## PQR/EME/TG174/01

## Pre-Qualification requirements for Water meter as per spec, TG60297

**Description:** - Water meter is used to measure cumulative quantity of demineralized water. It is a turbine type water meter being used in primary water system of turbo generator. The water meters shall be suitable for mounting in horizontal direction of flow with flanged connections.

## Pre-Qualification requirements

1.0 The vendor should be a regular manufacturer/authorized dealer of Water Meter with following requirements. In case of authorized dealer valid authorization letter from principle manufacturer to be submitted.

| S. No.                              | Parameter          | Value                             |  |  |  |  |  |  |
|-------------------------------------|--------------------|-----------------------------------|--|--|--|--|--|--|
| (i)                                 | Application fluid  | Water                             |  |  |  |  |  |  |
| (ii)                                | Flow rate          | 0.2 m <sup>3</sup> /hr. (minimum) |  |  |  |  |  |  |
| (iii)                               | Working Pressure   | ≥5 bar                            |  |  |  |  |  |  |
| (iv)                                | Measuring accuracy | ±2 % or better                    |  |  |  |  |  |  |
| (v)                                 | Type Cumulative    |                                   |  |  |  |  |  |  |
| (vi) Working principle Turbine type |                    |                                   |  |  |  |  |  |  |

2.0 In support of above, vendor shall furnish technical details in below mentioned format for at least ten (10) nos. of water meter for the P.O. executed in past 10 years (from date of enquiry) along with P.O. copies meeting requirements as per point no. 1 above.

| S.<br>No. | Brief technical details   | Application | Name & address of customer | Date of supply |
|-----------|---|-------------|----------------------------|----------------|
|           | Application fluid     Working pressure     Working Temperature     Measuring range     Material of     body/flanges/inside parts     Measuring accuracy     Working principle | Water       |                            |                |

- 3.0 Vendor to furnish the test certificate (hydraulic and accuracy) for water meter against any one of the P.O. submitted against clause 2.
- 4.0 Acceptance certificate from one of the end user of water meter to be provided for any one of the P.O. submitted as per clause 2 (original certificate or through e-mail directly from the customer). Acceptance certificate should contain information like item details and its application or correlation with P.O.

Note: BHEL reserves the right to verify information submitted by vendor. In case the information is found to be false / incorrect, the offer shall be rejected.

| MANUFACTURER'S NAME AND ADDRESS |  | QUALITY PLAN      |       |                |                  | TO BE FILLED BY BHEL TO BE FILLED BY BHEL |                       |          | BY BHEL              |            |   |  |
|---------------------------------|--|-------------------|-------|----------------|------------------|---|-----------------------|----------|----------------------|------------|---|--|
| DHEI                            | VENDOR'S NAME                                  | ITEM              |       |                | QP NO.<br>REV    |   |                       |          |                      |            |   |  |
| BHEL                            |  | DRG. NO.<br>SPEC. | AS PI | ER PO<br>ER PO |                  |   |                       |          |                      |            |   |  |
|                                 |  | REV               |       |                |                  | Page 1 of                                 | 1                     |          |                      | ı          |   | T  |
| SL.<br>NO.                      | COMPONENT & OPERATIONS                         | CHARACTERI        | STICS | CLASS          | TYPE OF<br>CHECK | QUANTUM<br>OF CHECK                       | REFERENCI<br>DOCUMENT | T NORMS  | FORMAT OF<br>RECORDS | AGE<br>M B | N | REMARKS  |
| 1                               | 2  | 3                 |       | 4              | 5                | 6   | 7                     | 8        | 9 D                  | 1          | 0 | 11   |
|                                 | 1  | T                 |       | 1              | 1                |   | 1                     |          | T                    |            |   | T  |
|                                 |  |                   |       |                |                  |   |                       |          |                      |            |   |  |
|                                 |  |                   |       |                |                  |   |                       |          |                      |            |   |  |
|                                 |  |                   |       |                |                  |   |                       |          |                      |            |   |  |
|                                 |  |                   |       |                |                  |   |                       |          |                      |            |   |  |
|                                 |  |                   |       |                |                  |   |                       |          |                      |            |   |  |
|                                 |  |                   |       |                |                  |   |                       |          |                      |            |   |  |
|                                 |  |                   |       |                |                  |   |                       |          |                      |            |   |  |
|                                 |  |                   |       |                |                  |   |                       |          |                      |            |   |  |
|                                 |  |                   |       |                |                  |   |                       |          |                      |            |   |  |
|                                 |  |                   |       |                |                  |   |                       |          |                      |            |   |  |
|                                 |  |                   |       |                |                  |   |                       |          |                      |            |   |  |
|                                 | <u>,                                      </u> |                   |       | •              |                  |   | •                     | <u>.</u> |                      | •          | • | <u>,                                      </u> |

|                                | LEGEND: ! RECORDS IDENTIFIED WITH 'TICK' SHALL BE ESSENTIALLY INCLUDED BY   | FOR CUSTOMER<br>USE |             |
|--------------------------------|---|---------------------|-------------|
| MANUFACTURER/SUBCO<br>NTRACTOR | CONTRACTOR IN QA DOCUMENTATION.  M: MANUFACTURER / SUBCONTRACTOR B: BHEL / NOM. INSPECTION AGENCY N: CUSTOMER INDICATE 'P' PERFORM 'W' WITNESS AND 'V' VERIFICATION |                     | APPROVED BY |
|                                | ALL 'W' INDICATED IN COLUMN 'N' SHALL BE 'CHP' OF CUSTOMER  |                     |             |