EU GPP Criteria for Sanitary Tapware

Green Public Procurement (GPP) is a voluntary instrument. This document provides the EU GPP criteria developed for the sanitary tapware product group. The accompanying Technical Background Report provides full details on the reasons for selecting these criteria and references for further information.

For each product/service group 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.

1. Definition and Scope

This document covers procurement actions for sanitary tapware. For the purpose of these criteria, sanitary tapware is defined as covering the following groups of products:
1) taps,
2) showerheads,
3) showers.

The definitions of these product groups are as follows[1]:

"tap" means a directly or indirectly, manually mechanically and/or automatically operated valve from which water is drawn.

"showerhead" means
(a) a fixed overhead or side shower outlet, body jet shower outlet or similar device which may be adjustable, and which directs water from a supply system onto the user; or
(b) a moveable hand held shower outlet which is connected to a tap with a shower hose and can be hung directly on the tap or on the wall with the aid of an appropriate support;

"shower" means a combination of showerhead and interrelated control valves and/or devices packaged and sold as a kit;

[1] Further definitions and terms used in this criteria document are given in the Glossary at the end of the decoment.

Included in the product group is sanitary tapware used typically in public utility buildings like schools, office buildings, hospitals, swimming pools, sport centres, and other for both kind of functionalities: non-domestic and domestic-like ones.

The GPP criteria do not cover the following product kinds:

- Bathtub taps,
- External taps,
- Non-domestic special purpose sanitary tapware,
- Taps covered under the GPP criteria set for gardening products and services.

2. Key Environmental Impacts

The key environmental impacts from sanitary tapware are associated with their use phase, i.e. consumption of water and energy for heating the water. Other environmental impacts, which are however much smaller, are e.g. emissions from manufacturing and generation of hazardous and non-hazardous waste. Setting water efficiency requirements for sanitary tapware will contribute to a reduction in consumption of water and related energy for water heating; thus leading to reduction of environmental impacts connected with water supply, distribution and waste water treatment, as well as with energy production and the cooling water need for this process.

Key Environmental Impacts	GPP Approach
• Water consumption, particularly in the use phase • Energy consumption, in particular for water heating • Emissions to air and water, mainly due to energy generation and production processes	• Equip new and refurbished buildings with water and energy efficient sanitary tapware

The order of impacts does not necessarily reflect their importance.

Detailed information about the sanitary tapware product group, including the information about related legislation and other sources, can be found in the Technical Background Report.

3. EU GPP Criteria for Sanitary Tapware

Based on data and information in the Technical Background Report the following sets of EU GPP criteria are proposed:

a) Criteria for purchasing of water efficient sanitary tapware (3.1),
b) Criteria for installation works in new or renovated premises (3.2), which could be used in addition to the criteria for purchasing of water efficient sanitary tapware.

3.1 EU GPP criteria for sanitary tapware

Core criteria

SUBJECT MATTER

Purchase of water-efficient sanitary tapware for new or refurbished buildings

TECHNICAL SPECIFICATIONS

1. Water consumption and related energy saving
1A. Maximum available water flow rate

The maximum available water flow rates to the basin/sink shall, independent of the water pressure, not exceed values presented in Table 1.

Table 1 Maximum available water flow rates for sanitary tapware

Product sub-group	Water flow rate [l/min]
Kitchen taps	8.0
Basin taps	7.0
Showerheads or showers [1]	9.0

Note [1]: Showerheads or showers with more than one spray pattern shall fulfil the requirement for the setting with the highest water flow.

Comprehensive criteria

SUBJECT MATTER

Purchase of water-efficient sanitary tapware for new or refurbished building

TECHNICAL SPECIFICATIONS

1. Water consumption and related energy saving
1A. Maximum available water flow rate

The maximum available water flow rates to the basin/sink shall, independent of the water pressure, not exceed values presented in Table 1.

