

Volume - I

**Tender Notification for
RATE CONTRACT FOR SUPPLY OF SINGLE PHASE METER
WITH BOX**

NIT No.: CMC/BY/23-24/RS/SkS/SS/13

Date : 31.05.2023

Due Date for Submission of Bids : 20.06.2023

**BSES YAMUNA POWER LTD (BYPL)
CONTRACTS & MATERIALS DEPT.,
SHAKTI KIRAN BUILDING, KARKARDOOMA, DELHI-110032
CIN: U40109DL2001PLC111525
WEBSITE: www.bsedelhi.com
GSTIN: 0711BCC8569N1Z0**

SECTION - I

REQUEST FOR QUOTATION

2023-24

Tender Notification : CMC/BY/23-24/RS/SkS/SS/13

**Event : RATE CONTRACT FOR SUPPLY OF SINGLE PHASE
METER WITH BOX**

Date : 31.05.2023

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SECTION – I: REQUEST FOR QUOTATION**1.00 Event Information**

- 1.01** BYPL invites Sealed tenders for supply of Single phase meter from reputed manufacturers. The bidder must qualify the technical requirements as specified in clause 2.0 stated below. The sealed envelopes shall be duly superscribed as — **“BID FOR RATE CONTRACT FOR SUPPLY OF SINGLE PHASE METER WITH BOX, TENDER NOTICE CMC/BY/23-24/RS/SkS/SS/13. DUE FOR BID SUBMISSION ON DT: 07.06.2023, 14:00 Hrs.**

Sl. No.	Item Description	Specification	Requirement	Estimated Cost
			Total Qty.	
BYPL, DELHI				
1	Rate Contract for Supply of Single phase Meter with box	SECTION V	1,00,000 Nos.	Rs. 9.43 Cr

Note : Quantity may vary to the extent of +/- 50% of above mentioned total quantity. The rates quoted shall remain valid for one year from the date of LOI/RC.

- 1.02** The schedule of specifications with detailed terms & conditions can be obtained from address given below against demand draft/Pay Order of **Rs. 1,180 per set-** drawn in favour of **BSES YAMUNA POWER LIMITED**, payable at Delhi. The sale of tender documents will be issued from 31.05.2023 onwards on all working days upto 20.06.2023. The tender documents can also be downloaded from the website **“www.bsedelhi.com”**. However, it is advisable to inform BYPL about your interest in tender.

In case tender papers are downloaded from the above website, then the bidder has to enclose a demand draft covering the cost of bid documents as stated above in a separate envelope with suitable superscription — **“Cost of Bid Documents: Tender Notice Ref: CMC/BY/23-24/RS/SkS/SS/13.** This envelope should accompany the Bid Documents.

- 1.03** Offers will be received till 15:00 Hrs **on dt. 20.06.2023** as indicated earlier will be opened on **21.06.2023 at 16:30 Hrs at the address given below** in the presence of authorized representatives of the bidders.. The schedule of specifications with detail terms & conditions are enclosed. It is the sole responsibility of the bidder to ensure that the bid documents reach this office on or before the due date and time.

**HEAD OF THE DEPARTMENT,
3rd FLOOR, 'A' BLOCK,
CONTRACTS & MATERIALS DEPARTMENT,
BSES YAMUNA POWER LTD,
SHAKTI KIRAN BUILDING,
KARKARDOOMA, NEW DELHI**

- 1.04** BYPL reserves the right to accept/reject any or all Tenders without assigning any reason thereof and alter the quantity of materials mentioned in the Tender documents at the time of placing purchase orders. Tender will be summarily rejected if:
- a) Tender fee of requisite value is not submitted.

- b) **Earnest Money Deposit (EMD) @ 1%** (One percent) of the Tender value i.e **Rs 9,43,000 /-** is not deposited in form of Bank Guarantee drawn in favour of BSES YAMUNA POWER LIMITED, payable at Delhi or Online transfer of requisite amount through NEFT/RTGS.
- c) The offer does not contain “FOR, NEW DELHI price indicating break-up towards all taxes & duties”.
- d) Complete Technical details are not enclosed as required in Technical Checklist enclosed in Annexure X and Incomplete Bids.
- e) Sample is not submitted along with the offer.
- f) Tender is received after due date and time due to any reason.
- g) Price Bid as per the Price Schedule mentioned in Annexure-III is not submitted.
- h) Necessary documents against compliance to Qualification Requirements mentioned at Section 1 Clause 2.0 of this Tender Document.
- i) Duly filled in checklist as per Annexure X.
- j) Filled in Schedule of Deviations as per Annexure-V.

2.0 Qualification Criteria:

TECHNICAL CRITERIA:-

Qualifying Criteria		
SL	Criteria	Documents required along with Bid in support of Qualification Criteria
1.	The Bidder must be an Original equipment manufacturer of the products proposed (Energy Meter) under this NIT with valid BIS License for the offered static energy meters.	<ul style="list-style-type: none"> a. Self undertaking in support of this criteria. b. List of energy meters manufactured at their plant(s) along with active BIS licenses for these meters and detail of their plants (Manufacturing locations). c. A brief summary of their manufacturing capabilities d. Any other relevant document. (Factory License etc.)
2.	The Bidder should have supplied at least Five (05) Lakh Static Energy Meters in the last Three (03) Financial years i.e FY 2019-20, 2020-21 and 2021-22 as on date of bid submission to Power Utilities/Discoms/State electricity boards/PSU's in India.	<ul style="list-style-type: none"> a. Summarized list clearly mentioning Purchase Order reference number, PO date, Name of Utility/ Discoms, PO quantity, Supplied quantity. b. PO copies. c. Delivery completion certificate or Delivery challan copies.
3.	<p>'Performance Certificate' not older than five (05) years from the date of issue of tender for satisfactory performance of at-least two years, from minimum Two (02) Power Utilities/Discoms / State electricity boards/PSU's in India.</p> <p>In case the bidder has a previous association with BRPL/BYPL for supply of similar product and service, the performance feedback for that bidder by BRPL/BYPL shall only be considered irrespective of performance certificate issued by any third party organization.</p>	Copies of Performance Certificates.

4.	The bidder should have plant installed capacity to supply atleast Five (05) Lakh Nos. Static energy meter per annum as on date of bid submission.	Installed Capacity Certificate issued by Statutory authority OR Chartered Engineer/CA certificate.
5.	The bidder must possess following certificates valid as on date of tender:	
a.	ISO 9001:2015 or later Certificate for meter manufacturing.	Copy of valid Certificate.
b.	ISO 27001:2005 or later - Information Security Management System.	Copy of valid Certificate.
c.	ISO 14001:2004 or later - Environmental Management System.	Copy of valid Certificate.
6.	Buyer can audit manufacturer's plant / manufacturing /works for quality checks/Production capacity/manufacturing processes as a part of tender process/post issuance of PO.	"No Objection" undertaking by the bidder.
7.	The bidder should have following facilities to meet both quality and quantity requirement of supplies.	
a.	Computerized test bench: The bidder should have sufficient Nos. of Computerized test benches. The benches should have electronic supply, Isolated CT/ PT system and data should be directly stored in central server. During the lot acceptance, BSES inspector can test up to 5% of offered quantity. The bidder should agree to provide all test facility to do so. Further he should allow BSES inspector to check shop floor process. The place of inspection should be clearly marked in tender and same should be well equipped.	Self Undertaking
b.	Seal tracking system: The manufacturer has to put both his own seal and BSES seal(s) on the meter. He should have a seal tracking software to ensure tracking of seal and no duplication of seals and meter nos,	Self Undertaking
c.	Test equipment: Since the meters has lot of anti theft features, the bidder should have test set up to check the working of all anti theft features. Same should be available during lot inspection, otherwise inspector has a right to withdraw inspection.	Self Undertaking
d.	PCB assembly facility:- The PCB facility should have auto- pick & place machine, in- circuit testor, Protection against static charge/ dust etc.; and process to ensure no corrosion of soldering points/ tracks. Incase service is taken from other vendors. Bidder shall arrange inspection of facility. The bidder should be taking the service from the vendor since last two years and so far have procured one million meter PCB from vendor	Self Undertaking

COMMERCIAL CRITERIA:-

Qualifying Criteria		
SL	Criteria	Documents Required
1.	The Bidder should have Average Annual Turnover of at least Rs. One Hundred (100) Crores during	Audited balance sheets / Duly certified CA certificate with UDIN.

	the last three (03) Financial Years related to energy meters business i.e. FY 2019-20, 2020-21 & 2021-22.	
2.	The bidder must be a Company/ LLP registered in India under the Companies Act/ Partnership under Partnership Act at least since last 5 years.	a. Certificate of Incorporation /Certificate of Registration b. Memorandum and Articles of Association /Partnership deed.
3.	The bidder should have valid Registration of GST and PAN No. in addition to statutory compliances.	Valid Certificates and copies.
4.	The Bidder shall submit an undertaking that "No Litigation" is pending with BYPL or its Group/ Associates Companies as on the date of bid submission.	Self-undertaking on letterhead.
5.	The Bidder shall not be blacklisted/debarred by any central/state government institution /electricity utilities as on the date of the bid submission.	Self-undertaking on letterhead.
6.	The bidder must submit an undertaking that the bidder shall comply all the statutory compliance as per the applicable laws/rules etc.	Self undertaking on letter head.

The prospective bidder must qualify all of the following requirements to be eligible to participate in the bidding. Bidders who meet following requirements will be considered as successful bidder and management has a right to disqualify those bidders who do not meet these requirements.

13.1 Computerized test bench: The manufacturer should have sufficient Nos of Computerized test benches. The benches should have electronic supply, Isolated CT/ PT system and data should be directly stored in central server.

13.2 Seal tracking system: The manufacturer has to put both his own seal and BSES seal(s) on the meter. He should have a seal tracking software to ensure tracking of seal and no duplication of seals and meter nos,.

13.3 Meter Burn In system: In order to ensure the reliability of components and that there is no drift in meter accuracy with time; the manufacturer should have burn in facility ---Running meter with load at elevated temperature.

13.4 Routine test data: During lot acceptance, all routine test data should be made available to inspector. In fact as per BIS, STI all test data should be offered to inspector for verification. **Routine test report should be packed with each meter.**

13.5 Test benches: During the lot acceptance, BSES inspector can test up to 5% of offered quantity. The manufacturer should agree to provide all test facility to do so. Further he should allow BSES inspector to check shop floor process. The place of inspection should be clearly marked in tender and same should be well equipped.

13.6 Test equipment: Since the meters has lot of anti theft features, the manufacturer should have test set up to check the working of all anti theft features. Same should be available during lot inspection, otherwise inspector has a right to withdraw inspection.

13.7 PCB assembly facility:- The PCB facility should have auto- pick n place machine, in- circuit testor, Protection against static charge/ dust etc.; and process to ensure no corrosion of solder points/ tracks. In case service is taken from other vendor than bidder shall arrange inspection of facility. The bidder should be taking the service from the vendor since last two years and so far have procured & one million meter PCB from vendor.

The manufacturer should send the compliance of above mentioned parameters in technical offer and has to give an undertaking about **No Objection** to verify his manufacturing facility as a part of tender process. Further in relevance to above clause (13.1 to 13.7), vendor should submit details of facilities.

3.00 BIDDING AND AWARD PROCESS

Bidders are requested to submit their questions regarding the RFQ or the bidding process after review of this RFQ. BYPL response to the questions raised by various bidders will be distributed to all participating bidders through website.

a. Time schedule of the bidding process

The bidders on this RFQ package should complete the following within the dates specified as under:

S. No.	Steps	Activity description	Due date
1	Technical Queries	<ul style="list-style-type: none"> ▪ All Queries related to RFQ 	On or before 20.06.2023
2	Technical Offer	<ul style="list-style-type: none"> • It include clause by clause commentary, GTP, Type test report from NABL Lab(Not more than 2 year old), BIS report, Quality assurance plan, Deviation from the specs, component deviation,undertaking of software protocol,List of Plant and machinery, list of anti theft testing equipment available at work. • Receipt of tender sample submission. • Compliance of Qualification criteria (cl. 2.0) and Documentary evidence in support of qualifying criterion as per format attached in Annexure VII. • Acceptance of delivery, commercial terms and conditions. • Deviation from the General Conditions of the contract/commercial terms and conditions. • Original Tender documents duly stamped and signed on each page as token of acceptance. 	20.06.2023, 15:00 Hrs
3	Commercial Officer	<ul style="list-style-type: none"> • Price for Single Phase meter. No separate price for additional feature. • Break up regarding basic price and taxes as per format enclosed vide Annexure IV. • Delivery commitment 	20.06.2023, 15:00 Hrs
4	Samples (4nos.)	<ul style="list-style-type: none"> • Sample with meter routine report as per bidder offer. • Samples will be submitted at BYPL Laboratory, at Savita vihar New Delhi on or before the due date • Sample of optical cord to be submitted with meter – 2nos. • Optical cord to be demonstrated for mechanical fixing & downloading. 	20.06.2023, 15:00 Hrs
5	Performance gaurantee quality system report	<ul style="list-style-type: none"> • As per RFQ 	Only for successful bidders.
6	Opening of technical bid	<ul style="list-style-type: none"> • As per RFQ 	21.06.2023, 16:30 Hrs

This is a two part bid process. Bidders are to submit the bids a) Technical Bid b) Price Bid.

Both these parts should be furnished in separate sealed covers superscribing specification no. validity etc, with particulars as **Part-I Technical Particulars & Commercial Terms & Conditions** and **Part-II “Financial bid”** and these sealed envelopes should again be placed in another sealed cover which shall be submitted before the due date & time specified.

Bidders are requested to submit the techno-commercial bid in one Original plus one copy in duplicate (Soft copy in Pen drive).

The Part – I Eligibility and Technical Bid should not contain any cost information whatsoever.

In case of Bids where the qualification requirements, technical suitability and other requirements are found to be inadequate, Part-II “Financial Bid” will be returned unopened.

The Part – II Financial: This envelope will be opened after techno commercial evaluation and only of the qualified bidders. The date and time of same shall be intimated in due course to the qualified bidders. Prices strictly in the format enclosed in Annexure IV indicating break up of basic prices, taxes duties, freight etc.

Notwithstanding anything stated above, the Purchaser reserves the right to assess bidders capability to perform the contract, should the circumstances warrant such assessment in the overall interest of the purchaser. In this regard the decision of the purchaser is final.

Reverse Auction Clause : Purchaser reserves the right to use the online reverse auction as optional tool through SAP – SRM as an integral part of the entire tendering process. All the bidders who are techno-commercially qualified on the basis of tender requirements shall participate in reverse auction. Notwithstanding anything stated above, the Purchaser reserves the right to assess bidder’s capability to perform the contract, should the circumstances warrant such assessment in the overall interest of the purchaser. In this regard the decision of the purchaser is final.

Sr. No	Descriptions	Type of Documents
1.	Index	List containing Title of Tender document along with page nos.
Commercial :		
2.	Tender Fee - Demand Draft (Rs.1180/-) (Incl GST)	Non-refundable demand draft for Rs 1180/- in case the forms are downloaded from website
3.	EMD	In prescribed stamp paper & format.
4.	Power-of-Attorney	In prescribed stamp paper & format.
5.	PQR Compliances	a. Summary list of compliances against each qualification criteria as mentioned in Clause no. 2.0 of Section –I of this tender document in tabular format along with page no. of documentary evidence against the criteria. (To be submitted as per format attached as Annexure –XI) b. Documentary evidences required as specified in clause no. 2.0 of Section-I.
6.	Signed Tender document	Original Tender documents duly stamped & signed on each page as token of acceptance.
7.	Commercial Terms and Conditions	Acceptance on Commercial Terms and Conditions viz Delivery schedule/period, Payment terms, PBG etc.
8.	Acceptance on Reverse Auction	Duly signed Acceptance Form For Participation In Reverse Auction Event as per attached format
9.	Bid Form (Unpriced) Duly Signed	Duly Signed Bid Form as per attached format
10.	Un price Bid Duly Signed	Duly Signed Un price Bid as per attached format
Technical:		

Sr. No	Descriptions	Type of Documents
1.	Index	List containing Title of Tender document along with page nos.
11.	Technical Check List	Complete filled in check list as mentioned in format i.e Annexure-X along with page no. of documents submitted.
12.	Technical Documents	All the documents required as per Technical checklist mentioned above.
13.	Sample of energy meters	Samples required as per technical specifications to be submitted in BYPL Meter Testing lab, Savita Vihar, Delhi. Receiving copy of samples submitted in the BYPL lab to be enclosed along with bid document.

4.00 AWARD DECISION

4.01 The purchaser reserves all the rights to award the contract to one or more bidders so as to meet the delivery requirement or nullify the award decision without any reason.

4.02 Splitting of tendered quantity in two or more bidders: BSES reserves the right to split the tender quantity among techno-commercially qualified bidders on account of delivery requirement in tender, quantity under procurement etc.

Splitting of tender quantity among more than one bidder shall be governed by below mentioned guidelines:

- a) For the purpose of splitting, the offers of all the bidders whose "Post Reverse Auction prices" are within price consideration zone of 10% above "post reverse auction L-1 rate" shall be considered eligible.
- b) The tender quantity shall be split in following ratio:
 - (i) In cases where no bidder falls within price consideration zone of 10% above post RA L-1 rate or none of the eligible bidders accept the post RA L-1 rate, 100% quantity shall be ordered on post RA L-1 bidder
 - (ii) If the quantity is to be split among 2 bidders, it will be done in the ratio of 70:30 on L1 price.
 - (iii) If the quantity is to be split among 3 bidders, it will be done in the ratio of 50:30:20 on L1 price.
 - (iv) Any deviation in regards to above will have deviation approval from management.

4.03 In the event of your bid being selected by purchaser (and / or its affiliates) and you subsequent DEFAULT on your bid; you will be required to pay purchaser (and / or its affiliates) an amount equal to the difference in your bid and the next lowest bid on the quantity declared in NIT/RFQ.

4.04 In case any supplier is found unsatisfactory during the delivery process, the award will be canceled and BYPL reserves the right to award other suppliers who are found fit.

4.05 **QTY VARIATION:** The purchaser reserves the rights to vary the quantity by +/- 50% of the tender quantity.

4.06 Bidders are requested to quote their lowest NO-REGRET prices.

4.07 Repeat Order: BYPL reserves the right to place repeat order at the same rates & terms & conditions as per this tender against additional requirement subject to mutual agreement between BYPL & Supplier.

