



**NOTICE INVITING TENDER (NIT)
FOR
SUPPLY OF 33KV & 66KV OUTDOOR CT & PT WITH
VARIOUS RATINGS IN BYPL, DELHI.**

NIT NO: CMC/BY/23-24/RS/SkS/MD/1

Due Date for Submission: 01.05.2023, 15:00 HRS

**BSES YAMUNA POWER LIMITED (BYPL)
CONTRACTS & MATERIALS DEPT.,
SHAKTI KIRAN BUILDING, KARKARDOOMA,
DELHI-110032**

CIN: U40109DL2001PLC111525

WEBSITE: www.bsesdelhi.com

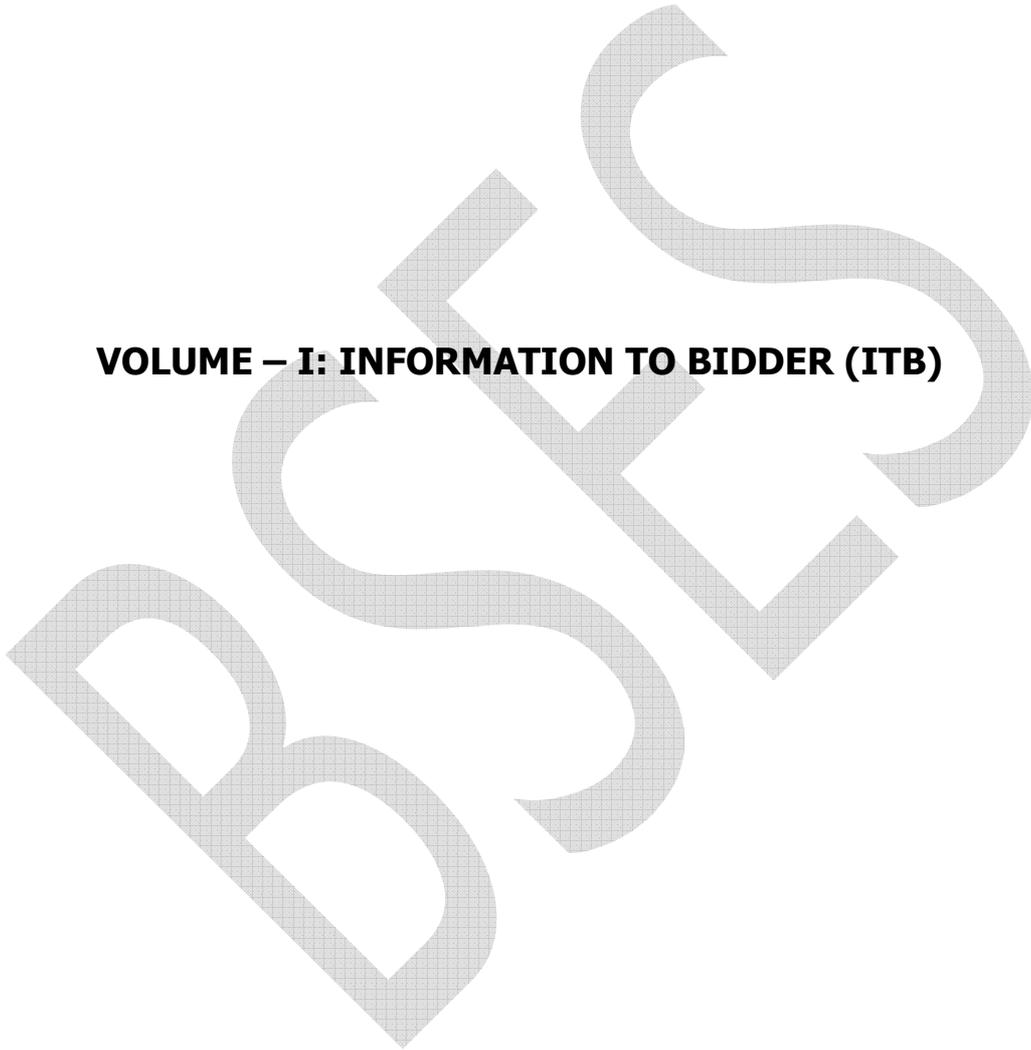
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VOLUME – I: INFORMATION TO BIDDER (ITB)



INFORMATION TO BIDDER (ITB) NIT NO: CMC/BY/23-24/RS/SKS/MD/1	Page 1 of 16	Bidders seal & signature
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SECTION – I: REQUEST FOR QUOTATION

1.00 EVENT INFORMATION

- 1.01 BSES Yamuna Power Ltd (hereinafter referred to as "BYPL") invites sealed tenders in 2 envelopes from reputed manufacturers.

S N	Items Description	UoM	QTY	Estimate Cost (Rs)	Cost of EMD (Rs)	Delivery at
1	CT,OUTDR;400-200/1/1/1/1A;66KV	Nos	36	1.30 Crore	2.60 Lakh	Delhi Store(s)/Site(s)
2	CT,OUTDR;800-400/1/1/1/1;30VA;66KV	Nos	46			
3	PT,OUTDR;66/RT3KV;110/RT3/RT3	Nos	42			
4	CT,OUTDR;800-400/5/5/1/1A;33KV	Nos	9			
5	CT,OUTDR,800-400/1-1-1-1A;30VA;33KV	Nos	6			
6	PT,OUTDR;;33KV	Nos	15			

The bidder must qualify the requirements as specified in clause 2.0 stated below.

All envelopes shall be duly superscribed "BID FOR SUPPLY OF 33KV & 66KV OUTDOOR CT & PT WITH VARIOUS RATINGS., NIT NO: CMC/BY/23-24/RS/SKS/MD/1, DUE ON 01.05.2023, 15:00 Hrs."

Bid shall be submitted in two (02) parts. Details of part are as follow:

Part A – Techno-Commercial Bid

Part B – Price Bid

- 1.1. The schedule of specifications with detail terms & conditions can be obtained from address given below against submission of non-refundable demand draft of **Rs 1,180/-** drawn in favour of BSES Yamuna Power Ltd, payable at Delhi or Online transfer of requisite amount through NEFT/ RTGS. The tender documents & detail terms and conditions can also be downloaded from the website www.bsesselhi.com --> **BSES YAMUNA POWER LTD --> Tender --> Open Tenders**

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.

- 1.2. Bids will be received up to **01.05.2023, 15:00 Hrs.** at the address given below.
Part A of the Bid shall be opened on **02.05.2023, 16:00 Hrs.**

Part B of the Bid will be opened in case of Techno-Commercially Qualified Bidders and the date of opening of same shall be intimated in due course. It is the sole responsibility of the bidder to ensure that the bid documents reach this office on or before the last date.

**Head of Department
Contracts & Materials Deptt.
BSES Yamuna Power Ltd
Ground Floor
Shaktikiran Building, Karkardooma
Delhi 110032**



- 1.3 BSES Yamuna Power Ltd reserves the right to accept/reject any or all tenders without assigning any reason thereof. Bids are liable for rejection in the following events:
- Tender fee of requisite value is not deposited.
 - Earnest Money Deposit (EMD) of requisite value & validity is not deposited in the form of Bank Guarantee drawn in favor of BSES Yamuna Power Ltd, payable at Delhi or through Online transfer through NEFT/RTGS.
 - The offer does not contain prices indicating break-up towards all taxes & duties in prescribed format.
 - Complete Technical details are not enclosed as per the Technical Bid Submission Checklist
 - Tender is received after due date and time.
 - Technical offer contains any prices.
 - Incomplete Bids
 - Prices are not FIRM and subject to Price Variation.

2.00 QUALIFICATION CRITERIA

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

2.01 Technical Criteria:

SN	Qualification Criteria	Documents to be submitted by bidder
1	The bidder should have own manufacturing facility in India for CT & PT of similar rating or higher since last 3 years.	Manufacturing and factory incorporation certificate/Self-Undertaking. The details of manufacturing units, locations and works from where supply against this tender shall be proposed to be furnished.
2	The Bidder should have supplied at least 100 Nos CT & PT of same or higher rating & voltage in last 5 years from the date of bid opening to any Utilities/ SEB's/ PSU's/Govt. organization	i. Summary list of executed Purchase orders ii. Purchase order copies iii Material delivery clearance certificate copy/Delivery completion certificates/Invoice Copies
3	Performance certificate for minimum 2 year satisfactory performance of similar rating or higher rating CT & PT supplied in last 7 years from the date of bid opening from at least two utilities/ SEB's/ PSU's/ Govt. organization In case of bidder has a previous association with BYPL/BRPL for similar product and service, the performance feedback for that bidder by BYPL/BRPL shall only be considered irrespective of performance certificate issued by any third organization.	Performance certificate
4	The bidder should have servicing, repairing, testing & refurbishment facility in INDIA with necessary spares and testing equipment's for providing prompt after sales service for CT & PT offered.	Relevant Details/certificates/Self-Undertaking (Details of the set-up available shall be brought out in the offer. the bidder shall also submit self-undertaking along with the bid confirming the infrastructure details submitted)
5	The bidder should have plant installed capacity to supply of 20 nos CT/PT per month.	Self-Undertaking
6	The Bidder must possess valid ISO 9001:2015 certification	Valid ISO 9001:2015 certificate



2.02 Commercial Criteria:

SN	Commercial Qualification Criteria	Documents to be submitted by bidder
1	Bidder should have Average Annual Sales Turnover of Rs 5 Crores or more during last three (3) Financial Years (i.e., FY 2019-20, 2020-21 & 2021-22).	Balance Sheet/Duly certified CA certificate with UDIN no to be submitted
2	The Bidder shall submit an undertaking that "No Litigation" is pending with BYPL or its Group/Associates Companies as on the date of bid opening.	Self-Undertaking
3	An undertaking (self-certificate) that the bidder has not been blacklisted/debarred by any central/state government institution/Electricity utilities as on the date of bid opening.	Self-Undertaking
4	The bidder must have valid PAN No., GST Registration Number, in addition to other statutory compliances. The bidder must submit the copies of registrations and submit an undertaking that the bidder shall comply all the statutory compliances as per the laws/rules etc. before the start of the supply/work.	Relevant Statutory Documents Copy/Self-Undertaking

Notwithstanding anything stated above, BYPL reserves the right to assess bidder's capability to perform the contract, assess the capability and installed capacity of the Bidder for carrying out the supplies, should the circumstances warrant such assessment in the overall interest of the purchaser. In this regard the decision of the purchaser is final.

3.00 BIDDING AND AWARD PROCESS

Bidders are requested to submit their offer strictly in line with this tender document. BYPL shall response to the queries raised by various bidders and the clarification will be distributed to all participating bidders through website/e-mail.

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 the "ANNEXURE SCHEDULE OF DEVIATIONS" and submit the same as a part of the Technical Bid. Unless **specifically** mentioned in the schedule of deviation, the bid shall be deemed to confirm the BYPL's specifications.

3.01 BID SUBMISSION

Please mention our NIT Number: -"CMC/BY/23-24/RS/SKS/MD/1, DUE ON 01.05.2023, 15:00 Hrs". on the Tender and drop the same in our Tender Box placed at:

BSES Yamuna Power Ltd, Reception, Ground Floor, Shaktikiran Building, Karkardooma, Delhi 110032

The bids and the outer envelope shall be addressed to:

Head of Department

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Contracts & Materials Deptt.
BSES Yamuna Power Ltd,
Shaktikiran Building, Karkardooma, Delhi 110032.

Kindly Note:

- Bidder will inform BYPL through mail within 02 hours from the submission or before the due date & time of submission to TPC & Buyer:
 1. Mr Rakesh Sharma, E-mail: Rakesh.Ku.Sharma@relianceada.com
 2. Mr Mahesh Dariyal, E-mail: Mahesh.Dariyal@relianceada.com
- Tender documents shall be submitted at main gate in tender box.
- Authorized person of TPC will collect the documents from tender box at scheduled time of tender submission and verify the bid documents with mails received. A confirmation of receipt shall be sent to bidder through mail by TPC on the same day.
- Bidder has to ensure that tender copy is dropped in correct box designated for tender submission only.
- BYPL shall not be responsible for any wrong placement of tender document by bidder.

PART A :: TECHNICAL **BID** comprising of following (1 Original copy + 1 soft copy in pen drive):

S. N	Descriptions	Type of Documents
Commercial :		
1	Tender Fee - Demand Draft (Rs.1180/-) (Incl GST)	Non-refundable demand draft for Rs 1180/- in case the forms are downloaded from website
2	EMD	In prescribed stamp paper & format
3	Power-of-Authority	In prescribed stamp paper & format
4	PQR Compliances	Documentary evidence in support of qualifying criteria like: 1. Details of constitution of the company (Proprietary/Limited/etc along with the details), Memorandum of Association of the company 2. Bidders shall submit the certified annual Balance sheets for the last completed three (3) financial years 3. Supportive document on Positive Net worth. Credit rating/solvency certificate from competent authority. 4. Copies of Orders, Execution /Performance Certificate & Other Documents to support qualification Criteria
5	Signed Tender document	Original Tender documents duly stamped & signed on each page as token of acceptance



S. N	Descriptions	Type of Documents
6	Black listing undertaking	Bidder should submit a Self-undertaking signed by its Authorized Signatories that the Bidder or any of their sub-contractor has not been blacklisted/barred by any Govt. Organization or Regulatory Agencies in India or abroad.
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:		
11	Technical Details/ Filled in GTP/Drawings	Bidder shall submit duly filled GTP with all Technical documents and Drawings.
12	Type Test Reports	Bidders shall submit the copy of type test reports in their technical bids in support of technical specifications
13	Testing Facilities	Bidder shall submit the details of testing facilities available at their works/factory.
14	Organization Chart & Manpower Details.	Bidder shall submit the details of Organization & Manpower with qualification and experience.
15	Pen drive	Bidder shall submit above all document (technical bid) in Pen drive also.

PART B :: FINANCIAL BID comprising of (01 original only)

- Price strictly in the Format enclosed indicating Break up of basic price, taxes & duties, transportation etc

3.02 TIME SCHEDULE

The bidders should complete the following within the dates specified as under:

S.No.	Steps	Due date
1	Last Date of Sale of Bid Documents	28.04.2023, 17:00HRS
2	Last Date of receipt of pre-bid queries, if any (Queries to be submitted via e-mail at Mahesh.dariyal@relianceada.com)	20.04.2023, 17:00HRS
3	Last Date of replies to all the pre-bid queries as received	24.04.2023, 18:00HRS
4	Last date and time of receipt of Complete Bids (Tender Fees, EMD, Part A & Part B)	01.05.2023, 15:00HRS
5	Date & Time of Opening of PART A - Technical and Commercial Bid	02.05.2023, 16:00HRS



This is a two part bid process. Bidders are to submit the bids in 2(Two) parts Both these parts should be furnished in separate sealed covers super scribing NIT no. DUE DATE OF SUBMISSION, with particulars as **PART-A TECHNICAL BID & COMMERCIAL TERMS & CONDITIONS** and **Part-B FINANCIAL BID** and these sealed envelopes should again be placed in another sealed cover which shall be submitted before the due date & time specified.

Part – A:: Technical Bid should not contain any cost information whatsoever and shall be submitted within the due date. Bids shall be liable to reject if any price part is attached in Part-A technical bid.

PART B:: This envelope will be opened internally after techno-commercial evaluation and only of the qualified bidders.

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.

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. Bidder to submit their acceptance as per format attached ANNEXURE-C

BIDS RECEIVED AFTER DUE DATE AND TIME MAY BE LIABLE TO REJECTION

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 Purchaser intends to award the business on a lowest bid basis, so suppliers are encouraged to submit the bid competitively. The decision to place purchase order/LOI solely depends on purchaser on the cost competitiveness across multiple lots, quality, delivery and bidder's capacity, in addition to other factors that Purchaser may deem relevant.
- 4.03 In the event of your bid being selected by purchaser (and / or its affiliates) and you subsequently 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 bidder is found unsatisfactory during the Project execution, the award will be cancelled and BYPL reserves the right to award other bidders who are found fit.

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

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available, we reserve 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/NIT.

6.00 SUPPLIER CONFIDENTIALITY

All information contained in this RFQ is confidential and shall 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.

7.00 CONTACT INFORMATION

Technical clarification, if any, as regards this RFQ shall be sought in writing and sent by e-mail/post/courier to following addresses. The same shall not be communicated through phone

Address	Name/ Designation	E-mail Address
Technical		
CES Dept. 3 rd Floor, B-Block, BSES Yamuna Power Ltd Shaktikiran Building, Karkardooma, Delhi 110032	Gaurav Sharma Addl. VP (HOD-CES)	gaurav.a.sharma@relianceada.com
	Srinivas Gopu GM (CES)	srinivas.gopu@relianceada.com
	Abhishek Harsh DGM (CES)	abhishek.harsh@relianceada.com
Commercial		
C&M Dept. 3 rd Floor, A-Block, BSES Yamuna Power Ltd Shaktikiran Building, Karkardooma, Delhi 110032	Robin Sebastian VP (HOD-C&M)	robin.sebastian@relianceada.com
	Santosh Singh Addl. VP (Head-Procurement)	Santosh.kum.singh@relianceada.com
	Mahesh Dariyal Asst. Manager (C&M)	mahesh.dariyal@relianceada.com

SECTION – II: INSTRUCTION TO BIDDERS

A. GENERAL

- 1.00 BSES Yamuna Power Ltd, hereinafter referred to as "The Purchaser" are desirous of implementing the various Systems Improvement/Repair & Maintenance works at their respective

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licensed area in Delhi The Purchaser has now floated this tender for procurement of material 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/IS along with Packing, Forwarding, Transportation and Unloading and proper stacking at Purchaser's stores/Site.

