delivery documentation, and how the third party verification will be arranged during the construction phase.</p>				

Construction of the building or major renovation works		
	Demolition waste audit and management plan A minimum of 55% by weight of the non-hazardous waste generated during demolition and strip-out works, and excluding excavations and backfilling, shall be prepared for re-use, recycling and other forms of material recovery (excluding backfilling in existing quarries). This shall include: (i) Timber, glass, metal, brick, stone, ceramic and concrete materials recovered from the main building structures; (ii) Fit-out and non-structural elements, to include doors and their frames, flooring, ceiling tiles, gypsum panels, plastic profiles, insulation materials window frames, window glass, bricks, concrete in the form of blocks and precast elements, steel rebars. The contractor shall carry out a pre-demolition/strip-out audit in order to determine what can be re-used, recycled or recovered. This shall comprise: (i) Identification and risk assessment of hazardous waste (including WEEE) that may require specialist handling and treatment, or emissions that may arise during demolition; (ii) A bill of quantities with a breakdown of different building materials and products, (iii) An estimate of the % re-use and recycling potential based on proposals for systems of separate collection during the demolition process, The materials, products and elements identified shall be itemised in the Demolition Bill of Quantities	
	Verification:	The lead construction contractor, Design & Build contractor or DBO contractor shall submit a pre-demolition/strip-put audit that contains the specified information. A system shall be used to monitor and account for waste arisings. The destination of consignments of waste and end-of-waste materials shall be tracked using consignment notes and invoices. Monitoring data shall be provided to the contracting authority.
	Installation and commissioning of building energy systems The following systems shall be designed, installed and commissioned in conformance with the agreed designs and specifications: - Heating, cooling and ventilation (HVAC) - Low and Zero Carbon energy technologies - Building Energy Management System (BEMS) - Lighting controls Each system shall be subjected to functional performance testing, including measurement of performance. HVAC systems shall be in conformance with EN12599 or equivalent and, as relevant to other systems installed, other applicable EN, ISO or national standards, or their equivalent.	
	Verification:	The main construction contractor or the DBO contractor shall describe and commit to carrying out a functional performance testing routine in order to ensure that the systems perform within design parameters.