5.00 MARKET INTEGRITY

We have a fair and competitive marketplace. The rules for bidders are outlined in the Terms & Conditions. Bidders must agree to these rules prior to participating. In addition to other remedies available, we reserves the right to exclude a bidder from participating in future markets due to the bidder’s violation of any of the rules or obligations contained in the Terms & Condition. Bidders who violate the marketplace rules or engage in behavior that disrupts the fair execution of the marketplace restricts a bidder to length of time, depending upon the seriousness of the violation. Examples of violations include, but are not limited to:

- Failure to honor prices submitted to the marketplace.
- Breach of the terms of the published in Request For Quotation.

6.00 SUPPLIER CONFIDENTIALITY

All information contained in this RFQ is confidential and may not be disclosed, published or advertised in any manner without written authorization from BYPL. This includes all bidding information submitted .

All RFQ documents remain the property of BYPL and all suppliers are required to return these documents to BYPL upon request.

Suppliers who do not honor these confidentiality provisions will be excluded from participating in future bidding events.

7.0 CONTACT INFORMATION

All communication as regards this RFQ shall be made (i) in English, (ii) in writing and (iii) sent by mail, facsimile to:

Address	Name/ Designation	E-mail Address
Technical		
CES Dept. 3rd Floor, B-Block, BSES Yamuna Power Ltd. Shaktikiran Building, Karkardooma, Delhi 110032	Gaurav Sharma (Head-CES)	Gaurav.A.Sharma@relianceada.com
	Ashish Kumar Joshi DGM (CES)	Ashish.K.Joshi@relianceada.com
Commercial		
C&M Dept. 3rd Floor, A-Block, BSES Yamuna Power Ltd Shaktikiran Building, Karkardooma, Delhi 110032	Robin Sebastian (Head-Contracts & Materials)	Robin.Sebastian@relianceada.com
	Santosh Kumar Singh (Head-Procurement)	Santosh.kum.Singh@relianceada.com
	Sisir Kumar Sahu (Buyer-Procurement)	Sisir.Sahu@relianceada.com

Note:- Those who are downloading tender notice from website. It is advisable to inform BYPL Technical, so as they can be contacted in case of any amendment in tender.

SECTION – II

INSTRUCTION TO BIDDERS (ITB)

**RATE CONTRACT FOR SUPPLY OF SINGLE PHASE METER
WITH BOX**

CMC/BY/23-24/RS/SkS/SS/13

Dated : 31.05.2023

A. GENERAL

1.00 BSES YAMUNA POWER LIMITED, hereinafter referred to as the Purchaser “are desirous of implementing the various System Improvement/Repair & Maintenance works at their respective licensed area in Delhi. The Purchaser has now floated this tender for procurement of Single phase Meter with box notified earlier in this bid document.

2.00 SCOPE OF WORK

The scope shall include Design, Manufacture, Testing at works conforming to the Technical Specifications enclosed along with Packing, Forwarding, Freight and Unloading and proper stacking at Purchaser’s stores.

3.0 DISCLAIMER

3.01 This Document includes statements, which reflect various assumptions, which may or may not be correct. Each Bidder/Bidding Consortium should conduct its own estimation and analysis and should check the accuracy, reliability and completeness of the information in this Document and obtain independent advice from appropriate sources in their own interest.

3.02 Neither Purchaser nor its employees will have any liability whatsoever to any Bidder or any other person under the law or contract, the principles of restitution or unjust enrichment or otherwise for any loss, expense or damage whatsoever which may arise from or be incurred or suffered in connection with anything contained in this Document, any matter deemed to form part of this Document, provision of Services and any other information supplied by or on behalf of Purchaser or its employees, or otherwise arising in anyway from the selection process for the Supply.

3.03 Though adequate care has been taken while issuing the Bid document, the Bidder should satisfy itself that Documents are complete in all respects. Intimation of any discrepancy shall be given to this office immediately.

3.04 This Document and the information contained herein are Strictly Confidential and are for the use of only the person(s) to whom it is issued. It may not be copied or distributed by the recipient to third parties (other than in confidence to the recipient’s professional advisors).

4.0 COST OF BIDDING

The Bidder shall bear all cost associated with the preparation and submission of its Bid and Purchaser will in no case be responsible or liable for those costs. **Further the Purchaser has a right to get Sample Meter’s tested by any reputed Independent Lab like CPRI/ERDA/NABL at the cost of bidder.**

B. BIDDING DOCUMENTS

5.0 BIDDING DOCUMENTS

5.01 The Scope of Work, Bidding Procedures and Contract Terms are described in the Bidding Documents. In addition to the covering letter accompanying Bidding Documents, the Bidding Documents include:

Volume -I

- | | |
|-----------------------------------|----------------|
| a) Request for Quotation (RFQ) | - Section – I |
| b) Instructions to Bidders (ITB) | - Section – II |
| c) General conditions of Contract | - Section –III |

- d) Quantity and delivery requirement - Section –IV
- e) Technical Specifications (TS) - Section –V

Volume - II

- a) Bid Form - Annexure -I
- b) Reverse Auction Event - Annexure –II
- c) Format for EMD - Annexure –III
- d) Price Schedule - Annexure –IV
- e) Summary of Commercial Terms & Conditions - Annexure-V
- f) No Deviation Sheet - Annexure- VI
- g) Qualification Criterion - Annexure- VII
- h) Performance Bank Guarantee - Annexure- VIII

5.02 The Bidder is expected to examine the Bidding Documents, including all Instructions, Forms, Terms and Specifications. Failure to furnish all information required by the Bidding documents or submission of a Bid not substantially responsive to the Bidding Documents in every respect will may result in the rejection of the Bid.

6.0 AMENDMENT OF BIDDING DOCUMENTS

- 6.01 At any time prior to the deadline for submission of Bids, the Purchaser may for any reasons, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the Bidding Documents by Amendment.
- 6.02 The Amendment shall be part of the Bidding Documents, pursuant to Clause 5.01, and it will be notified in writing by Fax/e-mail to all the Bidders who have received the Bidding Documents and confirmed their participation to Bid, and will be binding on them .
- 6.03 In order to afford prospective Bidders reasonable time in which to take the Amendment into account in preparing their Bids, the Purchaser may, at its discretion, extend the deadline for the submission of Bids.

C. PREPARATION OF BIDS

7.0 LANGUAGE OF BID

The Bid prepared by the Bidder, and all correspondence and documents relating to the Bid exchanged by the Bidder and the Purchaser, shall be written in the English Language. Any printed literature furnished by the Bidder may be written in another Language, provided that this literature is accompanied by an English translation, in which case, for purposes of interpretation of the Bid, the English translation shall govern.

8.0 DOCUMENTS COMPRISING THE BID

The Bid prepared and submitted by the Bidder shall comprise the following components:

- (a) Bid Form, Price & other Schedules (STRICTLY AS PER FORMAT) and Technical Data Sheets completed in accordance with Clause 9.0, 10.0, 11.0 and Technical Specifications ;
- (b) All the Bids must be accompanied with the required EMD as mentioned in the Section-I against each tender.
- (c) Power of Attorney indicating that the person(s) signing the Bid have the authority to sign the Bid

and thus that the Bid is binding upon the Bidder during the full period of its validity, in accordance with clause 12.0.

9.0 BID FORM

9.01 The Bidder shall complete an "Original" and another one "Copy" of the Bid Form and the appropriate Price & Other Schedules and Technical Data Sheets.

9.02 EMD

Pursuant to Clause 8.0(b) above, the bidder shall furnish, as part of its bid, a EMD amounting to 1% of the total bid value (FOR Destination) i.e **Rs 9,43,000/-**. The EMD is required to protect the Purchaser against the risk of Bidder's conduct which would warrant the security's forfeiture.

The EMD shall be denominated in the currency of the bid, and shall be in the following form:

(a) A bank guarantee issued by any scheduled bank strictly as per the form at enclosed and shall be valid for a period of thirty (30) days beyond the validity of the bid

(b) Bank Draft in favour of BSES YAMUNA POWER LIMITED, payable at Delhi.

Unsuccessful bidders' EMD will be discharged or returned as promptly as possible but not later than thirty (30) days after the expiration of the period of bid validity.

The successful bidder's EMD will be discharged upon furnishing the performance security. The EMD may be forfeited in the following cases:

(a) if the Bidder:

i) withdraws its bid during the period of bid validity specified by the Bidder in the Bid Form ; or

(b) in the case of a successful Bidder, if the Bidder fails:

(i) to sign the Contract, or

(ii) to furnish the required performance security.

10.0 BID PRICES

10.01 Bidders shall quote for the entire Scope of Supply with a break-up of prices for individual items. The total Bid Price shall also cover all the Supplier's obligations mentioned in or reasonably to be inferred from the Bidding Documents in respect of Design, Supply, Transportation to site, all in accordance with the requirement of Bidding Documents. The Bidder shall complete the appropriate Price Schedules included herein, stating the Unit Price for each item & total Price.

10.02 The prices offered shall be inclusive of all costs as well as Duties, Taxes and Levies paid or payable during execution of the supply work, breakup of price constituents, should be there.

Prices quoted by the Bidder shall be—Firm "and not subject to any price adjustment during the performance of the Contract. A Bid submitted with an adjustable price quotation will be treated as non-responsive and rejected.

11.0 BID CURRENCIES

Prices shall be quoted **in Indian Rupees Only.**

12.0 PERIOD OF VALIDITY OF BIDS

12.01 Bids shall remain valid for 120 days post bid date.

12.02 Notwithstanding Clause 12.01 above, the Purchaser may solicit the Bidder's consent to an extension of the Period of Bid Validity. The request and the responses thereto shall be made in writing by Fax/e-mail.

13.0 ALTERNATIVE BIDS

Bidders shall submit Bids, which comply with the Bidding Documents. Alternative Bids will not be considered. The attention of Bidders is drawn to the provisions of Clause 22.03 & 22.04 regarding the rejection of Bids, which are not substantially responsive to the requirements of the Bidding Documents.

14.0 FORMAT AND SIGNING OF BID

14.01 The original Bid Form and accompanying documents (as specified in Clause 9.0, clearly marked "Original Bid", plus one copy must be received by the Purchaser at the date, time and place specified pursuant to Clauses 15.0 and 16.0. In the event of any discrepancy between the original and the copies, the original shall govern.

14.02 The original and copy of the Bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to sign on behalf of the Bidder. Such authorization shall be indicated by written Power-of-Attorney accompanying the Bid.

14.03 The Bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the Bid.

D. SUBMISSION OF BIDS

15.0 SEALING AND MARKING OF BIDS

15.01 Bid submission: One original & one Copy (hard copies) of all the Bid Documents shall be sealed and submitted to the Purchaser before the closing time for submission of the bid.

15.02 The Technical Documents and the EMD shall be enclosed in a sealed envelope and the said envelope shall be superscribed with "Technical & EMD". The Financial bid shall be inside another sealed envelope with superscription "Financial Bid". Both these envelopes shall be sealed inside another big envelope. All the envelopes should bear the Name and Address of the Bidder and marking for the Original and Copy. The envelopes should be superscribed with "**Tender Notice No, Due date of submission, Tender opening date.**"

15.03 The Bidder has the option of sending the Bids in person. Bids submitted by Telex/Telegram /Fax will not be accepted. No request from any Bidder to the Purchaser to collect the proposals from Airlines/Cargo Agents etc shall be entertained by the Purchaser.

15.04 The Bidder, along with the bid documents has to **submit four samples along with detailed GTP & Drawings.** The sample should clearly indicate (i) Name of the bidder (ii) Tender No., (iii) Group & Item Sr. No. etc. Samples will be submitted at BYPL Meter Testing Laboratory, Savita vihar New Delhi or before the due date of tender submission. **Bidders are required to submit the receipt of sample submission along with the technical bid.** The samples shall not be returned back to the bidder.

16.0 DEADLINE FOR SUBMISSION OF BIDS

- 16.01 The original Bid, together with the required copies, must be received by the Purchaser at the address specified not **later than 15:00 Hrs on 20.06.2023**.
- 16.02 The Purchaser may, at its discretion, extend the deadline for the submission of Bids by amending the Bidding Documents in accordance with Clause 9.0, in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended

17.0 ONE BID PER BIDDER

Each Bidder shall submit only one Bid either by itself, or as a partner in a Joint Venture. A Bidder who submits or participates in more than one Bid will cause all those Bids to be rejected.

18.0 LATE BIDS

Any Bid received by the Purchaser after the deadline for submission of Bids prescribed by the Purchaser, pursuant to Clause 16.0, will be declared "Late" and rejected and returned unopened to the Bidder.

19.0 MODIFICATIONS AND WITHDRAWAL OF BIDS

- 19.01 The Bidder is not allowed to modify or withdraw its Bid after the Bid's submission.

E. EVALUATION OF BID

20.0 PROCESS TO BE CONFIDENTIAL

Information relating to the examination, clarification, evaluation and comparison of Bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process. Any effort by a Bidder to influence the Purchaser's processing of Bids or award decisions may result in the rejection of the Bidder's Bid.

21.0 CLARIFICATION OF BIDS

To assist in the examination, evaluation and comparison of Bids, the Purchaser may, at its discretion ask the bidder for a clarification of its Bid. All responses to requests for clarification shall be in writing and no change in the price or substance of the Bid shall be sought, offered or permitted.

22.0 PRELIMINARY EXAMINATION OF BIDS / RESPONSIVENESS

- 22.01 Purchaser will examine the Bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the Bids are generally in order.
- 22.02 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price per item that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price per item will be corrected. If there is a discrepancy between the Total Amount and the sum of the total price per item, the sum of the total price per item shall prevail and the Total Amount will be corrected.
- 22.03 Prior to the detailed evaluation, Purchaser will determine the substantial responsiveness of each Bid to the Bidding Documents including production capability and acceptable quality of the Goods

offered. A substantially responsive Bid is one, which conforms to all the terms and conditions of the Bidding Documents without material deviation.

- 22.04 Bid determined as not substantially responsive will be rejected by the Purchaser and/or the Purchaser and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

23.0 EVALUATION AND COMPARISON OF BIDS

- 23.01 The evaluation of Bids shall be done based on the delivered cost competitiveness basis.

- 23.02 The evaluation of the Bids shall be a stage-wise procedure. The following stages are identified for evaluation purposes: In the first stage, the Bids would be subjected to a responsiveness check. The Technical Proposals and the Conditional ties of the Bidders would be evaluated.

Subsequently, the Financial Proposals along with Supplementary Financial Proposals, if any, of Bidders with Techno-commercially Acceptable Bids shall be considered for final evaluation.

- 23.03 The Purchaser's evaluation of a Bid will take into account, in addition to the Bid price, the following factors, in the manner and to the extent indicated in this Clause:

(a) Supply Schedule

(b) Deviations from Bidding Documents

Bidders shall base their Bid price on the terms and conditions specified in the Bidding Documents.

The cost of all quantifiable deviations and omissions from the specification, terms and conditions specified in Bidding Documents shall be evaluated. The Purchaser will make its own assessment of the cost of any deviation for the purpose of ensuring fair comparison of Bids.

- 23.04 Any adjustments in price, which result from the above procedures, shall be added for the purposes of comparative evaluation only to arrive at an "Evaluated Bid Price". Bid Prices quoted by Bidders shall remain unaltered.

F. AWARD OF CONTRACT

24.0 CONTACTING THE PURCHASER

- 24.01 From the time of Bid submission to the time of contract award, if any Bidder wishes to contact the Purchaser on any matter related to the Bid, it should do so in writing.

- 24.02 Any effort by a Bidder to influence the Purchaser and/or in the Purchaser's decisions in respect of Bid evaluation, Bid comparison or Contract Award, will result in the rejection of the Bidder's Bid.

25.0 THE PURCHASER'S RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS

The Purchaser reserves the right to accept or reject any Bid and to annul the Bidding process and reject all Bids at anytime prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Purchaser's action.

26.0 AWARD OF CONTRACT

The Purchaser will award the Contract to the successful Bidder whose Bid has been Determined

to be the lowest-evaluated responsive Bid, provided further that the Bidder has been determined to be qualified to satisfactorily perform the Contract. Purchaser reserves the right to award order other bidders in the tender, provided it is required for progress of project & provided he agrees to come to the lowest rate.

27.0 THE PURCHASER 'S RIGHT TO VARY QUANTITIES

The Purchaser reserves the right to vary the quantity i.e. increase or decrease the numbers/ quantities without any change in terms and conditions during the execution of the Order.

28.0 LETTER OF INTENT/ NOTIFICATION OF AWARD

The letter of intent/ Notification of Award shall be issued to the successful Bidder whose bids have been considered responsive, techno-commercially acceptable and evaluated to be the lowest (L1). The successful Bidder shall be required to furnish a letter of acceptance within 7 days of issue of the letter of intent /Notification of Award by Purchaser.

29.0 PERFORMANCE BANK GUARANTEE

The successful Bidder shall furnish the Performance Bank Guarantee for an amount of **5%** (Five percent) of the Contract value in accordance with the format provided at the time of order. The Performance Bond shall be valid for a period of Sixty months (60) from the date of the commissioning or Sixty six months (66) from the date of receipt of material (last consignment) at site/stores which ever is earlier plus 3 months towards claim period. Upon submission of the performance security, the EMD shall be released.

30.0 CORRUPT OR FRADULENT PRACTICES

30.01 The Purchaser requires that the Bidders observe the highest standard of ethics during the procurement and execution of the Project. In pursuance of this policy, the Purchaser:

- (a) Defines, for the purposes of this provision , the terms set forth below as follows:
 - (i) "Corrupt practice" means behavior on the part of officials in the public or private sectors by which they improperly and unlawfully enrich themselves and/or those close to them ,or induce others to do so, by misusing the position in which they are placed, and it includes the offering, giving, receiving, or soliciting of anything of value to influence the action of any such official in the procurement process or in contract execution; and
 - (ii) "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Purchaser, and includes collusive practice among Bidders (prior to or after Bid submission) designed to establish Bid prices at artificial non -competitive levels and to deprive the Purchaser of the benefits of free and open competition .
- (b) Will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question ;
- (c) Will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for,or in executing, a contract.