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 any way 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 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.

B. 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:
- (a) Request for Quotation (RFQ)
 - (b) Instructions to Bidders
 - (c) General Terms & Conditions of Contract (T&C)
 - (d) Delivery schedule
 - (e) Price Formats & Summary T&C
 - (f) Bid Form
 - (g) Acceptance Format – RA
 - (h) EMD BG Format
 - (i) Vendor code of conduct
 - (j) Appendix

<p>INFORMATION TO BIDDER (ITB) NIT NO: CMC/BY/23-24/RS/SKS/MD/1</p>	<p>Page 9 of 16</p>	<p>Bidders seal & signature</p>
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(k) Technical Specifications (TS)

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 web site www.bsedelhi.com and the same 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. The same shall be published as a corrigendum in website www.bsedelhi.com

6.04 Purchaser shall reserve the rights to following:

- a) extend due date of submission,
- b) modify tender document in part/whole,
- c) cancel the entire tender

6.05 **Bidders are requested to visit website regularly for any modification/clarification/corrigendum/addendum of the bid documents.**

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 documents:

- (a) Bid Form, Price & other Schedules (STRICTLY AS PER FORMAT) and Technical Data Sheets completed in accordance with Technical Specification.
- (b) All the Bids must be accompanied with the required EMD as mentioned in the Section-I against each tender.
- (c) Tender documents duly stamped and signed on each page by authorized signatory.

9.0 BID FORM

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9.01 The Bidder shall submit Bid Form and the appropriate Price Schedules and Technical Data Sheets duly filled in as per attached specification enclosed with the Bidding Documents.

9.02 **EMD**

Pursuant to Clause 8.0(b) above, the bidder shall furnish, as part of its bid, a EMD amounting to as specified in the Section-I. The EMD is required to protect the Purchaser against the risk of Bidder's conduct which would warrant forfeiture.

The EMD shall be denominated in the following form:

- (a) Bank Guarantee drawn in favour of BSES Yamuna Power Ltd, payable at Delhi.
- (b) EMD shall be valid for One Hundred Twenty (120) days after due date of submission drawn in favour of BSES Yamuna Power Ltd

The EMD may be forfeited in case:

- (a) the Bidder withdraws its bid during the period of specified bid validity
Or
- (b) in the case of a successful Bidder, if the Bidder does not
 - (i) Accept the Purchase Order,
 - or
 - (ii) Furnish the required performance security BG.

10.0 **BID PRICES**

10.01 Bidders shall quote for the entire Scope of work 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.

10.03 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/ Price Variation Clause will be treated as non -responsive and rejected.**

11.0 **BID CURRENCIES**

11.01 Prices shall be quoted in Indian Rupees Only.

12.0 **PERIOD OF VALIDITY OF BIDS**

12.01 Bids shall remain valid for 120 days from the due date of submission of the Bid.

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 and sent by post/courier

13.0 **ALTERNATIVE BIDS**

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13.01 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 regarding the rejection of Bids in the terms and conditions, 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 5.0), 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. The Bid submitted on behalf of companies registered with the Indian Companies Act, for the time being in force, shall be signed by persons duly authorized to submit the Bid on behalf of the Company and shall be accompanied by certified true copies of the resolutions, extracts of Articles of Association, special or general Power of Attorney etc. to show clearly the title, authority and designation of persons signing the Bid on behalf of the Company. Satisfactory evidence of authority of the person signing on behalf of the Bidder shall be furnished with the bid. A bid by a person who affixes to his signature the word 'President', 'Managing Director', 'Secretary', 'Agent' or other designation without disclosing his principal will be rejected.

The Bidder's name stated on the Proposal shall be the exact legal name of the firm.

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 (hard copy) & one pen drive (soft copy without price bid) 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 super scribed with — "Technical Bid & EMD". The price bid shall be inside another sealed envelope with super scribed "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 super scribed with — "Tender Notice No. & Due date of opening".

15.03 The Bidder has the option of sending the Bids in person. Bids submitted by Email/Telex/Telegram /Fax will be rejected. No request from any Bidder to the Purchaser to collect the proposals from Courier/Airlines/Cargo Agents etc shall be entertained by the Purchaser.

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 on or before the due date & time of submission.

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 6.0, 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

17.01 Each Bidder shall submit only one Bid by itself. No Joint venture is acceptable. A Bidder who submits or participates in more than one Bid will cause all those Bids to be rejected.

18.0 LATE BIDS

18.01 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 may be 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 except due to any corrigendum/addendum/modifications in the tender documents uploaded in website.

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. Purchaser may ask for submission of original documents in order to verify the documents submitted in support of qualification criteria.

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 & qualifying 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) Delivery Schedule
- (b) Conformance to Qualifying Criteria
- (c) 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 If any Bidder wishes to contact the Purchaser on any matter related to the Bid, from the time of Bid opening to the time of contract award, the same shall be done in writing only.
- 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.

INFORMATION TO BIDDER (ITB) NIT NO: CMC/BY/23-24/RS/SKS/MD/1	Page 14 of 16	Bidders seal & signature
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25.0 THE PURCHASER'S RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS

Submission of bids shall not automatically construe qualification for evaluation. 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 to other bidders in the tender, provided it is required for timely execution of project & provided he agrees to come to the lowest rate. Purchaser reserves the right to distribute the entire tender quantity at its own discretion without citing any reasons thereof.

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 GAURANTEE

Within 15 days of the receipt of Notification of Award/ Letter of Intent from the Purchaser, the successful Bidder shall furnish the Performance Bank Guarantee for an amount of 10% (Ten percent) of the Contract Price. The Performance Bond shall be valid for a period of 24 months after commissioning or 30 months from the last date of dispatch, whichever 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:

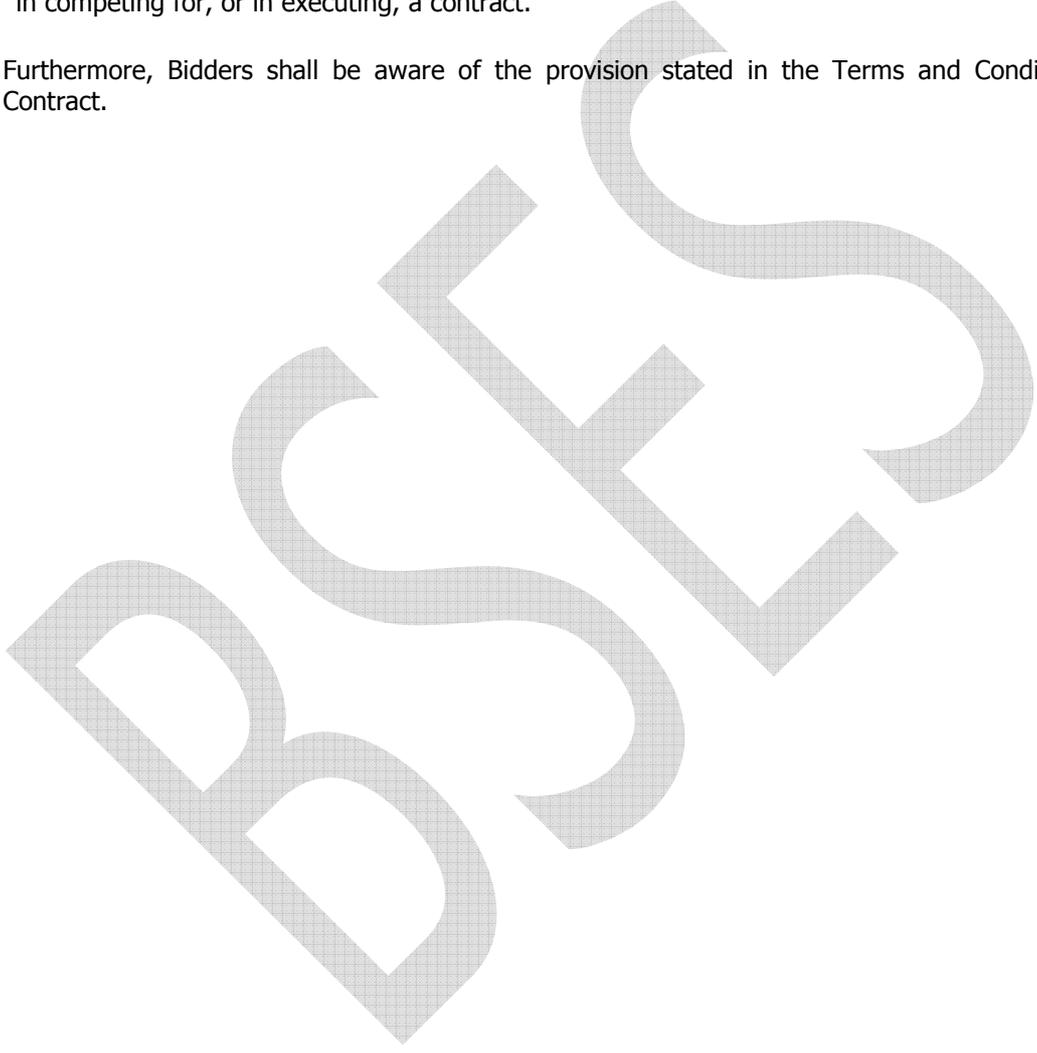
- (a) Defines, for the purposes of this provision, the terms set forth below as follows:
- (i) "Corrupt practice" means behavior on the part of officials in the public or private sectors by which they improperly and unlawfully enrich themselves and/or those close to them, or induce others to do so, by 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 Terms and Conditions of Contract.



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APPENDIX I

(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*] (herein after called the "Bidder") has submitted its bid dated [*date of submission of bid*] for the supply of [*name and/or description of the goods*] (here after 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 its Corporate Office at Shaktikiran Building, Karkardooma, 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 one 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 Hundred 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

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BID FORM

To

Head of Department
Contracts & Material Deptt.
BSES Yamuna Power Ltd
Shaktikiran Building, Karkardooma,
Delhi 110032

Sir,

1 We understand that BYPL is desirous of procuring..... for 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 Terms and Conditions and technical specifications for the sum indicated in Price Bid or such other sums as may be determined in accordance with the terms and conditions of the contract. The amounts are in accordance with the Price Schedules attached herewith and are made part of this bid.

3 If our Bid is accepted, we under take to deliver the entire goods as) as per delivery schedule mentioned elsewhere in the bid document, 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 10% (Ten)percent of the total contract value for due performance of the Contract in accordance with the Terms and Conditions.

5 We agree to abide by this Bid for a period of 120 days from the due date of bid submission 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 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.

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

Signature..... In the capacity of

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

(IN BLOCK CAPITALS)

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ACCEPTANCE FORM FOR PARTICIPATION IN REVERSE AUCTION EVENT

(To be signed and stamped by the bidder)

BSES Yamuna Power Ltd (hereinafter referred to as "**BYPL**") intends to use the reverse auction 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 bidder.
3. The bidder agrees to non-disclosure of trade information regarding the purchase, identity of BYPL, bid process, bid technology, bid documentation, bid details, and etc.
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 reverse auction 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 Landed Cost basis at BYPL site.
10. The prices submitted by a bidder during the auction event shall be binding on the bidder.
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

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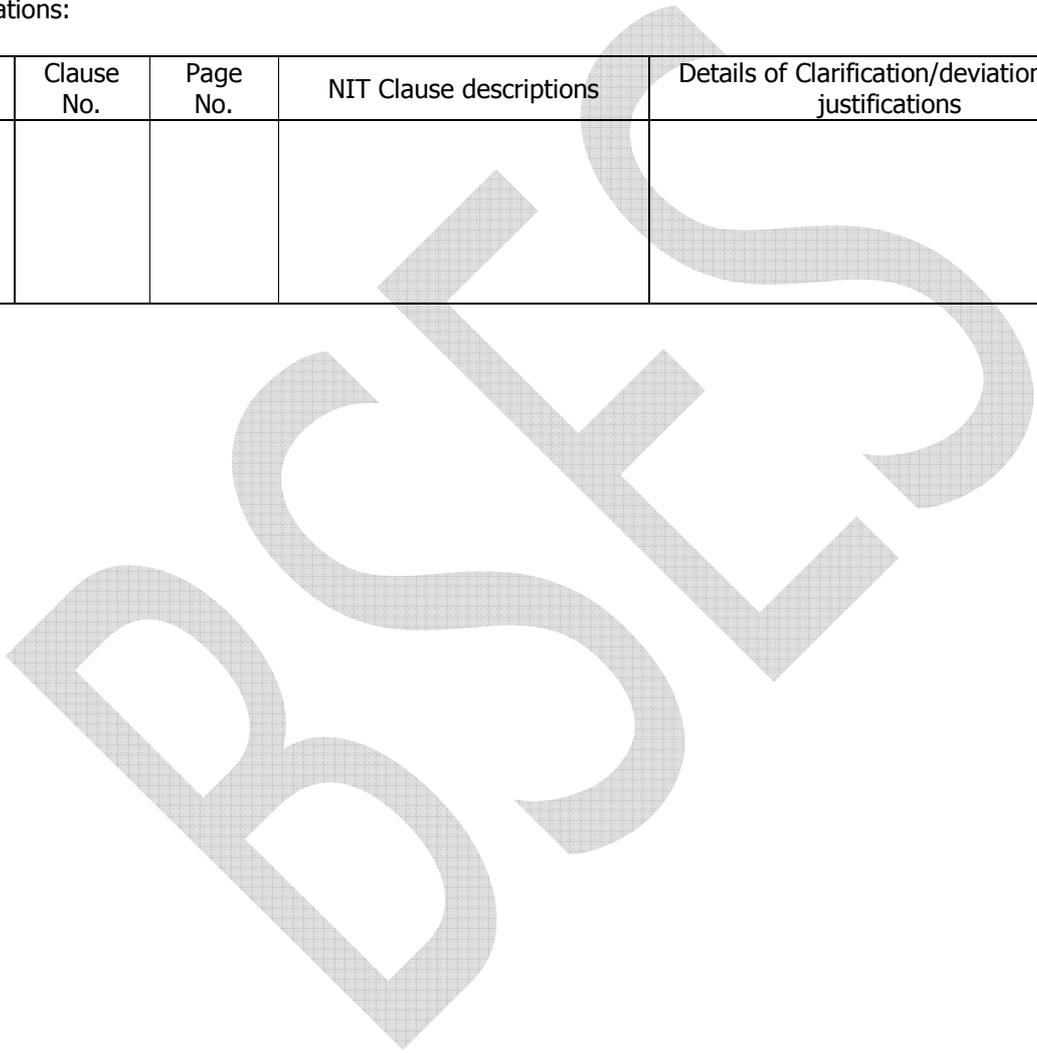


ANNEXURE - SCHEDULE OF DEVIATIONS

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:

SL NO	Clause No.	Page No.	NIT Clause descriptions	Details of Clarification/deviation with justifications





Technical Bid Submission Check List

S. No.	Description	BYPL Requirement	Bidder's Compliance
1	Tender No.	Required	
2	Technical Specification reference number	Required	
3	Communication Details		
3.1	Name of the Bidder	Required	
3.2	Name of Authorized contact person	Required	
3.3	Contact No. of Authorized contact person	Required	
3.4	E-mail id of Authorized contact person	Required	
4	Document Submission Format		
4.1	Documents shall be strictly submitted in Box file/spiral binding. Any other format is not acceptable. Bid submitted in loose paper shall be rejected without any clarification to bidder.	Required	
4.2	Index of documents with page numbers for each document	Required	
4.3	Separator with document description shall be provided before each document	Required	
5	Qualifying Requirement Compliance		
5.1	Summary of compliance of qualifying criteria in tabular form along with summary of documentary proof provided	Required	
5.2	Detailed Documents supporting compliance of qualifying criteria	Required	
6	Drawings/ Documents as per Technical Specification.		
6.1	Signed copy of technical specification	Required	
6.2	Type Test reports of offered model/ type/ rating	Required	
6.3	Guaranteed Technical particulars (GTP)	Required	
6.4	Deviation Sheet	Required	
6.5	Detailed Drawings	Required	
6.6	Manufacturer's quality assurance plan	Required	
6.7	Other drawing/ documents mentioned in technical specification	Required	
7	Soft copy of complete technical bid in pen drive	Required	
8	Samples as per technical specification.	N/A	

Note: Submission of Technical bid check list along with all items mentioned in the check list is mandatory. Order of documents shall be strictly as per the technical bid check list. Bids with incomplete/ wrong information are liable for rejection.