Table 1 Maximum available water flow rates for sanitary tapware

Product sub-group		Water flow rate [l/min]
Kitchen taps[1]	without flow limiting device	6.0
	with flow limiting device[2]	8.0
Basin taps[1]	without flow limiting device	6.0
	with flow limiting device[2]	8.0
Showerheads or showers [3]		9.0

Note [1]: Taps can be supplied either with or without a flow limiting device. The maximum water flow rate is dependant on the presence or absence of such a device.

Verification:
Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.
Otherwise, results of sanitary tapware testing according to the test procedure contained in the relevant EN standard (see the list in Table 2 below) or an equivalent standard shall be submitted together with the tender to the contracting authority. The testing shall be conducted at pressure of 1.5, 3.0 and 4.5 bar (± 0.2 bar) for products declared by the manufacturer as being suitable for high pressure installations (typically 1.0 to 5.0 bar) or at pressure of 0.2, 0.3 and 0.5 bar (± 0.2 bar) for products declared by the manufacture as being suitable for low pressure installations (typically 0.1 to 0.5 bar). The mean value of the three measurements shall not exceed the maximum water flow rate value indicated in Table 1. The testing shall be performed by laboratories that meet the general requirements of EN ISO 17025 or equivalent.
A technical dossier from the manufacturer or other appropriate means of proof demonstrating that these requirements have been met will also be accepted.

Table 2 EN standards for sanitary tapware

Number	Title
EN 200:2008	Sanitary tapware. Single taps and combination of taps for water supply systems of type 1 and type 2 – General technical specification
EN 816:1997	Sanitary tapware. Automatic shut-off valves (PN10)
EN 817:2008	Sanitary tapware. Mechanical mixing valves (PN10) – General technical specifications
EN 1111:1998	Sanitary tapware. Thermostatic mixing valves (PN10) – General technical specification
EN 1112:2008	Sanitary tapware. Shower outlets for sanitary tapware for water supply systems type 1 and type 2 – General technical specification

Note [2]: The flow limiting device must allow for setting the default water flow rate (water-saving setting) at the value of max of 6/min. The maximum available water flow rate shall not exceed 8 l/min.
Note [3]: Showerheads or showers with more than one spray pattern shall fulfil the requirement for the setting with the highest water flow.

Verification:
Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply.
Otherwise, result of sanitary tapware testing according to the test procedure contained in the relevant EN standard (see the list in Table 2 below) or an equivalent standard shall be submitted together with the tender to the contracting authority for verification. The testing shall be conducted at pressure of 1.5, 3.0 and 4.5 bar (± 0.2 bar) for products declared by the manufacture as being suitable for high pressure installations (typically 1.0 to 5.0 bar) or at pressure of 0.2, 0.3 and 0.5 bar (± 0.2 bar) for products declared by the manufacture as being suitable for low pressure installations (typically 0.1 to 0.5 bar). The mean value of the three measurements shall not exceed the maximum water flow rate value indicated in Table 1. The testing shall be performed by laboratories that meet the general requirements of EN ISO 17025 or equivalent.
Additionally, for products equipped with a flow limiting device, a description of the device applied (i.e. its main technical parameters and installation, setting and use instructions) shall be submitted.
A technical dossier from the manufacturer or other appropriate means of proof demonstrating that these requirements have been met will also be accepted.

Table 2 EN standards for sanitary tapware

Number	Title
EN 200:2008	Sanitary tapware. Single taps and combination of taps for water supply systems of type 1 and type 2 – General technical specification
EN 816:1997	Sanitary tapware. Automatic shut-off valves (PN10)

EN 1286:1999	Sanitary tapware. Low pressure mechanical mixing valves. General technical specification
EN 1287:1999	Sanitary tapware. Low pressure thermostatic mixing valves. General technical specifications
EN 15091:2006	Sanitary tapware. Electronic opening and closing sanitary tapware