30.02 Furthermore, Bidders shall be aware of the provision stated in the General Conditions of Contract.

SECTION – III

(GENERAL CONDITION OF CONTRACT)

**RATE CONTRACT FOR SUPPLY OF SINGLE PHASE METER
WITH BOX**

CMC/BY/23-24/RS/SkS/SS/13

Dated : 31.05.2023

GENERAL TERMS AND CONDITION**1.0 GENERAL INSTRUCTIONS**

- 1.01** All the Bids shall be prepared and submitted in accordance with these instructions.
- 1.02** Bidder shall bear all costs associated with the preparation and delivery of its Bid, and the Purchaser will in no case shall be responsible or liable for these costs.
- 1.03** The Bid should be submitted by the Bidder in whose name the bid document has been issued and under no circumstances it shall be transferred/sold to the other party.
- 1.04** The Purchaser reserves the right to request for any additional information and also reserves the right to reject the proposal of any Bidder, if in the opinion of the Purchaser, the data in support of RFQ requirement is incomplete.
- 1.05** The Bidder is expected to examine all instructions, forms, terms & conditions and specifications in the Bid Documents. Failure to furnish all information required in the Bid Documents or submission of a Bid not substantially responsive to the Bid Documents in every respect may result in rejection of the Bid. However, the Purchaser's decision in regard to the responsiveness and rejection of bids shall be final and binding without any obligation, financial or otherwise, on the Purchaser.

2.0 DEFINITION OF TERMS

- 2.01** "Purchaser" shall mean BSES YAMUNA POWER LIMITED, on whose behalf this bid enquiry is issued by its authorized representative / officers.
- 2.02** "Bidder" shall mean the firm who quotes against this bid enquiry issued by the Purchaser. "Supplier" or "Supplier" shall mean the successful Bidder and/or Bidders whose bid has been accepted by the Purchaser and on whom the "Letter of Acceptance" is placed by the Purchaser and shall include his heirs, legal representatives, successors and permitted assigns wherever the context so admits.
- 2.03** "Supply" and " shall mean the Scope of Contract as described.
- 2.04** "Specification" shall mean collectively all the terms and stipulations contained in those portions of this bid document known as RFQ, Commercial Terms & Condition, Instructions to Bidders, Technical Specifications and the Amendments, Revisions, Deletions or Additions, as may be made by the Purchaser from time to time.
- 2.05** "Letter of Acceptance" shall mean the official notice issued by the Purchaser notifying the Supplier that his proposal has been accepted and it shall include amendments thereto, if any, issued by the Purchaser. The "Letter of Acceptance" issued by the Purchaser shall be binding on the "Supplier" The date of Letter of Acceptance shall be taken as the effective date of the commencement of contract.
- 2.06** "Month" shall mean the calendar month and "Day" shall mean the calendar day.
- 2.07** "Codes and Standards" shall mean all the applicable codes and standards as indicated in the Specification.

- 2.08** “Offer Sheet” shall mean Bidder’s firm offer submitted to BYPL in accordance with the specification.
- 2.09** “Contract” shall mean the “Letter of Acceptance” issued by the Purchaser.
- 2.10** “Contract Price” shall mean the price referred to in the “Letter of Acceptance”.
- 2.11** “Contract Period” shall mean the period during which the “Contract” shall be executed as agreed between the Supplier and the Purchaser in the Contract inclusive of extended contract period for reason beyond the control of the Supplier and/or Purchaser due to force majeure.
- 2.12** “Acceptance” shall mean and deemed to include one or more of the following as will be stipulated in the specification:
- a) The written acceptance of material by the inspector at suppliers works to ship the materials.
 - b) Acceptance of material at Purchaser site stores after its receipt and due inspection/ testing and release of material acceptance voucher.
 - c) Where the scope of the contract includes supplying, acceptance shall mean issue of necessary equipment / material takeover receipt after installation & commissioning and final acceptance.

3.0 CONTRACT DOCUMENTS & PRIORITY

- 3.01** Contract Documents: The terms and conditions of the contract shall consist solely of these RFQ conditions and the offer sheet.
- 3.02** Priority: Should there be any discrepancy between any term hereof and any term of the Offer Sheet, the terms of these RFQ shall prevail.

4.0 SCOPE OF SUPPLY - GENERAL

- 4.01** The “Scope of Supply” shall be on the basis of Bidder’s responsibility, completely covering the obligations, responsibility and supplies provided in this Bid enquiry whether implicit or explicit.
- 4.02** Bidder shall have to quote for the Bill of quantities as listed in Section – IV of this RFQ.
- 4.03** Quantity variation and additional requirement if any shall be communicated to successful bidder during project execution.
- 4.04** All relevant drawings, data and instruction manuals.

5.0 QUALITY ASSURANCE AND INSPECTION

- 5.01** Immediately on award of contract, the bidder shall prepare detailed quality assurance plan / test procedure identifying the various stages of manufacture, quality checks performed at each stage, raw material inspection and the Customer hold points. The document shall also furnish details of method of checking, inspection and acceptance standards / values and get the approval of Purchaser before proceeding with manufacturing. However, Purchaser shall have right to review the inspection reports, quality checks and results of suppliers in house inspection department which are not Customer hold points and the supplier shall comply with the remarks made by purchaser or his representative on such reviews with regards to further testing, rectification or rejection, etc.
- 5.02** Witness and Hold points are critical steps in manufacturing, inspection and testing where the supplier is obliged to notify the Purchaser in advance so that it may be witnessed by the

Purchaser. Final inspection is a mandatory hold point. The supplier to proceed with the work past a hold point only after clearance by purchaser or a witness waiver letter from BYPL.

- 5.03** The performance of waiver of QA activity by Purchaser at any stage of manufacturing does not relieve the supplier of any obligation to perform in accordance with and meet all the requirements of the procurement documents and also all the codes & reference documents mentioned in the procurement document nor shall it preclude subsequent rejection by the purchaser.
- 5.04** On completion of manufacturing the items can be dispatched only after issue of MDCC (Material Dispatch Clearance Certificate) document by the Purchaser.
- 5.05** All testing and inspection shall be done with out any extra cost.
- 5.06** Purchaser reserve the right to send any material out of the supply to any recognized laboratory for testing and the cost of testing shall be borne by the Purchaser. In case the material is found not in order with the technical requirement / specification, the charges along with any other penalty which may be levied is to be borne by the bidder. To avoid any complaint the supplier is advised to send his representative to the stores to see that the material sent for testing is being sealed in the presence of bidders representative.
- 5.07** Bidder has to sign quality agreement before supply of the material.

6.0 PACKING, PACKING LIST & MARKING

- 6.01 Packing:** Supplier shall pack or shall cause to be packed all Commodities in boxes and containers and otherwise in such a manner as shall be reasonably suitable for shipment by road or rail to BYPL without undue risk of damage in transit.
- 6.02 Packing List:** The contents of each package shall be itemized on a detailed list showing the exact weight and the extreme outside dimensions (length, width and eight) of each container or box. One copy of the packing list shall be enclosed in each package delivered. There shall also be enclosed in one package a master packing list identifying each individual package, which is part of the shipment. On any packaging where it is not feasible to place the packing list inside the container, all pertinent information shall be stenciled on the outside and will thus constitute a packing list.

7.01 PRICES BASIS FOR SUPPLY OF MATERIALS

Bidder to quote their prices on Landed Cost Basis and separate price for each items.
For Supply to BYPL Delhi the price shall be inclusive of packing, forwarding, Freight and Good & Service Tax (GST).

The above supply prices shall also **include unloading** at site stores.
Transit and storage insurance will be arranged by BYPL, however bidder to furnish required details in advance for arranging the same by BYPL.

8.0 VARIATION IN TAXES, DUTIES & LEVIES:

- 8.01** The total order value shall be adjusted on account of any variations in Statutory Levies imposed by Competent Authorities by way of fresh notification(s) within the stipulated delivery period only. However, incase of reduction in taxes, duties and levies, the benefits of the same shall be passed on to BUYER.

8.02 No other Taxes, Duties & Levies other than those specified above will be payable by BUYER except in case of new Levies, Taxes & Duties imposed by the Competent Authorities by way of fresh notification(s) subsequent to the issue of PURCHASE ORDER but within the stipulated delivery period.

8.03 Notwithstanding what is stated above, changes in Taxes, Duties & Levies shall apply only to that portion of PURCHASE ORDER not executed on the date of notification by Competent Authority. Further changes in Taxes, Duties & Levies after due date of Delivery shall not affect PURCHASE ORDER Terms and Value.

8.04 PURCHASE ORDER value shall not be subject to any variation on account of variation in Exchange rate(s).

9.0 TAXES & DUTIES ON RAW MATERIALS & BOUGHT OUT COMPONENTS:

9.01 Taxes & Duties on raw materials & bought out components are included in Order Value and are not subject to any escalation or variation for any reason whatsoever.

9.02 Taxes & Duties on raw materials & bought out components procured indigenously are included in Order Value and are not subject to any escalation or variation for any reason whatsoever.

10.0 TERMS OF PAYMENT AND BILLING

10.01 For Supply of Equipment's:

- 100% payment shall be made within 45 days from the date of receipt of material at store/site against submission of 5 % performance bank guarantee. (Refer 12.01)

10.02 Bidder to submit the following documents against dispatch of each consignment:

- i. Consignee copy of LR
- ii. Supplier detailed invoice showing commodity description, quantity, unit price, total price and basis of delivery.
- iii. Original certificate issued by BYPL confirming receipt of material at site and acceptance of the same.
- iv. Dispatch clearance / inspection report in original issued by the inspection authority
- v. Packing List.
- vi. Test Reports
- vii. Guarantee Certificate.

11.0 PRICE VALIDITY

11.01 All bids submitted shall remain valid, firm and subject to unconditional acceptance by BYPL Delhi for 120 days post bid-date. For awarded suppliers, the prices shall remain valid and firm till contract completion.

12.0 PERFORMANCE BANK GUARANTEE

12.01 Supplier shall establish a performance bond in favor of BSES YAMUNA POWER LIMITED in an amount not less than Ten percent (10%) of the total Contract Value (the "Performance Bond"). The Performance Bond shall be valid for a period of Sixty months (60) from the date of the commissioning or Sixty six months (66) from the date of receipt of material (last consignment) at site/stores whichever is earlier plus 3 months towards claim period. It shall be in accordance with one of the following terms:

- (a) Depositing pay order /demand draft of the relevant amount directly with BYPL at the address listed above or as otherwise specified by BYPL, either of which shall constitute the Performance Bond hereunder; or
- (b) Bank guarantee from any nationalized bank in favour of BSES YAMUNA POWER LIMITED. The performance Bank guarantee shall be in the format as specified by BYPL.

13.0 FORFEITURE:

13.01 Each Performance Bond established under Clause 10.0 shall contain a statement that it shall be automatically and unconditionally forfeited without recourse and payable against the presentation by BYPL of this Performance Bond to the ICICI Bank at Mumbai, or to the relevant company/ correspondent bank referred to above, as the case may be, together with a simple statement that supplier has failed to comply with any term or condition set forth in the Contract.

13.02 Each Performance Bond established under will be automatically and unconditionally forfeited without recourse if BYPL in its sole discretion determines that supplier has failed to comply with any term or condition set forth in the contract.

14.0 RELEASE

All Performance Bonds will be released without interest within seven (7) days from the last date up to which the Performance Bond has to be kept valid (as defined in Clause 10.0) except for the case set forth in Clause 21.0.

15.0 DEFECTS LIABILITY PERIOD

15.01 The bidder to Guarantee the materials / items supplied against any defect of failure, which arise due to faulty materials, workmanship or design for the entire defects liability period. The Defect liability period shall be 60 months from the date of commissioning or 66 months from the date of delivery whichever is earlier. If during the defects liability period any materials / items are found to be defective, these shall be replaced or rectified by the bidder at his own cost within 30 days from the date of receipt of intimation.

16.0 RETURN, REPLACEMENT OR SUBSTITUTION.

Purchaser shall give Supplier notice of any defective Commodity promptly after becoming aware thereof. Purchaser may in its discretion elect to return defective Commodities to Supplier for replacement, free of charge to BYPL, or may reject such Commodities and purchase the same or similar Commodities from any third party. In the latter case BYPL shall furnish proof to Supplier of the cost of such substitute purchase. In either case, all costs of any replacement, substitution, shipping, labour and other related expenses incurred in connection with the return and replacement or for the substitute purchase of a Commodity hereunder should be for the account of Supplier. BYPL may set off such costs against any amounts payable by BYPL to Supplier. Supplier shall reimburse BYPL for the amount, if any, by which the price of a substitute Commodity exceeds the price for such Commodity as quoted in the Bid.

17.0 EFFECTIVE DATE OF COMMENCEMENT OF CONTRACT:

17.01 The date of the issue of the Letter of Acceptance shall be treated as the effective date of the commencement of Contract.

18.0 TIME – THE ESSENCE OF CONTRACT

18.01 The time and the date of completion of the “Supply” as stipulated in the Letter Of Acceptance / Purchase order issued to the Supplier shall be deemed to be the essence of the “Contract”. The Supply has to be completed not later than the aforesaid Schedule and date of completion of supply .

19.0 THE LAWS AND JURISDICTION OF CONTRACT:

19.01 The laws applicable to this Contract shall be the Laws in force in India.

19.02 All disputes arising in connection with the present Contract shall be settled amicably by mutual consultation failing which shall be finally settled as per the rules of Arbitration and Conciliation Act, 1996 at the discretion of Purchaser. The venue of arbitration shall be at Mumbai in India

20.0 EVENTS OF DEFAULT

20.01 Events of Default. Each of the following events or occurrences shall constitute an event of default ("Event of Default") under the Contract:

- (a) Supplier fails or refuses to pay any amounts due under the Contract;
- (b) Supplier fails or refuses to deliver Commodities conforming to this RFQ/ specifications, or fails to deliver Commodities within the period specified in P.O. or any extension thereof
- (c) Supplier becomes insolvent or unable to pay its debts when due, or commits any act of bankruptcy, such as filing any petition in any bankruptcy, winding-up or reorganization proceeding, or acknowledges in writing its insolvency or inability to pay its debts; or the Supplier's creditors file any petition relating to bankruptcy of Supplier;
- (d) Supplier otherwise fails or refuses to perform or observe any term or condition of the Contract and such failure is not remediable or, if remediable, continues for a period of 30 days after receipt by the Supplier of notice of such failure from BYPL.

21.0 CONSEQUENCES OF DEFAULT

- (a) If an Event of Default shall occur and be continuing, BYPL may forthwith terminate the Contract by written notice.
- (b) In the event of an Event of Default, BYPL may, without prejudice to any other right granted to it by law, or the Contract, take any or all of the following actions;
 - (i) present for payment to the relevant bank the Performance Bond;
 - (ii) purchase the same or similar Commodities from any third party; and/or
 - (iii) recover any losses and/or additional expenses BYPL may incur as a result of Supplier's default.

22.0 PENALTY FOR DELAY

- 22.01** If supply of items / equipment's is delayed beyond the supply schedule as stipulated in purchase order then the Supplier shall be liable to pay to the Purchaser as penalty for delay, a sum of 1% (one percent) of the basic price (ex-work) for every week delay or part thereof for individual mile stone deliveries.
- 22.02** The total amount of penalty for delay under the contract will be subject to a maximum of ten percent (10%) of the basic price (ex-work).
- 22.03** The Purchaser may, without prejudice to any method of recovery, deduct the amount for such damages from any amount due or which may become due to the Supplier or from the Performance Bond or file a claim against the supplier.

23.0 FORCE MAJEURE

23.01 General

An "Event of Force Majeure" shall mean any event or circumstance not within the reasonable control directly or indirectly, of the Party affected, but only if and to the extent that:

- (i) Such event or circumstance materially and adversely affects the ability of the affected Party to perform its obligations under this Contract, and the affected Party has taken all reasonable precautions, due care and reasonable alternative measures in order to prevent or avoid the effect of such event on the affected party's ability to perform its obligations under this Contract and to mitigate the consequences thereof.
- (ii) For the avoidance of doubt, if such event or circumstance would not have materially and adversely affected the performance of the affected party had such affected party followed good industry practice, such event or circumstance shall not constitute force Majeure.
- (iii) Such event is not the direct or indirect result of the failure of such Party to perform any of its obligations under this Contract.
- (iv) Such Party has given the other Party prompt notice describing such events, the effect thereof and the actions being taken in order to comply with above clause.

23.02 Specific Events of Force Majeure subject to the provisions of above clause, Events of Force Majeure shall include only the following to the extent that they or their consequences satisfy the above requirements :

- (i) The following events and circumstances :
 - a) Effect of any natural element or other acts of God, including but not limited to storm, flood, earthquake, lightning, cyclone, landslides or other natural disasters.
 - b) Explosions or fires
- (ii) War declared by the Government of India, provided that the ports at Mumbai are declared as a war zone.
- (iii) Dangers of navigation, perils of the sea.

23.03 Notice of Events of Force Majeure If a force majeure event prevents a party from performing any obligations under the Contract in part or in full, that party shall:

- i) Immediately notify the other party in writing of the force majeure events within 7(seven) working days of the occurrence of the force majeure event
- ii) Be entitled to suspend performance of the obligation under the Contract which is affected by force majeure event for the duration of the force majeure event.
- iii) Use all reasonable efforts to resume full performance of the obligation as soon as practicable
- iv) Keep the other party informed of all such efforts to resume full performance of the obligation on a regular basis.
- v) Provide prompt notice of the resumption of full performance or obligation to the other party.

23.04 Mitigation of Events of Force Majeure Each Party shall:

- (i) Make all reasonable efforts to prevent and reduce to a minimum and mitigate the effect of any delay occasioned by an Event of Force Majeure including recourse to alternate methods of satisfying its obligations under the Contract;
- (ii) Use its best efforts to ensure resumption of normal performance after the termination of any Event of Force Majeure and shall perform its obligations to the maximum extent practicable as agreed between the Parties; and
- (iii) Keep the other Party informed at regular intervals of the circumstances concerning the event of Force Majeure, with best estimates as to its likely continuation and what measures or contingency planning it is taking to mitigate and or terminate the Event of Force Majeure.

23.05 Burden of Proof In the event that the Parties are unable in good faith to agree that a Force Majeure event has occurred to an affected party, the parties shall resolve their dispute in accordance with the provisions of this Agreement. The burden of proof as to whether or not a force majeure event has occurred shall be upon the party claiming that the force majeure event has occurred and that it is the affected party.

23.06 Termination for Certain Events of Force Majeure. If any obligation of any Party under the Contract is or is reasonably expected to be delayed or prevented by a Force Majeure event for a continuous period of more than 3 months, the Parties shall promptly discuss in good faith how to proceed with a view to reaching a solution on mutually agreed basis. If a solution on mutually agreed basis cannot be arrived at within a period of 30 days after the expiry of the period of three months, the Contract shall be terminated after the said period of 30 days and neither Party shall be liable to the other for any consequences arising on account of such termination.

