Electric & electronic equipment used in health care

Definition:

This product group criteria is applicable for equipment provided with not more than one connection to a particular supply mains and intended to diagnose, treat, or monitor the patient under medical supervision and which makes physical or electrical contact with the patient and/or transfers energy to or from the patient and/or detects such energy transfer to or from the patient. The equipment includes those accessories as defined by the manufacturer which are necessary to enable the normal use of the equipment.

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Electric & electronic equipment used in health care			
1.1	**Subject Matter (suggestion on how to draft the tender title)**		
	Purchase of (electrical and electronic equipment used in the health care) sector with reduced environmental impact.		
1.2	**Technical Specification (to be included in the terms of reference / technical specifications)**		
	User instructions for green performance management A guide shall be provided with instructions on how to maximise the environmental performance of the particular medical equipment in written form either as a specific part of the user manual, or in digital form accessible via the manufacturer's website, or on a CD, or in paper format on the packaging or on documentation accompanying the product. The instruction manual shall be made available together with the equipment. The documentation shall, as a minimum requirement and without detriment to the clinical performance of the equipment, include the following: Instructions for users on how to use the equipment to minimize the environmental impact during installation, use, service and recycling/disposal , including instructions on how to minimize consumption of energy, water, consumable materials/parts, emissions. Recommendations on the proper maintenance of the product, including information on which spare parts can be replaced, cleaning advice. Information on the content in the product(s) purchased under this contract of Candidate List Substances of Very High Concern (SVHC) identified under Article 57 of Regulation (EC) No 1907/2006 (REACH regulation) in order for the contracting authority to take appropriate precautionary measures.		
	Verification:	A copy of the relevant pages of the instruction manual shall be supplied to the authority. The tenderer should also provide a declaration that this manual shall be available for access on the tenderer's or manufacturer's website, on a CD, or in paper format. A list of the substances present in the product(s) purchased under this contract, which are included in the SVHC Candidate List, and complementary information according to Article 33 in REACH.	
	Product longevity and warranty The tenderer shall provide training that includes elements regarding adjustment and fine-tuning of the equipment's electricity using parameters (for example, standby mode) in order to optimise the electricity use. The training can be included in the clinical and technical education to be provided by the tenderer.		
	Verification:	Description of the energy education training to be provided.	

Training for energy efficiency optimisation

The tenderer shall provide training that includes elements regarding adjustment and fine-tuning of the equipment's electricity using parameters (for example, standby mode) in order to optimise the electricity use. The training can be included in the clinical and technical education to be provided by the tenderer.

Verification:	Description of the energy education training to be provided.

Installation with energy efficiency optimisation

The tenderer shall provide when installing the equipment, a needs assessment of the user (i.e. the ward) (for example frequency of use, type of examinations etc.). On the basis of the analysis, the tenderer shall provide documentation and information to the contracting authority on how to optimise the purchased equipment's electricity using parameters. If applicable, this process shall be repeated and revised at every preventive maintenance of the equipment done by the supplier.

Verification:	Description of the installation procedure and preventive maintenance procedure.

1.3 Award Criteria (to be considered when the BPQR is utilised)

Energy performance requirements

Energy performance of health care EEE except from CT, haemodialysis equipment, MRI, medical sterilizers and disinfectors.

Points will be awarded according to the daily energy consumption E (kWh)/day), as shown in the table below (the lower the daily energy consumption, the more points will be awarded).
Definitions of modes are according to Appendix 1. The proposed means of verification is indicated below the table.

For incubators and medical freezers, points will be awarded according to the daily energy consumption per volume, E (kWh/day and m3).

The procurer needs to indicate the expected daily use patterns of the equipment ("customised scenario"), the tenderer will need to state the energy use of the equipment in the different modes. The pre-determined use scenario is a recommendation to the procurer based on average use scenarios of European hospitals. The procurer is however free to adapt the use scenario to the specific needs.

