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**E-Tender Documentation for the Purchase of High Voltage Frequency Inverters with further installation and start-up**

**1.1 Title of procurement**

Georgian Water and Power LLC announces electronic tender for the procurement of High Voltage Frequency Inverters with further installation and start up.

**1.2 Description of goods/service/work (Terms of Reference), quantity/volume of procurement**

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| --- | --- |
| **Power level(kW)** | 900kW basing in 4 poles , 6 ~12 poles to choose the type according the current |
| **Rated output** | **Rated Power (kW)** | The rated power when running at the rated voltage is 900kW |
| **Rated current (A)** | The rated current when running at the rated voltage |
| **Overload** | 105% continuing, 130% allowed 1 minute; 150% allowed 3sec, 180% turning off |
| **Output voltage (kW)** | Three phase 0 6kV |
| **output wave** | a group of SPWM waves |
| **Input voltage** | **Phase, Frequency Voltage** | Three phase 50Hz 6kV |
| **Fluctuation range** | voltage: -10%+10%; frequency: ±5%continuous running at the low power of -15% -35% |
| **Basic features** | **Start frequency** | The value can be set from 0 to 10Hz |
| Frequency, voltage and current should be regulated by a 4 20mA signal that will be connected to a water pressure sensor in the network. |
| **Precision** | Analog setting: 0.3% of the highest frequency setting value 25 ±100C; Digital setting: 0.1% of the highest frequency setting value 10~+500C |
| **Resolution** | Analog setting: 0.05% of the highest frequency setting value Digital setting: 0.01 Hz (less than99.99Hz ) , 0.1Hz( larger than100Hz) |
| **Efficiency** | >98% in rated condition |
| **Power factor** | >0.95 |
| **Control factor** | **The time of acceleration and deceleration** | 0.1~6000.0S acceleration and deceleration time can be set separately |
| **The feature of voltage and frequency:** | Set by the V/F curve |
| **PID** | the parameters of PID can be set by hand |
| **The other functions** | V/F curve 、 Compensation for the low frequency、 Rated current、 The value of the protection current |
| **Isolation of high voltage** | electromagnetic coupling and more optical fiber channels |
| **The input control voltage** | AC 220V 2kVA |
| **Running** | **Remote control** | the device can be controlled remotely |
| **Operation modes** | The machine control, Remote control, Host computer control |
| **Frequency setting modes** | Setting on touch screen, Multistage speed setting, Analog signal setting (0 20 mA ) |
| **The running state** | Instructions of relays, Fault, Alarm, Running or stop |
| **Touch screen display** | Input/output voltage, Input/output current, Setting value, Cells states, Running states, Transformer states, Cell bus |
| **Protection function** | Over current of the motor, Over voltage of the inverter, Under voltage of the inverter, Over current of the cell, Over voltage of the cell, Over heat of the cell, Lack phase of cell, Communication failure. |
| **Environment** | **Application fields** | Indoor, Non corrosive and conductive gas, dust, direct sunlight, The altitude below 1,000 meters (high altitude can be customized) |
| **Temperature and humidity** |  - 10℃ D33~+40 ℃ 20~90%RH no condensation |
| **Vibration** | 5m/ s2 0.6g below 0.6g |
| **Keeping temperature** | Minus 20 +65℃ short time transportation allowed |
| **Cooling method and shell safety level** | forced air cooling /IP31 |

**1.3 Cost estimation**

A Tender Participant shall provide cost estimation in accordance with the below price list.

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**1.4 Deadline for delivery of goods / services / works**

The Deadline for the goods delivery must be no later than 90 (ninety) from the date of contract signature

Delivery Term shall be DAP, Tbilisi

**1.5 Form and place for delivery of goods / service / works**

Tbilisi, Georgia

**1.6 Warranty Terms**

The Tender Participant shall warrant that the Goods are made of best materials with first class workmanship, brand new and unused. The Tender Participant must provide minimum 12 (twelve) months’ warranty period from the date of goods delivery.

**1.7 Requirement of Experience**

The Tender Participant shall have experience in supplying similar type of goods and submit relevant supporting documents: contract(s) and associated delivery-acceptance document(s) and/or reference number of the mentioned documents in Georgian procurement electronic system of the State Procurement Agency (e.g., NAT/CMR/SPA, etc.).

**1.8** **Terms of payment**

Post Payment, Payment shall be made by Bank transfer, within the period of 30 (thirty) calendar days from the submission of delivery-acceptance documents.

Prepayment of 30% of the total contract amount will be allowed only on the basis of a bank guarantee.

**1.9 Performance Guarantee**

The Contractor shall present a performance guarantee in an amount of 5% of the contract value within 7 (seven) calendar days from the signature date of the Contract. The performance guarantee shall be issued by a bank licensed in Georgia or OECD member state (Organization of Economic Cooperation and Development). The term of validity of the guarantee shall be at least 30 calendar days longer than the term of the contract. In case the Contractor fails to present the guarantee within the agreed period of time, the Client shall be entitled to terminate the Contract.

**1.10 Information to be uploaded/provided by bidders for electronic tender:**

1. Price list according to paragraph 1.3;

2.Documents demonstrating experience of a Tender Participant in accordance within the paragraph 1.7;

3. Detailed Technical Specifications of the offered goods;

4.Information regarding Delivery, Warranty and Payment Terms, mentioned information shall be in consistency with the requirements of paragraphs 1.4, 1.6, 1.8;

4. Extract from the Registry of entrepreneurial and non-entrepreneurial (non-commercial) legal entities issued after the announcement date of the electronic tender.

**Note:**1) All documents and/or information uploaded for the electronic tender by a bidder shall be signed by an authorized person (a letter of attorney shall be uploaded whenever required);
2) It is Preferable All documents and/or information prepared by a pretender to be verified by an authorized person using electronic signature or a stamp of the company.

**1.11 Concluding a contract**

1) A contract with the winner company will be signed in accordance with the terms of this tender.

2) Georgian Water and Power LLC reserves the right to sign a contract with one or more companies.

**1.12 Other requirements**

1.12.1 When submitting a bid, a bidder shall not be:

* in the process of filing for bankruptcy
* in the process of liquidation
* in conditions of suspended business activity.

1.12.2 Cost estimation shall be made in Georgian national currency (GEL). Prices must include all costs considered by this tender and taxes specified by the Georgian legislation.

1.12.3 Offer of the bidder shall be valid for 30 (thirty) calendar days from the date of its submission.

1.12.4 Georgian Water and Power LLC reserves the right to determine by itself the tender completion time, to change the tender terms under the notification timely given to the bidders, or to terminate the tender at any stage of its progress.

Georgian Water and Power LLC will identify the winner through the tender commission and inform all participating companies thereof. Georgian Water and Power LLC is not obliged to give a verbal or written explanation to any bidder on any decision made regarding to the tender.

Georgian Water and Power LLC reserves the right to verify any information received from the bidders as well as to obtain information about the company or its activities. If the information provided by a bidder is not true or false, the bidder will be disqualified.

Please, note that Georgian Water and Power LLC will not accept oral request for additional information. Only phone inquiries will be accepted.

***Note: Any other information obtained in any other way will not be considered as official and does not generate any obligation from Georgian Water and Power LLC.***

**1.13 Information for participation in electronic tender:**

1.13.1Any question during the electronic tender process shall be made in writing and communicated through the Q&A platform of tenders.ge website;

1.13.2 To participate in the electronic tender, the company shall be registered on [www.tenders.ge](http://www.tenders.ge);

1.13.3 For instruction on participation in electronic tender through tenders.ge please refer to Annex 4.

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