23.07 Limitation of Force Majeure event. The Supplier shall not be relieved of any obligation under the Contract solely because cost of performance is increased, whether as a consequence of adverse economic consequences or otherwise.

23.08 Extension of Contract Period due to Force Majeure event The Contract period may be extended by mutual agreement of Parties by way of an adjustment on account of any period during which an obligation of either Party is suspended due to a Force Majeure event.

23.09 Effect of Events of Force Majeure. Except as otherwise provided herein or may further be agreed between the Parties, either Party shall be excused from performance and neither Party shall be construed to be in default in respect of any

obligations hereunder, for so long as failure to perform such obligations shall be due to and event of Force Majeure."

24.0 TRANSFER AND SUB-LETTING

24.01 The Supplier shall not sublet, transfer, assign or otherwise part with the Contract or any part thereof, either directly or indirectly, without prior written permission of the Purchaser.

25.0 RECOVERIES

25.01 When ever under this contract any money is recoverable from and payable by the bidder, the purchaser shall be entitled to recover such sum by appropriating in part or in whole by detecting any sum due to which any time thereafter may become due from the supplier in this or any other contract. Should the sum be not sufficient to cover the full amount recoverable the bidder shall pay to the purchaser on demand the remaining balance.

26.0 WAIVER

26.01 Failure to enforce any condition herein contained shall not operate as a waiver of the condition itself or any subsequent breach thereof.

27.0 INDEMNIFICATION

27.01 Notwithstanding contrary to anything contained in this RFQ, Supplier shall at his costs and risks make good any loss or damage to the property of the Purchaser and/or the other Supplier engaged by the Purchaser and/or the employees of the Purchaser and/or employees of the other Supplier engaged by the Purchaser whatsoever arising out of the negligence of the Supplier while performing the obligations under this contract.

SECTION - IV: QUANTITY AND DELIVERY REQUIREMENT

Sl. No.	Item Description	Specification	Requirement		Location
			Total Qty.	Delivery Schedule	
1.	Single Phase Meter with box	SECTION V	1,00,000 Nos	Communicated at the time of award/ as per the requirement (Receipt at the BYPL Delhi Stores)	Stores/Site BYPL Delhi

Volume - II

FORMATS

**RATE CONTRACT FOR SUPPLY OF SINGLE PHASE METER
WITH BOX**

CMC/BY/23-24/RS/SkS/SS/13

Dated : 31.05.2023

Annexure -I

BID FORM

To,

Head of the Department
Contracts & Materials
BSES Yamuna Power Ltd
Shakti Kiran Building, Karkardooma
New Delhi- 110032

Sir,

- 1 We understand that BYPL is desirous of procuring "**RATE CONTRACT FOR SUPPLY OF SINGLE PHASE METER WITH BOX**" in it's licensed distribution network area in Delhi.
- 2 Having examined the Bidding Documents for the above named works, we the undersigned, offer to deliver the goods in full conformity with the Drawings, Conditions of Contract and specifications for the sum of..... (figures.....) or such other sums as may be determined in accordance with the terms and conditions of the contract .The above Amounts are in accordance with the Price Schedules attached herewith and are made part of this bid.
- 3 If our Bid is accepted, we undertake to deliver the entire goods as per delivery schedule given by you from the date of award of purchase order/letter of intent.
- 4 If our Bid is accepted, we will furnish a performance bank guarantee for an amount of Ten (10%) percent of the total contract value for due performance of the Contract in accordance with the General Conditions of Contract.
- 5 We agree to abide by this Bid for a period of 120 days from the date fixed for bid opening under clause 9.0 of GCC, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
- 6 We declare that we have studied the provision of Indian Income Tax Law and other Indian Laws for supply of equipments/materials and the prices have been quoted accordingly.
- 7 Unless and until Letter of Intent is issued, this Bid, together with your written acceptance thereof, shall constitute a binding contract between us.
- 8 We understand that you are not bound to accept the lowest, or any bid you may receive.
- 9 There is provision for Resolution of Disputes under this Contract, in accordance with the Laws and Jurisdiction of Contract, Clause 19 of GCC .

Dated this..... day of..... 20

Signature..... In the capacity of

.....duly authorized to sign for and on behalf of

(IN BLOCK CAPITALS)

Annexure -II

ACCEPTANCE FORM FOR PARTICIPATION IN REVERSE AUCTION EVENT

(To be signed and stamped by the bidder prior to participation in the auction event)

In a bid to make our entire procurement process more fair and transparent, BYPL intends to use the reverse auctions through SAP-SRM tool as an integral part of the entire tendering process. All the bidders who are found as techno commercial qualified based on the tender requirements shall be eligible to participate in the reverse auction event.

The following terms and conditions are deemed as accepted by the bidder on participation in the bid event:

1. BYPL shall provide the user id and password to the authorized representative of the bidder. (Authorization letter in lieu of the same be submitted along with the signed and stamped acceptance form)
2. BYPL will make every effort to make the bid process transparent. However, the award decision by BYPL would be final and binding on the supplier.
3. The bidder agrees to non-disclosure of trade information regarding the purchase, identity of BYPL, bid process, bid technology, bid documentation and bid details.
4. The bidder is advised to understand the auto bid process to safeguard themselves against any possibility of non-participation in the auction event.
5. In case of bidding through internet medium, bidders are further advised to ensure availability of the entire infrastructure as required at their end to participate in the auction event. Inability to bid due to telephone line glitch, internet response issues, software or hardware hangs, power failure or any other reason shall not be the responsibility of BYPL.
6. In case of intranet medium, BYPL shall provide the infrastructure to bidders, further, BYPL has sole discretion to extend or restart the auction event in case of any glitches in infrastructure observed which has restricted the bidders to submit the bids to ensure fair & transparent competitive bidding. In case of an auction event is restarted, the best bid as already available in the system shall become the start price for the new auction.
7. In case the bidder fails to participate in the auction event due any reason whatsoever, it shall be presumed that the bidder has no further discounts to offer and the initial bid as submitted by the bidder as a part of the tender shall be considered as the bidder's final no regret offer. Any offline price bids received from a bidder in lieu of non-participation in the auction event shall be out rightly rejected by BYPL.
8. The bidder shall be prepared with competitive price quotes on the day of the bidding event.
9. The prices as quoted by the bidder during the auction event shall be inclusive of all the applicable taxes, duties and levies and shall be FOR at BYPL site.
10. The prices submitted by a bidder during the auction event shall be binding on the bidder. No further communication will be there.
11. No requests for time extension of the auction event shall be considered by BYPL.
12. The original price bids of the bidders shall be reduced on pro-rata basis against each line item based on the final all inclusive prices offered during conclusion of the auction event for arriving at contract amount.

Signature & seal of the Bidder

BIDDER DETAIL FORM

Bidder's Offer No.:

Offer Dated:

To,
Head of the Department
Contracts & Materials
BSES Yamuna Power Ltd
BSES Building, Karkardooma
New Delhi- 110032.

Dear Sir,

In response to your Tender No. CMC/BY/23-24/RS/SkS/SS/13 dated 17.05.2023 for Supply of Single phase meter with box for BSES YAMUNA POWER LTD, Delhi-32. We hereby submit our offer herewith.

1. Bidder Name :
2. Website Address :
3. Email Address :
4. Address for Communication :
.....
.....
5. Telephone Number :
6. Fax/Telefax Number :
7. Authorized Person - Name :.....
 - a. Designation :
 - b. Mobile No. :
 - c. Email-ID :
8. Alternate Person - Name :.....
 - a. Designation:.....
 - b. Mobile No. :
 - c. Email-ID :
9. PAN Number :

10. TIN Number :

11. Service Tax Regn. No. :

12. ECC Number :

13. Particulars of EMD:

- a. Amount : Rs.
- b. Mode of Payment (BG) :
- c. BG No. :
- d. Date :
- e. Name of the Bank :
- f. Address of the Bank :
- g. Validity of BG :

14. Particulars of Tender Fee:

- a. Amount : Rs.
- b. DD No. :
- c. Date :
- d. Name of the Bank :
- e. Address of the Bank :

15. Turnover of the Bidder in last 3 years (Please submit copy of Annual Report)

Year	Annual Report attached at Page No.	Turnover in Rs. (Crores)
2020-2021		
2021-2022		
2022-2023		
Average Turnover		

16. Details of similar work / order executed during last 2 years (Please submit copy of completion certificate from the client).

Description of the Work/ Order Executed	Value of Work/Order Executed	Name of the Client	Start Date	Finish Date	Doc. Evidence at Page No.

17. Following Documents are submitted to substantiate other eligibility criteria.

- i)
- ii)
- iii)

DECLARATION

- 1) We have read and understood the terms & conditions of the above mentioned tender and comply with all Terms & Conditions of your Tender.(In case of any deviation the Bidder must attach a separate sheet clearly mentioning the Clause No. of the Tender and Deviation thereto)
- 2) We certify that the information mentioned above are true and correct to best of our Knowledge.
- 3) In case of receipt of order we confirm that payment shall be received through e-Banking / Electronics Transfer.
- 4) This offer contains No. of pages including all Annexure and Enclosures.

Place: _____

Signature of Authorized Signatory

Date: _____

Name:

Designation:

Seal:

Annexure -III

FORMAT FOR EMD BANK GUARANTEE

(To be issued in a Non Judicial Stamp Paper of Rs.50/-purchased in the name of the bank)

Whereas [name of the Bidder](hereinafter called the Bidder“) has submitted its bid dated [date of submission of bid] for the supply of [name and/or description of the goods] (hereafter called “the Bid”).

KNOW ALL PEOPLE by these presents that WE [name of bank]at[Branch Name and address],having our registered office at[address of the registered office of the bank](herein after called —the Bank“),are bound unto BSES Yamuna Power Ltd., with it’s Corporate Office at BSES Shakti Kiran Building Karkardooma, New Delhi -110032 ,(herein after called —the Purchaser“)in the sum of Rs.(Rupees.....only) for which payment well and truly to be made to the said Purchaser, the Bank binds itself, its successors, and assigns by these presents.

Sealed with the Common Seal of the said Bank this____ day of_____ 20____.

THE CONDITIONS of this obligation are:

1. If the Bidder withdraws its Bid during the period of bid validity specified by the Bidder on the Bid Form ;or
2. If the Bidder, having been notified of the acceptance of its Bid by the Purchaser during the period of bid validity:
 - (a) Fails or refuses to execute the Contract Form , if required; or
 - (b) Fails or refuses to furnish the performance security, In accordance with the Instructions to Bidders/Terms and conditions;

We undertake to pay to the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that is its demand the purchaser will note that amount claimed by it is due to it, owing to the occurrence of on e or both of the two condition s, specifying the occurred condition or condition s.

This guarantee will remain in force up to and including One Twenty (120) days after the due date of submission bid, and any demand in respect thereof should reach the Bank not later than the above date.

(Stamp & signature of the bank)

Signature of the witness

Annexure -IV**PRICE FORMAT****PRICE SCHEDULE FOR SUPPLIERS LOCATED WITHIN INDIA**

Item Description	Qty	Uom	Ex-Works Price Per EA (INR)	GST %	GST Amount (INR)	Unit Landed Cost Per EA (INR)	Total Landed Cost In (INR)
Supply of Single phase meter with box	1,00,000	EA					

Please attach the covering letter head along with the price format.

Note :

- Rate contract to be valid for 01 year from the placement of contract.
- The delivery shall be as per BYPL schedule and requirement and as per the written instructions issued by C&M deptt., BYPL.
- The quantity shown is indicative only for RC purpose and can vary. PO(s) will be released as per the actual requirement. However, supplier has to deliver the material within the delivery schedule provided.
- BYPL reserves the right to split the quantity to any extent.

Date: Bidders Name:

Place: Bidders Address:

Signature: Designation:

Printed Name: Common Seal:

Annexure-V

SUMMARY OF COMMERCIAL TERMS AND CONDITIONS

Sl. No.	TERMS	AS PER BYPL	CONFIRMATION OF BIDDES/BIDDER's TERMS
1.	Validity of prices	120 days from the date of offer submission	
2.	Price basis	a) Firm, FOR Delhi stores/ sites/ offices basis. Prices shall be inclusive of all taxes, freight upto Delhi stores/ site. b) Unloading at stores/ site shall be in vendor's scope c) Transit insurance in buyer's scope	
3.	Payment terms	100% payment shall be made within 45 days from the date of receipt of material at stores/ sites.	
4.	Rate Contract	The rate contract shall have a validity period of 12 months from the date of issue of Contract/LOI/PO issued to the responsive, techno-commercially acceptable and evaluated to be the lowest bidder.	
5.	Delivery schedule	Submission of GTP/Drawing within 7 days from the date of LOI/ Purchase order. Delivery within 60 days from the date of manufacturing clearance and sample approval. Quantity to be supplied in each month as per the delivery schedule mentioned in Purchase Order of BYPL.	
6.	Defect Liability period	The defect liability period shall be Sixty (60) months after the date of successful commissioning of Goods or Sixty six (66) months from the date of last date of material receipt at stores/site.	
7.	Penalty for delay	1% of the basic(ex-works) PO value per week of delay or part thereof, subject to maximum of (Ten)10% of the total basic(ex-works) PO value of undelivered units.	
8.	Performance Bank Guarantee	Performance Bank Guarantee shall be for Ten (10%) percent of the Total Contract Value/PO value and shall be valid for a period of 66 months from the date of last dispatch or 60 months from the date of commissioning, whichever is earlier plus 3 months towards claim period.	
9.	Reverse Auction Event	In a bid to make our entire procurement process more fair and transparent, BYPL intends to use the reverse auctions through SAP-SRM tool as an integral part of the entire tendering process. All the bidders who are found as techno commercial qualified based on the tender requirements shall be eligible to participate in the reverse auction event.	

ANNEXURE VI**SCHEDULE OF DEVIATIONS**

Vendor shall refrain from taking any deviations on this TENDER. Still in case of any deviations, all such deviations from this tender shall be set out by the Bidder, Clause by Clause in this schedule and submit the same as a part of the Technical Bid.

Unless **specifically** mentioned in this schedule, the tender shall be deemed to confirm the BYPL's specifications:

Technical Deviations:-

S. No	NIT Clause No.	NIT Page No.	Details of Clarification/deviation with justifications

Commercial Deviations:-

S. No	NIT Clause No.	NIT Page No.	Details of Clarification/deviation with justifications

Bidder should also furnish the below details for future communication:-

GENERAL INFORMATION

NAME OF COMPANY
POSTAL ADDRESS

FOR TECHNICAL QUERY:

CONTACT PERSON NAME
DESIGNATION
E-MAIL
CONTACT NO.

FOR COMMERCIAL QUERY:

CONTACT PERSON NAME
DESIGNATION
E-MAIL
CONTACT NO.

By signing this document we hereby withdraw all the deviations whatsoever taken anywhere in this bid document and comply with all the terms and conditions, technical specifications, scope of work etc. As mentioned in the standard document except those mentioned above.

Seal of the Bidder:

Signature:

Name:

Annexure - VII

QUALIFICATION CRITERIA

TECHNICAL CRITERIA:		
SL	Criteria	Documents required along with Bid in support of Qualification Criteria
1.	The Bidder must be an Original equipment manufacturer of the products proposed (Energy Meter) under this NIT with valid BIS License for the offered static energy meters.	a) Self undertaking in support of this criteria. b) List of energy meters manufactured at their plant(s) along with active BIS licenses for these meters and detail of their plants (Manufacturing locations). c) A brief summary of their manufacturing capabilities d) Any other relevant document. (Factory License etc.)
2.	The Bidder should have supplied at least Five (05) Lakh Static Energy Meters in the last Three (03) Financial years i.e FY 2019-20, 2020-21 and 2021-22 as on date of bid submission to Power Utilities/Discoms/State electricity boards/PSU's in India.	a. Summarized list clearly mentioning Purchase Order reference number, PO date, Name of Utility/ Discoms, PO quantity, Supplied quantity. b. PO copies. c. Delivery completion certificate or Delivery challan copies.
3.	'Performance Certificate' not older than five (05) years from the date of issue of tender for satisfactory performance of at-least two years, from minimum Two (02) Power Utilities/Discoms / State electricity boards/PSU's in India. In case the bidder has a previous association with BRPL/BYPL for supply of similar product and service, the performance feedback for that bidder by BRPL/BYPL shall only be considered irrespective of performance certificate issued by any third party organization.	Copies of Performance Certificates.
4.	The bidder should have plant installed capacity to supply atleast Five (05) Lakh Nos. Static energy meter per annum as on date of bid submission.	Installed Capacity Certificate issued by Statutory authority OR Chartered Engineer/CA certificate.
5.	The bidder must possess following certificates valid as on date of tender :	
a.	ISO 9001:2015 or later Certificate for meter manufacturing.	Copy of valid Certificate.
b.	ISO 27001:2005 or later - Information Security Management System.	Copy of valid Certificate.
c.	ISO 14001:2004 or later - Environmental Management System.	Copy of valid Certificate.

6.	Buyer can audit manufacturer's plant / manufacturing /works for quality checks/Production capacity/manufacturing processes as a part of tender process/post issuance of PO.	"No Objection" undertaking by the bidder.
7.	The bidder should have following facilities to meet both quality and quantity requirement of supplies.	
a.	Computerized test bench: The bidder should have sufficient Nos. of Computerized test benches. The benches should have electronic supply, Isolated CT/ PT system and data should be directly stored in central server. During the lot acceptance, BSES inspector can test up to 5% of offered quantity. The bidder should agree to provide all test facility to do so. Further he should allow BSES inspector to check shop floor process. The place of inspection should be clearly marked in tender and same should be well equipped.	Self Undertaking
b.	Seal tracking system: The manufacturer has to put both his own seal and BSES seal(s) on the meter. He should have a seal tracking software to ensure tracking of seal and no duplication of seals and meter nos,	Self Undertaking
c.	Test equipment: Since the meters has lot of anti theft features, the bidder should have test set up to check the working of all anti theft features. Same should be available during lot inspection, otherwise inspector has a right to withdraw inspection.	Self Undertaking
d.	PCB assembly facility:- The PCB facility should have auto- pick & place machine, in- circuit testor, Protection against static charge/ dust etc.; and process to ensure no corrosion of soldering points/ tracks. Incase service is taken from other vendors. Bidder shall arrange inspection of facility. The bidder should be taking the service from the vendor since last two years and so far have procured one million meter PCB from vendor.	Self Undertaking
COMMERCIAL CRITERIA:-		
Qualification Criteria		
SL. No.	Criteria	Documents Required
1.	The Bidder should have Average Annual Turnover of at least Rs. One Hundred (100) Crores during the last three (03) Financial Years related to energy meters business i.e. FY 2019-20, 2020-21 & 2021-22.	Audited balance sheets / Duly certified CA certificate with UDIN.
2.	The bidder must be a Company/ LLP registered in India under the Companies Act/ Partnership under	a. Certificate of Incorporation /Certificate of Registration

	Partnership Act at least since last 5 years.	b. Memorandum and Articles of Association /Partnership deed.
3.	The bidder should have valid Registration of GST and PAN No. in addition to statutory compliances.	Valid Certificates and copies.
4.	The Bidder shall submit an undertaking that "No Litigation" is pending with BYPL or its Group/ Associates Companies as on the date of bid submission.	Self-undertaking on letterhead.
5.	The Bidder shall not be blacklisted/debarred by any central/state government institution /electricity utilities as on the date of the bid submission.	Self-undertaking on letterhead.
6.	The bidder must submit an undertaking that the bidder shall comply all the statutory compliance as per the applicable laws/rules etc.	Self undertaking on letter head.