Equipment	Mode	Customised scenario Stated by procurer	Pre-determined use scenario Guidance	Energy in use phase Stated by renderer	The Energy usage (E) calculation:
Active Respiratory Gas Humidifier	Active	T_1=24 hrs.	T_1 = 24	P_1	(T_1*P_1) = **E (kWh) per day**
	Definitions of modes according to appendix 1.	T=time, number of hours in the current mode per day	Recommended use scenario.	P= power (kW), Power measurements according to test conditions in appendix 11.	
Bed side monitoring equipment	Active	T_1=24 hrs.	T_1 = 24	P_1	(T_1*P_1) = **E (kWh) per day**
	Definitions of modes according to appendix 1.	T=time, number of hours in the current mode per day	Recommended use scenario.	P= power (kW), Power measurements according to test conditions in appendix 13.	

Equipment	Mode	Customised scenario Stated by procurer	Pre-determined use scenario Guidance	Energy in use phase Stated by renderer	The Energy usage (E) calculation:
ECG (Electro-cardiographic) equipment (diagnostic)	Active	T_1	$T_1 = 2$	P_1	$(T_1*P_1) + (T_2*P_2) + (T_3*P_3) =$ **E (kWh) per day**
	Standby (for those having this mode)	T_2	$T_2 = 2$	P_2	
	Off	T_3	$T_3 = 20$	P_3	
	Definitions of modes according to appendix 1.	T=time, number of hours in the current mode per day	Recommended use scenario.	P= power (kW), Power measurements according to test conditions in appendix 7.	
Endoscopic equipment (camera unit, endoscope, light air pump)	Active	T_1 = number of hours in this mode per day, with the following conditions specified for the light source by procurer. Lux = Light intesity Ra = Colour rendering index T^0 = Colour temperature (Ketvin). Life span in hours	$T_1 = 5$	P_1	$(T_1*P_1) + (T_2*P_2) =$ **E (kWh) per day**
	Off	T_2	$T_2 = 19$	P_2	
	Definitions of modes according to appendix 1.	T=time, number of hours in the current mode per day	Recommended use scenario.	P= power (kW), Power measurements according to test conditions in appendix 8 and according to conditions specified by the procurer.	

Equipment	Mode	Customised scenario Stated by procurer	Pre-determined use scenario Guidance	Energy in use phase Stated by renderer	The Energy usage (E) calculation:
HF surgery, diathermy equipment	Active	T_1 = operation hours per day	T_1 = 5	P_1= (measured with load 500 Ω for mono polar and 50 Ω for bipolar with duration time 30 seconds)	(T_1*P_1) + (T_2*P_2) = **E (kWh) per day**
	Off	T_2 = operation hours per day	T_2 = 19	P_2	
	Definitions of modes according to appendix 1.		Recommended use scenario.	P= power (kW), Power measurements according to test conditions in appendix 7.	
Incubator for babies (permanent)	Active	T_1 = 24 Specify: Space for patients, e.g. space for up to 6 kg and lenght of 60 cm	T_1 = 24 incubator shall fit patients up to 6 kg and lenght of 60 cm	E_1= (T_1*P_1) per V	(T_1*P_1) V= **E (kWh) per day and m^3 of incubator**
	Definitions of modes according to appendix 1.	T=time, number of hours in the current mode per day	Recommended use scenario.	P= power (kW), Power measurements according to test conditions in appendix 9. V= volume (m^3) of incubator following the conditions (space) specified by the procurer	
Infusion pumps and syringe pumps	Active	T_1	T_1 = 14	P_1	(T_1*P_1) + (T_2*P_2) = **E (kWh) per day**
	Off	T_2 = operation hours per day	T_2 = 19	P_2	
	Definitions of modes according to appendix 1.	T=time, number of hours in the current mode per day	Recommended use scenario.	P= power (kW), Power measurements according to test conditions in appendix 10.	