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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

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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

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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,

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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

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GENERAL CONDITIONS OF CONTRACT (GCC-SUPPLY)

GENERAL CONDITIONS OF CONTRACT
(GCC-SUPPLY)
NIT NO: CMC/BY/23-24/RS/SKS/MD/1

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Bidders seal & signature



GENERAL CONDITIONS OF CONTRACT (GCC)-SUPPLY

The General Condition of Contract shall form a part of specifications, contract document.

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 "Suppliers" 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" 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.

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- 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/Purchase Order" issued by the Purchaser.
- 2.10** "Contract Price" shall mean the price referred to in the "Letter of Acceptance/Purchase Order".
- 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 supply, 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.
- 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 Volume-II 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.

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- 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 only be dispatched after receipt of dispatch Instructions issued by the Purchaser.
- 5.05** All in-house testing and inspection shall be done with out any extra cost. The in-house inspection shall be carried out in presence of BSES/BSES authorized third party inspection agency. Cost of Futile/abortive visit(s) shall be debited from the invoices.
- 5.06** Purchaser reserves the right to send any material being supplied to any recognized laboratory for testing, wherever necessary and the cost of testing shall be borne by the Bidder. 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 bidder's representative.
- 6.0 INSPECTION & TEST CHARGES:**
- 6.01 GOODS shall be inspected by BUYER and/or third party inspection agency nominated by BUYER. Inspection shall carry out stage wise/final inspection as per agreed QA /QC procedure. In addition, inspection of GOODS shall be carried out at our Site/stores. SELLER shall, however, repair/replace the damaged/rejected GOODS to the satisfaction of BUYER at no extra cost.
- 6.02 Inspection charges are included in total order value, however BUYER will bear third party inspection charges. In case of futile/abortive visit of BUYER's inspector at SELLER'S works, the cost towards the same shall be debited from the SELLER's invoices.
- 6.03 GOODS covered by this PURCHASE ORDER shall not be dispatched in whole or in part until SELLER has received a written Release for Shipment Notice from BUYER or their designated representative.
- 6.04 Inspection call shall be raised minimum 15(fifteen) days in advance from delivery schedule mentioned in PO and duly filled Format issued by BYPL
- 7.0 HANDLING AND STORAGE:**
- 7.01 Material Safety Data Sheet (MSDS), detail handling & storage instruction sheet/manual, wherever applicable, to be furnished before commencement of supply and one copy is to be submitted in store/site with First Lot.
- 8.0 Packing, Packing List & Marking**
- 8.01 **Packing:** Supplier shall pack or shall cause to be packed all Commodities in crates/boxes/drums/containers/cartons and otherwise in such a manner as shall be reasonably

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suitable for shipment by road or rail to BYPL, Delhi/New Delhi stores/site without undue risk of damage in transit. All the packaging materials as prescribed shall be supplied preferably bio-degradable material.

- 8.02 **Packing List:** The contents of each package shall be itemized on a detailed list showing the exact weight, extreme outside dimensions (length, width & weight) of each container/box/drum/carton, Item SAP Code, PO No & date. One copy of the packing list shall be enclosed in each package delivered.

9.0 Prices/Rates/Taxes

9.01 Price basis for supply of materials

- a) Bidder to quote their prices on Landed Cost Basis and separate price for each item for supply to BYPL Delhi/New Delhi stores inclusive of packing, forwarding, loading at manufacturer's premises, payment of GST, Freight, any other local charges. **Octroi is presently not applicable in Delhi and however if applicable shall be reimbursed at actuals.**
- b) The above supply prices shall also include unloading at BYPL Delhi/New Delhi stores/site.
- c) Transit insurance will be arranged by bidder.

10.0 TAXES & DUTIES:

- 10.01 Prices for Goods are on Ex- Works basis. For the Goods covered under the GST laws, all taxes that are applicable under CGST, SGST, UGST, IGST and GST Compensation Cess shall be payable extra.
- 10.02 For the Goods not covered in the GST laws, the applicable ED, VAT / CST shall be payable extra at applicable rates.
- 10.03 GSTIN of BSES YAMUNA POWER LTD - 07AABCC8569N1Z0
CST No of BSES YAMUNA POWER LTD -07740254593
TIN NO of BSES YAMUNA POWER LTD - 07740254593
PAN NO of BSES YAMUNA POWER LTD - AABCC8569N
- 10.04 At the end of each month, the SELLER must submit their detail of invoices and amount thereof to the concerned officer in charge, within 07 days after the close of the respective month of which supply relates. Non submission of the said request would be treated as good as that the SELLER has no requirement of reconciliation.

11.0 INVOICING INSTRUCTIONS:

- 11.01 Invoices in triplicate [1) Original for recipient, 2) Duplicate for Transporter, 3) Triplicate for supplier] shall be made out and delivered to the following address: BSES YAMUNA POWER LIMITED, SHAKTI KIRAN BUILDING, KARKARDOOMA, DELHI-110032.
Material despatch clearance certificate (MDCC) will be released separately for Capex & Opex. Invoice will be submitted by supplier as per the MDCC.
- 11.02 Vendor shall obtain GST registration in the State from where the supply will be carried out. Vendors supplying Goods to the Purchaser shall have a valid GST registration number and shall submit GST Tax Invoice and other documents as per SGST Act, CGST Act, IGST Act, UTGST Act, GST Compensation Cess Act and Rules made there under. Failure to submit GST Tax Invoice shall be liable for withholding SGST, CGST, IGST, UTGST, GST Compensation Cess amount charged by the vendor while releasing the payment.

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- 11.03 Invoice in the name of BSES YAMUNA Power Limited & address of the store/site mentioned in the MDCC. Invoice should contain all information as required under GST Invoice, Debit Note and Credit Rules. The government has notified rules of invoicing under GST along with a template of invoice(GST INV-01) covering the elements such as supplier's details, GSTIN No, HSN Codes, item details, GST tax rates, etc that need to be presented by the supplier.
- 11.04 Vendor to carefully examine and charge relevant CGST / SGST, UGST, IGST and GST compensation cess as applicable to the transactions.
- 11.05 Timely provision of invoices / Debit Notes / Credit Notes:
- 11.05.1 Vendor to timely provide invoice / Debit note / Credit note to enable Purchaser to claim tax benefit on or before stipulated time period. All necessary adjustment entries (Credit Note, Purchase Returns, Debit Notes) shall be made within the time lines prescribed under the GST Laws.
- 11.05.2 In case of receipt of advance, the Vendor undertakes to raise the tax invoice. Purchaser, upon payment of advance, shall issue payment voucher as per applicable GST laws and rules. Four copies of the invoices need to be provided by suppliers and wherever the law requires, an Electronic Reference Number for each invoice.
Documents and devices to be carried by a person-in-charge of a conveyance under.

12.0 Terms of payment and billing

- 12.01 100% payment shall be made within 30 days from the date of receipt & acceptance of material at store/site on against submission of following documents against dispatch of each consignment at our Vendor Support Cell (VSC):-
- a) Signed copy of accepted Purchase Order (for first payment)
 - b) LR / RR / BL as applicable
 - c) Challan as applicable
 - d) Two (02) copies of Supplier's detailed Recipient Invoice showing Commodity description, quantity, unit price, total price and basis of delivery, and being 100% of the value of the consignment claimed.
 - e) Two (02) copies of Supplier's transporter invoice duly receipted by BYPL Stores & Original certificate issued by BYPL confirming receipt of the subject material at Stores/Site and acceptance of the same as per the provisions of the contract.
 - f) Two (02) copies Packing List / Detailed Packing List
 - g) Approved Test certificates / Quality certificates, if applicable
 - h) Certificate of Origin, if applicable
 - i) Material Dispatch Clearance Certificate (MDCC)
 - j) Insurance Policy / Certificate, if applicable
 - k) Warranty / Guarantee Certificate, if applicable
 - l) Check list for bill submission
- 12.02 Purchaser has the right to recover tax loss, interest and penalty suffered due to any non-compliance of tax laws by the Vendor. In the event, Purchaser is not able to avail any tax credit due to any short coming on the part of the Vendor (which otherwise should have been available to Purchaser in the normal course), then the Vendor at his own cost and effort will get the short coming rectified. If for any reason the same is not possible, then the Vendor will make 'good' the loss suffered by Purchaser due to the tax credit it lost. In such event, any amount paid to the

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Vendors shall be first attributable to the tax (GST) charged in the invoice and the balance shall be considered towards the 'value' of supply of goods/ services.

- 12.03 Purchaser shall deduct "Tax Deducted at Source" wherever applicable and at the rate prescribed under the GST Laws or any other Indian law and remit the same to the Government. Necessary TDS certificates as per law shall be issued by the purchase to the vendor.
- 12.04 Any liability arising out of dispute on the tax rate, classification under HSN, calculation and payment of tax to the Government will be to the Vendor's account.
- 12.05 Where the supply of Goods are liable to GST under reverse charge mechanism, then the supplier should clearly mention the category under which it has been registered and also that "the liability of payment of GST is on the Recipient of Supply".

13.0 TAX INDEMNITY CLAUSE:

- 13.01 Vendor (along with its affiliates in India or overseas including any agent/ third party contractor or any other person appointed by such affiliates for the purpose of this agreement) agrees that it will be solely responsible for performing all compliances and making payments of all taxes (direct tax or indirect tax including but not limited to income-tax, transfer pricing, value added tax, SGST, CGST, IGST, UTGST, GST Compensation Cess custom duty, excise duty, Research and Development Cess, etc.), cesses, interest, penalties or any other tax/ duty/ amount/ charge/ liability arising either out of laws/ regulations applicable in India and overseas or because of a demand/ recovery initiated by any revenue authority under laws/ regulations applicable in India or overseas.
- 13.02 In case any tax liability (including but not limited to income-tax, transfer pricing, value added tax, SGST, CGST, IGST, UTGST, GST Compensation Cess custom duty, excise duty, Research and Development Cess, etc.), cesses, interest, penalties or any other tax/ duty/ amount/ charge/ liability becomes payable by Purchaser due to failure of the Vendor, or any of its affiliates in India or overseas including any agent/ third party contractor or any other person appointed by such affiliates for the purpose of this agreement, to comply with the relevant laws/ regulations applicable in India or overseas, Vendor undertakes to indemnify Purchaser for an amount equal to amount payable by Purchaser.
- 13.03 Further, Vendor undertakes to keep Purchaser indemnified at all times against and from all other actions, proceedings, claims, loss, damage, costs and expenses which may be brought against Purchaser or suffered or incurred by Purchaser and which shall have arisen either directly or indirectly out of or in connection with failure of The Vendor, or any of its affiliates in India or overseas including any agent/ third party contractor or any other person appointed by such affiliates for the purpose of this agreement, to comply with relevant obligations/ compliance under any law/ regulations applicable in India and overseas.
- 13.04 The parties agree to follow the following process in case any communication of demand, arising out non-compliance by Vendor (along with its affiliates in India or overseas including any agent/ third party contractor or any other person appointed by such affiliates for the purpose of this agreement), is received by Purchaser :
- 13.04.1 On Purchaser receiving any communication from a competent authority demanding tax liability (including but not limited to income-tax, transfer pricing, value added tax, SGST, CGST, IGST, UTGST, GST Compensation Cess custom duty, excise duty, Research and Development Cess, etc.), cesses, interest, penalties or any other tax/ duty/ amount/ charge/ liability, Purchaser shall, within 5 common working days from the date of receipt of such communication (save where the period to respond to the relevant authority is less than five days, in which case, as soon as reasonably possible) inform Vendor in writing of such communication.
- 13.04.2 Pursuant to receiving communication from Purchaser, Vendor shall suggest to accept the communication and pay the demand amount to the competent authority. In such an event,

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- Vendor shall reimburse such amount paid to Purchaser within 5 working days from the date of payment by Purchaser to the competent authority.
- 13.04.3 If Vendor advises in writing and Purchaser agrees to dispute the demand, then Purchaser shall dispute the matter with competent authority as per due process prescribed under the regulations and Purchaser shall not pay the Tax Demand. In such scenario, cost of litigation including but not limited to Counsel cost, filing fees, other related charges, should be reimbursed by Vendor to Purchaser. Additionally, If any coercive steps of recovery are initiated by the department, then Purchaser would pay such amount (including by way of adjustment of refunds due to it) and the same would be reimbursed by Vendor within 5 working days from date of such recovery from Purchaser. Purchaser will take all necessary steps to avoid such recovery measures.
- 13.04.4 On determination of the demand through an Order issued by a Tribunal or any other similar Authority, by whatever name called, under any law applicable in India or overseas, if the demand or any part thereof becomes payable and is paid by Purchaser, then Vendor undertakes to reimburse such amount to Purchaser within 10 days from the date of payment. Alternatively, if on determination of the demand through an Order, no amount is payable by Purchaser then any refund arising to Purchaser due to such an Order shall be passed on to Vendor within 10 days from the date of receipt of refund.

14.0 The Micro, Small and Medium Enterprises (MSME):

- 14.01 If the SELLERS establishment is covered under the purview of The Micro, Small and Medium Enterprises Development Act, 2006, he shall declare so within the bid of its status failing which it will be presumed that it is a non-MSME unit. Also submit a copy of Udyog Aadhaar (UA) if available.

15.0 Price Validity

- 15.01 All bids submitted shall remain valid, firm and subject to unconditional acceptance by BRPL Delhi for 120 days from the due date of submission & subsequent corrigendum/amendment/extension of due date of submission. For awarded suppliers/contractors, the prices shall remain valid and firm till contract completion.

16.0 Performance Bank Guarantee

- 16.01 To be submitted within fifteen (15) days from the date of issuance of the Letter of Award/PO, supplier shall establish a performance bond in favor of BYPL in an amount not less than ten percent (10%) of the total price of the Contract (the "Performance Bond"). The Performance Bond shall be valid for a period of 60 months from the date of last receipt plus 3 months claim period.
- 16.02 Bank guarantee shall be drawn in favor of "BSES YAMUNA Power Ltd" as applicable. The performance Bank guarantee shall be in the format as specified by BYPL.

17.0 Forfeiture

- 17.01 Each Performance Bond established under the contract 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 relevant bank referred to above, together with a simple statement that supplier has failed to comply with any term or condition set forth in the Contract. Each Performance BG 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.

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18.0 Release

18.01 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 16.0) except for the case set forth in Clause 24.0.

19.0 Defects Liability Period/Guarantee/Warranty

19.01 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 after commissioning or 66 months from the last date of dispatch, whichever is earlier.

19.02 If during the Defects Liability Period any GOODS are found to be defective, they shall be promptly replaced or rectified by BIDDER at its own cost (including the cost of dismantling and (reinstallation) on the instructions of BUYER and if removed from SITE for such purpose, shall be removed and re-delivered to SITE by BIDDER at its own cost.

20.0 Return, Replacement or Substitution.

20.01 BYPL shall give Supplier notice of any defective Commodity promptly after becoming aware thereof. BYPL 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. BUYER at its sole discretion shall have the opinion to dispose the material or GOODS so rejected and not taken back within forty-five days from the date of intimation of rejection.

21.0 Effective Date of Commencement of Contract:

21.01 The date of the issuance of the Letter of Acceptance/Purchase Order shall be treated as the effective date of the commencement of Contract.

22.0 Time – The Essence Of Contract

22.01 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.

23.0 The Laws and Jurisdiction of Contract:

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

23.02 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 Delhi in India

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24.0 Events of Default

24.01 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.

25.0 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.

26.0 Penalty for Delay

- 26.01 If supply of items/equipments is delayed beyond the delivery 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 Total price for every week delay of undelivered units or part thereof for individual mile stone deliveries.
- 26.02 The total amount of penalty for delay under the contract will be subject to a maximum of ten percent (10%) of the Total price of total undelivered units.
- 26.03 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.

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22.4 If Penalty is levied as per the Order terms & conditions; BYPL will raise Invoice of the penalty amount along with applicable GST rates. Accordingly, after set off of the penalty Invoice amount, net payment shall be made.

27.0 VARIATION IN TAXES, DUTIES & LEVIES

27.1 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. In case of reduction in taxes, duties and levies, the benefits of the same shall be passed on to BUYER.

27.2 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.

27.3 Notwithstanding what is stated above, changes in Taxes, Duties & Levies shall applied 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.

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

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

28.01 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.

28.02 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.

29.0 Force Majeure

29.01 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.

29.02 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 :

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- (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.
- 29.03 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.
- 29.04 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.
- 29.05 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.
- 29.06 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.
- 29.07 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.
- 29.08 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.

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29.09 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."

30.0 **Transfer And Sub-Letting**

30.01 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.

31.0 **Recoveries**

31.01 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.

32.0 **Waiver**

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

33.0 **Indemnification**

33.01 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.

35.00 **DOCUMENTATION**

35.01 The Bidder shall procure all equipment from BYPL approved sources as per attached specifications. The Bidder's shall submit 5 copies of Material/Type Test Certificates, O&M Manuals, and Approved & As-built drawings, related to various equipment. The Bidder's shall ensure for the strict compliance to the specifications and Field Quality Procedures issued by BYPL Engineer in-charge.

36.0 **Limitation of Liability**

36.01 Except as provided otherwise in the Contract and except for willful misconduct or gross negligence, neither Party shall be liable to the other Party for loss of use of any Works, loss of profit, loss of any contract or any other indirect or consequential loss or damage which may be suffered by the other Party in connection with the Contract. The total liability of the Contractor to the Purchaser under the Contract shall not exceed the Contract Value except that this Clause shall not limit the liability of the Contractor:

(a) In cases of fraud, willful misconduct or illegal or unlawful acts, or

(b) In cases of acts or omissions of the Contractor which are contrary to the most elementary rules of diligence which a conscientious Contractor would have followed in similar circumstances.

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37.0 **Liability of Suppliers**

- 37.01 Subject to the due discharge of its obligations under the Contract and except in case of gross negligence or willful misconduct on the part of the Contractor or on the part of any person acting on behalf of the Contractor, with respect to any loss or damage caused by the Contractor to the Purchaser's property or the Site, the Contractor shall not be liable to the Purchaser for the following:
- (a) For any indirect or consequential loss or damage; and
 - (b) For any direct loss or damage that exceeds:
 - (i) The total payments made and expected to be made to the Contractor under the Contract including reimbursements, if any; or
 - (ii) The insurance claim proceeds which the Contractor may be entitled to receive from any insurance purchased by the Contractor to cover such a liability, whichever is higher.
- 37.02 This limitation of liability shall not affect the Contractor's liability, if any, for damage to any third party, caused by the Contractor or any Person or firm acting on behalf of the Contractor in executing the Works.
- 37.03 Notwithstanding anything contained in the Contract, the Contractor shall not be liable for any gross negligence or willful misconduct on the part of the Purchaser or any of its affiliates, any vendor, or any party, other than Contractor and/or, its directors, officers, agents or representatives or its affiliates, or Subcontractor, or the vendor or any third party engaged by it.
- 37.04 Notwithstanding anything contained in the Contract, including but not limited to approval by the Purchaser of any drawings, documents, vendor list, supply of information or data or the participation of the Purchaser in any meeting and/or discussion or otherwise, shall not absolve the Contractor from any of its liabilities or responsibilities arising in relation to or under the Contract.

38.0 **Intellectual Property Rights and Royalties**

- 38.01 The Contractor shall indemnify the Purchaser and the Purchaser's Representative from and against all claims and proceedings on account of infringement (or alleged infringement) of any patent rights, registered designs, copyright, design, trademark, trade name, know-how or other intellectual property rights (hereinafter collectively referred to as "Intellectual Property Rights") in respect of the Works, Contractor's Equipment, machines, Works method, Plant, Materials, or anything whatsoever required for the execution of the Works and from and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto. In the event of infringement of any Intellectual Property Rights of any third party as a result of the execution of the Works (or any part thereof) by the Contractor, the Contractor shall rectify, modify or replace, at its own cost, the Works, Plant or Materials or anything whatsoever required for the Works so that infringement ceases to exist or, in the alternative, the Contractor shall procure necessary rights/ licenses from the affected third party so that there is no infringement of Intellectual Property Rights.
- 38.02 The Contractor shall be promptly notified of any claim made against the Purchaser. The Contractor shall, at its cost, conduct negotiations for the settlement of such claim, and any litigation or arbitration that may arise from it. The Purchaser or the Purchaser's Representative shall not make any admission which might be prejudicial to the Contractor, unless the Contractor has failed to take over the conduct of the negotiations, litigation or arbitration within a reasonable time after having been so requested. In the event of Contractor failing to act at the Purchaser's Representative's notice, the Purchaser shall be at full liberty to deduct any such amount of pending claim from any amount due to the Contractor under the Contract or any other contract and the balance portion of

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claim shall be treated as debt due from the Contractor.

- 38.03 All Intellectual Property Rights in respect of any Plant, Materials, Drawings and Designs, plans, documents, specifications, data, materials, know how, charts, information, etc., provided to the Contractor by the Purchaser pursuant to this Contract for the execution of the Works, belongs to and shall continue to belong to the Purchaser and the Contractor shall not have any rights in the same other than the limited right for its use for the purpose of execution of the Works.
- 38.04 Intellectual Property Rights in respect of any Plant, Materials, Drawings and Designs, plans, calculations, drawings, documents, know-how and information relating to the Works which are proprietary to the Contractor and/ or its third party licensors ("Contractor's IPR") shall continue to vest with the Contractor and/ or its third party licensors and the Contractor shall grant and/ or procure from its third party licensors, at its own cost, a worldwide, perpetual, royalty free, non-exclusive license (along with the right to sub-license) to use and reproduce such Contractor's IPR for the use, operation, maintenance and repair of the Works.
- 38.05 If any patent, trademark, trade name, registered design or software is developed by the Contractor or its Subcontractor specifically for the execution of the Works, then all Intellectual Property Rights in respect of such design, trademark, trade name or software shall be the absolute property of the Purchaser and shall not be utilized or retained by the Contractor (or its Subcontractors) for any purpose other than with the prior written consent of the Purchaser.
- 38.06 If the Contractor uses proprietary software (whether customized or off the shelf) for the purpose of storing or utilizing records in relation to the Works, the Contractor shall obtain at its own expense, the grant of a worldwide, royalty-free, perpetual licence or sublicense (including the right to sublicense) to use such software, in favour of the Purchaser provided that the use of such software under the licence or the sublicense may be restricted to use any such software only for the design, construction, reconstruction, manufacture, installation, completion, reinstatement, extension, repair and operation of the Works or any part thereof.
- 38.07 If any software is used by the Contractor for the execution of the Works over which the Contractor or a third party holds pre-existing title or other rights, the Contractor shall obtain for the Purchaser, a worldwide, royalty free, perpetual license for the right to use and apply that software (together with any modifications, improvements and developments thereof).

40.0 **Transit Insurance:**

40.01 Transit Insurance shall be arranged by the Bidder.

40.02 **DAMAGE / LOSS OF CARGO IN TRANSIT:** Vendor shall be solely responsible for coordinating with the concerned insurance company for procuring insurance for material and/or Goods, processing claim lodgment and settlement. Notwithstanding the insurance cover, in case of loss / damage to material and/or Goods, in any manner and for any cause whatsoever, Vendor shall cause the damaged cargo to be replaced and delivered to the Purchaser with new material and/or Goods within 30 days of such loss / damage. The Vendor shall be solely responsible for all expenses in relation to the replacement and delivery in such circumstances.

41.0 **Termination for convenience of Purchaser:**

41.01 Purchaser at its sole discretion may terminate the contract by giving 30 days prior notice in writing or through email to the Supplier. Purchaser shall pay the Supplier for all the supplies/ services rendered till the actual date of contract termination against submission of invoice by the Supplier to that effect.

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- 41.02 Payment of such compensation is the sole and exclusive remedy of the supplier for termination of this Agreement by Purchaser hereunder and the supplier shall not be entitled to, and hereby waives, claims for lost profits and all other damages and expenses.
- 42.0 **Acceptance:**
- 42.01 Vendor confirms to have gone through the Policy of BYPL on legal and ethical code required to be followed by vendors encapsulated in the "Vendor Code of Conduct" displayed on the official website of BYPL (www.bsesdelhi.com) also, which shall be treated as a part of the contract/PO/WO.
Vendor undertakes that he shall adhere to the Vendor code of Conduct and also agrees that any violation of the Vendor Code of Conduct shall be treated as breach of the contract/PO/WO.
In event of any such breach, irrespective of whether it causes any loss/damage, Purchaser (BYPL) shall have the right to recover loss/damage from Vendor.
The Contractor/Vendor hereby indemnifies and agrees to keep indemnified the Purchaser (BYPL) against any claim/litigation arising out of any violation of Vendor Code of Conduct by the Contractor/Vendor or its officers, agents & representatives etc.
- 42.02 Acceptance of the CONTRACT implies and includes acceptance of all terms and conditions enumerated in the CONTRACT in the technical specification and drawings made available to Contractor consisting of general conditions, detailed scope of work, detailed technical specification, detailed equipment drawing and complete scope of work.
- 42.03 Contractor and Company contractual obligation are strictly limited to the terms set out in the CONTRACT. No amendments to the concluded CONTRACT shall be binding unless agreed to in writing for such amendment by both the parties
- 42.04 We expect your services and supplies are aligned to our Vision, Mission and Values. Please refer to the following link to know about our Vision, Mission and Values; <https://www.bsesdelhi.com/web/bypl/about-bses>.



APPENDIX II

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, Karkardooma, 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 ten percent (10%) 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

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- 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, reorganisation, 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 ten percent (10%) of the Contract Value)* and this Guarantee shall be valid and enforceable and expire on

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_____ (*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. Owner may assign this Guarantee to any Person or body whether natural, incorporated or otherwise under intimation to the Bank. The Bank shall be discharged of its obligations hereunder by performance in accordance with the terms hereof to such assignee without verifying the validity / legality / enforceability of the assignment.
16. 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: State Bank of India
2. Branch Name & Full Address: Industrial Finance branch, New Delhi, 14-15 Floor, Jawahar vyapar bhawan1, Tolstoy Marg, New Delhi 110001
3. Branch Code: 09601
4. Bank Account No: 10277791808
5. IFSC Code: SBIN0009601

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FORMAT OF WARRANTY/GUARANTEE CERTIFICATE

BSES YAMUNA POWER LIMITED Shaktikiran Building, Karkardooma, Delhi -110032.

Ref. Purchase Order No. :

Dear Sir,

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

DT.....is 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 data of commissioning whichever is earlier.

Vendors Name & Signature

UNDERTAKING GST

The Vendor shall give an undertaking in the following words on each invoice in the absence of which tax payment as on the Vendor's invoice may be withheld.

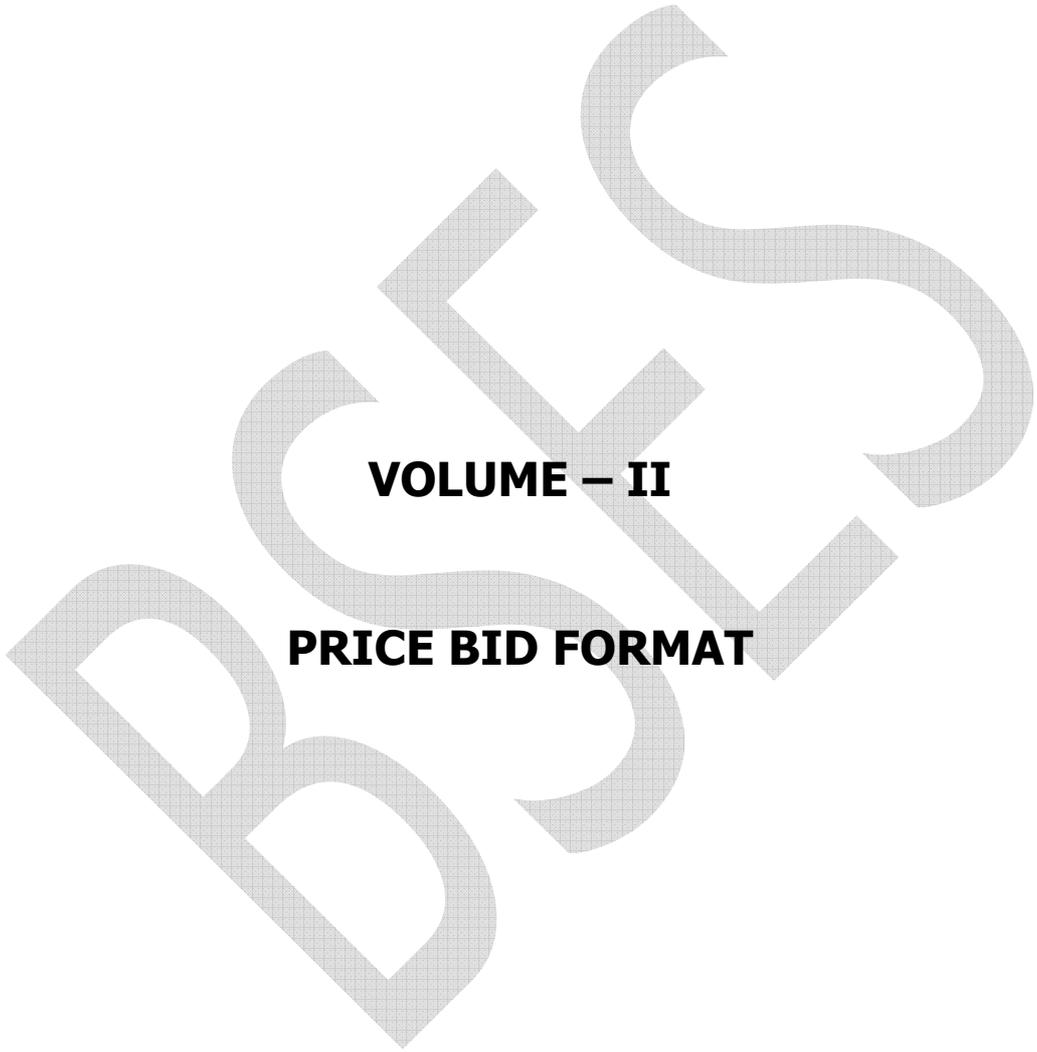
"The tax component as mentioned in the invoice shall be deposited with GST Department as per law by way of actual payment or by way of legal set off as per law. The turnover billed shall be duly declared in my GST returns a copy of which shall be filed with the Purchaser. Should the input tax credit to the Purchaser be denied by way of any lapse on the part of the Vendor, the same shall be paid on demand and in any case the Purchaser is authorized to deduct the tax equivalent amount from the amount payable to the Vendor"

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COMMERCIAL TERMS AND CONDITIONS SUMMARY

S.NO	ITEM DESCRIPTION	AS PER BYPL	Bidder confirmation
1	Applicable type of taxes and tax rates	GST @18%	
2	Unloading at BYPL stores/site	In Bidders scope	
3	Transit Insurance	In Bidders scope	
4	Validity of price Bid	120 Days	
5	Inco Terms (Ex Works/FoR etc)	FOR Delhi store/site basis	
6	Payment terms	100% payment within 30 days after supply the material at store/site and invoice submission.	
7	Delivery schedule	Within 4 Months from the date of PO/LOI	
8	Defect Liability period	60 months after commissioning or 66 Months from the last date of dispatch, whichever is earlier.	
9	Penalty for delay	1% per week of delay of the basic (ex-works) price of undelivered units or part thereof subject to maximum of 10% of total basic (ex-works) price of undelivered units	
10	Performance Bank Guarantee	10% of total PO value valid for 24 months after commissioning or 30 months from the last date of dispatch, whichever is earlier plus 3 months towards claim period.	



VOLUME – II

PRICE BID FORMAT

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**ALL PRICES IN INR (Rs)**

S No.	DESCRIPTION OF GOODS	UOM	QTY	UNIT BASIC PRICE INCL FREIGHT(Rs)	UNIT GST & CESS AS APPLICABLE (CGST & SGST/UTGST or IGST) (Rs)	UNIT LANDED COST(Rs)	TOTAL LANDED COST (Rs)
			(A)	(B)	(C)	(D = B+C)	(E = DXA)
1	CT,OUTDR;400-200/1/1/1/1A;66KV	Nos	36				
2	CT,OUTDR;800-400/1/1/1/1;30VA;66KV	Nos	46				
3	PT,OUTDR;66/RT3KV;110/RT3/RT3	Nos	42				
4	CT,OUTDR;800-400/5/5/1/1A;33KV	Nos	9				
5	CT,OUTDR,800-400/1-1-1-1A;30VA;33KV	Nos	6				
6	PT,OUTDR;;33KV	Nos	15				

GRAND TOTAL LANDED COST

In words

Note: All quantities mentioned above are estimated quantities. Actual quantities may vary as per actual site requirement

The Un-priced bid should be marked as "**Quoted**" and to be submitted with Part – A

We declare that the following are our quoted prices in INR for the entire packages.

Date:

Bidders Name:

Place:

Bidders Address:

Signature: Designation:

Printed Name: Common Seal:

PRICE BID FORMAT NIT NO: CMC/BY/23-24/RS/SKS/MD/1	Page 2 of 2	Bidders seal & signature
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VOLUME – III
TECHNICAL SPECIFICATIONS





Technical Specification of Outdoor Current Transformer

Specification no – BSES-TS-31-ODCT-R0

Rev:	0	
Date:	18 Apr 2022	
Pages:	40	
Prepared by	Abhishek Harsh	<i>[Signature]</i> 20/4/22
	Amar Singh	<i>[Signature]</i>
Reviewed by	Srinivas Gopu	<i>[Signature]</i>
	Abhinav Srivastava	<i>[Signature]</i>
Approved by	Gaurav Sharma	<i>[Signature]</i>
	Gopal Nariya	<i>[Signature]</i>

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BSES	BSES-TS-31-ODCT-R0
TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMER	

1.0 SCOPE OF SUPPLY

For scope of supply, refer Annexure A

2.0 CODES & STANDARDS

The manufacturing, rating & performance of the Outdoor Current Transformer shall conform to the latest edition of following standards:-

IS-2705 part 1	Specification for current transformer.
IS 16227/IEC 61869	Specification for current transformer.
IS 4201	Application guide for current transformer.
IS/IEC 60137	High voltage porcelain bushings
IS 731	Insulator for O/H power line
IS 335	New insulating oil Specification
IS 9676	Reference ambient temperature of electrical equipment
IS 5561	Specification of electric power connectors
IS 6949	Summation current transformer
IS/IEC 60529	Ingress protection
IS-5621	Hollow insulator for use in electrical equipment
IEC: 439	Specification for Terminal box / Marshalling box
	Indian Electricity Rules
	Indian electricity act
	CBIP manual

3.0 CURRENT TRANSFORMER DESIGN FEATURES

3.1.0	Type	Shall be dead tank type, oil immersed, self-cooled outdoor type
3.2.0	Construction	<ul style="list-style-type: none"> i) Oil immersed CT shall be hermetically sealed to eliminate breathing and to prevent air and moisture ingress. The core and winding shall be provided in porcelain bushing. Provision for oil expansion without breathing (bellow as per manufacturer design). ii) All ferrous parts, CT tank and other metallic parts exposed to atmosphere shall be hot dip galvanized. iii) Galvanising thickness shall be 610gm/sqmm minimum
3.3.0	Core	The core shall be of high-grade non-ageing, electrical

TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMER

		silicon laminated steel of low hysteresis loss and high permeability to ensure high accuracy at both normal and over current conditions. The saturation factor of the core shall be low enough not to cause any damage to measuring instruments in the event of maximum short circuit current.
3.4.0	Winding	The winding shall be suitable for simultaneous 100% full load continuous rating. The winding shall be capable of desired output as per specified limit.
3.5.0	Insulation	i) Class of Insulation should be Class A ii) The current transformer shall withstand satisfactorily the dielectric test voltage corresponding to basic insulation level specified.
3.6.0	Insulation Oil	The quantity of insulating oil in each current transformer shall be best available and the complete specification of the oil shall be furnished with the tender. The current transformer offered shall be hermetically sealed completely filled with insulating oil with provision to replace the oil. Oil level indication shall be provided.
3.7.0	Bushing	Porcelain used in bushing manufacture shall be homogenous, free from laminations, cavities and other flaws or imperfections that might effect the mechanical or dielectric quality. Glazing of the porcelain shall be uniform brown color free blisters, burns and similar defects. The bushing shall be designated to have ample insulation, mechanical strength and rigidity.
3.7.1	Creepage distance	Not less than 31mm /KV
3.7.2	Protected creepage distance	At least 50 % of total creepage distance
3.8.0	Terminals	
3.8.1	Primary terminals	Primary terminal should be tinned copper
3.8.2	Primary Terminal connectors	Universal type (Horizontal and vertical takeoff), Suitable for termination of Twin Zebra ACSR conductor. Connector should be of Aluminium alloy A6. Bimetallic sleeve of 1mm thickness should be provided for primary connection.
3.8.3	Secondary terminals	i) Provide Epoxy terminal block for separation of secondary terminals with main oil tank and further it is connected to secondary termination. ii) All the secondary terminals shall be bought in IP55 box with brass/ copper stud type terminals. iii) The secondary terminals shall be shorted by brass/copper links before dispatch. Terminal box to be provided with earthing stud.
3.8.4	Terminal Marking	Terminal marking shall be as per IS 2705

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3.9.0	Atmospheric protection for clamp and fitting of iron and steel	Hot dip galvanizing as per IS 2633. The Minimum thickness of galvanization should be 610 g/ sq mm.
3.10.0	Gland Plate	Min. 3 mm thick detachable undrilled gland plate.
3.11.0	Cable entry	Bottom for all cables
3.12.0	Earthing	The CT assembly comprising of the chasis, frame work and fixed parts of metal casing shall be provided with two separate body earthing terminals.
3.13.0	Drain Plug on tank Base	Required
3.14.0	Painting surface preparation	Shot blasting or chemical 7 tank process
3.15.0	Painting	Polyurethane based paints shall be used. The color for the finishing paint shall be light gray as per shade No. 692 as per IS-5

4.0 APPROVED MAKE OF COMPONENTS

4.1.0	Insulator	ABIL, WSI, Modern, Saravana, BHEL, CJI, IEC
4.2.0	Primary Terminal Connector	Exalt, Tyco, Rashtraudyog, Burma
4.3.0	Secondary terminals	Connectwell / Elmex
4.4.0	Note	Any other make of component to be approved by Owner

5.0 NAME PLATE & TERMINAL MARKING

5.1.0	Material	Anodized aluminum 16SWG
5.1.1	Background	SATIN SILVER
5.1.2	Letters, diagram & border	Black
5.1.3	Process	Etching
5.2.0	Rating plate details	As per IS 2705 & IS 16227
5.2.1	Other details required on rating plate	Manufacturer name and address
		Customer name: BSES Yamuna Power Limited/ BSES Rajdhani Power Limited
		PO No. and Date
		Serial number and a type designation
		Rated Primary current & secondary current
		Rated frequency
		Rated output
		Connection Diagram
		Accuracy class, burden, knee point voltage, Magnetizing current
	Secondary resistance	

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		Highest system voltage,
		Rated short time thermal current or short time factor with rated time
		Rated dynamic current
		Rated Insulation level
		Class of Insulation
		Temperature class
		Caution/Instructions
		Minimum functional pressure
		Rated filling pressure
		Quantity of oil
		Total weight
		Warranty Period
		Reference standard

6.0 QUALITY ASSURANCE, TESTING & INSPECTION

6.1.0	Vendor quality plan	To be submitted for purchaser approval
6.2.0	Inspection points	To be mutually identified & agreed in quality plan
6.3.0	Inspection and testing during manufacture	
6.3.1	Tank	<ul style="list-style-type: none"> i) Checking of dimensions as per approved drawing. ii) Checking for leakage by pressure testing. iii) Thickness of Paint or Galvanisation, as applicable
6.3.2	Porcelain	<ul style="list-style-type: none"> i) Check dimension. ii) Check finish of sealing surface. iii) Check creepage distance. iv) Check for routine electrical test. v) Check for porosity and temperature cycle test.
6.3.3	Insulating Materials	<ul style="list-style-type: none"> i) Sample check for physical properties of materials. ii) Check for dielectric strength. iii) Visual and dimensional checks.
6.3.4	Copper conductor	<ul style="list-style-type: none"> i) Check for dimension. ii) Check for elongation. iii) Check for unidirectional scrap. iv) Heat shock.
6.3.5	Oil	<ul style="list-style-type: none"> i) Check for break down voltage. ii) Check for density. iii) Check for flash point. iv) Check for moisture content. v) Check for neutralization value. vi) Check for inter facial tension at 27 Deg c. vii) Check for sludge content. viii) Check for specific resistance.

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		ix) Check for pour point.
6.3.6	Secondary terminals	Check for one min AC Test
6.4.0	Tests	Test shall be carried out in accordance with IS 2705/ IS 16227
6.6.1	Type test	i) Following type test shall be carried out on current transformer <ul style="list-style-type: none"> a. Short-time current test b. Temperature-rise test c. Lightning impulse test d. HV power frequency wet withstand voltage test on CT e. Determination of errors
		ii) Current transformer must be of type tested from CPRI/ERDA as per the IS 2707/ IS 16227 and reports shall be submitted
		iii) In case the product is never type tested earlier, seller has to conduct the type tests from CPRI/ERDA / internationally accredited test labs at their own cost, before commencement of supply.
6.6.2	Routine Test	Test shall be carried out in accordance with IS 2705/ IS 16227
6.6.3	Acceptance test	To be performed in presence of Owner's representative at manufacturer works:- <ul style="list-style-type: none"> i) Routine tests as per IS 2705/ IS 16227 ii) Physical inspection of dimensions and BOM. iii) Pressure test on tank iv) IP55 test on secondary compartment v) Creepage distance of bushing vi) Test on accessories as per manufacturer's standard
6.7.0	Inspection and Testing	<ul style="list-style-type: none"> i) The buyer reserves the right to witness all tests specified on completed product ii) The buyer reserves the right to inspect the product at the sellers works at any time prior to dispatch, to verify compliance with the specifications. iii) In-process and final inspection call intimation shall be given atleast 15 days in advance.

7.0 PACKING, SHIPPING, HANDLING & STORAGE

7.1.0	Packing Protection	Against corrosion, dampness, heavy rains, breakage and vibration
7.1.1	Packing for accessories and spares	Robust wooden non returnable packing case with all the above protection & identification Label

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7.1.2	Packing Identification Label	In each packing case, following details are required :
		i) Individual serial number
		ii) Purchaser's name
		iii) PO number (along with SAP item code, if any) & date
		iv) Equipment Tag no. (if any)
		v) Destination
		vi) Manufacturer / Supplier's name
		vii) Address of Manufacturer / Supplier / it's agent
		viii) Description and Quantity
		ix) Country of origin
		x) Month & year of Manufacturing
		xi) Case measurements
		xii) Gross and net weights in kilograms
xiii) All necessary slinging and stacking instructions		
7.2.0	Shipping	i) Bidder shall furnish the confirmation that the proposed packages can be delivered safely upto the site.
		ii) The seller shall be responsible for all transit damage due to improper packing.
7.3.0	Handling & Storage	Manufacturer instruction shall be followed. Detail handling & storage instruction sheet / manual needs to be furnished before commencement of supply.

8.0 PROGRESS REPORTING

8.1.0	Outline Document	To be submitted for purchaser approval for outline of production, inspection, testing, packing, dispatch, documentation program
8.2.0	Detailed Progress report	To be submitted to Purchaser once a month containing i) Progress on material procurement ii) Progress on fabrication (As applicable) iii) Progress on assembly (As applicable) iv) Progress on internal stage inspection v) Reason for any delay in total program vi) Details of test failures if any in manufacturing stages vii) Progress on final box up

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		viii) Constraints / forward path
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9.0 DEVIATIONS

9.1.0	Deviation from the Specification	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 by the Buyer that the Seller complies fully with this specification.
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10.0 DOCUMENT SUBMISSION

Document submission shall be as per the matrix given below. All documents/drawing shall be provided in soft copy (in pen drive) for each section. Language of the documents shall be English only. Deficient/improper drawing submission may liable for rejection.

S.No.	Detail of Document	For Tender	For Approval/Review	For Prior to Dispatch
1	Type test report shall be submitted for the type, size & rating of product / equipment offered along with bid.	Required		
2	Type test report shall be submitted for the type, size & rating of product / equipment offered along with bid. They shall be considered valid for 5 years from date of test performed on product / equipment.	Required		
3	Recommended spare parts and consumable items for 5 years of operation with prices and spare parts catalogue with list for future requirements.	Required		
4	Details of manufacturer's quality assurance standards and program and ISO 9000 series or equivalent national	Required		
5	Complete product catalogue and manual along with the bid.	Required		
6	Guaranteed Technical Particulars (GTP)	Required	Required	
9	Deviation Sheet, if any	Required	Required	
10	Complete assembly, GA drawing outdoor current transformer showing plan	Required	Required	
12	General arrangement drawing	Required	Required	


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	secondary terminal box			
13	Structural drawing for CT mounting arrangement	Required	Required	
14	Rating plate diagram	Required	Required	
15	Drawings of terminal connectors	Required	Required	
16	Calculations to substantiate choice of electrical , mechanical component size / ratings	Required	Required	
17	Typical connection diagram and winding connection of current Transformer	Required	Required	
18	Quality plan	Required	Required	
19	Detailed installation and commissioning instructions	Required	Required	
20	Inspection and test reports, carried out in manufacturer's work			Required
21	Test certificates of all bought out items			Required
22	Operation and maintenance instruction as well as trouble shooting charts / manuals.			Required

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ANNEXURE – A SCOPE OF SUPPLY

1.0 The scope of supply shall include following

- a. Design, manufacture, assembly, testing at stages of manufacture as per this specification, final testing at manufacturer works on completely assembled Current Transformer before dispatch, packing and delivery of Current Transformer
- b. Primary terminal connectors (Universal type)
- c. Fixing bolts and other accessories as per this specification.
- d. Submission of all documentation for the Current transformer and all accessories as mentioned below

2.0 Submission of documents

	Along with offer	For Approval after award of contract	Final after approval	Remarks
Drawings	3 copies (Typical drgs)	4 copies	6 copies + 1 soft copy in CD	See Clause 11.0 for various drawings required
Calculations	3 copies (Typical)	3 copies (Typical)	6 copies + 1 soft copy in CD	See Clause 11.0 for details
Catalogues	1 copy		6 copies + 1 soft copy in CD	
Instruction manual for the current transformer	1 copy		6 copies + 1 soft copy in CD	
Test Report	2 copies		6 copies + 1 soft copy in CD	Type test and sample routine test reports

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ANNEXURE – B SERVICE CONDITIONS

S No.	ENVIRONMENTAL CONDITION	REQUIREMENT
1	Average grade atmosphere	Heavily polluted, dry
2	Maximum altitude above sea level	1000 M
3	Ambient air temperature	Highest 50Deg C Average 40Deg C
4	Minimum ambient air temperature	0 Deg C
5	Relative Humidity	100%
6	Seismic Zone	4
7	Rainfall	750 mm concentrated in four months

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TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMER	

ANNEXURE- C1 GUARANTEED TECHNICAL PARTICULARS (66KV, 2000-1000/1/1/1/1A)

S No.	Description	Data By Purchaser				Data By Supplier			
1	Name of Manufacturer								
2	Address and contact details								
3	Type	Outdoor, Oil cooled, Hermetically sealed, Single phase, Dead tank CT							
4	Rated nominal voltage	66kV							
5	Highest system voltage	72.5kV							
6	Rated frequency	50 Hz							
7	Rated primary current	2000-1000 A							
8	Rated secondary current	1A							
9	Number of core	Four							
10.0		Core-1	Core-2	Core-3	Core-4				
10.1	Secondary current (A)	1	1	1	1				
10.2	Application	Metering	Protection (O/C & E/F)	Protection (Bus Bar)	Protection (Spare)				
10.3	Rated Output (VA)	30	30						
10.4	Class of accuracy	0.2s	5P	PS	PS				
10.5	Instruments security factor	≤5	-	-	-				
10.6	Accuracy limit factor	-	20	-	-				
10.7	Knee point voltage and corresponding excitation current	-	-	$\geq 40(R_{ct} + 8)$	$\geq 40(R_{ct} + 8)$				
10.8	Magnetizing current at $V_k/2$ (mA)	-	-	≤ 30	≤ 30				
10.9	Resistance at secondary winding at 75 Deg. C (ohms)								
10.10	Secondary limiting voltage								
11	Short time thermal rating of primary								
11.1	One second								

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S No.	Description	Data By Purchaser	Data By Supplier
11.2	Three seconds	31.5 KA	
12	Rated dynamic current of primary		
13	Rated continuous thermal current		
14	Temperature rise at ambient temp 50 deg. C		
14.1	Winding		
14.2	Oil at top		
14.3	Exposed current carrying parts		
15	One minute power frequency dry withstand voltage	140kV (rms)	
16	One minute power frequency wet withstand voltage	140kV (rms)	
17	1.2/50 microsecond impulse withstand test voltage	325 KV (peak)	
18	Minimum creepage distance in mm	31KV / mm	
19	Protective creepage distance in mm		
20	Magnetization curve of CT core		
21	Variation in ratio and phase angle error due to variation in		
21.1	Voltage by 1 volts		
21.2	Frequency by 1 Hz		
22	Current density in primary winding (A/sqmm)		
23	Weight of oil		
24	Total weight		
25	Mounting details		
26	Overall dimensions		
27	Terminal connector		

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ANNEXURE- C2 GUARANTEED TECHNICAL PARTICULARS (66KV, 1000-500/1/1/1/1A)

S No.	Description	Data By Purchaser				Data By Supplier			
1	Name of Manufacturer								
2	Address and contact details								
3	Type	Outdoor, Oil cooled, Hermetically sealed, Single phase, Dead tank CT							
4	Rated nominal voltage	66kV							
5	Highest system voltage	72.5kV							
6	Rated frequency	50 Hz							
7	Rated primary current	1000-500 A							
8	Rated secondary current	1A							
9	Number of core	Four							
10.0		Core-1	Core-2	Core-3	Core-4				
10.1	Secondary current (A)	1	1	1	1				
10.2	Application	Metering	Protection (O/C & E/F)	Protection (Bus Bar)	Protection (Spare)				
10.3	Rated Output (VA)	30	30						
10.4	Class of accuracy	0.2s	5P	PS	PS				
10.5	Instruments security factor	≤5	-	-	-				
10.6	Accuracy limit factor	-	20	-	-				
10.7	Knee point voltage and corresponding excitation current	-	-	≥40(Rct+ 8)	≥40(Rct+ 8)				
10.8	Magnetizing current at Vk/2 (mA)	-	-	≤30	≤30				
10.9	Resistance at secondary winding at 75 Deg. C (ohms)								
10.10	Secondary limiting voltage								
11	Short time thermal rating of primary								
11.1	One second								

TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMER

S No.	Description	Data By Purchaser	Data By Supplier
11.2	Three seconds	31.5 KA	
12	Rated dynamic current of primary		
13	Rated continuous thermal current		
14	Temperature rise at ambient temp 50 deg. C		
14.1	Winding		
14.2	Oil at top		
14.3	Exposed current carrying parts		
15	One minute power frequency dry withstand voltage	140kV (rms)	
16	One minute power frequency wet withstand voltage	140kV (rms)	
17	1.2/50 microsecond impulse withstand test voltage	325 KV (peak)	
18	Minimum creepage distance in mm	31KV / mm	
19	Protective creepage distance in mm		
20	Magnetization curve of CT core		
21	Variation in ratio and phase angle error due to variation in		
21.1	Voltage by 1 volts		
21.2	Frequency by 1 Hz		
22	Current density in primary winding (A/sqmm)		
23	Weight of oil		
24	Total weight		
25	Mounting details		
26	Overall dimensions		
27	Terminal connector		

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TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMER	

ANNEXURE- C3 GUARANTEED TECHNICAL PARTICULARS (66KV, 800-400/1/1/1/1A)

S No.	Description	Data By Purchaser				Data By Supplier			
1	Name of Manufacturer								
2	Address and contact details								
3	Type	Outdoor, Oil cooled, Hermetically sealed, Single phase, Dead tank CT							
4	Rated nominal voltage	66kV							
5	Highest system voltage	72.5kV							
6	Rated frequency	50 Hz							
7	Rated primary current	800-400 A							
8	Rated secondary current	1A							
9	Number of core	Four							
10.0		Core-1	Core-2	Core-3	Core-4				
10.1	Secondary current (A)	1	1	1	1				
10.2	Application	Metering	Protection (O/C & E/F)	Protection (Bus Bar)	Protection (Spare)				
10.3	Rated Output (VA)	30	30						
10.4	Class of accuracy	0.2s	5P	PS	PS				
10.5	Instruments security factor	≤ 5	-	-	-				
10.6	Accuracy limit factor	-	20	-	-				
10.7	Knee point voltage and corresponding excitation current	-	-	$\geq 40(R_{ct+8})$	$\geq 40(R_{ct+8})$				
10.8	Magnetizing current at $V_k/2$ (mA)	-	-	≤ 30	≤ 30				
10.9	Resistance at secondary winding at 75 Deg. C (ohms)								
10.10	Secondary limiting voltage								
11	Short time thermal rating of primary								
11.1	One second								

TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMER

S No.	Description	Data By Purchaser	Data By Supplier
11.2	Three seconds	31.5 KA	
12	Rated dynamic current of primary		
13	Rated continuous thermal current		
14	Temperature rise at ambient temp 50 deg. C		
14.1	Winding		
14.2	Oil at top		
14.3	Exposed current carrying parts		
15	One minute power frequency dry withstand voltage	140kV (rms)	
16	One minute power frequency wet withstand voltage	140kV (rms)	
17	1.2/50 microsecond impulse withstand test voltage	325 KV (peak)	
18	Minimum creepage distance in mm	31KV / mm	
19	Protective creepage distance in mm		
20	Magnetization curve of CT core		
21	Variation in ratio and phase angle error due to variation in		
21.1	Voltage by 1 volts		
21.2	Frequency by 1 Hz		
22	Current density in primary winding (A/sqmm)		
23	Weight of oil		
24	Total weight		
25	Mounting details		
26	Overall dimensions		
27	Terminal connector		

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ANNEXURE- C4 GUARANTEED TECHNICAL PARTICULARS (66KV, 400-200/1/1/1/1A)

S No.	Description	Data By Purchaser				Data By Supplier			
1	Name of Manufacturer								
2	Address and contact details								
3	Type	Outdoor, Oil cooled, Hermetically sealed, Single phase, Dead tank CT							
4	Rated nominal voltage	66kV							
5	Highest system voltage	72.5kV							
6	Rated frequency	50 Hz							
7	Rated primary current	400-200 A							
8	Rated secondary current	1A							
9	Number of core	Four							
10.0		Core-1	Core-2	Core-3	Core-4				
10.1	Secondary current (A)	1	1	1	1				
10.2	Application	Metering	Protection (O/C & E/F)	Protection (Bus Bar)	Protection (Spare)				
10.3	Rated Output (VA)	30	30						
10.4	Class of accuracy	0.2s	5P	PS	PS				
10.5	Instruments security factor	≤ 5	-	-	-				
10.6	Accuracy limit factor	-	20	-	-				
10.7	Knee point voltage and corresponding excitation current	-	-	$\geq 40(R_{ct} + 8)$	$\geq 40(R_{ct} + 8)$				
10.8	Magnetizing current at $V_k/2$ (mA)	-	-	≤ 30	≤ 30				
10.9	Resistance at secondary winding at 75 Deg. C (ohms)								
10.10	Secondary limiting voltage								
11	Short time thermal rating of primary								
11.1	One second								

TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMER

S No.	Description	Data By Purchaser	Data By Supplier
11.2	Three seconds	31.5 KA	
12	Rated dynamic current of primary		
13	Rated continuous thermal current		
14	Temperature rise at ambient temp 50 deg. C		
14.1	Winding		
14.2	Oil at top		
14.3	Exposed current carrying parts		
15	One minute power frequency dry withstand voltage	140kV (rms)	
16	One minute power frequency wet withstand voltage	140kV (rms)	
17	1.2/50 microsecond impulse withstand test voltage	325 KV (peak)	
18	Minimum creepage distance in mm	31KV / mm	
19	Protective creepage distance in mm		
20	Magnetization curve of CT core		
21	Variation in ratio and phase angle error due to variation in		
21.1	Voltage by 1 volts		
21.2	Frequency by 1 Hz		
22	Current density in primary winding (A/sqmm)		
23	Weight of oil		
24	Total weight		
25	Mounting details		
26	Overall dimensions		
27	Terminal connector		

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ANNEXURE- C5 GUARANTEED TECHNICAL PARTICULARS (33KV, 2000-1000/1/1/1/1A)

S No.	Description	Data By Purchaser				Data By Supplier			
1	Name of Manufacturer								
2	Address and contact details								
3	Type	Outdoor, Oil cooled, Hermetically sealed, Single phase, Dead tank CT							
4	Rated nominal voltage	33kV							
5	Highest system voltage	36kV							
6	Rated frequency	50 Hz							
7	Rated primary current	2000-1000 A							
8	Rated secondary current	1A							
9	Number of core	Four							
10.0		Core-1	Core-2	Core-3	Core-4				
10.1	Secondary current (A)	1	1	1	1				
10.2	Application	Metering	Protection (O/C & E/F)	Protection (Bus Bar)	Protection (Spare)				
10.3	Rated Output (VA)	30	30						
10.4	Class of accuracy	0.2s	5P	PS	PS				
10.5	Instruments security factor	≤5	-	-	-				
10.6	Accuracy limit factor	-	20	-	-				
10.7	Knee point voltage and corresponding excitation current	-	-	≥40(Rct+8)	≥40(Rct+8)				
10.8	Magnetizing current at $V_k/2$ (mA)	-	-	≤30	≤30				
10.9	Resistance at secondary winding at 75 Deg. C (ohms)								
10.10	Secondary limiting voltage								
11	Short time thermal rating of primary								
11.1	One second								
11.2	Three seconds	26.3 KA							

TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMER

S No.	Description	Data By Purchaser	Data By Supplier
12	Rated dynamic current of primary		
13	Rated continuous thermal current		
14	Temperature rise at ambient temp 50 deg. C		
14.1	Winding		
14.2	Oil at top		
14.3	Exposed current carrying parts		
15	One minute power frequency dry withstand voltage	70 kV (rms)	
16	One minute power frequency wet withstand voltage	70 kV (rms)	
17	1.2/50 microsecond impulse withstand test voltage	170 KV (peak)	
18	Minimum creepage distance in mm	31KV / mm	
19	Protective creepage distance in mm		
20	Magnetization curve of CT core		
21	Variation in ratio and phase angle error due to variation in		
21.1	Voltage by 1 volts		
21.2	Frequency by 1 Hz		
22	Current density in primary winding (A/sqmm)		
23	Weight of oil		
24	Total weight		
25	Mounting details		
26	Overall dimensions		
27	Terminal connector		

TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMER
ANNEXURE- C6 GUARANTEED TECHNICAL PARTICULARS (33KV, 1000-500/1/1/1/1A)

S No.	Description	Data By Purchaser				Data By Supplier			
1	Name of Manufacturer								
2	Address and contact details								
3	Type	Outdoor, Oil cooled, Hermetically sealed, Single phase, Dead tank CT							
4	Rated nominal voltage	33kV							
5	Highest system voltage	36kV							
6	Rated frequency	50 Hz							
7	Rated primary current	1000-500 A							
8	Rated secondary current	1A							
9	Number of core	Four							
10.0		Core-1	Core-2	Core-3	Core-4				
10.1	Secondary current (A)	1	1	1	1				
10.2	Application	Metering	Protection (O/C & E/F)	Protection (Bus Bar)	Protection (Spare)				
10.3	Rated Output (VA)	30	30						
10.4	Class of accuracy	0.2s	5P	PS	PS				
10.5	Instruments security factor	≤5	-	-	-				
10.6	Accuracy limit factor	-	20	-	-				
10.7	Knee point voltage and corresponding excitation current	-	-	≥40(Rct+8)	≥40(Rct+8)				
10.8	Magnetizing current at $V_k/2$ (mA)	-	-	≤30	≤30				
10.9	Resistance at secondary winding at 75 Deg. C (ohms)								
10.10	Secondary limiting voltage								
11	Short time thermal rating of primary								
11.1	One second								
11.2	Three seconds	26.3 KA							

TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMER

S No.	Description	Data By Purchaser	Data By Supplier
12	Rated dynamic current of primary		
13	Rated continuous thermal current		
14	Temperature rise at ambient temp 50 deg. C		
14.1	Winding		
14.2	Oil at top		
14.3	Exposed current carrying parts		
15	One minute power frequency dry withstand voltage	70 kV (rms)	
16	One minute power frequency wet withstand voltage	70 kV (rms)	
17	1.2/50 microsecond impulse withstand test voltage	170 KV (peak)	
18	Minimum creepage distance in mm	31KV / mm	
19	Protective creepage distance in mm		
20	Magnetization curve of CT core		
21	Variation in ratio and phase angle error due to variation in		
21.1	Voltage by 1 volts		
21.2	Frequency by 1 Hz		
22	Current density in primary winding (A/sqmm)		
23	Weight of oil		
24	Total weight		
25	Mounting details		
26	Overall dimensions		
27	Terminal connector		

BSES	BSES-TS-31-ODCT-R0
TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMER	

ANNEXURE- C7 GUARANTEED TECHNICAL PARTICULARS (33KV, 800-400/1/1/1/1A)

S No.	Description	Data By Purchaser				Data By Supplier			
1	Name of Manufacturer								
2	Address and contact details								
3	Type	Outdoor, Oil cooled, Hermetically sealed, Single phase, Dead tank CT							
4	Rated nominal voltage	33kV							
5	Highest system voltage	36kV							
6	Rated frequency	50 Hz							
7	Rated primary current	800-400 A							
8	Rated secondary current	1A							
9	Number of core	Four							
10.0		Core-1	Core-2	Core-3	Core-4				
10.1	Secondary current (A)	1	1	1	1				
10.2	Application	Metering	Protection (O/C & E/F)	Protection (Bus Bar)	Protection (Spare)				
10.3	Rated Output (VA)	30	30						
10.4	Class of accuracy	0.2s	5P	PS	PS				
10.5	Instruments security factor	≤5	-	-	-				
10.6	Accuracy limit factor	-	20	-	-				
10.7	Knee point voltage and corresponding excitation current	-	-	≥40(Rct+8)	≥40(Rct+8)				
10.8	Magnetizing current at V _k /2 (mA)	-	-	≤30	≤30				
10.9	Resistance at secondary winding at 75 Deg. C (ohms)								
10.10	Secondary limiting voltage								
11	Short time thermal rating of primary								
11.1	One second								
11.2	Three seconds	26.3 KA							

TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMER

S No.	Description	Data By Purchaser	Data By Supplier
12	Rated dynamic current of primary		
13	Rated continuous thermal current		
14	Temperature rise at ambient temp 50 deg. C		
14.1	Winding		
14.2	Oil at top		
14.3	Exposed current carrying parts		
15	One minute power frequency dry withstand voltage	70 kV (rms)	
16	One minute power frequency wet withstand voltage	70 kV (rms)	
17	1.2/50 microsecond impulse withstand test voltage	170 KV (peak)	
18	Minimum creepage distance in mm	31KV / mm	
19	Protective creepage distance in mm		
20	Magnetization curve of CT core		
21	Variation in ratio and phase angle error due to variation in		
21.1	Voltage by 1 volts		
21.2	Frequency by 1 Hz		
22	Current density in primary winding (A/sqmm)		
23	Weight of oil		
24	Total weight		
25	Mounting details		
26	Overall dimensions		
27	Terminal connector		

TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMER
ANNEXURE- C8 GUARANTEED TECHNICAL PARTICULARS (66KV, NCT 2000-1000/1-1A)

S No.	Description	Data By Purchaser		Data By Supplier	
1	Name of Manufacturer				
2	Address and contact details				
3	Type	Outdoor, Oil cooled, Hermetically sealed, Single phase, Dead tank CT			
4	Rated nominal voltage	66kV			
5	Highest system voltage	72.5kV			
6	Rated frequency	50 Hz			
7	Rated primary current	2000-1000 A			
8	Rated secondary current	1A			
9	Number of core	2			
10.0		Core-1	Core-2		
10.1	Secondary current (A)	1	1		
10.2	Application	Protection (O/C & E/F)	Protection		
10.3	Rated Output (VA)	30			
10.4	Class of accuracy	5P	PS		
10.5	Instruments security factor	-	-		
10.6	Accuracy limit factor	20			
10.7	Knee point voltage and corresponding excitation current	-	$\geq 40(R_{ct} + 8)$		
10.8	Magnetizing current at $V_k/2$ (mA)	-	$\leq 30\text{mA}$		
10.9	Resistance at secondary winding at 75 Deg. C (ohms)				
10.10	Secondary limiting voltage				
11	Short time thermal rating of primary				
11.1	One second				
11.2	Three seconds	31.5 kA			

TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMER

S No.	Description	Data By Purchaser	Data By Supplier
12	Rated dynamic current of primary		
13	Rated continuous thermal current		
14	Temperature rise at ambient temp 50 deg. C		
14.1	Winding		
14.2	Oil at top		
14.3	Exposed current carrying parts		
15	One minute power frequency dry withstand voltage	140kV (rms)	
16	One minute power frequency wet withstand voltage	140kV (rms)	
17	1.2/50 microsecond impulse withstand test voltage	325 KV (peak)	
18	Minimum creepage distance in mm	31KV / mm	
19	Protective creepage distance in mm		
20	Magnetization curve of CT core		
21	Variation in ratio and phase angle error due to variation in		
21.1	Voltage by 1 volts		
21.2	Frequency by 1 Hz		
22	Current density in primary winding (A/sqmm)		
23	Weight of oil		
24	Total weight		
25	Mounting details		
26	Overall dimensions		
27	Terminal connector		

TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMER
ANNEXURE- C9 GUARANTEED TECHNICAL PARTICULARS (33KV, NCT 2000-1000/1/1A)

S No.	Description	Data By Purchaser		Data By Supplier	
1	Name of Manufacturer				
2	Address and contact details				
3	Type	Outdoor, Oil cooled, Hermetically sealed, Single phase, Dead tank NCT			
4	Rated nominal voltage	33kV			
5	Highest system voltage	36kV			
6	Rated frequency	50 Hz			
7	Rated primary current	2000-1000 A			
8	Rated secondary current	1A			
9	Number of core	2			
10.0		Core-1	Core-2		
10.1	Secondary current (A)	1	1		
10.2	Application	Protection (O/C & E/F)	Protection		
10.3	Rated Output (VA)	30			
10.4	Class of accuracy	5P	PS		
10.5	Instruments security factor	-	-		
10.6	Accuracy limit factor	20			
10.7	Knee point voltage and corresponding excitation current	-	$\geq 40(R_{ct} + 8)$		
10.8	Magnetizing current at $V_k/2$ (mA)	-	$\leq 30\text{mA}$		
10.9	Resistance at secondary winding at 75 Deg. C (ohms)				
10.10	Secondary limiting voltage				
11	Short time thermal rating of primary				
11.1	One second				

TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMER

S No.	Description	Data By Purchaser	Data By Supplier
11.2	Three seconds	26.3 KA	
12	Rated dynamic current of primary		
13	Rated continuous thermal current		
14	Temperature rise at ambient temp 50 deg. C		
14.1	Winding		
14.2	Oil at top		
14.3	Exposed current carrying parts		
15	One minute power frequency dry withstand voltage	70kV (rms)	
16	One minute power frequency wet withstand voltage	70kV (rms)	
17	1.2/50 microsecond impulse withstand test voltage	170 KV (peak)	
18	Minimum creepage distance in mm	31KV / mm	
19	Protective creepage distance in mm		
20	Magnetization curve of CT core		
21	Variation in ratio and phase angle error due to variation in		
21.1	Voltage by 1 volts		
21.2	Frequency by 1 Hz		
22	Current density in primary winding (A/sqmm)		
23	Weight of oil		
24	Total weight		
25	Mounting details		
26	Overall dimensions		
27	Terminal connector		

TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMER
ANNEXURE- C10 GUARANTEED TECHNICAL PARTICULARS (33KV, NCT 10/1-1A)

S No.	Description	Data By Purchaser		Data By Supplier	
1	Name of Manufacturer				
2	Address and contact details				
3	Type	Outdoor, Oil cooled, Hermetically sealed, Single phase, Dead tank NCT			
4	Rated nominal voltage	33kV			
5	Highest system voltage	36kV			
6	Rated frequency	50 Hz			
7	Rated primary current	10 A			
8	Rated secondary current	1A			
9	Number of core	2			
10.0		Core-1	Core-2		
10.1	Secondary current (A)	1	1		
10.2	Application	Protection (O/C & E/F)	Protection (REF)		
10.3	Rated Output (VA)	30			
10.4	Class of accuracy	5P	PS		
10.5	Instruments security factor	-	-		
10.6	Accuracy limit factor	20			
10.7	Knee point voltage and corresponding excitation current	-	$\geq 40(R_{ct} + 8)$		
10.8	Magnetizing current at $V_k/2$ (mA)	-	$\leq 30\text{mA}$		
10.9	Resistance at secondary winding at 75 Deg. C (ohms)				
10.10	Secondary limiting voltage				
11	Short time thermal rating of primary				
11.1	One second				
11.2	Three seconds	100 times of rated primary			

TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMER

S No.	Description	Data By Purchaser	Data By Supplier
		current	
12	Rated dynamic current of primary		
13	Rated continuous thermal current		
14	Temperature rise at ambient temp 50 deg. C		
14.1	Winding		
14.2	Oil at top		
14.3	Exposed current carrying parts		
15	One minute power frequency dry withstand voltage	70kV (rms)	
16	One minute power frequency wet withstand voltage	70kV (rms)	
17	1.2/50 microsecond impulse withstand test voltage	170 KV (peak)	
18	Minimum creepage distance in mm	31KV / mm	
19	Protective creepage distance in mm		
20	Magnetization curve of CT core		
21	Variation in ratio and phase angle error due to variation in		
21.1	Voltage by 1 volts		
21.2	Frequency by 1 Hz		
22	Current density in primary winding (A/sqmm)		
23	Weight of oil		
24	Total weight		
25	Mounting details		
26	Overall dimensions		
27	Terminal connector		

TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMER**ANNEXURE- C11 GUARANTEED TECHNICAL PARTICULARS (11KV, NCT 1600/1-1A)**

S No.	Description	Data By Purchaser		Data By Supplier	
1	Name of Manufacturer				
2	Address and contact details				
3	Type	Outdoor, Oil cooled, Hermetically sealed, Single phase, Dead tank NCT			
4	Rated nominal voltage	11kV			
5	Highest system voltage	12kV			
6	Rated frequency	50 Hz			
7	Rated primary current	1600A			
8	Rated secondary current	1A			
9	Number of core	2			
10.0		Core-1	Core-2		
10.1	Secondary current (A)	1	1		
10.2	Application	Protection (O/C & E/F)	Protection (Busbar)		
10.3	Rated Output (VA)	30			
10.4	Class of accuracy	5P	PS		
10.5	Instruments security factor	-	-		
10.6	Accuracy limit factor	20			
10.7	Knee point voltage and corresponding excitation current	-	$\geq 40(R_{ct} + 8)$		
10.8	Magnetizing current at $V_k/2$ (mA)	-	$\leq 30\text{mA}$		
10.9	Resistance at secondary winding at 75 Deg. C (ohms)				
10.10	Secondary limiting voltage				
11	Short time thermal rating of primary				
11.1	One second				
11.2	Three seconds	26.3 KA			

TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMER

12	Rated dynamic current of primary		
13	Rated continuous thermal current		
14	Temperature rise at ambient temp 50 deg. C		
14.1	Winding		
14.2	Oil at top		
14.3	Exposed current carrying parts		
15	One minute power frequency dry withstand voltage		
16	One minute power frequency wet withstand voltage	28kV (rms)	
17	1.2/50 microsecond impulse withstand test voltage	75 KV (peak)	
18	Minimum creepage distance in mm	31KV / mm	
19	Protective creepage distance in mm		
20	Magnetization curve of CT core		
21	Variation in ratio and phase angle error due to variation in		
21.1	Voltage by 1 volts		
21.2	Frequency by 1 Hz		
22	Current density in primary winding (A/sqmm)		
23	Weight of oil		
24	Total weight		
25	Mounting details		
26	Overall dimensions		
27	Terminal connector		

TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMER
ANNEXURE- C12 GUARANTEED TECHNICAL PARTICULARS (11KV, NCT 1200/1-1A)

S No.	Description	Data By Purchaser		Data By Supplier	
1	Name of Manufacturer				
2	Address and contact details				
3	Type	Outdoor, Oil cooled, Hermetically sealed, Single phase, Dead tank NCT			
4	Rated nominal voltage	11kV			
5	Highest system voltage	12kV			
6	Rated frequency	50 Hz			
7	Rated primary current	1200A			
8	Rated secondary current	1A			
9	Number of core	2			
10.0		Core-1	Core-2		
10.1	Secondary current (A)	1	1		
10.2	Application	Protection (O/C & E/F)	Protection (Busbar)		
10.3	Rated Output (VA)	30			
10.4	Class of accuracy	5P	PS		
10.5	Instruments security factor	-	-		
10.6	Accuracy limit factor	20			
10.7	Knee point voltage and corresponding excitation current	-	$\geq 40(R_{ct} + 8)$		
10.8	Magnetizing current at $V_k/2$ (mA)	-	$\leq 30\text{mA}$		
10.9	Resistance at secondary winding at 75 Deg. C (ohms)				
10.10	Secondary limiting voltage				
11	Short time thermal rating of primary				
11.1	One second				

TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMER

S No.	Description	Data By Purchaser	Data By Supplier
11.2	Three seconds	26.3 KA	
12	Rated dynamic current of primary		
13	Rated continuous thermal current		
14	Temperature rise at ambient temp 50 deg. C		
14.1	Winding		
14.2	Oil at top		
14.3	Exposed current carrying parts		
15	One minute power frequency dry withstand voltage		
16	One minute power frequency wet withstand voltage	28kV (rms)	
17	1.2/50 microsecond impulse withstand test voltage	75 KV (peak)	
18	Minimum creepage distance in mm	31KV / mm	
19	Protective creepage distance in mm		
20	Magnetization curve of CT core		
21	Variation in ratio and phase angle error due to variation in		
21.1	Voltage by 1 volts		
21.2	Frequency by 1 Hz		
22	Current density in primary winding (A/sqmm)		
23	Weight of oil		
24	Total weight		
25	Mounting details		
26	Overall dimensions		
27	Terminal connector		

TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMER
ANNEXURE- C13 GUARANTEED TECHNICAL PARTICULARS (11KV, NCT 1200/0.578-0.578A)

S No.	Description	Data By Purchaser		Data By Supplier	
1	Name of Manufacturer				
2	Address and contact details				
3	Type	Outdoor, Oil cooled, Hermetically sealed, Single phase, Dead tank NCT			
4	Rated nominal voltage	11kV			
5	Highest system voltage	12kV			
6	Rated frequency	50 Hz			
7	Rated primary current	1200A			
8	Rated secondary current	0.578A			
9	Number of core	2			
10.0		Core-1	Core-2		
10.1	Secondary current (A)	0.578	0.578		
10.2	Application	Protection (O/C & E/F)	Protection (Busbar)		
10.3	Rated Output (VA)	30			
10.4	Class of accuracy	5P	PS		
10.5	Instruments security factor	-	-		
10.6	Accuracy limit factor	20			
10.7	Knee point voltage and corresponding excitation current	-	$\geq 40(R_{ct} + 8)$		
10.8	Magnetizing current at $V_k/2$ (mA)	-	$\leq 30\text{mA}$		
10.9	Resistance at secondary winding at 75 Deg. C (ohms)				
10.10	Secondary limiting voltage				
11	Short time thermal rating of primary				
11.1	One second				

TECHNICAL SPECIFICATION OF OUTDOOR CURRENT TRANSFORMER

S No.	Description	Data By Purchaser	Data By Supplier
11.2	Three seconds	26.3 KA	
12	Rated dynamic current of primary		
13	Rated continuous thermal current		
14	Temperature rise at ambient temp 50 deg. C		
14.1	Winding		
14.2	Oil at top		
14.3	Exposed current carrying parts		
15	One minute power frequency dry withstand voltage		
16	One minute power frequency wet withstand voltage	28kV (rms)	
17	1.2/50 microsecond impulse withstand test voltage	75 KV (peak)	
18	Minimum creepage distance in mm	31KV / mm	
19	Protective creepage distance in mm		
20	Magnetization curve of CT core		
21	Variation in ratio and phase angle error due to variation in		
21.1	Voltage by 1 volts		
21.2	Frequency by 1 Hz		
22	Current density in primary winding (A/sqmm)		
23	Weight of oil		
24	Total weight		
25	Mounting details		
26	Overall dimensions		
27	Terminal connector		

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ANNEXURE - D RECOMENDED SPARES (DATA BY SUPPLIER)

List of recommended spares as following –

Sr No	Description of spare part	Unit	Quantity
1		No	
2		No	
3			
4			
5			

BSES

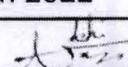
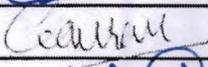
Technical Specification

For

Outdoor Potential Transformers

(33 kV and 66 kV)

Specification no – BSES-TS-89-OPT-R0

Rev:	0	
Date:	06 Jun 2022	
Prepared by	Abhishek Harsh	
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TECHNICAL SPECIFICATION FOR OUTDOOR POTENTIAL TRANSFORMER
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TECHNICAL SPECIFICATION FOR OUTDOOR POTENTIAL TRANSFORMER
1 SCOPE OF SUPPLY

Design, manufacture, assembly, testing at stages of manufacture as per this specification, final testing at manufacturer works on completely assembled Potential Transformer (PT) / CVT before dispatch, packing and delivery of PT/CVT Transformer as per the tender requirement.

2 CODES & STANDARDS

Materials, equipment and methods used in the manufacture of Potential Transformer (PT)/ CVT shall conform to the latest edition of following

IS-3156 (Part I to IV)	Specification for Voltage transformer
IS-4146	Application guide for voltage transformer.
IS-2099	High voltage porcelain bushings
IS-731	Insulator for O/H power line
IS-335	New insulating oil for transformer and switchgear.
IS-9676	Reference ambient temperature of electrical equipment
IS-5561	Specification of electric power connectors
IS-5621	Hollow insulator for use in electrical equipments
	Indian Electricity Rules
	Indian electricity act
	CBIP manual

3 MAJOR DESIGN CRITERIA & PARAMETERS

3.1	System	66KV	33KV
3.2	Voltage	66KV \pm 10%	33KV \pm 10%
3.3	Frequency	50HZ \pm 5%	50HZ \pm 5%
3.4	Fault level	31.5KA for 3secs.	26.3KA for 3secs.
3.5	Earthing	Solidly grounded	Solidly grounded
3.6	Type	Single phase, dead tank, oil immersed, self-cooled outdoor type.	
3.7	Construction feature	Oil immersed PT/CVT shall be hermetically sealed to eliminate breathing and to prevent ingress of air and	


TECHNICAL SPECIFICATION FOR OUTDOOR POTENTIAL TRANSFORMER

		moisture.
3.8	Tank	
3.8.1	Material of Construction	Tank shall be of MS with polyurethane paint or shall be Galvanised Steel with galvanizing thickness 610gm/sqmm.
3.8.2	Tank Feature	The tank shall be provided with oil draining plug, Oil level gauge glass.
3.8.3	Oil Expansion	Stainless steel bellow or diaphragm shall be provided to take care of oil expansion
3.8.4	Core	High grade, non ageing, low loss, high permeability, cold rolled grain oriented silicon steel lamination.
3.9	Winding	
3.9.1	Material	Electrolytic Copper
3.9.2	Winding Insulating material	Class A, non catalytic, inert to transformer oil, free from compounds liable to ooze out, shrink or collapse.
3.9.3	Winding Insulation	Uniform
3.9.4	Design features	Winding shall be capable of desired output as per specified limits without exceeding permissible temperature rise.
3.10	Insulating oil	
3.10.1	Type	Class 1 new mineral insulating oil as per IS 335, shall be certified not to contain PCBs. Anti oxidant inhibitor if recommended shall be subject to Purchaser's approval.
3.11	Terminals	
3.11.1	Primary terminals	The HV Terminal shall be of copper. Single Zebra ACSR conductor. Termination shall be by bimetallic Aluminum alloy grade A6 suitable for
3.11.2	Primary Terminal connector	Universal type, Suitable for termination of Single Zebra ACSR conductor. Connector should be of Aluminium alloy A6. Bimetallic sleeve of 1mm thickness should be provided for primary connection.

TECHNICAL SPECIFICATION FOR OUTDOOR POTENTIAL TRANSFORMER

3.11.3	Secondary terminals	The secondary terminals shall be provided in IP55 Box with Brass/copper stud type terminals accessible from front with removable cover.
3.11.4	Earth terminal of primary winding	The earth terminal of HV winding shall be brought out in secondary Terminal box by bushing. This shall be connected with body earth terminal with flexible copper lead through a link.
3.11.5	Terminal marking	Terminals shall be marked as per IS 3156
3.12	Bushing	
3.12.1	Type	Polymeric bushing
3.12.2	Minimum creepage distance of bushing	31 mm/KV
3.12.3	Protected creepage distance	At least 50 % of total creepage distance
3.13	Over Voltage factor	1.2 times for continuous rating and 1.5 times for 30 seconds.
3.14	Atmospheric protection for clamp and fitting of iron and steel	Hot dip galvanizing as per IS 2633. The Minimum thickness of galvanization should be 610 g/ sq mm.
3.15	Gland Plate	Min. 3 mm thick detachable with three knockout holes of 3/4 inch.
3.16	Cable entry	Bottom for all cables
3.17	Earthing	The PT/CVT assembly comprising of the chasis, frame work and fixed parts of metal casing shall be provided with two separate body earthing terminals.
3.18	Drain Plug on tank Base	Required
3.19	Painting surface preparation	Shot blasting or chemical 7 tank process.
3.20	Painting external finish	692 as per IS 5
3.21	Fixing bolts	Fixing bolts and other accessories as per this specification.
3.22	Terminal Blocks	Terminal Blocks shall be
3.23	Additional details of CVT	i) Shall comprise a capacitor divider unit and an electromagnetic unit such that secondary voltage

TECHNICAL SPECIFICATION FOR OUTDOOR POTENTIAL TRANSFORMER

		<p>of electromagnetic unit is substantially proportional to and in phase with the primary voltage applied to capacitor divider units.</p> <p>ii) Capacitors shall be oil impregnated type enclosed in inert gas atmosphere, hermetically sealed.</p> <p>iii) The material and construction and assembly of CVT shall be such that the capacitance does not change with time and the effect of temperature is minimum.</p> <p>iv) Provided with an over voltage suppressor</p> <p>v) No radio interference when operated at maximum service voltage</p> <p>vi) Reactance to be provided to minimize draining of carrier signal in electromagnetic unit</p> <p>vii) No radio interference when operated at maximum service voltage</p> <p>viii) The CVT shall be designed to cover its rated output range without any adjustment of its electromagnetic unit.</p> <p>ix) Material used in insulation and assembly of the winding shall be insoluble, non catalytic and chemically inactive in hot transformer oil and shall not be subjected to a shrinking and seasoning process</p> <p>x) CVT shall provide designed transient response requirement as per IEC / IS i.e. during transient oscillations following a short circuit on primary side, the secondary side output voltage shall not fall to a value less than 10% of peak value before short circuit within 20 milliseconds</p> <p>xi) The secondary terminal box shall include necessary HRC fuses for protection of secondary circuits and both the sides of fuse shall be terminated on terminal block for fuse supervision.</p>
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4 RATING PLATE

4.1	Material	Anodized aluminum 16SWG
4.2	Background	SATIN SILVER
4.3	Letters, diagram & border	Black
4.4	Process	Etching
4.5	Rating plate details	As per IS3156
4.6	Other details required on rating plate	BSES PO No. and Date
		Warranty Period
		Connection Diagram

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5 APPROVED MAKE OF COMPONENTS

5.1	Insulator	ABIL, WSI, Modern, Saravana, BHEL, CJI
5.2	Primary Terminal Connector	Exault, Tyco, Rashtraudyog, Burma
5.3	Note	Any other make of component to be approved by Owner

6 DRAWING, DATA & MANUALS

6.1	To be submitted along with bid	<p>Seller has to submit:</p> <ul style="list-style-type: none"> i) Tentative GA / cross sectional drawing of product showing all the views / sections ii) Detailed reference list of customers already using the offered product during the last 5 years with particular emphasis on units of similar design and rating iii) Completely filled GTP iv) Deviations from this specification. Only deviations approved in writing before award of contract shall be accepted v) Details of manufacturer's quality assurance standards and programme and ISO 9000 series or equivalent national certification vi) Type test reports shall be submitted for the type, size & rating of product / equipment offered along with bid. In case the type test report for identical product is not available then type test report of nearby size /rating shall be submitted for review. They shall be considered valid for 5 years from date of test performed on product /equipment. vii) Complete product catalogue and Manual along with the bid. viii) Recommended spare parts and consumable items for five years of operation with prices and spare parts catalogue with price list for future requirements
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6.2	After award of contract, seller has to submit mentioned drawings for buyer's Approval (A) / Reference (R)	<ul style="list-style-type: none"> i) Program for production and testing (A) ii) Guaranteed Technical Particulars (A) iii) Calculations to substantiate choice of electrical, structural, mechanical component size / ratings (A) iv) Detailed dimensional drawing for all components, general arrangement drawing showing detailed component layout and detailed schematic and wiring drawings for all components (like marshalling box) v) Terminal arrangement & cable box details etc (as applicable) (A) vi) Drawing of major components (A) vii) Rating and diagram plate (A) viii) Detailed loading drawing to enable the buyer to design and construct foundations (as applicable) (R) ix) Transport / Shipping dimensions with weights, wheel base details, untanking height etc (As applicable) (R) x) List of makes of all fittings and accessories (A) xi) detailed installation and commissioning instructions (R) xii) quality plan
6.3	Submittals required prior to dispatch	<ul style="list-style-type: none"> i) Inspection and test reports, carried out in manufacturer's works (R) ii) Test certificates of all bought out items iii) Operation and maintenance Instruction as well as trouble shooting charts/ manuals
6.4	Drawing and document sizes	Standard size paper A0, A1, A2, A3, A4
6.5	Drgs/Documents required at different stages	Both hard copy and Soft copy in Pendrive

7 QUALITY ASSURANCE, TESTING & INSPECTION

7.1	Vendor Quality Plan	To be submitted for purchaser approval
7.2	Inspection points	To be mutually identified & agreed in quality plan
7.3	Type Tests	i) On one CVT/PT of each rating and type (In Govt.

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		<p>recognized independent test laboratory), all the test as per IS 3156</p> <p>ii) In case the product is never type tested earlier, seller has to conduct the type tests from govt. recognized / internationally accredited test labs at their own cost, before commencement of supply.</p> <p>iii) If the manufacturer's lab is accredited by govt. / authorized body then it shall be acceptable for type testing.</p>
7.4	Inspection and testing during manufacture	
7.4.1	Tank	<p>i) Checking of dimensions as per approved drawing.</p> <p>ii) Checking for leakage by pressure testing.</p> <p>iii) Thickness of Paint or Galvanisation, as applicable</p>
7.4.2	Porcelain	<p>i) Check dimension.</p> <p>ii) Check finish of sealing surface.</p> <p>iii) Check creepage distance.</p> <p>iv) Check for routine electrical test.</p> <p>v) Check for porosity and temperature cycle test.</p>
7.4.3	Insulating Materials	<p>i) Sample check for physical properties of materials.</p> <p>ii) Check for dielectric strength.</p> <p>iii) Visual and dimensional checks.</p>
7.4.4	Copper conductor	<p>i) Check for dimension.</p> <p>ii) Check for elongation.</p> <p>iii) Check for unidirectional scrap.</p> <p>iv) Heat shock.</p>
7.4.5	Oil	<p>i) Check for break down voltage.</p> <p>ii) Check for density.</p> <p>iii) Check for flash point.</p> <p>iv) Check for moisture content.</p> <p>v) Check for neutralization value.</p> <p>vi) Check for inter facial tension at 27 Deg c.</p> <p>vii) Check for sludge content.</p>



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		viii) Check for specific resistance. ix) Check for pour point.
7.4.6	Secondary terminals	i) Check for one min AC Test
7.5	Routine tests	Tests shall be carried out in accordance with IS 3156
7.6	Acceptance test	To be performed in presence of Owner's representative at manufacturer works:- i) Routine tests as per IS ii) Physical inspection of dimensions and BOM. iii) Pressure test on tank iv) IP55 test on secondary compartment v) Creepage distance of bushing vi) Test on accessories as per manufacturer's standard
7.7	Inspection and Testing	i) The buyer reserves the right to witness all tests specified on completed product ii) The buyer reserves the right to inspect the product at the sellers works at any time prior to dispatch, to verify compliance with the specifications. iii) In-process and final inspection call intimation shall be given atleast 15 days in advance.

8 PACKING, SHIPPING, HANDLING AND STORAGE

8.1.1		Packing	
8.1.2		Packing protection	Against corrosion, dampness, heavy rains, breakage and vibration
8.1.3		Packing for accessories and spares	Robust wooden non returnable packing case with all the above protection and identification labels.
8.1.4		Packing identification label	In each packing case, following details are required : i) Individual serial number ii) Purchaser's name



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			<ul style="list-style-type: none"> iii) PO number(along with SAP item code, if any) & date iv) Equipment Tag no. (if any) v) Destination vi) Manufacturer/Supplier's name vii) Address of manufacturer/supplier's / its agent viii) Description and quantity ix) Country of origin x) Month and year of manufacturing xi) Case measurements xii) Gross and net weights in kilograms xiii) All necessary slinging and stacking instructions.
8.1.5		Shipping	<ul style="list-style-type: none"> i) The bidder shall ascertain at an early date and definitely before the commencement of manufacture, any transport limitations such as weights, dimensions, road culverts, overhead lines, free access etc. from the manufacturing plant to the project site; and furnish to the Purchaser confirmation that the proposed packages can be safely transported, as normal or oversize packages, upto the plant site. Any modifications required in the infrastructure and cost thereof in this connection shall be brought to the notice of the Purchaser. ii) the seller shall be responsible for all transit damage due to improper packing.
8.1.6		Handling and Storage	Manufacturer instruction shall be followed. Detail handling & storage instruction sheet / manual needs to be furnished before commencement of supply.

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9 DEVIATIONS

9.1	Deviations from this Specification shall be provided in excel sheet 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. No deviation will be acceptable post order.
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10 DRAWINGS & DATA SUBMISSION MATRIX

Drawing submission shall be as per the matrix given below. All documents/ drawing shall be provided on A3/A4 sheet (based on legibility) in box file with separators for each section. PDF shall also be provided of all documents. Deviation sheet and GTP shall be provided in excel sheet. Language of the documents shall be English only. Deficient/ improper document/ drawing submission shall be liable for rejection.

S. No	Head	Bid	Drawing Approval	Pre Dispatch	Pre Closure
10.1	Contact Person Name, Email ID and Mobile Number	Required			
10.2	Consolidated Deviation Sheet	Required	Required		
10.3	GTP	Required	Required		
10.4	Relevant Type Test as per IS/IEC	Required			
10.5	Manufacturer's quality assurance plan and certification for quality standards		Required		
10.6	Sizing Calculation of Associated Equipment		Required		
10.7	Recommended Spares Apart from spares stated in Spec(for five years of operation)		Required		
10.8	CT/PT drawing				
10.8.1	General Arrangement	Required	Required		
10.8.2	Sectional Layout		Required		



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10.8.3	SLD	Required	Required		
10.8.4	Schematic Circuit diagram		Required		
10.8.5	QAP		Required		
10.8.6	BOQ		Required		
10.8.7	Plan		Required		
10.8.8	TB Details		Required		
10.8.9	Make of all Component as per specification		Required		
10.9	Installation, erection and commissioning manual		Required		
10.10	Inspection Reports			Required	
10.11	As manufacturing Drawings			Required	
10.12	Operation and Maintenance Manual			Required	Required
10.13	Trouble shooting manual			Required	Required
10.14	As built Drawings				Required
10.15	Test Report				Required

11 ANNEXURE - A (SERVICE CONDITIONS)

S No.	ENVIRONMENTAL CONDITION	REQUIREMENT
11.1	Average grade atmosphere	Heavily polluted, dry
11.2	Maximum altitude above sea Level	1000 M
11.3	Ambient air temperature	Highest 50Deg C Average 40Deg C
11.4	Minimum ambient air temperature	0 Deg C
11.5	Relative Humidity	100%
11.6	Seismic Zone	4
11.7	Rainfall	750 mm concentrated in four months



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12 ANNEXURE - B (GUARANTEED TECHNICAL PARTICULARS 66KV PT/VT)

S No.	Description	Data by purchaser	Data by Supplier
12.1	Location of equipment	Project specific to be filled up	
12.2	Name of manufacturer		
12.3	Address & contact details		
12.4	Type	Single phase outdoor, dead tank type oil immersed, self cooled	
12.5	Manufacturer model no.		
12.6	Reference design ambient temperature	50 Deg. C	
12.7	Reference standard	IS:3156	
12.8	Nominal system voltage	66 KV	
12.9	Highest system voltage	72.5KV	
12.10	Basic insulation level	325KVp	
12.11	Power frequency voltage	140 KV	
12.12	Type of cooling	ONAN	
12.13	Rated frequency	50 Hz	
12.14	Insulation class	A	
12.15	Rated primary voltage	66kV/ $\sqrt{3}$	
12.16	Rated secondary voltage	110V / $\sqrt{3}$	
12.17	Number of secondary cores	Two	
12.18	Core specifications		
12.18.1	Core -1		



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TECHNICAL SPECIFICATION FOR OUTDOOR POTENTIAL TRANSFORMER

S No.	Description	Data by purchaser	Data by Supplier
12.18.1.1	Purpose	Metering	
12.18.1.2	Rated output	50 VA	
12.18.1.3	class of accuracy	0.2	
12.18.1.4	Ratio error	As per IS	
12.18.1.5	Phase angle error	As per IS	
12.18.2	Core -2		
12.18.2.1	Purpose	Protection	
12.18.2.2	Rated output	50 VA	
12.18.2.3	class of accuracy	3P	
12.18.2.4	Ratio error	As per IS	
12.18.2.5	Phase angle error	As per IS	
12.19	Rated over voltage factor		
12.19.1	Continuous	1.2 times	
12.19.2	30 seconds	1.5 times	
12.20	For CVT, Capacitor Divider		
12.20.1	High voltage Capacitor	C1 (pf)	
12.20.2	Intermediate Voltage Capacitor	C2 (pf)	
12.20.3	Total Equivalent Capacitance	Pf	
12.20.4	Rated temperature at which above values are indicated.	Deg C	
12.20.5	Capacitance emperature coefficient		
12.20.6	Tan delta value of capacitance		
12.20.7	Carrier frequency coupling	Pf	
12.20.8	Rated Intermediate Voltage		
12.20.9	Natural frequency of coupling	kHZ	
12.20.10	Band Width	kHZ	
12.20.11	Series reactance/choke rated Voltage & power frequency		



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S No.	Description	Data by purchaser	Data by Supplier
	withstand voltage		
12.21	Temperature rise above the ambient 50 deg.C at 1.2 times voltage factor for continues rating		
12.21.1	For winding	50 Deg. C	
12.21.2	For Oil	40 Deg C	
12.22	Temperature rise above the ambient 50 deg.C at 1.5 times voltage factor for 30 seconds rating		
12.22.1	For winding	50 Deg. C	
12.22.2	For Oil	40 Deg C	
12.23	One minute power frequency dry withstand voltage for 66 KV (KV rms)		
12.24	One minute power frequency wet withstand voltage for 66 KV (KV rms)		
12.25	1.2/50 micro seconds impulse withstand test voltage KV peak for 66KV PT/ CVT	325 KVp	
12.26	One minute power frequency withstand voltage for secondary winding	3 KV	
12.27	Minimum creepage distance in mm	2250 mm	
12.28	Protective creepage distance in mm	50 % of creepage	



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S No.	Description	Data by purchaser	Data by Supplier
12.29	Partial discharge test, whether will be carried out Yes / No		
12.30	Weight of core		
12.31	Weight of oil		
12.32	Total weight		
12.33	Mounting details		
12.34	Overall dimensions		
12.35	Terminal connector	Aluminium alloy A6 universal type (horizontal & vertical take-off) terminal connector suitable for single zebra conductor shall be provided with bimetallic sleeve of minimum 1 mm thickness	

13 ANNEXURE - C (GUARANTEED TECHNICAL PARTICULARS 33KV PT/CVT)

S No.	Description	Data by purchaser	Data by Supplier
13.1	Location of equipment	Project specific to be filled up	
13.2	Name of manufacturer		
13.3	Address & contact details		
13.4	Type	Single phase outdoor, dead tank type oil immersed, self cooled	
13.5	Manufacturer model no.		
13.6	Reference design ambient temperature	50 Deg. C	
13.7	Reference standard	IS:3156	
13.8	Nominal system voltage	33 KV	
13.9	Highest system voltage	36 KV	
13.10	Basic insulation level	170 KVp	



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TECHNICAL SPECIFICATION FOR OUTDOOR POTENTIAL TRANSFORMER

S No.	Description	Data by purchaser	Data by Supplier
13.11	Power frequency voltage	70 KV	
13.12	Type of cooling	ONAN	
13.13	Rated frequency	50 Hz	
13.14	Insulation class	A	
13.15	Rated primary voltage	33kV/ $\sqrt{3}$	
13.16	Rated secondary voltage	110V / $\sqrt{3}$	
13.17	Number of secondary cores	Two	
13.18	Core specifications		
13.18.1	Core -1		
13.18.1.1	Purpose	Metering	
13.18.1.2	Rated output	50 VA	
13.18.1.3	class of accuracy	0.2	
13.18.1.4	Ratio error	As per IS	
13.18.1.5	Phase angle error	As per IS	
13.18.2	Core -2		
13.18.2.1	Purpose	Protection	
13.18.2.2	Rated output	50 VA	
13.18.2.3	class of accuracy	3P	
13.18.2.4	Ratio error	As per IS	
13.18.2.5	Phase angle error	As per IS	
13.19	Rated over voltage factor		
13.19.1	Continuous	1.2 times	
13.19.2	30 seconds	1.5 times	
13.20	For CVT, Capacitor Divider		
13.20.1	High voltage Capacitor	C1 (pf)	
13.20.2	Intermediate Voltage Capacitor	C2 (pf)	
13.20.3	Total Equivalent Capacitance	Pf	
13.20.4	Rated temperature at which above values are indicated.	Deg C	
13.20.5	Capacitance Temperature coefficient		



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TECHNICAL SPECIFICATION FOR OUTDOOR POTENTIAL TRANSFORMER

S No.	Description	Data by purchaser	Data by Supplier
13.20.6	Tan delta value of capacitance		
13.20.7	Carrier frequency coupling	Pf	
13.20.8	Rated Intermediate Voltage		
13.20.9	Natural frequency of coupling	kHZ	
13.20.10	Band Width	kHZ	
13.21	Temperature rise above the ambient 50 deg.C at 1.2 times voltage factor for continuous rating		
13.21.1	For winding	50 Deg. C	
13.21.2	For Oil	40 Deg C	
13.22	Temperature rise above the ambient 50 deg.C at 1.5 times voltage factor for 30 seconds rating		
13.22.1	For winding	50 Deg. C	
13.22.2	For Oil	40 Deg C	
13.23	One minute power frequency dry withstand voltage for 33 KV		
13.24	One minute power frequency wet withstand voltage for 33 KV		
13.25	1.2/50 micro seconds impulse withstand test voltage KV peak for 33KV PT/CVT	170 KVp	
13.26	One minute power frequency withstand voltage for secondary winding	3 KV	
13.27	Minimum creepage distance in mm	1116	
13.28	Protective creepage	50 % of creepage	



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S No.	Description	Data by purchaser	Data by Supplier
	distance in mm		
13.29	Partial discharge test, whether will be carried out Yes / No		
13.30	Weight of core		
13.31	Weight of oil		
13.32	Total weight		
13.33	Mounting details		
13.34	Overall dimensions	For 33 Kv CVT, Dimension shall be – a. Overall Height- 600 mm (Tank) + 540 mm (Bushing) b. Tank Dimension in mm- 640 X 650x600 (LXBXH)	
13.35	Terminal connector	Aluminium alloy A6 universal type (horizontal & vertical take-off) terminal connector suitable for single zebra conductor shall be provided with bimetallic sleeve of minimum 1 mm thickness	

14 ANNEXURE – D (RECOMENDED SPARES-DATA BY SUPPLIER)

List of recommended spares as following –

Sr No	Description of spare part	Unit	Quantity
14.1		No	
14.2		No	