Annexure - VIII

FORMAT OF PERFORMANCE BANK GUARANTEE

(To be executed on a Non-Judicial Stamp Paper of appropriate value)

This Guarantee made at _____ this [__] day of [____] 20XX

1. WHEREAS M/s BSES Yamuna Power Limited, a Company incorporated under the provisions of Companies Act, 1956 having its Registered Office at Shaktikiran Building, Karkardoa, Delhi 110032, India hereinafter referred to as the " Owner ", (which expression shall unless repugnant to the context or meaning thereof include its successors, administrators, executors and assigns).
2. AND WHEREAS the Owner has entered into a **contract for _____ (Please specify the nature of contract here)** vide **Contract No. _____ dated _____** (hereinafter referred to as the "Contract") with **M/s. _____**, (hereinafter referred to as "the Supplier", which expression shall unless repugnant to the context or meaning thereof be deemed to mean and include each of their respective successors and assigns) for providing services on the terms and conditions as more particularly detailed therein.
3. AND WHEREAS as per clause **___ of conditions of Contract**, the Suppliers are obliged to provide to the Owners an unconditional bank guarantee for an amount equivalent to Five percent (5%) of the total Contract Value for the timely completion and faithful and successful execution of the Contract from [_____] **pl. specify the name of Bank**) having its head/registered office at [_____] through its branch in _____ **(pl. specify the name of Branch through which B.G is issued)** hereinafter referred to as "the Bank", (which expression shall unless it be repugnant to the context or meaning thereof be deemed to include its successors and permitted assigns).
4. NOW THEREFORE, in consideration inter-alia of the Owner granting the Suppliers the Contract, the Bank hereby unconditionally and irrevocably guarantees and undertakes, on a written demand, to immediately pay to the Owner any amount so demanded (by way of one or more claims) not exceeding in the aggregate [Rs.].....**(in words)** without any demur, reservation, contest or protest and/or without reference to the Supplier and without the Owner needing to provide or show to the Bank ,grounds or reasons or give any justification for such demand for the sum/s demanded.
5. The decision of the Owner to invoke this Guarantee and as to whether the Supplier has not performed its obligations under the Contract shall be binding on the Bank. The Bank acknowledges that any such demand by the Owner of the amounts payable by the Bank to the Owner shall be final, binding and conclusive evidence in respect of the amounts payable by the Supplier to the Owner. Any such demand made by the Owner on the Bank shall be conclusive and binding, notwithstanding any difference between the Owner and the Supplier or any dispute raised, invoked, threatened or pending before any court, tribunal, arbitrator or any other authority.
6. The Bank also agrees that the Owner at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor without proceeding against the Suppliers notwithstanding any other security or other guarantee that the Owner may have in relation to the Supplier's liabilities.
7. The Bank hereby waives the necessity for the Owner first demanding the aforesaid amounts or any part thereof from the Suppliers before making payment to the Owner and further also waives any right the Bank may have of first requiring the Owner to use its legal remedies against the Suppliers, before presenting any written demand to the Bank for payment under this Guarantee.

8. The Bank's obligations under this Guarantee shall not be reduced by reason of any partial performance of the Contract. The Bank's obligations shall not be reduced by any failure by the Owner to timely pay or perform any of its obligations under the Contract.

9. The Bank further unconditionally and unequivocally agrees with the Owner that the Owner shall be at liberty, without the Bank's consent and without affecting in any manner its rights and the Bank's obligation under this Guarantee, from time to time, to:

- (i) vary and/or modify any of the terms and conditions of the Contract;
- (ii) Forebear or enforce any of the rights exercisable by the Owner against the Suppliers under the terms and conditions of the Contract; or
- (iii) Extend and/or postpone the time for performance of the obligations of the Suppliers under the Contract;

and the Bank shall not be relieved from its liability by reason of any such act or omission on the part of the Owner or any indulgence shown by the Owner to the Suppliers or any other reason whatsoever which under the law relating to sureties would, but for this provision, have the effect of relieving the Bank of its obligations under this Guarantee.

10. This Guarantee shall be a continuing bank guarantee and shall not be discharged by any change in the constitution or composition of the Suppliers, and this Guarantee shall not be affected or discharged by the liquidation, winding-up, bankruptcy, reorganization, dissolution or insolvency of the Suppliers or any of them or any other circumstances whatsoever.

11. This Guarantee shall be in addition to and not in substitution or in derogation of any other security held by the Owner to secure the performance of the obligations of the Suppliers under the Contract.

12. NOTWITHSTANDING anything herein above contained, the liability of the BANK under this Guarantee shall be restricted to _____ (*insert an amount equal to Five percent (5%) of the Contract Value*) and this Guarantee shall be valid and enforceable and expire on _____ (*pl. specify date*) or unless a suit or action to enforce a claim under this Guarantee is filed against the Bank on or before the date of expiry.

13. On termination of this Guarantee, all rights under the said Guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities hereunder.

14. The Bank undertakes not to revoke this Guarantee during its validity except with the prior written consent of the Owner and agrees that any change in the constitution of the Bank or the Suppliers shall not discharge our liability hereunder.

15. This Guarantee shall be governed by the laws of India. Any suit, action, or other proceeding arising out of, connected with, or related to this Guarantee or the subject matter hereof shall be subject to the exclusive jurisdiction of the courts of **Delhi**, India.

Dated this day of20XX at

(Signature)

.....

(Name)

.....

(Designation with Bank Stamp)

Attorney as per

Power of Attorney No.....

Date.....

BYPL BANK DETAIL WITH IFSC CODE:

1. Name of the Bank: Axis Bank Limited
2. Branch Name & Full Address: C-58, Basement & Ground Floor, Preet Vihar, Main Vikas Marg, New Delhi 110092
3. Branch Code: 055
4. Bank Account No: 911030003596085
5. IFSC Code: UTIB0000055
6. Swift Code: AXISINBB055

Annexure - IX

FORMAT OF WARRANTY/GUARANTEE CERTIFICATE

BSES YAMUNA POWER LIMITED Shakti Kiran Building, Karkardooma, Delhi -110032.

Ref. Purchase Order No. :

Dear Sir,

We hereby confirm that the.....dispatched to BSES YAMUNA POWER LTD vide invoice no.....

Datedis exactly of the same nature and description as per above mentioned Purchase Order.

We further confirm that we will replace/repair our.....free of cost If found any manufacturing defect during.....months from the date of dispatch of material or.....months from the date of commissioning whichever is earlier.

Vendor's Name & Signature

SELF DECLARATION FORM

Tender No: CMC/BY/23-24/RS/SkS/SS/13

To,
The HOD
Contract & Material Dept
BSES Yamuna Power LTD
Karardooma Delhi-110032

Subject: Declaration for Not blacklisted

Sir,

1. I / We, the undersigned do hereby declare that, I / We have never ever been blacklisted and / or there were no debaring actions against us for any default in supply of material/ Services or in the performance of the contract entrusted to us in any of the State Government, Central Government or any other public sector undertaking or a corporation or Electricity Utilities of India.
2. In the event of any such information pertaining to the aforesaid matter found at any given point of time either during the course of the contract or at the bidding stage, my bid/ contract shall be liable for truncation/ cancellation/ termination without any notice at the sole discretion of the purchaser.

Yours faithfully

Place:

Date:

Signature of the bidder with seal

(This form shall be duly signed by the bidder & submitted along with the original copy of the bid.)

VENDOR CODE OF CONDUCT

Purchaser is committed to conducting its business in an ethical, legal and socially responsible manner. To encourage compliance with all legal requirements and ethical business practices, Purchaser has established this Vendor Code of Conduct (the "Code") for Purchaser's Vendors. For the purposes of this document, "Vendor" means any company, corporation or other entity that sells, or seeks to sell goods or services, to Purchaser, including the Vendor's employees, agents and other representatives.

Fundamental to adopting the Code is the understanding that a business, in all of its activities, must operate in full compliance with the laws, rules and regulations of the countries in which it operates. This Code encourages Vendors to go beyond legal compliance, drawing upon internationally recognized standards, in order to advance social and environmental responsibility.

I. Labour and Human Rights

Vendors must uphold the human rights of workers, and treat them with dignity and respect as understood by the international community.

. Fair Treatment - Vendors must be committed to a workplace free of harassment. Vendors shall not threaten workers with or subject them to harsh or inhumane treatment, including sexual harassment, sexual abuse, corporal punishment, mental coercion, physical coercion, verbal abuse or unreasonable restrictions on entering or exiting company provided facilities.

. Antidiscrimination - Vendors shall not discriminate against any worker based on race, colour, age, gender, sexual orientation, ethnicity, disability, religion, political affiliation, union membership, national origin, or marital status in hiring and employment practices such as applications for employment, promotions, rewards, access to training, job assignments, wages, benefits, discipline, and termination. Vendors shall not require a pregnancy test or discriminate against pregnant workers except where required by applicable laws or regulations or prudent for workplace safety. In addition, Vendors shall not require workers or potential workers to undergo medical tests that could be used in a discriminatory way except where required by applicable law or regulation or prudent for workplace safety.

. Freely Chosen Employment - Forced, bonded or indentured labour or involuntary prison labour is not to be used. All work will be voluntary, and workers should be free to leave upon reasonable notice. Workers shall not be required to hand over government-issued identification, passports or work permits as a condition of employment.

. Prevention of Under Age Labor - Child labor is strictly prohibited. Vendors shall not employ children. The minimum age for employment or work shall be 15 years of age, the minimum age for employment in that country, or the age for completing compulsory education in that country, whichever is higher. This Code does not prohibit participation in legitimate workplace apprenticeship programs that are consistent with Article 6 of ILO Minimum Age Convention No. 138 or light work consistent with Article 7 of ILO Minimum Age Convention No. 138.

. Juvenile Labor - Vendors may employ juveniles who are older than the applicable legal minimum age for employment but are younger than 18 years of age, provided they do not perform work likely to jeopardize their health, safety, or morals, consistent with ILO Minimum Age Convention No. 138.

. Minimum Wages - Compensation paid to workers shall comply with all applicable wage laws, including those relating to minimum wages, overtime hours and legally mandated benefits. Any Disciplinary wage deductions are to conform to local law. The basis on which workers are being paid is to be clearly conveyed to them in a timely manner.

. Working Hours - Studies of good manufacturing practices clearly link worker strain to reduced productivity, increased turnover and increased injury and illness. Work weeks are not to exceed maximum set by local law. Further, a work week should not be more than 60 hours per week, including overtime, except in emergency or unusual situations. Workers should be allowed at least one day off per seven-day week.

. Freedom of Association - Open communication and direct engagement between workers and management are the most effective ways to resolve workplace and compensation issues. Vendors are to respect the rights of workers to associate freely and to communicate openly with management regarding working conditions without fear of reprisal, intimidation or harassment. Workers' rights to join labour unions seek representation and or join worker's councils in accordance with local laws should be acknowledged.

II. Health and Safety

Vendors must recognize that in addition to minimizing the incidence of work-related injury and illness, a safe and healthy work environment enhances the quality of products and services, consistency of production and worker retention and morale. Vendors must also recognize that ongoing worker input and education is essential to identifying and solving health and safety issues in the workplace.

The health and safety standards are:

. Occupational Injury and Illness - Procedures and systems are to be in place to prevent, manage, track and report occupational injury and illness, including provisions to: a) encourage worker reporting; b) classify and record injury and illness cases; c) provide necessary medical treatment; d) investigate cases and implement corrective actions to eliminate their causes; and e) facilitate return of workers to work.

. Emergency Preparedness - Emergency situations and events are to be identified and assessed, and their impact minimized by implementing emergency plans and response procedures, including: emergency reporting, employee notification and evacuation procedures, worker training and drills, appropriate fire detection and suppression equipment, adequate exit facilities and recovery plans.

. Occupational Safety - Worker exposure to potential safety hazards (e.g., electrical and other energy sources, fire, vehicles, and fall hazards) are to be controlled through proper design engineering and administrative controls, preventative maintenance and safe work procedures (including lockout/tagout), and ongoing safety training. Where hazards cannot be adequately controlled by these means, workers are to be provided with appropriate, well-maintained, personal protective equipment. Workers shall not be disciplined for raising safety concerns.

. Machine Safeguarding - Production and other machinery is to be evaluated for safety hazards. Physical guards, interlocks and barriers are to be provided and properly maintained where machinery presents an injury hazard to workers.

.Industrial Hygiene - Worker exposure to chemical, biological and physical agents is to be identified, evaluated, and controlled. Engineering or administrative controls must be used to control overexposures. When hazards cannot be adequately controlled by such means, worker health is to be protected by appropriate personal protective equipment programs.

.Sanitation, Food, and Housing - Workers are to be provided with ready access to clean toilet, facilities potable water and sanitary food preparation, storage, and eating facilities. Worker dormitories provided by the Participant or a labour agent are to be maintained clean and safe, and provided by the Participant or a labour agent, hot water for bathing and showering, and adequate heat and ventilation and reasonable personal space along with reasonable entry and exit privileges.

. Physically Demanding Work - Worker exposure to the hazards of physically demanding tasks, including manual material handling and heavy or repetitive lifting, prolonged standing and highly repetitive or forceful assembly tasks is to be identified, evaluated and controlled.

III. Environmental

Vendors should recognize that environmental responsibility is integral to producing world class products In manufacturing operations, adverse effects on the environment and natural resources are to be minimized while safeguarding the health and safety of the public.

The environmental standards are:

. Product Content Restrictions - Vendors are to adhere to applicable laws and regulations regarding prohibition or restriction of specific substances including labeling laws and regulations for recycling and disposal. In addition, Vendors are to adhere to all environmental requirements specified by Purchaser.

. Chemical and Hazardous Materials -Chemical and other materials posing a hazard if released to the environment are to be identified and managed to ensure their safe handling, movement storage, recycling or reuse and disposal.

. Air Emissions - Air emissions of volatile organic chemicals, aerosols, corrosives, particulates, ozone depleting chemicals and combustion by-products generated from operations are to be characterized, monitored, controlled and treated as required prior to discharge.

. Pollution Prevention and Resource Reduction -Waste of all types, including water and energy, are to be reduced or eliminated at the source or by practices such as modifying production, maintenance and facility processes, materials substitution, conservation, recycling and re-using materials.

. Wastewater and Solid Waste - Wastewater and solid waste generated from operations industrial processes and sanitation facilities are to be monitored, controlled and treated as required prior to discharge or disposal.

. Environmental Permits and Reporting - All required environmental permits (e.g. discharge monitoring) and registrations are to be obtained, maintained and kept current and their operational and reporting requirements are to be followed.

IV. Ethics

Vendors must be committed to the highest standards of ethical conduct when dealing with workers, Vendors, and customers.

. Corruption, Extortion, or Embezzlement - Corruption, extortion, and embezzlement, in any form, are strictly prohibited. Vendors shall not engage in corruption, extortion or embezzlement in any form and violations of this prohibition may result in immediate termination as an Vendor and in legal action.

. Disclosure of Information - Vendors must disclose information regarding its business activities, structure financial situation, and performance in accordance with applicable laws and regulations and prevailing industry practices.

. No Improper Advantage - Vendors shall not offer or accept bribes or other means of obtaining undue or improper advantage.

. Fair Business, Advertising, and Competition - Vendors must uphold fair business standards in advertising, sales, and competition.

- . Business Integrity - The highest standards of integrity are to be expected in all business interactions. Participants shall prohibit any and all forms of corruption, extortion and embezzlement. Monitoring and enforcement procedures shall be implemented to ensure conformance.
- . Community Engagement - Vendors are encouraged to engage the community to help foster social and economic development and to contribute to the sustainability of the communities in which they operate.
- . Protection of Intellectual Property - Vendors must respect intellectual property rights; safeguard customer information; and transfer of technology and know-how must be done in a manner that protects intellectual property rights.

V. Management System

Vendors shall adopt or establish a management system whose scope is related to the content of this Code. The management system shall be designed to ensure (a) compliance with applicable laws, regulations and customer requirements related to the Vendors' operations and products; (b) conformance with this Code; and (c) identification and mitigation of operational risks related to this Code. It should also facilitate continual improvement.

The management system should contain the following elements:

- . Company Commitment - Corporate social and environmental responsibility statements affirming Vendor's commitment to compliance and continual improvement.
- . Management Accountability and Responsibility - Clearly identified company representative[s] responsible for ensuring implementation and periodic review of the status of the management systems.
- . Legal and Customer Requirements - Identification, monitoring and understanding of applicable laws, regulations and customer requirements.
- . Risk Assessment and Risk Management - Process to identify the environmental, health and safety and labour practice risks associated with Vendor's operations. Determination of the relative significance for each risk and implementation of appropriate procedural and physical controls to ensure regulatory compliance to control the identified risks.
- . Performance Objectives with Implementation Plan and Measures - Areas to be included in a risk assessment for health and safety are warehouse and storage facilities, plant/facilities support equipment, laboratories and test areas, sanitation facilities (bathrooms), kitchen/cafeteria and worker housing /dormitories. Written standards, performance objectives, and targets an implementation plans including a periodic assessment of Vendor's performance against those objectives.
- . Training - Programs for training managers and workers to implement Vendor's policies, procedures and improvement objectives.
- . Communication - Process for communicating clear and accurate information about Vendor's performance, practices and expectations to workers, Vendors and customers.
- . Worker Feedback and Participation - Ongoing processes to assess employees' understanding of and obtain feedback on practices and conditions covered by this Code and to foster continuous improvement.
- . Audits and Assessments - Periodic self-evaluations to ensure conformity to legal and regulatory requirements, the content of the Code and customer contractual requirements related to social and environmental responsibility.