Equipment	Mode	Customised scenario Stated by procurer	Pre-determined use scenario Guidance	Energy in use phase Stated by renderer	The Energy usage (E) calculation:
Laser instruments for surgery, Continuous lasers	Active mode = Ready condition	T_1	$T_1 = 5$	P_1	$(T_1*P_1) + (T_2*P_2) + (T_3*P_3)$ = **E (kWh) per day**
	Standby = laser standby	T_2	$T_2 = 4$	P_2	
	Off	T_3	$T_3 = 15$	P_3	
	Definitions of modes according to appendix 1. and active mode and standby mode are defined according to the definition in the standard SS=EN 50 501=2=22, 21.117- stand-by/ready condition	T=time, number of hours in the current mode per day	Recommended use scenario.	P= power (kW), Power measurements according to test conditions in appendix 12.	
Medical freezers	Active	$T_1 = 24$ Specify: Useful capacity, the lenght the width and the height of the inner volume = V. volume (m^3) of the freezer as well as requested temperature	$T_1 = 24$	P_1	(T_1*P_1) V= **E (kWh) per day and m^3 of incubator**
	Definitions of modes according to appendix 1.	T= time V= volumen	Recommended use scenario.	P= power (kW), Power measurements according to test conditions in appendix 17.	

Equipment	Mode	Customised scenario Stated by procurer	Pre-determined use scenario Guidance	Energy in use phase Stated by renderer	The Energy usage (E) calculation:
Medical lighting (surgical lamps)	Active	T_1= number of hours in this mode per day, with the following conditions specified for the light source by procurer. Lux = Light intesity Ra = Colour rendering index T^0 = Colour temperature (Ketvin). Life span in hours	T_1 = 8	P_1= measured for lamp type fulfilling the conditions specified by the procurer	(T_1*P_1) + (T_2*P_2) = **E (kWh) per day**
	Off	T_2	T_2 = 16	P_2	
	Definitions of modes according to appendix 1.	T=time, number of hours in the current mode per day	Recommended use scenario.	P= power (kW), Power measurements according to test conditions in appendix 15.	
Patient warming systems (blankets, pads, mattresses)	Active	T_1	T_1 = 16	P_2	(T_1*P_1) V= **E (kWh) per day**
	Off	T_2	T_2 = 15	P_2	
	Definitions of modes according to appendix 1.	T=time, number of hours in the current mode per day	Recommended use scenario.	P= power (kW), Power measurements according to test conditions in appendix 16.	
With forced air device	Active	T_1	T_1 = 9	P_1	(T_1* (P_1+P_F)) +(T_2*P_2) = **E (kWh) per day**
	Off	T_2 = operation hours per day	T_2 = 15	P_2	
	Definitions of modes according to appendix 1.	T=time, number of hours in the current mode per day	Recommended use scenario.	P= power (kW), Power measurements according to test conditions in appendix 16. P_F= power of the forced air device	

Equipment	Mode	Customised scenario Stated by procurer	Pre-determined use scenario Guidance	Energy in use phase Stated by renderer	The Energy usage (E) calculation:
Ultrasound equipment, excl. therapeutic	Scan / ready-to-scan	T_1	$T_1 = 6$	P_1	$(T_1*P_1) + (T_2*P_2) + (T_3*P_3) =$ **E (kWh) per day**
	Standby = laser standby	T_2	$T_2 = 6$	P_2	
	Off	T_3	$T_3 = 13$	P_3	
	Definitions of modes according to appendix 1.	T=time, number of hours in the current mode per day	Recommended use scenario.	P= power (kW), Power measurements according to test conditions in appendix 14.	
	For battery powered ultrasound equipment: Energy consumption (kWh) to fully charge the battery: Echarge Daily consumption for battery powered models: Echarge*3				
Ventilator , intensive care ventilator (excluding transport ventilator anaesthesia ventilator (excluding home ventilators)	Active	T_1=24 hrs.	$T_1 = 24$	P_1	$(T_1*P_1) =$ **E (kWh) per day**
	Definitions of modes according to appendix 1.	T=time, number of hours in the current mode per day	Recommended use scenario.	P= power (kW), Power measurements according to test conditions in appendix 18.	
X-ray incl. mammo-graphy, excl. osteoporosis	Standby	T_1	$T_1 = 15$	P_1	$(T_1*P_1) + (T_2*P_2) =$ **E (kWh) per day**
	Off	T_2	$T_2 = 9$	P_2	
	Definitions of modes according to appendix 1.	T=time, number of hours in the current mode per day	Recommended use scenario.	P= power (kW), Power measurements according to test conditions in appendix 3.	