EN 817:2008	Sanitary tapware. Mechanical mixing valves (PN10) – General technical specifications
EN 1111:1998	Sanitary tapware. Thermostatic mixing valves (PN10) – General technical specification
EN 1112:2008	Sanitary tapware. Shower outlets for sanitary tapware for water supply systems type 1 and type 2 – General technical specification
EN 1286:1999	Sanitary tapware. Low pressure mechanical mixing valves. General technical specification
EN 1287:1999	Sanitary tapware. Low pressure thermostatic mixing valves. General technical specifications
EN 15091:2006	Sanitary tapware. Electronic opening and closing sanitary tapware

1B. Lowest maximum available water flow rate
Lowest maximum available water flow rate of the sanitary tapware, independent on the water pressure, shall not be lower that the values given in Table 3:

Table 3 Lowest maximum available water flow rates for sanitary tapware

Product sub-group	Water flow rate [l/min]
Kitchen taps	2.0
Basin taps	2.0
Showerheads and showers	4.5

For electric showers the lowest maximum available water flow rate, independent of the water pressure, shall not be lower than 3 l/min.

1B. Lowest maximum available water flow rate
Lowest maximum available water flow rate of the sanitary tapware, independent on the water pressure, shall not be lower that the values given in Table 3:

Table 3 Lowest maximum available water flow rate for sanitary tapware

Product sub-group	Water flow rate [l/min]
Kitchen taps	2.0
Basin taps	2.0
Showerheads and showers	4.5

For electric showers the lowest maximum available water flow rate, independent of the water pressure, shall not be lower than 3 l/min.

Verification: Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply. Otherwise, result of sanitary tapware testing according to the test procedure contained in the relevant EN standard (see the list in Table 2) or an equivalent standard shall be submitted together with the tender to the contracting authority for verification. The testing shall be conducted at pressure of 1.5, 3.0 and 4.5 bar (± 0.2 bar) for products declared by the manufacture as being suitable for high pressure installations (typically 1.0 to 5.0 bar) or at pressure of 0.2, 0.3 and 0.5 bar (± 0.2 bar) for products declared by the manufacture as being suitable for low pressure installations (typically 0.1 to 0.5 bar). The mean value of the three measurements shall not be lower than the water flow rate value indicated in Table 3. The testing shall be performed by laboratories that meet the general requirements of EN ISO 17025 or equivalent. A technical dossier from the manufacturer or other appropriate means of proof demonstrating that these requirements have been met will also be accepted.	**Verification:** Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply. Otherwise, result of sanitary tapware testing according to the test procedure contained in the relevant EN standard (see the list in Table 2) or an equivalent standard shall be submitted together with the tender to the contracting authority for verification. The testing shall be conducted at pressure of 1.5, 3.0 and 4.5 bar (± 0.2 bar) for products declared by the manufacture as being suitable for high pressure installations (typically 1.0 to 5.0 bar) or at pressure of 0.2, 0.3 and 0.5 bar (± 0.2 bar) for products declared by the manufacture as being suitable for low pressure installations (typically 0.1 to 0.5 bar). The mean value of the three measurements shall not be lower than the water flow rate value indicated in Table 3. The testing shall be performed by laboratories that meet the general requirements of EN ISO 17025 or equivalent. A technical dossier from the manufacturer or other appropriate means of proof demonstrating that these requirements have been met will also be accepted.
1C. Temperature management (criterion not applicable for showerheads and for sanitary tapware that shall be fitted to a water supply that is already temperature controlled) Sanitary tapware shall be equipped with an advanced device or technical solution which allows for management of temperature. According to their preferences, public authorities can choose one of the following options: a) Sanitary tapware shall be equipped with a hot water barrier. b) Sanitary tapware shall allow for thermostatic adjustment. c) Sanitary tapware shall be designed with a cold water supply in middle position. Double lever/handle showers do not fulfil the criterion.	**1C. Temperature management** (criterion not applicable for showerheads and for sanitary tapware that shall be fitted to a water supply that is already temperature controlled) Sanitary tapware shall be equipped with an advanced device or technical solution which allows for management of temperature. According to their preferences, public authorities can choose one of the following options: a) Sanitary tapware shall be equipped with a hot water barrier. b) Sanitary tapware shall allow for thermostatic adjustment. c) Sanitary tapware shall be designed with a cold water supply in middle position. Double lever/handle showers do not fulfil the criterion.

Verification: Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply. Other appropriate means of proof will also be accepted, e.g. manufacturer/supplier statement specifying the type of solution used and its technical parameters as appropriate shall be submitted. Where a water supply is already temperature controlled the applicant shall explain the specific technical property that makes the sanitary tapware specifically designed to be fitted to this form of system.	**Verification:** Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply. Other appropriate means of proof will also be accepted, e.g. manufacturer/supplier statement specifying the type of solution used and its technical parameters as appropriate shall be submitted. Where a water supply is already temperature controlled the applicant shall explain the specific technical property that makes the sanitary tapware specifically designed to be fitted to this form of system.
1D. Time control for sanitary tapware for multiple users and high frequency use Sanitary tapware installed in non-domestic premises for multiple users and for frequent use (i.e. sanitary tapware used in public toilets or washrooms in schools, offices, in hospitals, swimming-pools and similar premises) shall allow for limiting time of a single water use (i.e. water volume consumed). This can be done by equipping the products with devices which stop water flow after certain time if they are not used (for example, sensors which stop water flow when a user leaves the sensor range) and/or after a set time period of use (for example, time limiters, which stop the water flow when the maximum flow time is reached). a) If the public authority is wishing to have a time-controlled system: For sanitary tapware equipped with time limiters the pre-set maximum flow should not exceed 15 seconds for taps and 35 seconds for showers. Nevertheless, the product shall be designed to allow the installer to adjust the flow time to the intended product's application. b) If the public authority is wishing to have a sensor-controlled system: For sanitary tapware equipped with the sensor, the shut off delay time after usage shall not exceed 2 second for taps and 3 seconds for showers. Furthermore, the sanitary tapware equipped with a sensor shall be equipped with an inbuilt 'security technical feature' with a pre-set shut-off time of maximum 2 minutes in order to prevent accidents or the continuous water	**1D. Time control for sanitary tapware for multiple users and high frequency use** Sanitary tapware installed in non-domestic premises for multiple users and for frequent use (i.e. sanitary tapware used in public toilets or washrooms in schools, offices, hospitals, swimming-pools and similar premises) shall allow for limiting time of a single water use (i.e. water volume consumed). This can be done by equipping the products with devices which stop water flow after certain time if they are not used (for example, sensors which stop water flow when a user leaves the sensor range) and/or after a set time period of use (for example, time limiters, which stop the water flow when the maximum flow time is reached). a) If the public authority is wishing to have a time-controlled system: For sanitary tapware equipped with time limiters the pre-set maximum flow time should not exceed 15 seconds for taps and 35 seconds for showers. Nevertheless, product shall be designed to allow the installer to adjust the flow time to the intended product's application. b) If the public authority is wishing to have a sensor-controlled system: For sanitary tapware equipped with the sensor, the shut off delay time after usage shall not exceed 1 second for taps and 3 seconds for showers. Furthermore, the sanitary tapware equipped with a sensor shall be equipped with an inbuilt 'security technical feature' with a pre-set shut-off time of maximum 2 minutes in order to prevent accident or the continuous water flow

flow from taps/showers when not in use. **Verification:** Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply. Other appropriate means of proof will also be accepted, e.g. manufacturer/supplier statement specifying the type of solution used and its technical parameters as appropriate (a pre-set water flow time for time limiters, the shut off delay time after usage for sensors) shall be submitted.	from taps/showers when not in use. **Verification:** Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply. Other appropriate means of proof will also be accepted, e.g. manufacturer/supplier statement specifying the type of solution used and its technical parameters as appropriate (a pre-set water flow time for time limiters, the shut off delay time after usage for sensors) shall be submitted.
	2. Chemical and hygienic behaviour of materials Substances and materials used in products coming into contact with drinking water, or impurities associated with them, shall not release into water intended for human consumption any compounds in concentrations higher than necessary for the purpose of their use and shall not, either directly or indirectly, reduce the protection of human health[2]. They shall not cause any deterioration in the quality of water intended for human consumption with regard to appearance, odour or taste. Within the recommended limits for correct operation (i.e. conditions of use as laid down in the respective EN standards indicated in Table 2), the materials shall not undergo any change which would impair the performance of the product. Materials without adequate resistance to corrosion shall be adequately protected so that they do not present a health risk. **Verification:** Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply. Other appropriate means of proof will be also accepted such as written evidence from the manufacturer that the above clause is met with a copy of a certificate confirming meeting hygienic requirements of materials/product in contact with drinking water in compliance with the national regulations of the Member State where the product is put on the market.

[2] Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption, Article 10, OJ L 330, 5.12.1998.

2. Product quality and longevity **2.1 Quality of coating** Sanitary products which have a metallic Ni-Cr coating (regardless of the nature of the substrate material) shall comply with the standard EN 248:2003 "Sanitary tapware or an equivalent standard. General specification for electrodeposited coatings of Ni-Cr". **Verification:** Products holding a relevant Type 1 Eco-label fulfilling the listed requirements (if included) will be deemed to comply. Otherwise, results of sanitary tapware testing according to the test procedure contained in the EN 248 standard or equivalent shall be submitted together with the tender to the contracting authority for verification. The testing shall be performed by laboratories that meet the general requirements of EN ISO 17025 or equivalent. A technical dossier from the manufacturer or other appropriate means of proof demonstrating that these requirements have been met will also be accepted. **2.2 Reparability and availability of spare parts** Sanitary tapware shall be designed so that their exchangeable components can be replaced easily by the end-user or a professional service engineer, as appropriate. Spare parts must be available for at least five years from the date of purchase. **Verification:** Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply. Other appropriate means of proof will also be accepted such as written evidence from the manufacturer that the above clause will be met. The tenderer shall provide a description of how to replace components and provide a guarantee for the availability of spare parts.	**3. Product quality and longevity** **3.1 Quality of coating** Sanitary products which have a metallic Ni-Cr coating (regardless of the nature of the substrate material) shall comply with the standard EN 248:2003 "Sanitary tapware or an equivalent standard. General specification for electrodeposited coatings of Ni-Cr". **Verification:** Products holding a relevant Type 1 Eco-label fulfilling the listed requirements (if included) will be deemed to comply. Otherwise, results of sanitary tapware testing according to the test procedure contained in the EN 248 standard or equivalent shall be submitted together with the tender to the contracting authority for verification. The testing shall be performed by laboratories that meet the general requirements of EN ISO 17025 or equivalent. A technical dossier from the manufacturer or other appropriate means of proof demonstrating that these requirements have been met will also be accepted. **3.2 Reparability and availability of spare parts** Sanitary tapware shall be designed so that their exchangeable components can be replaced easily by the end-user or a professional service engineer, as appropriate. Spare parts must be available for at least seven years from the date of purchase. **Verification:** Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply. Other appropriate means of proof will also be accepted such as written evidence from the manufacturer that the above clause will be met. The tenderer shall provide a description of how to replace components and provide a guarantee for the availability of spare parts.

2.3 Warranty Guarantee of repair or replacement for a minimum period of four years shall be given. **Verification:** Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply. Other appropriate means of proof will also be accepted such as written evidence from the manufacturer that the above clause will be met.	**3.3 Warranty** Guarantee of repair or replacement for a minimum period of four years shall be given. **Verification:** Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply. Other appropriate means of proof will also be accepted such as written evidence from the manufacturer that the above clause will be met.
3. User information The product shall be supplied with the following information in printed (on the packaging and/or on documentation accompanying the product) and/or electronic format: (a) Information on proper use of the product to minimise water consumption and related energy consumption for water heating, (b) Information on maximum flow rate in l/min (tested as indicated in the verification of Criterion 1). (c) Recommendations on proper use and maintenance (including cleaning and decalcification) of the product and information regarding repair and/or replacement of its components. This information shall highlight all relevant instructions, particularly: - information about which spare parts can be replaced and how, including instructions concerning the replacement of washers if taps drip water; - advice on cleaning sanitary tapware with appropriate materials in order to prevent damage to their internal and external surfaces. (d) Installation instructions including information on the specific operating pressures that the product is suitable for. (e) Explanation which exchangeable components of sanitary tapware can be replaced by the end-user/professional service engineer, as appropriate, and how to conduct it.	**4. User information** The product shall be supplied with the following information in printed (on the packaging and/or on documentation accompanying the product) and/or electronic format: (a) Information on proper use of the product to minimise water consumption and related energy consumption for water heating, (b) Information on maximum flow rate in l/min (tested as indicated in the verification of Criterion 1). (c) Recommendations on proper use and maintenance (including cleaning and decalcification) of the product and information regarding repair and/or replacement of its components. This information shall highlight all relevant instructions, particularly: - information about which spare parts can be replaced and how, including instructions concerning the replacement of washers if taps drip water; - advice on cleaning sanitary tapware with appropriate materials in order to prevent damage to their internal and external surfaces. (d) Installation instructions including information on the specific operating pressures that the product is suitable for. (e) Explanation which exchangeable components of sanitary tapware can be replaced by the end-user/professional service engineer, as appropriate, and how to conduct it.

Verification: Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply. Other appropriate means of proof will also be accepted such as written evidence from the manufacturer that the above clause will be met.	**Verification:** Products holding a relevant Type 1 Eco-label fulfilling the listed requirements will be deemed to comply. Other appropriate means of proof will also be accepted such as written evidence from the manufacturer that the above clause will be met.

3.2 EU GPP criteria for installation of sanitary tapware

These criteria shall be applied in addition to the criteria contained in section 3.1, if installation works are procured.

Core criteria	Comprehensive criteria
SUBJECT MATTER	**SUBJECT MATTER**
Installation of new water efficient sanitary tapware products or their replacement	Installation of new water efficient sanitary tapware products or their replacement
SELECTION CRITERION	**SELECTION CRITERION**
1. Where sanitary tapware is being installed, the contractor shall demonstrate that suitably qualified and experienced personnel will undertake the installation or replacement of the sanitary tapware. The contractor shall also supply a list of sanitary tapware installation works the contractor has carried out over the last five years, accompanied by certificates of satisfactory execution for the most important works. **Verification:** The contractor shall supply a list of the persons responsible for the project, indicating educational and professional qualifications and relevant experience. This should include persons employed by subcontractors where the work is to be sub-contracted and a list of earlier projects carried out over the last five years.	**1. Where sanitary tapware is being installed, the contractor shall demonstrate that suitably qualified and experienced personnel will undertake the installation or replacement of the sanitary tapware.** The contractor shall also supply a list of sanitary tapware installation works the contractor has carried out over the last five years, accompanied by certificates of satisfactory execution for the most important works. **Verification:** The contractor shall supply a list of the persons responsible for the project, indicating educational and professional qualifications and relevant experience. This should include persons employed by subcontractors where the work is to be sub-contracted and a list of earlier projects carried out over the last five years.

CONTRACT CLAUSE	CONTRACT CLAUSE
2. The contractor shall ensure that, where the tapware includes sensors or time limiters • For sensors, sensitivity and time delay shall be set, in agreement with the contracting authority, to appropriate levels to meet occupant needs without excessive water and energy consumption • Sensors shall be checked to ensure that they are working properly and are sensitive enough to detect typical occupant movements • Time limiters shall be set, in agreement with the contracting authority, to appropriate times to meet occupant needs without excessive increase in water and related energy consumption **Verification:** Statement by the contractor or any other evidence that the relevant adjustments and calibrations will be carried out.	**2. The contractor shall ensure that, where the tapware includes sensors or time limiters** • For sensors, sensitivity and time delay shall be set, in agreement with the contracting authority, to appropriate levels to meet occupant needs without excessive water and energy consumption • Sensors shall be checked to ensure that they are working properly and are sensitive enough to detect typical occupant movements • Time limiters shall be set, in agreement with the contracting authority, to appropriate times to meet occupant needs without excessive increase in water and related energy consumption **Verification:** Statement by the contractor or any other evidence that the relevant adjustments and calibrations will be carried out.

Explanatory notes

In procuring sanitary tapware, contracting authorities may let separate contracts (covering, for example, design, equipment supply, and installation) to different contractors. In such cases, different contractors may therefore be responsible for ensuring that different criteria are met.

It shall be ensured that the user information will be passed on to the appropriate person after the installation works are completed (together with a link to information placed on the manufacturers' website).

Maintenance

Sanitary tapware requires proper maintenance to ensure the proper functioning of the system. Over time, certain elements of sanitary tapware may lose their required properties, e.g. seals will not ensure proper protection against leaks and their replacement might be necessary. Thus, control of the state of sanitary tapware and replacement of used elements should be conducted on a scheduled programme.

Cost Considerations

Life cycle costing

The contracting authority may wish to apply a life cycle costing approach in order to establish the costs of the sanitary tap ware over its lifetime. Such an assessment should be based on the initial cost of the installation, its estimated lifetime, replacement costs of sanitary tapware and their estimated life, and water and energy cost of the sanitary tapware over its lifetime. The contracting authority will need to define its water (including hot water supply) price and the rate at which this is expected to develop over time, and the interest rate on investments. It can also require the bidder to carry out such an assessment as long as it clearly sets out the parameters for the assessment, in order to be able to assess the different bids in the evaluation phase.
Life cycle costs may be considered as part of the award criteria where the “most economically advantageous tender” (MEAT) criterion is applied.

Glossary

For the purpose of these GPP criteria, the following definitions shall apply:

(1) "tap" means a directly or indirectly, mechanically and/or automatically operated valve from which water is drawn;

(2) "showerhead" means

(a) a fixed overhead or side shower outlet, body jet shower outlet or similar device which may be adjustable, and which directs water from a supply system onto the user; or

(b) a moveable hand held shower outlet which is connected to a tap with a shower hose and can be hung directly on the tap or on the wall with the aid of an appropriate support;

(3) "shower" means a combination of showerhead and interrelated control valves and/or devices packaged and sold as a kit;

(4) "double lever/handle shower" means a shower equipped with separate levers or handles for the control of the supply of cold and hot water;

(5) "electric shower" means a shower equipped with a device to locally heat water for the shower using electrical power;

(6) "non-domestic special purpose sanitary tapware" means sanitary tapware which requires unrestricted water flow in order to fulfil the intended non-domestic function;

(7) “water flow limiting device” means a technical device limiting water flow to a given volume and allowing a higher water flow only where activated by the user for a chosen period of time within a single use;

(8) “maximum available water flow rate” means the highest available water flow rate from the system or individual fitting;

(9) “lowest maximum available water flow rate” means the lowest water flow rate from the system or individual fitting available at full opening of the valve;

(10) "security technical feature" means a device forming part of a sensor controlled sanitary tapware which is used to prevent continuous water flow by stopping the water supply after pre-set time even if there is a person or an object present within the sensor range.