- . Corrective Action Process - Process for timely correction of deficiencies identified by internal or external assessments, inspections, investigations and reviews.
- . Documentation and Records - Creation of documents and records to ensure regulatory compliance and conformity to company requirements along with appropriate confidentiality to protect privacy.

The Code is modeled on and contains language from the Recognized standards such as International Labour Organization Standards (ILO), Universal Declaration of Human Rights (UDHR), United Nations Convention against Corruption, and the Ethical Trading Initiative (ETI) were used as references in preparing this Code and may be useful sources of additional information

VENDOR DATA FORM

1. Name of the company : _____

2. Address of the company : _____

3. During the time the tender enquiry is received and the tender is submitted by us to your office, we authorize following person/ persons whose signatures are attested below to deal with BYPL on our behalf for any clarifications:

S.No	Name & Designation	Contact Telephone & fax	E-mail Address	Specimen Signature
1				
2				
3				

Yours faithfully

Place:

Date:

Signature of the bidder with seal

CHECK LIST

S. No	Item Description	Submitted
1	INDEX	Yes/no
2	COVERING LETTER	Yes/No
3	Bid FORM (UNORICED) DULY SIGNED	Yes/no
4	Bill of Material (UNPRICED)	Yes/No
5	TECHNICAL BID	Yes/no
6	ACCEPTANCE TO COMMERCIAL TERM AND CONDITIONS	Yes/No
7	FINANCIAL BID (IN SEALD ENVELOPE)	Yes/no
8	EMD IN PRESCRIBED FORMET	Yes/No
9	DEMAND DRAFT OF RS 1180/- DRAWN IN FAVOUR OF BSES YAMUNA POWER LTD	Yes/No
10	POWER OF ATTORNEY/AUTHORISATION LETTER FOR SIGNING THE BID	Yes/No

Supply List

S. No	Customer	End user	Item Description	Rating	PO No.	PO Date	Quantity	Delivery/Work completion Date
1								
2								
3								
4								
5								
.								
.								
.								
.								
.								

Technical Bid Submission Check List

<ul style="list-style-type: none"> • Submission of this duly filled checklist along with the bid is mandatory. • The order of documents shall be as per this technical bid submission checklist. • Bids with incomplete/ wrong information are liable for rejection. 			
S#	Description	BYPL Requirement	Bidder's Response
01	Tender No.	Mention Details Here →	
02	Tender Fee, EMD & Signed Bid Form as mentioned in the tender, if applicable	Mention Referred Bid Section Title & Page No	
03	Bidder Details		
3.1	Name of the Bidder	Mention Details Here →	
3.2	Company Profile / Organogram	Mention Referred Bid Section Title & Page No	
3.3	Name of duly Authorized contact person (along with Authorizations to submit Bid)	Mention Details Here →	
3.4	Contact No. of duly Authorized contact person	Mention Details Here →	
3.5	E-mail Id of duly Authorized contact person	Mention Details Here →	
3.6	Bidder Reference Number	Mention Details Here →	
3.7	Unpriced Bid Sheet (Quoted/Not Quoted)	Mention Referred Bid Section Title & Page No	
04	Documents Submission Format		
4.1	Documents shall be submitted in Box file/spiral binding in offline tenders and Original pdf for online along with 'Separator with document description' before each document	Confirmation (Yes / No)	
4.2	Index of documents with page numbers for each document	Mention Referred Bid Section Title & Page No	
05	Signed Copy of tender as an unconditional acceptance	Mention Referred Bid Section Title & Page No	
06	Qualification Criteria Requirement Compliance, If applicable	Confirmation (Yes / No)	
6.1	Summary of compliance of qualifying criteria in tabular form along with details of documentary proof provided	Mention Referred Bid Section Title & Page No	
6.2	Detailed Documents supporting compliance of qualifying criteria	Mention Referred Bid Section Title→	
07	Technical Specification reference number	Mention Referred Bid Section Title→	
08	Drawings/ Documents as per Technical Specification	Confirmation (Yes / No)	
8.1	Signed copy of technical specification	Mention Referred Bid Section Title & Page No	
8.2	Type Test reports of offered model/ type/ rating	Mention Referred Bid Section Title & Page No	
8.3	Guaranteed Technical particulars (GTP)	Mention Referred Bid Section Title & Page No	
8.4	Deviation Sheet – Technical (along with soft editable copy)	Mention Referred Bid Section Title & Page No	
8.5	Detailed Drawings	Mention Referred Bid Section Title & Page No	
8.6	Manufacturer's Quality Assurance Plan	Mention Referred Bid Section Title & Page No	
8.7	Other drawings/ documents mentioned in technical specification	Mention Referred Bid Section Title & Page No	

09	Soft copy of complete technical bid in pen drive	Confirmation (Yes / No)	
10	Samples as per technical specification	To be submitted with the Bid/ Receipt of sample	

SECTION V

TECHNICAL SPECIFICATION (TS)

**RATE CONTRACT FOR SUPPLY OF SINGLE PHASE METER
WITH BOX**

NIT NO CMC/BY/23-24/RS/SkS/SS/13

Date of Tender: 31.05.2023

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Technical Specification For Single Phase Two Wire Static Energy Meter**1.0 Scope of Supply**

This specification covers the following for single phase 2 wire 10-60 Amps Static Watt hour and VA hour meters of accuracy class 1.0.

- A. Design, manufacture, testing at manufacturer works before dispatch, packing, delivery and submission of all documentation.
- B. Any accessories / hardware required for installation and operation for the meter.
- C. Software (BCS and Hand Held Unit).

2.0 Codes & standards

Materials, equipment and methods used in the manufacturing of above mentioned equipment shall conform to the latest edition of following

S No.	Standard Number	Title
2.1	Indian Electricity Act	IE Act 2003
2.2	CEA Metering Regulations	With latest amendments
2.3	CBIP Manual (Pub no.-325)	Standardization of AC Static Electrical Energy Meters
2.4	IS- 11448	Application guide for AC Electricity meters
2.5	IS- 13779: 1999	AC Static Watt-hour Meters, Class 1 and 2 – Specification
2.6	IS- 15707	Testing, evaluation, installation and maintenance of ac electricity meters - Code of practice.
2.7	IEC 62056-21	Electricity metering - Data exchange for meter reading, tariff and load control - Part 21: Direct local data exchange
2.8	IEC 62058-11	Electricity metering equipment (AC) - Acceptance inspection - Part 11: General acceptance inspection methods
2.9	IEC 62058-31	Electricity metering equipment (AC) - Acceptance inspection - Part 31: Particular requirements for static meters for active energy (classes 0,2 S, 0,5 S, 1 and 2)
2.10	IEC 60736	Testing Equipment for electrical Energy meter
2.11	IS 15959 (Part 1): 2011	Data Exchange for Electricity Meter - Reading Tariff and Load Control - Companion Specification

Technical Specification For Single Phase Two Wire Static Energy Meter

2.12	IS 14772	General requirement for Enclosure for Electrical Requirement.
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In the event of direct conflict between various order documents, the precedence of authority of documents shall be as follows-

- i. Guaranteed Technical Particulars (GTP)
- ii. Specification including applicable codes & standards
- iii. Approved Vendor Drawings
- iv. Other documents

3.0 System Data

3.1	Supply	Single Phase AC, 2 wire
3.2	Voltage	240 V \pm 6% (415V Phase to phase)
3.3	Frequency	50 Hz \pm 5%
3.4	System Neutral	Solidly Earthed

4.0 Electrical and Accuracy Requirement

4.1	Meter Type	Type 1: 1- ϕ , 2 wire Static Watt- hour and VA-hour Meter. Type 2: 1- ϕ , 2 wire Static Watt- hour and VA-hour Meter with Meter Box Meter Type shall be offered as per purchaser's requirement.
4.1.1	Meter pre-fitted in box	For requirement of box please refer annexure "D".
4.2	Connection	Direct / whole current
4.3	Rated Voltage	240V (phase to neutral) with variation of +30% & -40%. However meter should withstand the maximum system voltage i.e 415V \pm 6%.
4.4	Rated Current	I _b -10A and I _{max} - 60 A
4.5	Starting current	0.2 % of base current
4.6	Rated Frequency	50Hz +/- 5%
4.7	Power factor range	Zero Lag – unity – Zero lead
4.8	Accuracy Class	1.0 For kWh, and kVAh. (IS13779 applies for accuracy requirements)

Technical Specification For Single Phase Two Wire Static Energy Meter

4.9	Power consumption in voltage circuit	Less than 1 watt & 8VA.
4.10	Power consumption in current circuit	Maximum 2VA.
4.11	Meter constant	Imp/ kWh, and Imp/ kVAh (Bidder to specify meter constant)
4.12	Calibration	Meter shall be software calibrated at factory and modification in calibration shall not be possible at site by any means or external influence.
4.13	Test Output Device	Separate kWh & kVAh Flashing LED visible from the front
4.14	Process Technology	Surface Mounting Technology or better
4.15	Insulation Level	Meter shall withstand an insulation test of 4 KV and impulse test at 8 KV.
4.16	Short time over current	The meter shall be able to carry short time over current of 30 I _{max} for half cycle at rated frequency.
4.17	Immunity to phase and earth fault	As per IS 13779
4.18	Influence of Heating & Self Heating	As per IS13779.
4.19	Electromagnetic compatibility	Meter shall remain immune to electrostatic discharge (upto and including 35KV), electromagnetic HF field and fast transient burst. The meter shall be designed in such a way that conducted or radiated electromagnetic disturbances as well as electrostatic discharge do not influence the meter. Meter shall be type tested for electromagnetic compatibility.
4.20	Limits of error due to influence quantities	Meter shall work within guaranteed accuracy as per IS 13779/ CBIP325 (most stringent standard to be followed) under and after influence of following :- <ul style="list-style-type: none">a. Current Variationb. Ambient Temperature variationc. Voltage variationd. Frequency variatione. 10% third harmonic in current

Technical Specification For Single Phase Two Wire Static Energy Meter

		<ul style="list-style-type: none"> f. Reversed phase sequence g. Voltage unbalance h. Harmonic components in current and voltage circuit i. DC and even harmonics in AC current circuit j. Odd harmonics in AC current circuit k. Sub harmonics in AC current circuit l. Continuous (DC) "stray" magnetic induction of 67mT+/-5%. m. Continuous (DC) "abnormal" magnetic induction of 0.27T+/-5%. n. Alternating (AC) "stray" magnetic induction of 0.5mT+/-5% o. Alternating (AC) "abnormal" magnetic induction of 10mT. p. Alternating (AC) "abnormal" magnetic induction of 0.2T+/-5%. q. External magnetic field 0.5 T r. Electromagnetic HF fields s. Radio frequency interference t. DC immunity test <p>Note: BSES reserves the right to formulate any other test method to check magnetic immunity/ logging of meter. Meter with logging provision will be preferred.</p>
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5.0 Construction

5.1	Base Body	<ul style="list-style-type: none"> a. Material - Opaque and UV stabilized polycarbonate of grade LEXAN 142A/ 943AA or Equivalent with V0 inflammability level. b. A metal plate shall be provided at the base of meter body internally so that no tampering is possible from the rear side of meter even after cutting the base body.
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Technical Specification For Single Phase Two Wire Static Energy Meter

5.2	Top Cover	<ul style="list-style-type: none">a. Material - Transparent and UV stabilized polycarbonate of grade LEXAN 142A/ 943AA or Equivalent with V0 inflammability level.b. Top cover and base should be ultrasonically welded.c. It should so be designed so as the internal components should not be visible.
5.3	Terminal Block	<ul style="list-style-type: none">a. Material - Flame retardant glass filled polycarbonate of grade 500 R or equivalent.b. Terminal block shall form Integral part of the meter basec. Terminal block shall be capable of passing the tests as per ISO-75 for a temperature of 135C and pressure of 1.8MPa. The terminals shall be designed so as to ensure adequate and durable contact such that there is no risk of loosening or undue heating.
5.4	Terminal cover	<ul style="list-style-type: none">a. Material - UV stabilized transparent polycarbonate cover LEXAN 143A/943AA or equivalent grade.b. Provision of sealing at two points through sealing screw.c. The terminal cover shall be extended type with baffle wall above the cable entry base wall so that access to the terminals is not possible (even with thin metallic wire) without breaking the seal. Terminal cover should have provision for cable entry from bottom.d. Diagram of external connections should be embossed on terminal cover. Sticker is not acceptable.
5.5	Terminals	<ul style="list-style-type: none">a. Minimum 10mm diameter suitable for 25mm² aluminium cable with flat head screws and washers.b. Material of terminals, screws and washers should be brass or tinned copper. Two screws of appropriate size should be provided per terminal.c. Terminals shall be tested for continuous current of 150 % I_{max}.d. Terminals shall be clearly marked for phase / neutral /

Technical Specification For Single Phase Two Wire Static Energy Meter

		outgoing etc.
5.6	Ingress Protection	IP 51 or better, but without suction in the meter.
5.7	Output device	<ol style="list-style-type: none">Meter should have flashing LED visible from the front to represent energy recording.Resolution shall be such that satisfactory accuracy test can be conducted at the lowest load in less than 5 minutes and starting current test in less than 10 minutes.
5.8	RTC	<ol style="list-style-type: none">The meter shall have internal real time clock to set date and time.Uncertainty of setting initial time shall not be less than +/- 30 seconds from Indian standard Time as maintained by NPL New Delhi.The maximum drift permissible in the real time clock shall be +/-7 min/ year
5.9	Battery	<ol style="list-style-type: none">Lithium ion battery with guaranteed storage life of 10 years and capacity life of 15 years.In case battery removal or total discharge same should not affect the working & memory of the meter even in case of single wire power condition.Bidder need to submit design life calculation for battery used in meter.
5.10	Memory	Non volatile memory independent of battery backup, memory should be retained for 10 years without any auxiliary power.
5.11	Self Diagnostic feature	Meter shall have self diagnostic for the following <ol style="list-style-type: none">Date and RTC.Battery.Non volatile memory.Display
5.12	Meter Sealing Arrangement	<ol style="list-style-type: none">Sealing should be in accordance with IS and CEA metering regulations with latest amendments.Approval shall be taken from purchaser for location of seals.

Technical Specification For Single Phase Two Wire Static Energy Meter

5.12.1	Manufacturer's Seals	One Polycarbonate seal to be provided on meter cover.
5.12.2	BSES Seals	<ul style="list-style-type: none">a) Minimum one seal as Hologram type, numbered with hologram transfer on tamper proof paper seal. Seal should not be just Hologram sticker (100% hologram). Meter sides should not have sharp edges to avoid damage to hologram seals.b) One Hologram seal should be provided on each side of meter i.e two hologram seals should be provided. Meter sides should not have sharp edges to avoid damage to hologram seals.c) Polycarbonate seal should be provided on top cover.d) Seals will be issued to manufacturer free of cost.
5.12.3	Seal record	Record of all seals shall be forwarded to purchaser with each lot.
5.13	Name Plate and marking	Meter should have clearly visible, indelible and distinctly marked name plate in accordance with IS & clause no. 10.0 of this specification.
5.14	Environmental Condition	Meter shall be suitable for environmental conditions as mentioned below
5.14.1	Temperature Range	<ul style="list-style-type: none">a. Operation range: -10 Deg C to 55 Deg Cb. Limit range of operation: -25 to 60 Deg Cc. Limit range of storage / transport : -25 to 70 Deg C
5.14.2	Relative Humidity	0 to 96 %
5.15	Resistance against heat and fire	<ul style="list-style-type: none">a. The terminal block and Meter case shall have safety against the spread of fire.b. They shall not be ignited by thermal overload of live parts in contact with them as per IS 13779.
5.16	Guarantee/ Warranty	66 months from the date of dispatch or 60 months from date of commissioning, whichever is earlier

6.0 Functional Requirement

6.1	Meter category	C3 category of IS 15959 (Part 1).
6.2	Mode Of Metering	Forwarded Only: In this mode any export active energy shall be treated as import energy and shall be recorded in forward only register.
6.3	KVAH Calculation	Lag only: KVAh is computed based on KVArh and KWH value.