	Verification:	Tenderers shall provide. a test report according to the standard EN 50564:2011 (6.1, 6.2, 6.3, and 6.4) or equivalent. The test report shall include energy performance data for the equipment. The data shall be measured in the modes and according to the test conditions in the appendices and use scenarios stated for each equipment above. The testing shall be performed by laboratories according to the general requirements of EN ISO 17025, U.S. 21 CFR Part 820, ISO 13485 or equivalent according to the test conditions stated above.
	Energy performance for Computed Tomography (CT) Points will be awarded according to the daily energy consumption E (kWh)/day), see below (the lower the daily energy consumption, the more points will be awarded). Definitions of modes are according to Appendix 2. The procurer needs to indicate the expected daily use patterns of the equipment ("customised scenario"), the tenderer will need to state the power consumption of the equipment in the different modes. The pre-determined use scenario is a recommendation to the procurer. The procurer is however free to adapt the use scenario to the specific needs. Predetermined use scenario (to be used as the reference to compare CTs) Tenderers shall state the daily energy consumption, E (kWh)/day), for one of the 3 scenarios2 according to the methodology and test conditions in the COCIR SRI for Computed Tomography Equipment, see www.cocir.org, or equivalent. The procurer states for which scenarios the energy consumption shall be provided. • Scenario Off: energy consumption according to use scenario 20 scans per day with 12h in Off mode overnight • Scenario Idle: energy consumption according to use scenario 20 scans per day with 12h in Idle mode overnight • Scenario LowPower: energy consumption according to use scenario 20 scans per day with 12h in LowPower mode overnight **Customised use scenario** Tenderers deliver the following values according to the methodology and test conditions in the COCIR SRI for Computed Tomography Equipment, see www.cocir.org/site/index.php?id=46, or equivalent: POff :Power consumption (kW) in Off mode PIdle : Power consumption (kW) in Idle mode PLow: Power consumption (kW) in Low Power mode EScan: Energy consumption during abdomen scan TScan: duration of abdomen scan (from prescription to power back in idle mode) The daily energy consumption can be calculated with the following formula (values in italics to be determined by the purchaser, in bold declared by the supplier) **E=kWh/day = POff** *x TOff +* **PLow** *x TLow + NScan x* **EScan + PIdle x** *(24h - TOff - TLow - NScan x* **TScan)** Where: NScan is the number of scans per day. Considering the little influence of energy used in scan mode over 24 hours, results from the COCIR methodology have shown that energy usage for scan mode can be approximated by using the abdomen scan only. TLow,off is time in hours per day for each mode. TScan is time duration for each scan (stated by the tenderer).	
	Verification:	For CT: Tenderers shall provide a test report according to the COCIR SRI for Imaging Equipment, see www. cocir.org/site/index.php?id=46, or equivalent, showing the energy performance data. The testing shall be performed by laboratories according to the general requirements of EN ISO 17025, U.S. 21 CFR Part 820, ISO 13485 or equivalent according to the test conditions stated above.
	Energy performance for haemodialysis equipment: Points will be awarded according to the energy consumption per treatment, E (kwh) / treatment, and the test conditions below. (The lower the energy consumption per treatment, the more points will be awarded). io 20 scans per day with 12h in LowPower mode overnight • The treatment cycle shall be as follows, in accordance with IEC 60601-2-16 or equivalent:	

	• Test – time duration depends on machine • Filling/Rinsing - 10 Minutes • Pre-Circulation - 15 Minutes • Dialysis- 4h • Heat/Chemical Disinfection – time duration depends on machine Type of disinfection to be stated by the procurer. The energy usage per treatment shall be measured according to test conditions specified in Appendix 5. Points will be awarded if the dialysis equipment is equipped with an automatic function to reduce the dialysis flow during the time between priming and dialysis phase. The tenderer shall state the reduced dialysis flow. The larger the reduction of the dialysis flow, the more points will be awarded. Points will be awarded if the dialysis equipment turns itself off when not in use within 10 minutes after the disinfection.	
	Verification:	Tenderers shall provide. a test report according to the standard EN 50564:2011 (6.1, 6.2, 6.3, and 6.4) or equivalent. The test report shall include energy performance data for the equipment. The data shall be measured in the modes and according to the test conditions and use scenarios stated above. The testing shall be performed by laboratories according to the general requirements of EN ISO 17025, U.S. 21 CFR Part 820, ISO 13485 or equivalent according to the test conditions stated above.
	Energy performance for Magnetic Resonance Imaging (MRI) Points will be awarded according to the daily energy consumption E (kWh)/day), see below (the lower the daily energy consumption, the more points will be awarded). Definitions of modes are according to Appendix 2. The procurer needs to indicate the expected daily use patterns of the equipment ("customised scenario"), the tenderer will need to state the energy use of the equipment in the different modes. The pre-determined use scenario is a recommendation to the procurer. The procurer is however free to adapt the use scenario to the specific needs. **Predetermined use scenario** (to be used as the reference to compare MRIs) Tenderers deliver the daily energy consumption **E (kWh)/day),** according to the methodology and test conditions in the COCIR SRI for Magnetic Resonance Imaging Equipment or equivalent, see www.cocir.org/site/index.php?id=46. **Customised use scenario** Tenderers deliver the following values according to the methodology and test conditions in the COCIR SRI for Magnetic Resonance Imaging Equipment, see www.cocir.org/site/index.php?id=46, or equivalent: POff :Power consumption (kW) in Off mode PLow: Power consumption (kW) in Low Power mode PReady: Power consumption (kW) in Ready-to-scan mode EScan: Energy consumption during scan for 5 body regions (head, spine, abdomen, knee, angio) TScan: duration of scan (including sequences scan time and a fixed ready-to-scan time defined in the COCIR methodology) The daily energy consumption can be calculated with the following formula (values in italics to be determined by the purchaser, in bold declared by the supplier) kWh/d = **POff** x TOff + **PLow** x TLow + NScan x **EScan** + **PReady** x (24h - TOff - TLow - NScan x **TScan**) Where: NScan is the number of scan for each body region: NScan x **TScan** = NHead x **THead** + NAbdomen x **TAbdomen** + NSpine x **TSpine** + NKnee x **TKnee** + NAngio x **TAngio**. Tlow, off is time in hours per day for each mode. Tscan is time duration for each scan (stated by the tenderer).	
	Verification:	Tenderers shall provide. a test report according to the COCIR SRI for Imaging Equipment, see www.cocir.org/site/index.php?id=46, or equivalent, showing the energy performance data for the equipment. The testing shall be performed by laboratories according to the general requirements of EN ISO 17025, U.S. 21 CFR Part 820, ISO 13485 or equivalent according to the test conditions stated above.
	Energy performance for medical sterilizers **Pre-determined use scenario** The capacity and the loading of a sterilizer both have an impact on the energy performance depending on the usage of the available capacity. The more goods that are sterilized with one single cycle, the lower the energy consumption per good. The energy consumption of sterilizers can be either rated based on the usable chamber	

volume in litres or on the maximum load capacity in kg. The tenderer shall state both criteria in numbers to give the contracting authority an average impression of energy consumption.
Points will be awarded according to the energy consumption per cycle , i.e.:

- how low the reported energy consumption per litre is, **EV (Wh /l)**, according to the test conditions in appendix 4.
- how low the reported energy consumption per load is, **EW (Wh /kg),** according to the test conditions in appendix 4.

The lower the energy consumption per cycle, the more points will be awarded.
The tenderer will specify energy consumption:

- EV for empty chamber
- EW for maximum load as specified in Appendix 4
- the usable chamber volume (in litres)
- the applied product standard (EN 13060 or EN 285)

- Definitions of modes are according to Appendix 1.
- The measurements shall be carried out according to the test conditions specified in Appendix 4.

- Tenderers shall provide energy performance data, EV and EW for the equipment, based on test protocols according to the standard EN 50564:2011 (6.1, 6.2, 6.3, and 6.4) or equivalent. The data shall be measured in the modes and according to the test conditions in appendix 4. The testing shall be performed by laboratories according to the general requirements of EN ISO 17025, U.S. 21 CFR Part 820, ISO 13485 or equivalent according to the test conditions stated above.

Customised use scenario

Points will be awarded according to the daily energy consumption **E (kWh)/day)**, see table below (the lower the daily energy consumption, the more points will be awarded). Please, fill in the table below. Definitions of modes are according to Appendix 1. Verification description can be viewed below the table**.**

Equipment	Mode	Customised use scenario Stated by procurer	Energy in use phase Stated by tenderer	The Energy usage (E) calculation:
Medical sterilizer	Active	N = Number of specified cycles per day (Specify: L= load per cycle (kg), M= material type (metal or textille), T= Type of cycle (sterilized T) drying stage used (yes/no)	E_1= Energy usage (kWh) per cucle based on the specified cycle stated by procurer	[Σ (N1 E1)]+ (T2 P2)+ (T3 P3)= **E (kWh) per day**
		T_2	P_2	
	Standby	T_3	P_3	
	Definitions of modes according to appendix 1.	T= time, number of haours in the curremt mode per day	p= power (kw) Power and Energy usage measurments according to test conditions in app.4	

Verification:	Tenderers must provide a test report with included water consumption data and energy performance for the equipment, also demonstrating that the above standards and test conditions or equivalent are met. The testing shall be performed by laboratories according to the general requirements of EN ISO 17025, U.S. 21 CFR Part 820, ISO 13485 or equivalent according to the test conditions stated above.

Energy performance for flusher and washer disinfectant equipment

Points will be awarded according to the energy consumption per cycle, E (kwh) / cycle, see below (the lower the energy consumption per cycle, the more points will be awarded).

The procurer states the type of disinfector to be procured:

- Disinfector for flexible endoscopes
- Disinfector for all other instruments (General surgical instruments, MIS, Anaesthetics, Orthopaedics, etc.)
- Disinfector for bulky goods like Sterile Containers, Trolleys, OP-Theatre-Shoes, etc.
- Disinfector for human waste containers

and needs to specify the following:

- Specific required load (amount of load)
- Drying stage used (Yes/No)
- HW (Hot Water) (Yes/No)
- Treated Water in Final rinse (Yes/No)
- Heating methods (Steam or Electrical)
- Voltage

Measurements shall be carried out by manufacturer according to A0 Value:

- Disinfector for surgical and analytical instruments: A0 3000
- Disinfector for Instruments and bulky goods: A0 600
- Disinfector for human waste containers: A0 60

- CW (Cold Water) Max temperature 20°C
- HW (Hot Water) Max temperature 60°C
- Treated Water Max temperature 20°C
- Steam Max 500 kPa

Additional test conditions for energy performance measurements are found in Appendix 3.
The manufacturer states what acceptance criteria is for cleaning, disinfection and drying performance in accordance to EN ISO 15883.

The tenderer states the energy performance per cycle, based on above parameters.

Verification:	Tenderers must provide a test report with included water consumption data and energy performance for the equipment, also demonstrating that the above standards and test conditions or equivalent are met. The testing shall be performed by laboratories according to the general requirements of EN ISO 17025, U.S. 21 CFR Part 820, ISO 13485 or equivalent according to the test conditions stated above.

Automatic low power mode for medical sterilizer, disinfector, CT, ECG diagnostic, MRI, and ultrasound

Points will be awarded if the equipment can be configured to go automatically into a standby or off mode after a certain period of inactivity or after a predetermined schedule, according to the pattern below. For CT and MRI points will be awarded if the scanner is equipped with a low power mode which can be activated by the operator:

Equipment	From mode	To mode
Medical sterilizer and desinfector	Ready mode	Standby mode
CT	Idle	Low power mode
ECG, diagnostic	Active or standby mode	Off mode
MRI	Ready-to-scan mode	Low power mode
Ultrasound	Ready-to-scan mode The ultrasound unit is on and ready to acquire the image. All modules except the ones needed for the scan are on (the transducer is not activated).	Standby mode

Points will also be awarded if the equipment has a short and automated start-up to full functionality after its automatic function according to above has been activated. Specify the time in seconds and the active efforts required of the staff. The shorter time and the smaller active efforts needed, the more points will be awarded.
Definitions of modes are according to appendix 2 for CT and MRI and according to appendix 1 for the remaining equipment above.

	Verification:	Tenderers shall provide documentation such as a copy of the instruction manual, describing: The required automatic low power or off mode according to the above pattern, how it can be activated by the operator and the available configuration options, including individualized automatic behaviour and functions or description on how to best use low power modes to save energy, and The start-up time with its required active efforts of the staff. The tenderer shall declare that this documentation will be available for access on the tenderer's or manufacturer's website, on a CD, or in paper format.
	Equipment with a metering device Equipment with a metering device Points will be awarded if the equipment has or can be equipped with a metering device, so that a log of the current consumption (of electricity, water (if relevant), and gas (relevant for anaesthesia and intensive care equipment)) can be observed and registered. The user should also be able to obtain statistics from historic consumption in report form. The tenderer shall state the conditions for consumption metering, as well as if additional cost will be applied3. The tenderer shall also state the restrictions regarding what or how the staff can measure with the metering device. Points will be awarded if the acquired data can automatically be sent to a central point of data gathering.	
	Verification:	Tenderers shall provide documentation such as a copy of the instruction manual, describing the metering device and its functions, conditions and restrictions.
	Water consumption for haemodialysis equipment Points will be awarded according to the water consumption per treatment (the lower the water consumption, the more points will be awarded). The treatment cycle shall be as follows, in accordance with IEC 60601-2-16 or equivalent: • Test – time duration depends on machine • Filling/Rinsing - 10 Minutes • Pre-Circulation - 15 Minutes • Dialysis- 4h • Heat/Chemical Disinfection – time duration depends on machine Type of disinfection to be stated by the procurer. Points will be awarded for equipment with a low water consumption function (at least 50 % reduction of the water consumption for the pre-circulation phase). Points will be awarded for equipment with a no water consumption function during standby (100 % reduction in saving mode). Contracting authorities will have to indicate in the contract notice and tender documents how many points will be awarded for each award criterion.	
	Verification:	Tenderers must provide a test report with included water consumption data according to test conditions specified in IEC 60601-2-16 or equivalent and relevant pages of or link to instruction manual covering the low and no water consumption functions, also demonstrating that the above standards and test conditions or equivalent are met. The testing shall be performed by laboratories according to the general requirements of EN ISO 17025, U.S. 21 CFR Part 820, ISO 13485 or equivalent according to the test conditions stated above.