Technical Specification For Single Phase Two Wire Static Energy Meter

		If PF=1, or leading, then KVAh = KWH. At no instance KVAh < KWh.
6.4	MD Registration	<ul style="list-style-type: none">a. Meter shall store and display MD upto two decimal in every 30 min. period along with date & time.b. At the end of every 30 min, new MD shall be computed & compared with previous MD and store whichever is higher and the same shall be displayed.c. It is preferred that MD is computed using separate counter rather than by difference of initial and final energy counter.d. Block window with default demand integration period of 1800 s configurable to 900 s with proper security in field.e. Extended register shall be used for MD recording.
6.5	TOD Metering	<ul style="list-style-type: none">a. Meter shall be capable of doing TOD metering in minimum 4 tariff rate registers programmable for minimum 8 time zones and 4 seasonal profiles.b. Meter shall be capable of doing TOD metering for kWh, kVARh, kVAh and MD in kW, kVAR and kVA . Reactive parameter should be recorded separately for Lag and Lead.c. TOD programmable on site through CMRI or AMR remotely.d. At Display as well as BCS end meter TOD values shall be shown as per cumulative values of TOD Zones of respective registers.e. TOD metering shall be implemented by the activity colander method of IS 15959 Part 1 clause 9/ DLMS UA-1000-1f. Special Day table shall be defined as per IEC/ DLMS

Technical Specification For Single Phase Two Wire Static Energy Meter

		<p>UA-1000-1</p> <p>g. Default TOD programming shall be as per latest DERC guidelines. Prior approval shall also be taken from BSES for the same.</p> <p>h. Tariff rate registers shall be as follow</p> <p>R1: Rate register for Peak</p> <p>R2: Rate register for Normal</p> <p>R3: Rate Register for Off Peak</p>
6.6	Instantaneous Parameters	<p>All the parameters mentioned in table '43' of IS 15959 (Part 1) along with following additional parameters shall be supported by meter:</p> <p>a. KVA_r (Signed)</p> <p>b. Cumulative kVA_rh (Lag)</p> <p>c. Cumulative kVA_rh (Lead)</p> <p>d. High Resolution (kWh)</p> <p>e. High Resolution (kVAh)</p> <p>f. Temperature in Deg C.</p> <p>g. Displacement Power Factor</p>
6.7	Billing Parameters Profile	<p>a. Billing parameters shall be generated at the end of each billing cycle and stored in memory as per provisions provided in clause no. 14 of IS 15959 (Part 1).</p> <p>b. 12 no's billing cycle parameters shall be remain in meter memory along with current cycle parameters and shall be available for reading as well as profile and or 'by entry' for selective access.</p> <p>c. All the parameters mentioned in table '46' of IS 15959 (Part 1) along with following additional parameters shall be supported by meter:</p> <p>i. Cumulative Energy, kWh (Forwarded) for R1 to r8</p> <p>ii. Cumulative Energy, kVAh for R1 to R8</p> <p>iii. MD, KW for R1 to R8</p> <p>iv. MD KVA for R1 to R8</p>

Technical Specification For Single Phase Two Wire Static Energy Meter

		<ul style="list-style-type: none"> v. Cumulative Energy, kVARh (lag) vi. Cumulative Energy, kVARh (lag) for R1 to R8 vii. Cumulative Energy, kVARh (lead) viii. Cumulative Energy, kVARh (lead) for R1 to R8 ix. MD in kVAr (lag) x. MD, kVAr (lag) for R1 to R8 xi. MD in kVAr (lead) xii. MD, kVAr (lead) for R1 to R8
6.7.1	Billing period reset/ MD reset	00:00 Hrs of 1st of every month
6.8	Load survey Parameters	<p>a. Load survey parameters shall be measured and recorded at the end of each profile capture period for last 60 Power ON days.</p> <p>b. All the parameters mentioned in table '44' of IS 15959 (Part 1) along with following additional parameters shall be supported by meter.</p> <ul style="list-style-type: none"> i. Average Neutral Current ii. Average Frequency iii. Average Temperature iv. Average PF v. Block kVARh- Lag vi. Block kVARh- Lead vii. Block Power Off
6.8.1	Profile capture period	Default 1800 s programmable to 900 s.
6.9	Daily load profile	<p>a. Daily load profile parameters shall be measured and recorded at each midnight i.e. 00:00 hrs for last 60 Power ON days.</p> <p>b. All the parameters mentioned in table '45' of IS 15959 (Part 1) shall be supported by meter as Daily load profile parameters along with following:</p> <ul style="list-style-type: none"> i. Cumulative kVARh- Lag ii. Cumulative kVARh- Lead

Technical Specification For Single Phase Two Wire Static Energy Meter

6.10	General Purpose Parameters	Parameters as per clause E-10 of IS 15959 (Part 1) shall be provided in Non Volatile memory (NVM) of the meter
6.10.1	Name Plate Detail	As per Table '47' of IS 15959 (Part 1) with following additional parameters. a. Month of manufacturing.
6.10.2	Programmable parameters	a. These parameters can be programmed in field by CMRI via proper access rights. b. Every transaction shall be logged in non volatile memory of the meter with date and time stamp. c. Programming of any of the parameters shall increment the 'Cumulative programmable count' value. d. All the parameters mentioned in table Table '48' of IS 15959 (Part 1) shall be supported by meters.
6.11	Security	a. Reading and writing data into meter memory via optical and remote communication port shall be through DLMS security keys only. b. Bidder shall ensure to safeguard high security keys used for configuring parameters into meter. c. Once the meter memory is locked during manufacturing process, only parameters mentioned in IS 15959 shall be configurable even in factory. It should not be possible to configure any other parameters. d. Please note that there shall be no other mechanism/ method to interface with meter through optical and remote communication port except mentioned in IS 15959, even for manufacturer. e. It should not be possible to change data stored in meter memory even after accessing meter memory physically. In case of any change in memory data, a flag/alert shall be generated. Flag/Alert shall be indicated over display and in remote communication also.
6.12	OBIS code Detail	Bidders shall provide OBIS code details for all parameters additional from IS 15959.

Technical Specification For Single Phase Two Wire Static Energy Meter**7.0 Event and Tamper Monitoring**

7.1	Low Voltage Logging	Event shall be logged in memory along with Occurrence and restoration event data. Threshold should be below 180 Volts.
7.2	Protection against HV spark	a. Meter shall continue to record energy or log the event, in case it is disturbed externally using a spark gun/ ignition coil. Upto 35 KV meter should remain immune. b. Communication port shall also be immune upto 35KV. c. Bidder should have valid test report from Sameer/ UL lab or any other NABL authorize Lab for the same.
7.3	Neutral disturbance	Meter shall log all events when AC/DC/ Pulsating voltage is injected in neutral circuit especially when same can disturb the recording of energy. Manufacturer should specify the method of testing of Neutral disturbance.
7.4	External Magnetic Interference	a. Meter should either be immune or should log the events of attempt of tampering by external magnetic field as per IS13779/ CBIP 325 with latest amendments. b. If the working of meter gets affected under the influence of external magnetic field, meter should record energy at I _{max} , V _{ref} and UPF. c. Meter should not compute MD during this period. The meter shall record energy as per actual load once the magnetic field is removed.
7.5	Earth Tamper	a. Meter should detect and log earth tamper when phase and neutral current differ by a specified threshold. b. Continuous indication through LED flag or icon on display shall be provided for this tamper.
7.6	Top cover open	Meter shall have top cover open detection and same shall be logged. Detection and logging mechanism shall work even when the meter is de-energized. Logic shall be defined.
7.7	Power Off	a. Meter should detect power off when the voltage falls below the threshold value. b. Meter should log the power off event with occurrence and restoration date/time if meter remains in power off mode for 10 min. c. Cumulative Power off data should be recorded in separate register in the DD:HH:MM format with reading resolution of 01 min, i.e. if power is off for one min the register should increment. d. In case meter records power off for entire integration period, the load survey of all parameters should be void. Also, MD should not be calculated during power off.
7.8	Low PF	Meter should detect and log low PF tamper if power factor of meter found below than a threshold value.
7.9	Connection Related Tamper Conditions	The meter shall not get affected by any remote control device & shall continue recording energy under any one or combinations

Technical Specification For Single Phase Two Wire Static Energy Meter

		of the following conditions:
7.9.1	Single wire power	Meter should log this tamper when incoming and outgoing neutral/ phase are disconnected and load connected to earth. Meter should record energy as per load, Vref and UPF. This event should also be regarded as the power off.
7.9.2	I/C & O/G Interchanged	Meter should record forward energy within limits of accuracy class 1.0.
7.9.3	Phase & Neutral Interchanged	Meter should record forward energy within limits of accuracy class 1.0.
7.9.4	I/C (Phase & Neutral) Interchanged, Load Connected To Earth.	Meter should record forward energy within limits of accuracy class 1.0
7.9.5	I/C Neutral Disconnected, O/G Neutral & Load Connected To Earth.	Meter should record forward energy
7.9.6	I/C Neutral Disconnected, O/G Neutral Connected To Earth Through Resistor & Load Connected To Earth.	Meter should record forward energy
7.9.7	I/C Neutral connected, O/G Neutral Connected To Earth Through Resistor & Load Connected To Earth.	Meter should record forward energy
7.10	Tamper Logging	<ul style="list-style-type: none"> a. Last 200 nos. tamper events shall be recorded in meter memory on FIFO basis except top cover open. b. First top cover open event should be non rollover and non resettable.
7.10.1	Parameter Snapshot	Snapshot of date, time, voltage, phase current, neutral current, power factor, active power, apparent power, cumulative kWh, cumulative kVAh etc should be recorded for each tamper event
7.10.2	Tamper Indication	Appropriate Indications/Icons for all tampers should appear on the meter display either continuously or in auto display mode.
7.11	Tamper Logics	<p>A logic sheet for tamper/ event detection and logging shall be submitted for purchaser's approval. Following details should be provided for each tamper in tabular form</p> <ul style="list-style-type: none"> a. Detailed Tamper logic b. Threshold values c. Persistence times



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Technical Specification For Single Phase Two Wire Static Energy Meter

		d. Restoration time e. Snapshot details
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8.0 Meter Display

8.1	LCD Type	STN Liquid crystal, industrial grade with extended temperature range min 70 Deg C with backlit																																																																		
8.2	Viewing angle	a. Minimum 160 DEG. b. The display visibility should be sufficient to read the Meter mounted at height of 0.5 m as well as at the height of 2 m.																																																																		
8.3	Size of LCD	Minimum 10X5mm																																																																		
8.4	LCD Digits	Total 8 digits																																																																		
8.5	LCD language	English																																																																		
8.6	Display mode	<p>Following parameters should be displayed in Auto scroll with programmable interval</p> <table border="1"> <thead> <tr> <th>Order</th> <th>Parameter</th> <th>Display time</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>LCD Test</td> <td>5 Sec</td> </tr> <tr> <td>2</td> <td>Meter Sr. No.(8 digits)</td> <td>5 Sec</td> </tr> <tr> <td>3</td> <td>Date</td> <td>5 Sec</td> </tr> <tr> <td>4</td> <td>Time</td> <td>5 Sec</td> </tr> <tr> <td>5</td> <td>Cumulative kWh</td> <td>30 Sec</td> </tr> <tr> <td>6</td> <td>Cumulative kVAh</td> <td>30 Sec</td> </tr> <tr> <td>7</td> <td>Cumulative kVARh-Lag</td> <td>30 Sec</td> </tr> <tr> <td>8</td> <td>Cumulative kVARh-lead</td> <td>30 Sec</td> </tr> <tr> <td>9</td> <td>Current MD in KW</td> <td>5 Sec</td> </tr> <tr> <td>10</td> <td>Current MD (kW) Date and Time</td> <td>5 Sec</td> </tr> <tr> <td>11</td> <td>Current MD in kVA</td> <td>5 Sec</td> </tr> <tr> <td>12</td> <td>Current MD (kVA) date and time</td> <td>5 Sec</td> </tr> <tr> <td>13</td> <td>Instantaneous Voltage</td> <td>5 Sec</td> </tr> <tr> <td>14</td> <td>Instantaneous Phase Current</td> <td>5 Sec</td> </tr> <tr> <td>15</td> <td>Instantaneous Neutral Current</td> <td>5 Sec</td> </tr> <tr> <td>16</td> <td>Signed Power Factor</td> <td>5 Sec</td> </tr> <tr> <td>17</td> <td>Instantaneous Load kW</td> <td>5 Sec</td> </tr> <tr> <td>18</td> <td>Instantaneous Load kVA</td> <td>5 Sec</td> </tr> <tr> <td>19</td> <td>Instantaneous Load kVAr</td> <td></td> </tr> <tr> <td>20</td> <td>High resolution kWh</td> <td>10 Sec</td> </tr> <tr> <td>21</td> <td>High resolution kVARh</td> <td>10 Sec</td> </tr> </tbody> </table>	Order	Parameter	Display time	1	LCD Test	5 Sec	2	Meter Sr. No.(8 digits)	5 Sec	3	Date	5 Sec	4	Time	5 Sec	5	Cumulative kWh	30 Sec	6	Cumulative kVAh	30 Sec	7	Cumulative kVARh-Lag	30 Sec	8	Cumulative kVARh-lead	30 Sec	9	Current MD in KW	5 Sec	10	Current MD (kW) Date and Time	5 Sec	11	Current MD in kVA	5 Sec	12	Current MD (kVA) date and time	5 Sec	13	Instantaneous Voltage	5 Sec	14	Instantaneous Phase Current	5 Sec	15	Instantaneous Neutral Current	5 Sec	16	Signed Power Factor	5 Sec	17	Instantaneous Load kW	5 Sec	18	Instantaneous Load kVA	5 Sec	19	Instantaneous Load kVAr		20	High resolution kWh	10 Sec	21	High resolution kVARh	10 Sec
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		Meter with push button for manual display shall not be acceptable. However touch button can be allowed.
8.7	TOD Tariff Display	Appropriate indication for Current tariff.
8.8	Display indications	Appropriate indications/flags for all tampers and self diagnostic features should be provided.

9.0 Software and Communication

9.1	Base computer software	Licensed Software with the following features should be supplied for free
9.1.1	Operating System	BCS should be compatible for Windows XP, Vista, 7 and 8.
9.1.2	Security	System shall be password protected where user can login only if login ID is provided by administrator. BCS shall have rights management system so that access rights can be provided as per requirement to maintain security.
9.1.3	Data access	BCS shall be capable of accessing complete data stored in memory locally through CMRI, PDS, serial port of PC and remotely through modem (RF/NB/IoT/4G/GPRS etc.) for connectivity to AMR. BCS should have polling feature with option of selecting parameters to be downloaded.
9.1.4	Database	BCS shall maintain master database according to desired area, location, and region etc.
9.1.5	Reporting	<p>a. BCS shall have option of user defined report generation in format of Excel, Word and CSV, XML, PDF etc.</p> <p>b. BCS shall have capability to export data in ASCII, CSV and XML format at desired location so that the same could be integrated with our billing data for processing.</p> <p>c. All the data available in the meter shall be convertible to user defined ASCII, CSV and XML file format.</p> <p>d. BCS shall have option to export data in MIOS compliant format.</p>
9.2	CMRI and PDS Software	<p>a. The manufacturer has to provide software capable of downloading all the data stored in meter memory through CMRI (DOS operating System) and PDS (Linux Operating System).</p> <p>b. The software shall work both on SANDS & Analogic CMRI/ PDS.</p> <p>c. Meter reading protocols shall be shared with BSES. In the event of order, bidder shall work with BSES IT team to develop CMRI software for meter downloading and further uploading on computer.</p> <p>d. Software should have option for selection of parameters to be downloaded from meter.</p> <p>e. Parameters mentioned in annexure 'E' should be downloadable using CMRI and PDS in less than 30 minutes</p> <p>f. Software required for CMRI shall be supplied by the supplier</p>

Technical Specification For Single Phase Two Wire Static Energy Meter

		for free of cost. Training in the use of software shall be provided by the manufacturer. The software shall be compatible to latest windows systems..
9.3	Mobile App for Meter Type 2	Bidder shall provide android based mobile app to download meter through BLE port.
9.4	Training	Manufacture shall impart training to BSES personnel for usage of software
9.5	Communication Ports	Communication ports required in meter are as follows
9.5.1	Optical Port	Meter shall have one optical port. It should be compatible for data transfer over RS 232 standard. Communication shall not be disturbed by external light.
9.5.2	RJ11 Port/ micro USB	One RJ11 (6P4C)/ micro USB port should be provided. Please refer annexure 'E' for pin out details. Port should be compatible for communication on RS232 standard. RJ11/ Micro USB port shall have cover with provision of sealing. It is preferable to have RJ11 port/ Micro USB outside the terminal cover subject to ESD immunity upto 35 KV.
9.5.3	BLE Port for Meter Type 2	<ul style="list-style-type: none"> a. Meter shall have BLE communication (BLE version 4.1 or above) b. Meter shall have transparent layer of BLE over DLMS protocol. It means after connecting meter with Bluetooth meter shall be able to download over DLMS (IS 15959) without any additional communication layer.
9.5.4	Port protection	All ports shall be optically isolated from the power circuit.
9.4.5	Operation	All ports should work independently. Failure of one port (including display) should not affect the working of other port.
9.5	Data transfer rate	BCS and communication ports should support data transfer rate of 9600 bps (minimum).
9.6	Memory	Non volatile memory independent of battery backup, memory should be retained up-to 10 year in case of power failure.

10.0 Name Plate

10.1	Meter Serial number shall be of 8 digits. Serial number shall be printed in black colour. Embossing is not acceptable.
10.2	Size of the digit shall be minimum 5X3mm . Laser printing shall be preferred.
10.3	Bar code shall be printed along with serial number (below the meter serial number)
10.4	BIS registration mark (ISI mark)
10.5	'BSES' insignia shall be printed above LCD display with Property of BSES
10.6	BSES PO No. & date
10.7	Manufacturers name and country of origin
10.8	Model type / number of meter
10.9	Month & Year of manufacturing
10.10	Reference voltage / current rating
10.11	The number of phases and the number of wires for which the meter is suitable. Graphical symbol as per IS 12032 can be used.



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10.12	Meter constant (Impulse/kWh, Impulse/ kVAh)
10.13	Class index of meter
10.14	Reference frequency
10.15	Warranty period

11.0 Component Specification

11.1	Shunt Element	Shunt beam should be braze or E-beam welded. Reputed make duly approved by purchaser.
11.2	Measurement or computing chips	Analog Devices, Cyrus Logic, Atmel, Phillips, Texas Instruments, SAMES, NEC
11.3	Memory chips	USA: Atmel, National Semiconductors, Texas Instruments, Phillips, ST, Microchip Japan: Hitachi or Oki
11.4	Display modules	Japan: Hitachi, Sony Holland / Korea: Phillips Truly Semiconductor Tianma/Hijing Electronics
11.5	Communication modules	USA: National Semiconductors, HP, Optonica, ST Holland / Korea: Phillips Japan: Hitachi Germany: Siemens
11.6	Optical port	USA: National Semiconductors, HP Holland / Korea: Phillips Japan: Hitachi, Truly Semiconductor, Agilent, OSRAM, Everlight
11.7	Power supply unit	SMPS Type, reputed make
11.8	Active & passive components	USA: National Semiconductors, Atmel, Phillips, Texas Instruments, ST, Onsemi, Japan: Hitachi, Oki, AVX or Ricoh, Samsung, Everlight, Agilent
11.9	Battery	Varta, Texcell, SAFT
11.10	RTC	USA: Philips, Dallas Atmel, Motorola, Microchip, NEC or Oki
11.11	Current Transformers	The Meters should be with the current transformers as measuring elements.
11.12	Note	a. Manufacturer shall intimate deviation if any from make of components. Any deviation is subject to approval of BSES based on supporting documents and performance feedback of the components. b. Manufacturer should have complete tracking of material used in meter. BSES reserve the right to carry out audit of inventory/ manufacturing process at manufacturer's works and sub



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		vendor's work. c. The components used by manufacturer shall have "Minimum Life" more than the 10 years. d. Even for existing/ par suppliers – fresh approval is needed for all deviations
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12.0 Additional features

12.1	Temperature logging	The meter should have capability to measure inside temperature and can log high temperature Events.
12.2	Low Power factor logging	The meter shall have feature to record low power factor as a separate event. Tamper Indication/Icon shall be provided on the display.

13.0 Quality Assurance, Inspection and Testing

13.1	Vendor's Quality Plan (QP)	To be submitted for Purchaser's approval.
13.2	Sampling Method	Sampling Method for quality checks shall be as per relevant IS/ IEC/ CBIP guidelines and Purchaser's prior approval shall be taken for the same.
13.3	Inspection Hold-Points	To be mutually identified, agreed and approved in Quality Plan.
13.4	Type Tests	<ul style="list-style-type: none">a. The meter shall be of type tested quality as per relevant IS/IEC/CBIP. Type test conducted at CPRI/ ERDA/ ERTL labs will be treated as valid.b. ESD test methodology and conformance criteria shall be as per CBIP publication no. 325. Bidder should have valid test report from CPRI/ ERDA/ Sameer/ UL lab for the same.c. The test report should not be more than 5 years old. In case any modification affecting only part of meter is made after type test, only specific type tests on the affected parts shall be repeated.d. Type test certificate should be submitted along with offer for scrutiny.e. For a manufacturer supplying meter for the first time,

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		<p>complete type tests will have to be carried out on sample randomly selected from the lot offered for inspection in event of order. 35kV ESD test will also be carried out on the sample at Sameer/UL lab.</p> <p>f. For regular suppliers, revalidation of meter design should be carried out by repeating the type tests on sample randomly selected from BSES lot at CPRI/ERDA every three years.</p> <p>g. Any other component supplied in addition to meter shall also be type tested as per IS /IEC if applicable.</p>
13.5	Routine tests	All test marked "R" as per table 20 of IS
13.6	Acceptance Tests	<p>a. All tests marked "A" as per table 20 of IS.</p> <p>b. All the routine and acceptance tests shall be carried out as per relevant standards.</p> <p>c. Following tests in addition to IS shall be conducted during lot inspection.</p> <ul style="list-style-type: none">i. Dimensional and drawing verification.ii. Display parameters/ sequence.iii. Data Downloading from CMRI and PC.iv. Tamper/ fraud detection/logging features as per approved documents. Tamper conditions will be simulated at varying load up to I_{max}. Accuracy will also be checked during tamper simulation.v. Burn in chamber test.vi. Component verifications. <p>d. Purchaser reserves the right to formulate any other test method to verify guaranteed parameters of Meter.</p>
13.7	ESD and Magnetic Interference test	ESD and magnetic interference test will be conducted at Samir lab, Chennai or CPRI.
13.8	Inspection	<p>a. Purchaser reserves the right to inspect /witness all tests on the meters at Seller's works at any time, prior to dispatch, to verify compliance with the specification/ standards.</p>

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		<p>b. Manufacturer should have all the facilities/ equipments to conduct all the acceptance tests as per clause 14.3 relevant standards and tamper logs as per approved GTP. All the equipments including tamper logs kits/ jigs should be calibrated.</p> <p>c. In-process and / or final inspection call intimation shall be given in advance to purchaser.</p>
13.9	General Requirements	<p>a) Terminal cover should be fixed on the meter before dispatch.</p> <p>b) The bidder shall maintain a web site where routine test results of all meter supplied against these tender will be maintained and will be accessible to buyer/ buyer representative.</p> <p>c) Vendor shall ensure that patch required for HHU/CMRI shall be provided within 4 weeks. Vendor shall also ensure to deliver solution to meet DERC mandate within mutually agreed timeline.</p> <p>d) Delivery of software for reading through HHU/CMRI before meter delivery is required.</p> <p>e) For any false events recorded in meter, vendor shall depute their representative for field visit within one week and provide the root cause analysis in 4 weeks time.</p>

14.0 Packing, Marking, Shipping, Handling and Storage

14.1	Packing	Every metes shall be properly sealed / packed in environmental friendly boxes/ cartons for protection against damage, vibration and ingress of dust and moisture.
14.2	Packing for accessories and spares	Robust wooden non returnable packing case with all the above protection & identification Label.
14.3	Marking	<p>On each packing case, following details are required :</p> <p>a. Individual serial number</p> <p>b. Purchaser's name</p> <p>c. PO number (along with SAP item code, if any) & date</p> <p>d. Equipment Tag no. (if any)</p>

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		<ul style="list-style-type: none"> e. Destination f. Manufacturer / Supplier's name g. Address of Manufacturer / Supplier / it's agent h. Type , rating and other description of equipment i. Country of origin j. Month & year of Manufacturing k. Case measurements l. Gross and net weights in kilograms m. All necessary slinging and stacking instructions
14.4	Test reports	Routine test report to be provided with each meter
14.5	Shipping	The seller shall be responsible for all transit damage due to improper packing.
14.6	Handling and Storage	Manufacturer instruction shall be followed. Detail handling & storage instruction sheet /manual to be furnished before commencement of supply.

15.0 Deviations

15.1	Deviations	Deviations from this Specification shall be stated in writing with the tender by reference to the Specification clause/GTP/Drawing and a description of the alternative offer. In absence of such a statement, it will be assumed that the bidder complies fully with this specification.
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16.0 Document Submission:

Drawing submission shall be as per the matrix given below. All documents/ drawing shall be provided on A4 sheet in soft copy with separators for each section. Language of the documents shall be English only. Deficient/ improper document/ drawing submission may liable for rejection

SL	Detail of Document	Bid	Approval	Pre Dispatch
1	Guaranteed Technical particulars (GTP)	Required	Required	
2	Deviation Sheet, if any	Required	Required	
3	Tamper Sheet	Required	Required	
4	Display Parameters	Required	Required	

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5	GA / cross sectional drawing of Meter showing all the views / sections	Required	Required	
6	Samples of each type and rating offered.	2 no's	4 no's	
8	Any software and accessories required for installation/ operation of meter	Required	Required	
9	Manufacturer's quality assurance plan and certification for quality standards	Required	Required	
10	Type Test reports of offered model/ type/ rating	Required		
11	BIS certificate	Required		
12	Complete product catalogue and user manual.	Required		
13	Customer Reference List	Required		
14	Recommended list of spare and accessories	Required		
15	Specification documents containing all parameters, Services, Methods in addition to companion specification of IS 15959 (part 2).		Required	
16	Program for production and testing (A)		Required	Required
18	Detailed installation and commissioning instructions		Required	Required
19	As Built Drawing		Required	Required
20	Operation and maintenance Instruction as well as trouble shooting charts/ manuals		Required	Required
21	Inspection and test reports, carried out in manufacturer's works			Required
22	Routine Test certificates			Required
23	Test certificates of all bought out items			Required
24	Meter Seal data			Required
25	Other documents: a. Completely filled-in Technical Parameters b. General arrangement drawing of the meter c. Rating plate d. Terminal Block dimensional drawing e. Mounting arrangement drawings f. Meter box drawing and dimensions g. Display parameter h. PIN configuration of Optical to RJ11 connector	Required	Required	



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Manual and SOP/DWI for operation

17.0 Delivery

17.1	Delivery	Despatch of Material: Vendor shall despatch the material, only after the Routine Tests/Final Acceptance Tests (FAT) of the material witnessed/waived by the Purchaser, and after receiving written Material Despatch Clearance (MDC) from the Purchaser.
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Annexure - A- Guaranteed Technical Particulars (Data By Supplier)

Bidder shall furnish the GTP format with all details against each clause of this specification.

Bidder shall not change the format of GTP or clause description.

Bidder to submit duly filled GTP in hard copy format with company seal.

Clause No.	Clause Description	Manufacturer's Reply
1		
2		
3		
5		

Bidder / Vendor seal / signature -----

Name of the bidder	
Address of the bidder	
Name of contact person	
Telephone number and email id	

Annexure - B- Recommended Accessories / Spares (Data By Supplier)

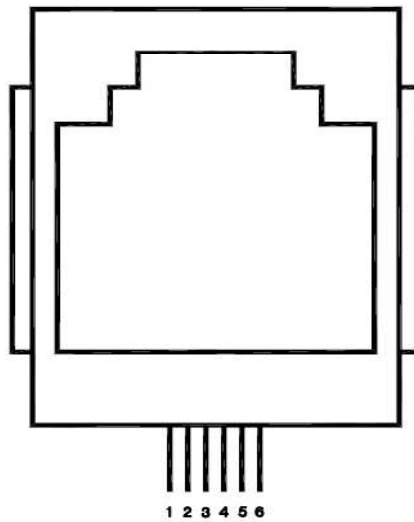
SL	Description of spare part	Unit	Quantity
1		No	
2		No	



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3			
4			

Annexure - C- Pin out detail of RJ11 Port**RJ- 11 PORT**

PIN OUT DETAIL		
PIN	SIGNAL	DISCRIPTION
1	NC	_____
2	GND	GROUND
3	TXD	RS 232 TRANSMIT
4	GND	GROUND
5	RXD	RS 232 RECEIVE
6	NC	_____

DRAWN	RAJESH	BSES BSES Yamuna Power Limited
CHECKED	ASHISH	
APPD.	D.S	TITLE: PIN OUT DETAILS— RJ 11 PORT SINGLE PHASE METER
DATE	29-11-13	DRAWING No. CES/SCH/SPTWM/065
SCALE	NTS	REV. 00

Technical Specification For Single Phase Two Wire Static Energy Meter**Annexure - D - Specification of Meter Box**

SI	Clause	Clause Description
1	Meter Box Type	Flush type with Completely transparent top cover and base with Incoming and Outgoing cable entry and data downloading arrangement.
2	Design	Meter box shall comply following requirement.
2.1	General Requirement	The meter box shall be designed in such a way that no access to the meter body, terminals and hardwired port of the meter shall be possible after installation and sealing of the box without breaking the box itself.
2.2	Theft Protection	a. Meter box shall be theft proof i.e. meter box cannot be opened without breaking the seals or meter itself. b. On breaking of the box, clear evident of the physical tempering shall be visual.
2.3	Parts of the box	a. The meter box shall be designed in 02 parts i.e. base and top cover. b. Meter shall be mounted inside the base on fixed moulded pillars by unidirectional screw. c. Cable glands and earthing bolt shall be provided at the base as per construction requirement. d. Proper stiffeners shall be provided in the body of the base and top cover to provide mechanical strength against transportation and installation vibrations.
2.4	Ingress protection	The meter box shall be completely dust and vermin proof. The meter box shall comply with the requirement of IP-55 & IS: 14772 & its latest version.
2.5	Collar of base and cover	a. 'U' shaped groove shall be provided in the collar of the base body, in which UV stabilized rubber 'O' shall be installed. The design of lining shall be such that it provides proper sealing between the cover & base of box to avoid penetration of dust and ingress of water. b. All around projection provided inside the cover periphery which keeps the 'O' ring pressed.

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		c. The outside collar shall also be provide which cover outer surface of the collar.
2.6	Fixing of 'O' ring	a. Rubber 'O' Ring should be fixed with suitable adhesive so that the same does not get removed. b. Rubber 'O' ring shall be fixed in a single piece with out any gap between open ends. Open end of the 'O' ring shall be provided at the bottom side only.
3	Material	The material shall be as follow:
3.1	Box material	a. The material of meter box shall be flame retardant with inflammability level V0 having good dielectric and mechanical strength. b. The top Cover and Base of the box shall be made out of transparent polycarbonate with minimum 90% visibility so as to ease installation and monitoring of box against any tampering. c. The plastic shall be 'UV' stabilized to ensure that the moulded meter box should not change in colour, shape, size or should not get brittle after exposure to UV rays.
3.2	Hardware	All the metal hardware including hinges, U latches, mounting screws, downloading port ring etc shall be of rust proof stainless steel.
3.3	Cable glands	Polyamide Nylon-66
4	Construction	Meter box shall be constructed by moulding. Thickness of meter box shall be minimum 2.5 mm.
4.1	Moulding	The box shall be made through Injection Moulding or better method.
4.2	Base	Meter shall be factory fitted inside base body using unidirectional screws, on fixed mounting pillars, moulded in to the base of sufficient strength, so that removing of meter shall not possible without breaking the meter box or meter itself.
4.3	Top cover	Push Fit
5	Padlocking	The box shall also have padlocking facility.

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6	Cable entry	<p>a. 02 no's as incoming and outgoing at the 45 Deg Chamfer bottom corners suitable for 2CX25 Sqmm armoured aluminum cable.</p> <p>b. Cable entry must be at the bottom diagonal ends of the meter box. Appropriate clearance shall be provided between the cable entry and position of meter terminals for proper cable bending and connection.</p> <p>c. Minimum 60 mm vertical space shall be provided from the terminals of meter to centre of cable gland to provide sufficient bending radius and working space.</p>
6.1	Cable Gland	<p>a. Two nos. of Elbow shaped glands made out of Polyamide Nylon-66 suitable for 2CX10 / 2CX25 sqmm aluminium armoured cable shall be provided on both cable entries in the box.</p> <p>b. Glands shall be designed in such a manner that the same cannot be unscrewed / removed from the box from outside. Manufacturer may either supply two nos. of check nuts or any other alternate design to meet this requirement.</p>
7	Earthing bolt	<p>a. Earthing bolt of M6 with nut and washer shall be provided on left side of the body of meter box.</p> <p>b. The arrangement shall be such that one earth point shall be available for customer and external earthing provided by BSES can be terminated.</p> <p>c. Appropriate symbol shall be provided for earth terminal.</p>
8	Mounting	
8.1	Meter mounting pillars	<p>a. Fixed type, moulded in to the base body as per the requirement of meter mounting holes.</p> <p>b. Stiffeners shall be provided at the base of the meter mounting pillars.</p>
8.2	Meter box mounting	<p>a. Four (4) nos. fixing holes of 6 to 6.5 mm diameter at the back surface of box shall be provided to fix the same on flat wall.</p> <p>b. Mounting holes shall not be obstructing by Incoming or Outgoing cables.</p>

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8.3	Box Mounting spacers	04 no's, 25 mm minimum mounting spacer moulded at the mounting holes of back surface of the meter box in order to provide space between meter back surface and wall.
8.4	Box Mounting accessories	a. Long pan head self tapping SS screws and washers shall be provided by the supplier with every box. b. 4 no's plastic fixing plugs suitable for self tapping screws shall also be provided.
9	Data Downloading arrangement	a. Slot for optical head with non removable metal ring shall be provided at the top cover of box to download meter. b. Meter shall be downloadable without opening of the box/ breaking of seals. c. This arrangement shall not de-rate the IP rating of meter box. d. A Top hinges and bottom sealable cover shall be provided on the data downloading slot. e. Data downloading shall not be affected by scratches on data downloading port or with ageing of box. Data downloading shall not be affected by visible light conditions.
10	Marking	Following marking shall be provided on both top cover and base by indiligible laser printing/ screen printing or embossed from inside of the box. a. BSES insignia shall be embossed on the base & cover of meter box. b. Meter serial no. c. purchaser's PO no. and date. d. Purchaser's Name. e. Name or trade mark of seller f. Any other detail required at the time of approval.



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Annexure E:

S No	Parameters	Data base Size/Format	Sample Data
1	Meter No.	NUMBER(8)	40940982:
2	Meter Current Time and Date (RTC)	DDMMYY	230921:
3	Cumulative Active kWh Current	NUMBER(9,2)	000060.10:
4	Cumulative Active kWh History 1	NUMBER(9,2)	000060.10:
5	Cumulative Active kWh History 2	NUMBER(9,2)	000060.10:
6	Maximum Demand kW Current	NUMBER(9,2)	000000.00:
7	Maximum Demand kW History 1	NUMBER(9,2)	000000.00:
8	Maximum Demand kW History 1	NUMBER(9,2)	000000.00:
9	Maximum Demand kW History 1 Date	YYMMDD	210825:
10	Maximum Demand kW History 1 Date	YYMMDD	210325:
11	Cumulative Active kVAh Current	NUMBER(9,2)	000060.10:
12	Cumulative Active kVAh History 1	NUMBER(9,2)	000060.10:
13	Cumulative Active kVAh History 2	NUMBER(9,2)	000060.10:
14	Maximum Demand kVA Current	NUMBER(9,2)	000000.00:
15	Maximum Demand kVA History 1	NUMBER(9,2)	000000.00:
16	Maximum Demand kVA History 1	NUMBER(9,2)	000000.00:
17	TOD Rate Register R1	NUMBER(9,2)	000028.90:
18	TOD Rate Register R2	NUMBER(9,2)	000016.10:
19	TOD Rate Register R3	NUMBER(9,2)	000015.10:
20	TOD Rate Register R4	NUMBER(9,2)	000000.00:
21	TOD Rate Register R5	NUMBER(9,2)	000000.00:
22	TOD Rate Register R6	NUMBER(9,2)	000000.00:
23	TOD Rate Register R7	NUMBER(9,2)	000000.00:
24	History 1 Power 'On Time' [days:HRS:MIN]	HHHHMM	000706:
25	Maximum Demand kVA History 1 Date	YYMMDD	210825:
26	Maximum Demand kVA History 2 Date	YYMMDD	210325:
27	Top Cover Open Tamper Count	NUMBER(5)	00000:
28	Top Cover Open Occurrence Date and	6(YYMMDD)	000000:



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	Time		
29	HV (35 kV) tamper count	NUMBER(5)	00000:
30	HV (35 kV) Occurred date & time	6(YMMMDD)	000000:
31	High Temperature Event Counts	NUMBER(5)	00000:
32	High Temperature Event Date	6(YMMMDD)	000000:
33	Low Voltage Event Count	NUMBER(5)	00000:
34	Low Voltage Event Date	6(YMMMDD)	000000:
35	Abnormal Voltage Event Count	NUMBER(5)	00000:
36	Abnormal Voltage Event Date	6(YMMMDD)	000000:
37	Single Wire Event Count	NUMBER(5)	00000:
38	Single Wire Event Date	6(YMMMDD)	000000:
39	Abnormal Power On Off Event Count	NUMBER(5)	00000:
40	Abnormal Power On Off Event Date	6(YMMMDD)	000000:
41	Earth Load Event Count	NUMBER(5)	00000:
42	Earth Load Event Date	6(YMMMDD)	000000:
43	Magnet Tamper Event Count	NUMBER(5)	00000:
44	Magnet Tamper Event Date	6(YMMMDD)	000000:
45	Low PF Event Count	NUMBER(5)	00000:
46	Low PF Event Date	6(YMMMDD)	000000:
47	Neutral Disturbance Event Count	NUMBER(5)	00000:
48	Neutral Disturbance Event Date	6(YMMMDD)	000000:
49	Reverse Current Event Count	NUMBER(5)	00000:
50	Reverse Current Event Date	6(YMMMDD)	000000:
51	Power off event Count	NUMBER(5)	00026: