



BSES YAMUNA POWER LTD (BYPL)

Notice Inviting Tender (NIT)

for

**“Award of Work for Repairing of One no. 16/20MVA, 66/11 KV Power Transformer
at Yamuna Vihar Grid in BYPL”**

NIT No.: CMC/BY/22-23/RS/SvS/AS/58

Dated: 11.01.2023

Due Date for Submission of Tender: 01.02.2023, 15:00 HRS

Date and Time of opening: 02.02.2023, 15:30 HRS

BSES YAMUNA POWER LIMITED,
Shakti Kiran Building, Karkardooma, New Delhi – 110032
Corporate Identification Number: U40109DL2001PLC111525
Website : www.bsedelhi.com

(This document is meant for the exclusive purpose of bidding against this NIT Number /Specification and shall not be transferred, reproduced, or otherwise used for purposes other than that for which it is specifically issued).

Page 1 of 73

NIT: CMC/BY/22-23/RS/SvS/AS/58

Bidder Seal & Signature

CONTENTS

S.No.	ITEM	DISCRIPTION
1	CHECK LIST	CHECK LIST FOR BID SUBMISSION
2	SECTIONS	
2.1	SECTION-I	REQUEST FOR QUOTATION (RFQ)
2.2	SECTION-II	INSTRUCTION TO BIDDERS (ITB)
2.3	SECTION-III	SPECIAL CONDITIONS OF CONTRACT (SCC)
2.4	SECTION-IV	GENERAL CONDITIONS OF CONTRACT (GCC)
2.5	SECTION-V	SCOPE OF WORK
2.6	SECTION-VI	PRICE BID
3	ANNEXURES	
3.1	ANNEXURE-I	BID FORM
3.2	ANNEXURE-II	BIDDER'S DETAILS
3.3	ANNEXURE-III	ACCEPTANCE OF REVERSE AUCTION
4	FORMATS	
4.1	EMD	EARNEST MONEY DEPOSIT (EMD) BANK GUARANTEE
4.2	CPBG	CONTRACT CUM PERFORMANCE BANK GUARANTEE (CPBG)
4.3	NDA	NON-DISCLOSURE AGREEMENT (NDA)
4.4	NDD	NO DEVIATION DECLARATION (NDD)
4.5	COMMUNICATION	BIDDER'S COMMUNICATION DETAILS

INDEX

1.	GENERAL.....	9
2.	POINTS TO BE NOTED.....	9
3.	EMD.....	9
4.	QUALIFYING REQUIREMENTS (QR).....	10
1.1	(A) QUALIFICATION CRITERIA (QR): -	10
1.2	(A.1) TECHNICAL QR:	10
1.3	(A.2) FINANCIAL QR:.....	11
2	PRE-BID MEETING:	12
3	BID SUBMISSION	12
7.	TIME SCHEDULE.....	13
8.	AWARD DECISION.....	13
9.	MARKET INTEGRITY.....	14
10.	CONFIDENTIALITY.....	14
11.	CONTACT INFORMATION.....	15
	SECTION-II : INSTRUCTIONS TO BIDDERS (ITB).....	16
1.	GENERAL.....	17
2.	SCOPE OF WORK.....	17
3.	DISCLAIMER.....	17
4.	COST OF BIDDING.....	18
5.	TENDER DOCUMENTS.....	18
6.	AMENDMENT OF TENDER DOCUMENTS	18
7.	PREPARATION OF BIDS & LANGUAGE	18
8.	DOCUMENTS COMPRISING THE BID.....	19
9.	BID FORM.....	19
10.	BID PRICES	19
11.	BID CURRENCIES.....	19
12.	PERIOD OF VALIDITY OF BIDS	19
13.	ALTERNATIVE BIDS	19
14.	FORMAT AND SIGNING OF BID	19
15.	SEALING AND MARKING OF BIDS	19
16.	DEADLINE FOR SUBMISSION OF BIDS	20
17.	ONE BID PER BIDDER	20

18.	LATE BIDS.....	20
19.	MODIFICATIONS AND WITHDRAWAL OF BIDS	20
20.	EVALUATION OF BID	20
21.	CLARIFICATION OF BIDS.....	20
22.	PRELIMINARY EXAMINATION OF BIDS / RESPONSIVENESS	20
23.	EVALUATION AND COMPARISON OF BIDS.....	21
24.	CONTACTING THE COMPANY	21
25.	COMPANY 'S RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS	21
26.	AWARD OF CONTRACT	22
27.	THE COMPANY'S RIGHT TO VARY QUANTITIES	22
28.	LETTER OF INTENT/ NOTIFICATION OF AWARD.....	22
29.	CORRUPT OR FRAUDULENT PRACTICES	22
30.	PROCESS TO BE CONFIDENTIAL	22
	SECTION – III : SPECIAL CONDITIONS OF CONTRACT (SCC)	23
	COMMERCIAL TERMS & CONDITIONS:.....	24
	1. FOR SUPPLY PART	24
	2. RATES:.....	24
	3. TAX & DUTIES:.....	24
	4. TERMS OF PAYMENT:.....	25
	5. QUANTITY & ESTIMATES:.....	25
	6. DELIVERY:.....	25
	7. TECHNICAL SPECIFICATION, TEST PROCEDURE & QUALITY ASSURANCE:.....	25
	8. GUARANTEE/ DEFECT LIABILITY PERIOD:	26
	9. CONTRACT PERFORMANCE SECURITY BANK GUARANTEES:.....	26
	10. SECURITY FOR SCRAP VALUE OF TRANSFORMER AND INDEMNITY BOND: -	26
	11. IMPORT LICENCE & FOREIGN EXCHANGE:.....	26
	12. S.S.I UNIT:	26
	13. ARBITRATION:.....	26
	14. FORCE MAJEURE:	27
	15. LIQUIDATED DAMAGES:	28
	16. ACCEPTANCE:	28
	17. SAFETY CODE:.....	28
	18. CLEANLINESS & PRECAUTIONS TO BE TAKEN WHILE DOING WORK AT SITE TO	

PREVENT DUST POLLUTION:.....	28
19. VENDOR CODE OF CONDUCT:	29
20. ECONOMIC LIMITS:.....	29
21. CREDITS:.....	30
(B) SERVICE PART:	30
2. LANGUAGE AND MEASUREMENT:	30
3. SCOPE OF WORK:.....	30
4. RATES:.....	30
5. TAX & DUTIES:.....	30
6. TERMS OF PAYMENT:.....	31
7. RISK AND COST:.....	31
8. INDEMNITY BOND:.....	31
9. ARBITRATION:.....	31
10. FORCE MAJEURE:	31
11. SUBLETTING OF WORK ORDER:.....	33
12. SAFETY CODE:.....	33
13. SECRECY CLAUSE:.....	33
14. ENVIRONMENTAL, HEALTH & SAFETY PLAN	34
15. VENDOR CODE OF CONDUCT:	34
16. COMPLETION PERIOD:	35
17.ACCEPTANCE:	35
SECTION – IV : GENERAL CONDITIONS OF CONTRACT (GCC).....	36
1. DEFINITION & INTERPRETATION.....	37
2. PRIORITY OF CONTRACT DOCUMENTS.....	39
3. AMENDMENT	40
4. LANGUAGE AND MEASUREMENT	40
5. EXAMINATION OF SITE & LOCAL CONDITIONS.....	40
6. TAXES & DUTIES	40
7. PAYMENT	41
8. TAX INVOICE SUBMISSION PROCEDURE AND CERTIFICATION.....	41
9. TIME ESSENCE OF CONTRACT	42
10. LIQUIDATED DAMAGE.....	42
11. INSPECTION & QUALITY CONTROL	42

12.	REPORTS AND INFORMATION	43
13.	STATUTORY OBLIGATIONS.....	43
14.	REPRESENTATION, WARRANTIES AND GUARANTEES.....	44
15.	EVENTS OF DEFAULTS	45
16.	RISK & COST.....	45
17.	LIMITATION OF LIABILITY.....	45
18.	TERMINATION.....	46
19.	GOVERNING LAW AND ARBITRATION	46
20.	FORCE MAJEURE	47
21.	NOTICE & COMMUNICATION.....	49
22.	SAFETY CODE	49
23.	CONTRACTOR'S OBLIGATIONS	49
24.	INDEMNITY	50
25.	SECRECY & CONFIDENTIALITY	50
26.	NON-EXCLUSIVITY	51
27.	SEVERABILITY.....	51
28.	ASSIGNMENT & SUBLETTING.....	51
29.	ASSIGNMENT BY THE COMPANY	52
30.	NO JOINT VENTURE	52
31.	WAIVER OF RIGHTS	52
32.	THE COMPANY'S RIGHT TO VARY QUANTITIES	52
33.	VENDOR CODE OF CONDUCT.....	52
34.	DISCLOSURE OF RELATIONSHIP.....	52
35.	MSME	53
36.	COVID GUIDELINES	53
37.	CLEANLINESS & PRECAUTIONS TO BE TAKEN WHILE DOING WORK AT SITE TO PREVENT DUST POLLUTION	53
38.	ENVIRONMENTAL, HEALTH & SAFETY	54
39.	ACCEPTANCE.....	54
	SECTION – V : Technical Specification & Scope of Work(attached after page no. 71).....	55
	SECTION – VI: PRICE BID.....	56
	ANNEXURE –I : BID FORM.....	61
	ANNEXURE – II : BIDDER'S DETAILS.....	62



ANNEXURE – III: ACCEPTANCE FORM FOR PARTICIPATION IN REVERSE AUCTION EVENT
65

FORMAT – 4.1	66
EMD BANK GUARANTEE	66
FORMAT – 4.2	67
PROFORMA OF CONTRACT CUM PERFORMANCE BANK GUARANTEE.....	67
FORMAT – 4.3.....	70
NON-DISCLOSURE AGREEMENT	70
FORMAT – 4.4	72
NO DEVIATION DECLARATION	72
FORMAT – 4.5	73
BIDDER’S COMMUNICATION DETAILS.....	73

CHECK LIST
(FOR BID SUBMISSION)

S. No	Item Description	Y/N
1	BID INDEX	
2	COVERING LETTER	
3	TENDER FEE	
4	EARNEST MONEY DEPOSIT	
5	POWER OF ATTORNEY	
6	BID FORM DULY SIGNED	
7	NON-DISCLOSURE AGREEMENT (NDA)	
8	NO DEVIATION DECLARATION (NDD)	
9	UNPRICED TECHNO-COMMERCIAL BID (IN SEPARATE SEALED ENVELOPE-1)	
10	PRICE BID (IN SEPARATE SEALED ENVELOPE-2)	
11	COMPLETE BID DOCUMENTS, ENVELOPE 1 & 2 (IN SEPARATE SEALED ENVELOPE-3)	

SECTION- I REQUEST FOR QUOTATION (RFQ)

1. GENERAL

BSES Yamuna Power Limited invites sealed tenders on a “Single Stage: Two Envelope” bidding basis (Envelope –I, Techno-Commercial Bid & Envelope-II, Price Bid) from eligible Bidders for “**Award of Work for Repairing of One no. 16/20MVA, 66/11 KV Power Transformer at Yamuna Vihar Grid in BYPL**”.

- 1.1. The bidder must qualify the requirements as specified in heading “Qualifying Requirements” of this RFQ.
1.2. The sealed envelopes shall be duly super-scribed as:

“NIT No.: CMC/BY/22-23/RS/SvS/AS/58 Dated: 11.01.2023”

for

“**Award of Work for Repairing of One no. 16/20MVA, 66/11 KV Power Transformer at Yamuna Vihar Grid in BYPL**”

- 1.3. Schedule of the tendering process is given below. Detailed Specification, Scope of Work, Terms & Conditions, etc. are mentioned in the Tender documents, which is available on our website.

Cost of Tender Documents (Non- Refundable)	Rs. 1180/- (including GST)
Earnest money Deposit	Rs 4 Lakh
Duration of the Work	4 Months
Tender documents on sale	11/01/2023 (Working days)
Date & time of Submission of Bid	01/02/2023 till 15:00 HRS
Date & time of opening of Techno-Commercial Bid	02/02/2023 at 15:30 HRS

- 1.4. The tender document can be obtained from address given below against submission of non-refundable demand draft of **Rs. 1180/-** drawn in favour of BSES Yamuna Power Ltd, payable at Delhi:

Head of Department
Contracts & Material Dept.
BSES Yamuna Power Limited
IIIrd Floor, “A” Block, Shakti Kiran Building
Karkardooma, New Delhi -110032

- 1.5. Only DD shall be accepted for tender fees.
1.6. The tender documents will be issued on all working days up to the date mentioned in clause 1.3. The tender documents & detail terms and conditions can also be downloaded from the website www.bsesselhi.com. In case tender documents are downloaded from the above website, then the bidder has to enclose a separate demand draft covering the cost of bid documents.

2. POINTS TO BE NOTED

- 2.1. Works envisaged under this contract are required to be executed in all respects up to the period of completion/ duration of work mentioned above.
2.2. Only those agencies, who fulfil the qualifying criteria as mentioned in clause 3 should submit the tender documents.
2.3. BSES YAMUNA Power Ltd reserves the right to accept/reject any or all bids without assigning any reason thereof and alter/amend/modify/add/reduce the amount and quantity mentioned in the tender documents at the time of placing Order
2.4. The bid will be summarily rejected if:
(a) **Earnest Money Deposit (EMD)** and **Tender Fee** of requisite amount is not deposited as per tender conditions
(b) Bid received after due date and time.

3. EMD

- 3.1. The bidder shall furnish, as part of its bid, an EMD of the requisite amount. The EMD is required to protect the Company against the risk of Bidder ‘s conduct which would warrant forfeiture. The EMD shall be denominated in any of the following forms:

- (a) BG from nationalized / Scheduled Bank, as per the format annexed in the tender document, in favour of BSES Yamuna Power Limited valid for 6(six) months from original due date of bid submission.
 - (b) Fixed Deposit (lien marked in favor of BSES YAMUNA POWER LTD) valid for 6(six) months from original due date of bid submission.
- 3.2. Please note that bank details as given below have been provided only for the purpose of making BG for EMD.
Beneficiary Name: BSES Yamuna Power Limited
Bank Name: State Bank of India (SBI)
A/c No.: 10277791808
IFSC Code: SBIN0009601
- 3.3. The EMD of the bidders who are not technically qualified shall be returned after the price bid opening.
- 3.4. Earnest money given by all the bidders who are techno commercially qualified except the lower bidder shall be returned within 8 (Eight) weeks after award of the work.
- 3.5. The EMD of the successful bidder shall be returned on submission of CPBG as per tender terms.
- 3.6. The EMD may be forfeited in case of:
(a) The Bidder withdraws its bid during the period of bid validity specified by the Bidder in the Bid Form or
(b) The successful Bidder does not
(i) Accept the Purchase Order/Work Order, or
(ii)Furnish the required CPBG as per tender terms
(c)The bidder is found to have submitted false or forged, any of the documents/certificates/information.

4. **QUALIFYING REQUIREMENTS (QR)**

The prospective bidder must meet all of the following qualifying requirements to be eligible to participate in the bidding.

QUALIFYING CRITERIA

1.1 (A) QUALIFICATION CRITERIA (QR): -

The prospective bidder must qualify all of the following requirements to be eligible to participate in the bidding. Bidders who meet the following requirements will be considered as the successful bidder and bidder who does not meet these requirements shall be disqualified.

1.2 (A.1) TECHNICAL QR:

1. The bidder should have own manufacturing/repairing facility in India for Power transformer of similar rating or higher since last 5 years.
 - a. Manufacturing & Factory incorporation certificate.
 - b. The details of manufacturing units, locations and work from where supply against this tender shall be proposed to be furnished.
2. The bidder must have supplied/repaired at least 5 no. Power transformers of same or higher ratings within last 5 financial years for major utilities/SEB/PSUs.
 - a. Summary list of executed work order
 - b. Purchase order copies.
 - c. Material delivery clearance certificate copy or delivery completion certificates or invoice copies)
3. Performance certificate for minimum 1-year satisfactory performance for repaired power Transformer of similar rating or higher rating supplied in last 5 years from utilities/SEB/PSUs. 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 consider irrespective of performance certificate issued by any third organization.

4. Bidder should have NABL accredited Lab for testing of Power Transformer. (In House NABL certificate and scope of testing to be furnished.)
5. The bidders should have qualified technical personnel at various stages of design, manufacture & testing of Power transformer. (Technical & QA personnel details to be furnished with complete organization chart)

1.3 (A.2) FINANCIAL QR:

- (i) The average annual turnover of the Bidder, in the preceding three (3) financial years (i.e., FY 19-20, FY 20-21 & FY 21-22) should not be less than Rs 10 (Ten) Crore. The bidder shall submit the Annual Turnover Report of the last 3 FYs duly certified by a Chartered Accountant. The Turnover certificate must have UDIN Number.
- (ii) Bidder should have valid Registration of GST & PAN.
- (iii) Entities that have been currently debarred/blacklisted by any Private/central/state government institution including electricity boards in India, any of the DISCOM in India, lacks qualifying pre-requisites to participate in this tender will not be considered. Accordingly, an undertaking by the Authorized Person along with other documents to be provided by the bidder on its letterhead in this regard, confirming in clear terms, that the contractor has not been debarred/blacklisted as on the date of submission of the bid. Bidders who is currently debarred/ blacklisted/ suspended by BYPL will not be considered in this tender.
- (iv) The bidder should give an undertaking on their letterhead that all the documents/certificates/information submitted by them against the tender are genuine/true/correct and the copies of documents have been made from the original document/s. Further, in case any of the documents/certificates/information submitted by the bidder is found to be false or, BYPL at its sole discretion shall be free to take all actions as permitted under law, including forfeiture of EMD and disqualification from participation in the future tenders of BYPL & Its group companies for an indefinite period or period as may be decided by BYPL.
- (v) The bidder should submit an undertaking for "No Litigation" / no legal case is pending with BYPL or its Group Companies. Bidders having any litigation/ legal case pending with BYPL shall not be considered qualified for this tender.

(A.3) OTHER REQUIREMENTS:

- (a) Company reserves the right to carry out technical capability/ infrastructure assessment of the Bidders by factory/office/site inspection or by any other means and company's decision shall be final in this regard.
- (b) The bidder shall submit all necessary documentary evidence to establish that the Bidder meets the above qualifying requirements including but not limited to the following:
 - i. Last three Financial Years (FY 19-20, FY 20-21 & FY 21-22) audited financial statement.
 - ii. Memorandum & Articles of Association of the Company/ Partnership Deed of the Firm /other registration documents, as applicable
 - iii. Organization Chart of the Bidders Company/Organization
 - iv. Work order / Agreement copies along with performance certificates in support of relevant] experience
- (c) The bidder should enclose performance certificates in support of relevant experience.
BYPL may ask for such other documents as it deems fit for substantiating/ justifying the submissions made by the bidder.

2 PRE-BID MEETING:

A pre-Bid meeting shall be organised physically or digitally (through web conferencing platform) at the time and date as specified in the tender documents in the presence of those bidders or their authorized representatives who may choose to be present.

The details of the proposed Zoom Meeting (if applicable) are given below: -

Time : - 24.01.2023, 11:30 HRS India

Meeting ID :- 867 289 9211

Password :- 5678@

All queries related to this tender must reach to C&M Department of BYPL at least three days before the date of the pre- bid meeting. All the bidder's queries shall be replied to in the pre-bid meeting. In case any change is required in the tender document the same shall be effected in the form of corrigendum to this tender. The bidder or their representatives who intend to bid and who have either purchased tender documents or will pay tender fees for downloaded documents are invited to attend the pre-bid meeting. Corrigendum, if any, to the tender document shall be hosted on the website subsequent to the pre-bid meeting. Bidders are requested to submit their offer strictly in line with this tender document& corrigendum if any.

3 BID SUBMISSION

6.1. The bidders are required to submit the bid in 2(two) parts and in original& duplicate (total 2 copies) at the following address:

**Head of Department,
Contracts & Material Department,
BSES Yamuna Power Limited,
III Floor, "A" Block, Shakti Kiran Building,
Karkardooma,
New Delhi-110032.**

6.2. Technical bid documents along with commercial terms and conditions shall also be submitted in Pen Drive. No price bid shall be submitted in Pen Drive. The PEN Drive should be owned by Bidder. The bidder shall ensure that the Pen Drive is free from all viruses/malware. The pen drive once submitted shall not be returned.

6.3. 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 Techno-Commercial Bid and Part-B PRICE BID** and these sealed envelopes should again be placed in another sealed envelope which should be super scribed with —"**Tender Notice No.& Due date of opening**". The same shall be submitted before the due date & time specified.

6.3.1 PART A: TECHNO-COMMERCIAL BID, UNPRICED (Envelop-1):

The first sealed envelope shall contain an Unpriced Techno-commercial bid in paper form (hard copies) and envelope super-scribing **PART-A Techno-Commercial Bid**. The details to be submitted in techno-commercial bids are given below:

- a) General information about bidder
- b) Documentary evidence in support of all the qualifying criteria as per clause 4.0,
- c) EMD of requisite amount
- d) Non-refundable separate demand draft for Rs. 1180/- In case the forms are downloaded from the website
- e) Technical Literature if any.
- f) Details of experience of works of the same or similar nature. Copy of work orders and performance certificates.
- g) Acceptance to Commercial Terms and Conditions viz Delivery schedule/period, Payment terms, BG etc
- h) Any other relevant document to support bidder meeting QR

Techno-Commercial Bid should not contain any cost information whatsoever and shall be submitted within the due date. After techno-commercial evaluation, the list of techno-commercially qualified bidders will be posted immediately on the BSES website.

The bidder should submit complete tender document along with all corrigendum (if any) published against this NIT at our website, signed and stamped with bidder's seal as an acceptance of all the terms & conditions of the Tender.

6.3.2 PART B: PRICE BID (Envelop-2):

The second sealed envelope shall contain Price bids in paper form (hard copies and envelope super-scribing **PART-B Price Bid** on it. The details to be submitted in the Price bid are given below:

- (a) **PRICE BID** shall Comprise of Prices **strictly** in the Format enclosed in SECTION VII. Any change in price bid format, content may lead to rejection of the bid.
- (b) Price Bid will be opened after techno-commercial evaluation of all the bids and only of the qualified bidders.

6.3.3 FINANCIAL BID EVALUATION THROUGH REVERSE AUCTION

Reverse Auction (RA) shall be conducted for finalization of contract and the details of the price bid shall not be shared with bidders. The qualified bidders will participate in reverse auction through SAP-SRM tool. The RA process shall be governed by the terms and conditions enclosed as Annexure-III in this tender document. Training/details shall be provided to bidders before participation in auction. In case RA is not conducted /concluded for any reasons, a "final no regret" financial bid in a sealed envelope will be called for from all qualified bidders. Notwithstanding anything stated above, the Company reserves the right to assess bidders' capability to perform the contract, should the circumstances warrant such assessment in the overall interest of the Company. In this regard, the decision of the Company shall be final and binding on the bidders.

7. TIME SCHEDULE

The activities and their timelines are given hereunder which needs to be adhered by the bidders.

S. No.	Activity	Description	Due date
1	Submission of Technical & Commercial Queries, if any	All Queries related to NIT	23.01.2023
2	Pre-Bid Meeting	Discussion on pre-bid queries	24.01.2023
3	Submission of Techno-Commercial & Price Bid	Unpriced Techno-Commercial & Price Bid in separate sealed envelopes	30.01.2023
4	Opening of Techno-Commercial Bid	Opening of PART-A	31.01.2023
5	Opening of Price Bid	Opening of PART-B of only the techno-commercially qualified bidders (List of bidders will be published at our website)	To be informed separately
6	Reverse Auction	As per RA terms	Schedule will be intimated to eligible bidders through email from email id: BYPL.Eauction@relianceada.com

8. AWARD DECISION

- 8.1. Company intends to award the business on a lowest bid basis, so bidders are encouraged to submit the bid competitively. The decision to place order/LOI solely depends on Company on the cost competitiveness across multiple lots, quality, delivery and bidder 's capacity, in addition to other factors that Company may deem relevant.
- 8.2. The Company reserves all the rights to award the contract to one or more bidders who meet the execution requirement or nullify the award decision without assigning any reason thereof.
- 8.3. In case the performance of any contractor is found unsatisfactory during the execution process, the award will be cancelled and BYPL reserves the right to award the work to another contractor(s) who will be found eligible/fit.
- 8.4. The abnormally higher or abnormally lower bids shall not be considered with respect to estimated cost. The criteria decided by BYPL on this shall be final and binding on the bidders.
- 8.5. The bidding firms are advised to quote their Margin / Administrative Service Charges accordingly. BYPL reserves the right to reject the bids quoted with abnormally higher or abnormally lower individual activity rates. The criteria decided by BYPL on this shall be final and binding on the bidders and will not be open for discussion under any circumstances.

9. **MARKET INTEGRITY**

We have a fair and competitive marketplace. The rules for the bidders are outlined in the Terms & Conditions of the tender documents. Bidders must agree to these rules prior to participating in the tender. In addition to other remedies 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 & Conditions. Bidder(s) who violate the marketplace rules or engage in behaviour that disrupts the fair execution of the marketplace restricts a bidder from participation in future tenders of BYPL to a length of time as decided by BYPL, depending upon the seriousness of the violation. Examples of violations include, but are not limited to:

- Failure to honour prices submitted to the market place.
- Breach of the terms published in Request for Quotation/NIT
- Misrepresentation of facts, submitting false and fabricating documents

10. **CONFIDENTIALITY**

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

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

Bidder(s) who do not honour these confidentiality provisions will be excluded from participating in future bidding events.

The bidder shall sign a Non-Disclosure Agreement (NDA) in the format attached in tender document and submit along with its bid.

11. **CONTACT INFORMATION**

Technical & Commercial clarification, if any, regarding this tender shall be sought in writing and sent by e-mail to the following e-mail IDs:

Address	Name/ Designation	Email Address / Phone Number
Technical		
Head (EHV) BSES Yamuna Power Ltd , New Delhi	Mr. Prem Gomber Head of Department	Prem.gomber@relianceada.com 01141247029
	All technical queries shall also be marked copy to Commercial team as per the details below.	
Commercial		
C&M Dept, 3rd Floor, A Block, BSES Yamuna Power Ltd Shakti Kiran Building, Karkardooma, New Delhi 110032	Mr. Abhinav Sharma, GM – (C&M)	Abhinav.k.sharma@relianceada.com / 0114124 9315
	Mr.Santosh Srivastava, Head – (Contracts)	Santosh.V.Srivastava@relianceada.com / 0114124 9850
	Mr. Robin Sebastian, Head – (C&M)	Robin.Sebastian@relianceada.com / 0114124 9230

SECTION-II : INSTRUCTIONS TO BIDDERS (ITB)

SECTION-II
INSTRUCTIONS TO BIDDERS (ITB)

1. GENERAL

BSES YAMUNA Power Ltd (BYPL), hereinafter referred to as the “Company” is desirous for awarding work of **“Award of Work for Repairing of One no. 16/20MVA, 66/11 KV Power Transformer at Yamuna Vihar Grid in BYPL”** as notified in this tender document.

- 1.1 All the Bids shall be prepared and submitted in accordance with these instructions.
- 1.2 Bidder shall bear all costs associated with the preparation and delivery of its Bid, and the Company will in no case shall be responsible or liable for these costs.
- 1.3 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.
- 1.4 The Company reserves the right to request for any additional information/documents and also reserves the right to reject the proposal of any Bidder, if in the opinion of the Company, the data in support of RFQ requirement is incomplete.
- 1.5 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 Company’s decision in regard to the responsiveness and rejection of bids shall be final and binding without any obligation, financial or otherwise, on the Company.
- 1.6 The company reserves the right to split the order among various successful bidders in any manner it chooses without assigning any reason whatsoever.

2. SCOPE OF WORK

Detailed specification/scope of work is provided in Section-V of this tender document.

3. DISCLAIMER

- 3.1. This NIT is not an agreement and further it is neither an offer nor an invitation by BYPL to bidders or any other person for award of contract. The purpose of this NIT is to provide bidders information that may be useful to them in the preparation and submission of their bids.
- 3.2. This Document includes statements, which reflect various assumptions, which may or may not be correct. Each Bidder 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.
- 3.3. Neither Company 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 Company or its employees, or otherwise arising in any way from the selection process for the Work.
- 3.4. Though adequate care has been taken while issuing the Tender document, the Bidder should satisfy itself that Documents are complete in all respects. Intimation of any discrepancy shall be given to this office immediately.
- 3.5. 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).
- 3.6. It shall be deemed that by submitting a bid, a bidder agrees to release BYPL and its employees, agents and advisors irrevocably unconditionally fully and finally from any and all liability for any claims losses damages costs expenses or liabilities in anyway related to or arising from exercise of any rights and all performance of any

obligations under this NIT and or in connection with the bid process to the fullest extent permitted by applicable law and waives any and all rights and all claims it may have in this respect whether actual or contingent whether present or in the future

- 3.7. BYPL and its employees and advisors also accept no liability of any nature whether resulting from negligence or otherwise arising from reliance of any bidder upon the contents of this NIT. BYPL may in its absolute discretion but without being under any obligation to do so, update amend or supplement the information assessment statement or assumptions contained in this NIT.
- 3.8. The issue of this tender document does not imply that BYPL is bound to qualify any bidder or to award the contract to any bidder. BYPL reserves the right to reject all or any of the bids without assigning any reasons whatsoever.

4. COST OF BIDDING

The Bidder shall bear all cost associated with the preparation, submission and processing of its Bid and the company will in no case be responsible or liable for the costs.

5. TENDER DOCUMENTS

- 5.1. 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:

“Check List, Sections, Annexure & Formats as elaborated in CONTENT of this NIT.”

- 5.2. The bidder is expected to examine the tender documents, including all Instructions, Forms, Terms and Specifications. Failure to furnish all information required by the tender documents or submission of a bid not substantially responsive to the tender documents in every respect may result in the rejection of the Bid.

6. AMENDMENT OF TENDER DOCUMENTS

- 6.1. At any time prior to the deadline for submission of Bids, the Company may for any reason(s), whether at its own initiative or in response to a clarification requested by a prospective Bidder, alter/amend/modify the tender documents by corrigendum /amendment.
- 6.2. The corrigendum / amendment shall be part of tender document, pursuant to Clause 5.1, and it will be notified
(a) by way of uploading the corrigendum/amendment on BSES website (in case of public tender),
(b) in writing by e-mail to all the Bidders who have received the Bidding Documents by email. (in case of limited tender)
All such corrigendum & amendments will be binding on the bidders.
- 6.3. In order to provide prospective Bidders a reasonable time in which to take the Amendment into account in preparing their Bids, the Company may, at its discretion, extend the deadline for the submission of Bids.

7. PREPARATION OF BIDS & LANGUAGE

The Bid prepared by the Bidder, and all correspondence, documents etc. relating to the Bid exchanged by the Bidder and the Company shall be written in English Language. Any printed literature furnished by the Bidder may be written in another Language, provided that this literature is accompanied by English translation, in which case, for purposes of interpretation of the Bid. In case of ambiguity in the English translation, interpretation of the Company as regards to translation will be final.

8. DOCUMENTS COMPRISING THE BID

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

- (a) Techno-Commercial Bid & Price Bid as elaborated in RFQ. (STRICTLY AS PER FORMAT)
- (b) All the Bids must be accompanied with the required EMD & Tender Fees against each tender.

9. BID FORM

The Bidder shall complete "Original" Bid Form and submit it along with details mentioned in Techno-Commercial bid (without filling price).

10. BID PRICES

Bidders shall quote for the entire Scope of work with prices for individual items. The bidder is required, at his expense, to obtain all the information he may require to enable him to submit his tender including necessary visits to the site to ascertain the local conditions, procurement of necessary materials, labour, etc., requirements of the local/government/public authorities in such matters.

11. BID CURRENCIES

Prices shall be quoted in Indian Rupees Only.

12. PERIOD OF VALIDITY OF BIDS

- 12.1. Bids shall remain valid & open for acceptance for a period of 180 days from the date of opening of the Bid.
- 12.2. Notwithstanding above, the Company may solicit the Bidder 's consent to an extension of the Period of Bid Validity and the bidder shall be liable to extend the same at the sole cost and consequences of the bidder and no claim from the company in this regard shall be maintainable.

13. ALTERNATIVE BIDS

Bidders shall submit Bids, which comply with the Tender 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 Tender Documents.

14. FORMAT AND SIGNING OF BID

- 14.1. The original Bid Form and accompanying documents (as specified in Clause 9.0), clearly marked "Original Bid", must be received by the Company at the date, time and place specified in Section-I, RFQ.
- 14.2. The original 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. All pages of the bid shall be signed by the signatory accompanied with seal of the Agency.
- 14.3. 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 signed by the person or persons signing the Bid.

15. SEALING AND MARKING OF BIDS

- 15.1. Bid submission: One original (hard copies) and one duplicate (total two copies) of all the Bid Documents shall be sealed and submitted to the Company before the closing time for submission of the bid.

15.2. 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 Company to collect the proposals from Courier/Airlines/Cargo Agents etc shall be entertained by the Company.

16. DEADLINE FOR SUBMISSION OF BIDS

16.1. The Original bid must be timely received by the company at the address specified in Section –I, RFQ.

16.2. The Company may, at its discretion extend the deadline for the submission of bids by amending the Tender Documents in accordance with Clause 6.0, in which case all rights and obligations of the Company and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

17. ONE BID PER BIDDER

Each Bidder shall submit only one Bid by itself. A Bidder who submits or participates in more than one Bid will cause all those Bids to be rejected.

18. LATE BIDS

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

19. MODIFICATIONS AND WITHDRAWAL OF BIDS

The Bidder is not allowed to modify or withdraw its Bid after the due date of bid submission.

20. EVALUATION OF BID

20.1. The bids will be evaluated techno-commercially on compliance to tender terms and Conditions.

20.2. BYPL reserves the right to ask the bidders to provide any additional information including breakup of the prices as quoted by them against line items.

21. CLARIFICATION OF BIDS

To assist in the examination, evaluation and comparison of Bids, the Company 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. PRELIMINARY EXAMINATION OF BIDS / RESPONSIVENESS

22.1. Company will examine the Bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the Bids are generally in order.

22.2. 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.

- 22.3. Company will determine the substantial responsiveness of each Bid to the Tender Documents including execution capability and acceptable quality of the services offered. A substantially responsive Bid is one, which conforms to all the terms and conditions of the Tender Documents without deviation.
- 22.4. Bid determined as not substantially responsive will be rejected by the Company and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

23. EVALUATION AND COMPARISON OF BIDS

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

- 23.1. 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 later on the Techno-Commercial Proposals and the Conditionality 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.
- 23.2. The Company'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) Contract completion schedule
 - (b) Conformance to Qualifying Criteria
 - (c) Deviations from Tender Documents
 - (d) Conformity and compliance to the conditions/details provided in pre-bid meeting
 - (e) Change in the quantity from mentioned in the tender
- 23.3. The cost of all quantifiable deviations and omissions from the specification, terms and conditions specified in Tender Documents shall be evaluated.
- 23.4. The Company will make its own assessment of the cost of any deviation for the purpose of ensuring fair comparison of Bids.
- 23.5. Adjustments in price, if any, based on the above procedures, shall be made for the purposes of comparative evaluation only to arrive at an "Evaluated Bid Price". Bid Prices quoted by Bidders shall remain unaltered.

24. CONTACTING THE COMPANY

- 24.1. From the time of Bid opening to the time of contract award, if any Bidder wishes to contact the Company on any matter related to the Bid, it should do so in writing.
- 24.2. Any effort by a Bidder to influence the Company and/or in the Company's decisions in respect of Bid evaluation, bid comparison or Contract Award, will result in the rejection of the Bidder's Bid.

25. COMPANY'S RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS

The Company reserves the right to accept or reject any Bid and to annul the Bidding process and reject all Bids at any time 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 Company's action.

26. AWARD OF CONTRACT

The Company will award the Contract to the successful Bidder whose Bid has been determined to be the lowest-evaluated responsive Bid, provided the Bidder has been determined to be qualified to satisfactorily perform the Contract. Company reserves the right to award order to other bidders in the tender, provided it is required for need of the work. The full or part of the contract may be awarded to other bidder(s) on differential rates.

27. THE COMPANY'S RIGHT TO VARY QUANTITIES

The Company reserves the right to vary the quantity i.e. increase or decrease the Numbers/ quantities without any change in terms and conditions before the award of Contract. Further BYPL may increase or reduce the area/ scale of operations / increase or decrease the Numbers/ quantities after the start of work execution under the contract and the size of contract / contract value shall be adjusted accordingly. In case of decrease in base resources decided mutually then contract value will be adjusted accordingly.

28. 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 successful for award of work/order.

The successful Bidder shall be required to furnish acceptance of LOI / notification of award within 7 days of issue of the letter of intent /Notification of Award by Company.

29. CORRUPT OR FRAUDULENT PRACTICES

29.1. The Company requires that the Bidders observe the highest standard of ethics during the entire period of work execution under the Contract. In pursuance of this policy, the Company:

(a) Defines, for the purposes of this provision, the terms set forth below as follows:

"Corrupt practice" means behaviour 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 "Fraudulent practice" means a misrepresentation of facts in order to influence a award process or the execution of a contract to the detriment of the Company, 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 Company 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.

29.2. Furthermore, It shall be the responsibility of the Bidders to read and understand & aware of the provision stated in the Terms and Conditions of tender before participating in the tender.

30. 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 Company's processing of Bids or award decisions may result in the rejection of the Bidder's Bid.

SECTION – III : SPECIAL CONDITIONS OF CONTRACT (SCC)

SECTION – III:
SPECIAL CONDITIONS OF CONTRACT (SCC):

COMMERCIAL TERMS & CONDITIONS:

1. FOR SUPPLY PART

The scope shall include supply of materials as per rate annexure for repairing of power transformer of following rating:
1 no. 16/20 MVA 66/11 KV, Sr.no. B-27148 and GEC make power transformer lying at Yamuna Vihar Grid at BYPL.
Further for disposal of Hazardous Waste, as per the guidelines of Central Pollution Control

Board for handling and storage of hazardous waste that:

1. Storage facility should have appropriate containment system.
2. The container / enclosure holding hazardous waste should be marked #Hazardous Waste #in red colour in English / Hindi.
3. You must take precautions to prevent any accidental ignition or reaction of ignitable or reactive waste.
4. The container system should be leak proof and able to drain / remove liquids.
5. Used/waste oil is to be sold only through registered recycler/re-refiner.

Note: Please note that the subject PTR is under insurance claim. "M/s Howden Insurance Brokers India Pvt Ltd" is BYPL's Insurance consultant throughout the completion of this work and they will inform you with a copy to BYPL's Insurance representative Mr. Priti Agarwal for the involvement of Surveyor at various stages.

Their name and contact details are mentioned as below: -

Howden Insurance Brokers India Pvt. Ltd.

Lalit Mohan / 9811944993

Lalit.mohan@howdenindia.com

BSES Yamuna Power Limited

Priti Agarwal / Phone No. 011-39997745

E-mail: Priti.agarwal@relianceada.com

Please note that in addition to the work procedure given under clause nos.# 5 & 7 the repairing work of these PTRs shall be strictly carried out in accordance with the guidelines / instruction/ clearances by the above officials.

The insurer may desire to auction the scrap material to ascertain the competitive scrap value quoted by the successfully bidder at any stage and the difference thus arises if any will be adjusted in the contract value accordingly. The above shall be entirely based on the decision of the insurer and BYPL will not be liable for any losses on this account. The successful bidder shall fully co-operate with this procedure unconditionally.

2. RATES:

The item wise rates for above Scope of work shall be as finalized through this tender. The rates shall be firm for the entire duration of work carried out by you the order and are not subject to escalation for any reason whatsoever. The prices are also inclusive of Loading, Unloading to and fro transportation and insurance and up to the delivery at our site or store.

3. TAX & DUTIES:

Prices shall be inclusive of all taxes and duties including labour cess (Except GST Tax). However, IT as per applicable rate will be deducted from your bills as Tax Deduction at Source (TDS).

GST Tax at actual shall be paid on submission of GST Tax Registration and self-declaration on your letter head stating that you have deposited/or will deposit the Tax as per the applicable GST tax laws. You shall furnish your GST tax registration number.

Any statutory variations i.e. increase/decrease in Taxes / Duties introduced by central Govt. / State Govt. of shall be reimbursed /recovered to/from Contractor against documentary evidence and proof.



4. TERMS OF PAYMENT:

100% payment shall be made to you after 30 days of receipt of repaired Transformer at our stores/ Site and on submission of your Bill along with MRN, JVR, Stage Inspection, Scrap Invoice, Delivery Challan, MDCC, P.O. Copy.

1. The Scrap material shall be retained** by the contractor and the credit towards the same shall be given to BYPL for above Power Transformer.
2. The credit against scrap shall be adjusted in the invoices to be raised.

** Scrap will be auctioned by insurance company , contractor will participate in the auction as per their condition , if he is the lowest bidder .

5. QUANTITY & ESTIMATES:

All the materials in required quantity shall be fitted on the repaired Power Transformer.

The quantity of material shall be as signed off by BSES 's nominated third party inspection agency. This inspection agency shall be verifying JVR, stage inspection & Final inspection reports on BSES's part.

The actual quantity shall be arrived on the basis of quantity of material to be used decided during joint inspection and the unit rate as finalized through this tender.

You shall prepare provisional estimate for repair of each transformer after design approval of damaged transformer from our Engineering Department and submit it to our C&M department for approval. The estimate shall be based on JVR & approved design and the unit rates finalized.

Based on the approval of provisional estimates, the vendor shall go ahead with the coil manufacturing process.

After stage inspection, the vendor shall submit the final estimates (mentioning actual wt. of HV & LV Leg coil recorded at the time of stage inspection) to C&M for final approval.

6. DELIVERY:

The repaired transformer shall be delivered within 4 months for 66/11 KV 16/20 MVA PTR from the date of first JVR. This is the maximum time which will be allowed after which the LD shall be applicable.

7. TECHNICAL SPECIFICATION, TEST PROCEDURE & QUALITY ASSURANCE:

The Detailed Technical Specification for repairing of Power Transformers is enclosed herewith. The Contractor shall submit the test Instruction/Procedure/Test Format before starting the work for our approval. The Contractor shall submit all the Test Reports & joint inspection report in the approved format.

Contractors shall submit detail quality plan which shall be as per BSES format with all reference and acceptance documents for our review and approval. BSES shall clearly identify Customer hold point where our inspectors shall fully involve for inspection and clearance of the transformer.

JVR shall be conducted at contractor's works within 10 days of lifting of the transformer from our site/ store.

Further, within 7 days of JVR the contractor shall submit the design calculation for the transformer to our Engineering Dept. and obtain the approval of Design. The Performa for submitting the design calculation shall be as given by our Engineering Dept.

The Vendor shall not sell old HV/ LV winding and other parts etc. without permission from Head C&M .The scrap must be disposed by the vendor in front of BYPL & BYPL's representative.

Contractors shall not process further without inspection and clearances by our inspector on each of this identify Customer hold point stages.

It shall be noted that the quality of repairing work and your services shall be fully to our satisfaction and in case not found to be up to the mark, we reserve the right to cancel this order.

BSES representative to fully associate during complete repairing process i.e. inspection at time of lifting, defusing, inspection at the time of repair, assembly and at the time of final testing/inspection. The bidders shall raise inspection calls / intimation for customer clearance accordingly at all the stages including JVR during opening of the transformer, scrap assessment, stage inspection points and final acceptance inspection. The bidder shall not proceed without obtaining written clearance from BYPL.

All routine tests shall be carried out by the Contractor without any extra charge to the Company, unless expressly



agreed otherwise. The tentative schedule for tests shall be informed to Company well in advance, to enable the buyer's representative to visit Contractors factory for witnessing the tests.

8. GUARANTEE/ DEFECT LIABILITY PERIOD:

The Contractor shall guarantee that workmanship shall be of finest quality and the material used shall be suitable for the purpose for which the same is to be used. The Contractor shall also guarantee that all the material shall be in strict compliance with the Technical Specifications and as per the approved QAP and the requirements agreed upon. The Contractor shall provide guarantee for a period of 60 months from the date of commissioning or 66 months from the date of receipt of the transformer, whichever is earlier. The Contractor shall rectify, repair or replace (at our options) free of charge any such defective part/equipment. If any such equipment is to be returned to your plant for repair etc. during the guarantee period, then the expenses for transportation to and from your plant or any other place of repair service, travel and living expenses etc. shall be necessarily borne by Contractor. The repaired transformer shall be shifted in a condition ready to energize.

9. CONTRACT PERFORMANCE SECURITY BANK GUARANTEES:

9.1 CONTRACTOR shall furnish the Security Performance Bank Guarantee in the prescribed format 4.2 within 1 month from the date of issue of Order for due performance of the provisions of Purchase and Work Order.

9.2 The Security Performance Bank Guarantee shall be of **10%** of the total initial value of order and shall be valid till defect liability period, plus three (3) months towards claim period.

9.3 The Security Performance Bank Guarantee shall be issued from any nationalized bank as per company format.

9.4 The Company shall reserve the right to invoke the bank guarantee unconditionally and without recourse to the Contractor, if there is failure to perform any part of the Contract for whatsoever reason. This clause is pertaining to performance of contractual obligations and the decision of Company shall be final in this regard.

9.5 In the event, in Company sole judgment, the Contractor has fulfilled all its obligations under this Contract, Company shall release the security performance bank guarantee without interest, within seven (7) days from the last date up to which the performance bank guarantee is to be kept valid or if it is assessed by the Company that Contractor has not fulfilled its obligation then the performance bank guarantee shall be extended by the Contractor till that period as requested by the Company.

10. SECURITY FOR SCRAP VALUE OF TRANSFORMER AND INDEMNITY BOND: -

Contractor has to give Indemnity Bond for the value of Rs. 50 Lacs before lifting the trf. For repairing as per the approved format. Also Contractor has to submit Rs. 10 Lacs bank guarantee per transformer towards safe custody of the transformer at their works before lifting the same for repairing as per the approved format. Also the vendor shall submit transit insurance copy before lifting and it shall remain valid till the delivery of rep. trf. Transformers shall be delivered to the vendor for repairing till such time as the vendor deposits security as detailed above the repair contract may be deemed to be cancelled if security is not deposited within ten days without any further reference to the vendor.

11. IMPORT LICENCE & FOREIGN EXCHANGE:

Import license /foreign exchange, if required, by the Seller for executing this order shall be arrangement by the Seller. Buyer shall not be responsible for the same.

12. S.S.I UNIT:

If the SELLER'S establishment is covered under the purview of Small Scale Industrial Undertakings (SSI Unit) and Ancillary Industrial Undertakings, he shall declare so within one week of receipt of the Purchase Order of its status failing which it will be presumed that it is a non-SSI unit.

13. ARBITRATION:

To the best of their ability, the parties hereto shall endeavour to resolve amicably between themselves all disputes arising in connection with the proposed Agreement. If the same remain unresolved, within fifteen (15) days of the matter being raised by either party, either party may refer the dispute for settlement by arbitration. The arbitration



to be undertaken by a sole arbitrator to be appointed by the company. The decision of the arbitrator is final and binding upon both the parties. The arbitration proceeding shall be conducted in accordance with the provisions of the Indian Arbitration & Conciliation Act, 1996 and the venue of such arbitration shall be New Delhi only.

14. FORCE MAJEURE:

14.1 General:

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

Such event or circumstance, despite the exercise of reasonable diligence, could not have been prevented, avoided or reasonably foreseen by such Party;

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. 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.

Such event is not the direct or indirect result of the failure of such Party to perform any of its obligations under this Contract; and 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 Article 14.1

14.2 Specific Events of Force Majeure:

Subject to the provisions of Article 14.1, Events of Force Majeure shall include only the following to the extent that they or their consequences satisfy the above requirements:

The following events and circumstances:

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, and Explosions or fires Public disorder, insurrection, rebellion, sabotage, riots or violent demonstrations of a local character; Declaration of the Site as war zone.

Any order, regulation, directive, requirement from any Governmental, legislative, executive or judicial authority.

14.3 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:

Immediately notify the other party in writing of the force majeure events within 2 working days of the occurrence of the force majeure event

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

Use all reasonable efforts to resume full performance of the obligation as soon as practicable

Keep the other party informed of all such efforts to resume full performance of the obligation on a regular basis

Provide prompt notice of the resumption of full performance or obligation to the other party.

14.4 Mitigation of events of force majeure: The Contractor

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 applying other ways in which to perform 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 Company 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.



14.5 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 Contract. 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.

14.6 Terminations 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 1 (one) month during the Term of the Contract the Contract shall be terminated at the discretion of the Company and neither Party shall be liable to the other for any consequences arising on account of such termination.

15. LIQUIDATED DAMAGES:

The delivery period indicated above shall be guaranteed. In case of a delay, you shall be liable to pay us by way of liquidated Damages @ 1 % of the repairing cost of the Transformer for each weeks delay or part thereof subject to a maximum of 10% of the total value of Order/ for undelivered portion thereof.

16. ACCEPTANCE:

Acceptance of this order implies and includes acceptance of all terms and conditions enumerated in this work order in the technical specification and drawings made available to you, detailed scope of work, detailed technical specification & detailed equipment, drawing. Complete scope of work and the Contractors and Company contractual obligation are strictly limited to the terms set out in the order. No amendments to the concluded order shall be binding unless agreed to in writing for such amendment by both the parties.

17. SAFETY CODE:

The Contractor shall ensure adequate safety precautions at site as required under the law of the land to facilitate safe working during the execution of work and shall be entirely responsible for the complete safety of their workmen as well as other workers at site and premises during execution of contract.

The contractor shall observe the safety requirements as laid down in the contract and in case of sub-contract (only after written approval of company), it shall be the responsibility of main contractor that all safety requirements are followed by the employees and staff of the sub-contractor.

The contractor employing two hundred employees or more, including contract workers, shall have a safety co-ordinator in order to ensure the implementation of safety requirements of the contract and a contractor with lesser number of employees, including contract workers, shall nominate one of his employees to act as safety co-ordinator who shall liaise with the safety officer on matters relating to safety and his name shall be displayed on the notice board at a prominent place at the work site.

The contractor shall be responsible for non-compliance of the safety measures, implications, injuries, fatalities and compensation arising out of such situations or incidents. In case of any accident, the contractor shall immediately submit a statement of the same to the owner and the safety officer, containing the details of the accident, any injury or casualties, extent of properly damage and remedial action taken to prevent recurrence and in addition, the contractor shall submit a monthly statement of the accidents to the owner at the end of each month.

18. CLEANLINESS & PRECAUTIONS TO BE TAKEN WHILE DOING WORK AT SITE TO PREVENT DUST POLLUTION:

All debris shall be removed and disposed of at assigned areas on daily basis. Surplus excavated earth shall be disposed of in an approved manner. In short, the contractor shall be fully responsible for keeping the work site clean at all times. In case of non-compliance, company shall get the same done at Contractor's risk and costs. While carrying out any civil work including road/ pit digging, plinth/ fence making, road restoration etc contractor shall adhere to below mentioned guidelines.

1. No construction material/ debris shall be stored on metalled road.
2. Wind breakers of appropriate height on all sides of ear marked area using CGI sheets shall be raised to ensure



that no construction material dust fly outside ear marked area.

3. The construction material i.e. coarse sand, stone aggregates, excavated earth, cement and any other material to and from the site shall be transported under wet and covered condition to ensure their non-slippage en-route to avoid air contamination.
4. The contractor shall provide mask and helmet to every worker working on the construction site and involved in loading/unloading and carriage of construction material and construction debris to prevent inhalation of dust particles.
5. Over loading of vehicles shall be strictly prohibited
6. The construction material at site shall be stored under wet and covered condition.
7. The dumping sites for temporarily storing the excavated earth shall be properly levelled, watered and rehabilitated by plantation to avoid flying of dust.
8. The worker at the site shall be sensitized to adopt / observe the dust controlled measures in true spirit.
9. If any C&D waste is generated at site the same will be transported to the C&D waste site only and the record for the same will be maintained by the agency.
10. Wet jet in grinding and stone cutting is being permitted at site.
11. The necessary record for dust control is being maintained by the department on day to day basis and being monitored regularly.

The Execution vendors shall be responsible for all the preventive and protective environmental steps as per guidelines. Any violations from the above guidelines have been viewed very seriously by the authorities. Concerned agency is liable for the penalties / other action by the authorities, The Agency shall indemnify BYPL from all liabilities on this account.

19. VENDOR CODE OF CONDUCT:

Contractor confirms to have gone through the Policy of BYPL on legal and ethical code required to be followed by contractor 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. Contractor 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.

In event of any such breach, irrespective of whether it causes any loss/damage, company (BYPL) shall have the right to recover loss/damage from Contractor.

The Contractor hereby indemnifies and agrees to keep indemnified the company (BYPL) against any claim/litigation arising out of any violation of Vendor Code of Conduct by the Contractor or its officers, agents & representatives etc.

20. ECONOMIC LIMITS:

The net repairing cost of individual transformer shall be within the Economic Limit decided by BSES. It shall be at BSES's discretion to accept/ reject the transformer for repairing based on the provisional estimate submitted the vendor. Economic limit shall be decided after rate finalization.



21. CREDITS:

The Scrap material shall be retained by the contractor and the credit towards the same shall be given to BYPL for Power Transformer. The Rate of Scrap material shall be as decided through tender. The rates shall be inclusive of all applicable taxes & duties. The credit against scrap shall be adjusted in the invoices to be raised.

(B) SERVICE PART:

1. Definition:

The following terms & expressions as used in this order shall have the meaning defined and interpreted here under:

1.1 Company: The terms Company shall mean BSES Yamuna Power Limited having its office at BSES Shakti kiran Building, New Delhi 110 032 and shall include its authorized representatives, agents, successors and assigns.

1.2 Contractor: contractor shall mean the successful Tendered / vendor to whom the contract has been awarded

1.3 Rates: The terms Rates shall mean the rate as mentioned for the work under this work order and payable to the Contractor for the full and proper performance of the jobs covered under this work order.

1.4 Order Specification: The terms Order Specification shall mean the Technical specification of the work as agreed by you and description of Work as detailed all such particulars mentioned directly/referred to or implied as such in the order.

1.5 Engineer in charge: The terms Engineer in charge shall mean the Company's nominated representative for the purpose of all the works being executed by the Contractor in relation to this work Order.

1.6 Inspector: The terms Inspector shall mean the Company's nominated representative for the purpose of carrying out the Inspection for the works being executed by the Contractor in relation to this work Order.

2. LANGUAGE AND MEASUREMENT:

The order issued to the contractor by the company and all correspondence and documents relating to the order placed on the Contractor shall be written in English language.

Metric System shall be followed for all dimension, units etc.

3. SCOPE OF WORK:

The scope of work to be carried out by you shall be work required for repairing, painting and freight charges of the damaged of power transformer. Of following rating:

1. 1 no. 16/20 MVA 66/11 KV, Sr.no. B-27148 and GEC make power transformer lying at Yamuna Vihar Grid at BYPL.

All the manpower, tools and tackles, are included in your scope of work.

Contractor shall be responsible for to and fro transportation, transit insurance cover, Safe loading, unloading and dragging (if required) within cost of transportation rates.

Necessary road permit required for entry and exit of material in respective states is entirely the responsibility of the contractor.

In case of any failure of transformer within guarantee period, the contractor shall carry out the repair free of cost.

The repaired Power Transformer supplied by you shall be ready to energize.

4. RATES:

The item wise rates for above Scope of work are as mentioned in this contract. The rates shall be firm for the entire duration of work carried out by the contractor under the order and are not subject to escalation for any reason whatsoever.

All the rates applicable for repairing work shall be as per agreed rates schedule. The quantity or repairing work shall be as signed off by our Inspectors.

5. TAX & DUTIES:

Prices shall be inclusive of all taxes and duties including labour cess (Except GST Tax). However, IT as per applicable rate will be deducted from your bills as Tax Deduction at Source (TDS).

GST Tax at actual shall be paid on submission of GST Tax Registration and self-declaration on your letter head stating that you have deposited/or will deposit the Tax as per the applicable GST tax laws. You shall furnish your GST tax registration number.



Any statutory variations i.e. increase/decrease in Taxes / Duties introduced by central Govt. /State Govt. of shall be reimbursed/recovered to/from Contractor against documentary evidence and proof.

6. TERMS OF PAYMENT:

100% payment shall be made to you within 30 days of receipt of repaired Transformer at our stores/ Site and on submission of your Bill along with following documents:

- i) Copy of Work Order.
- ii) J.V.R. Copy.
- iii) MDCC Copy.
- iv) GRN/MRN.
- v) Documents showing compliance of statutory requirements as applicable.

7. RISK AND COST:

The Company at his option will be entitled to terminate the contract and to carry out work from elsewhere at the risk and cost of the Contractor either the whole or any part which the Contractor has failed to deliver or dispatch within the time stipulated as F.O.R site or if the same, where not available, the best and the nearest available substitute there from the Contractor shall be liable for any loss which the Company may sustain by reason of such risk purchases in addition to L.D at the rate mentioned above.

8. INDEMNITY BOND:

The Contractor shall protect, indemnify and save harmless the Company, its successors, assigns, customers and users of its products, against all liability, including costs, expenses, claims suits or proceedings at law, growing out of or, in connection, with any patent infringement (including process patents, if any), or violation of any license with respect thereto, by reason of the manufacture and/or sale by, or on behalf of the supplier of the plant or any part thereof in India for the purpose for which it is furnished, or the sale by the Company its successors and assigns of products made, manufactured, fabricated, processed or produced with the said plant or any part thereof in India for the purpose for which it is furnished and shall defend or settle at the supplier's own expense, any such claims, suits or proceedings.

9. ARBITRATION:

To the best of their ability, the parties hereto shall endeavour to resolve amicably between themselves all disputes arising in connection with the proposed Agreement. If the same remain unresolved, within fifteen (15) days of the matter being raised by either party, either party may refer the dispute for settlement by arbitration. The arbitration to be undertaken by a sole arbitrator to be appointed by the company. The decision of the arbitrator is final and binding upon both the parties. The arbitration proceeding shall be conducted in accordance with the provisions of the Indian Arbitration & Conciliation Act, 1996 and the venue of such arbitration shall be New Delhi only.

10. FORCE MAJEURE:

10.1 General:

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

Such event or circumstance, despite the exercise of reasonable diligence, could not have been prevented, avoided or reasonably foreseen by such Party;

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. 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.

Such event is not the direct or indirect result of the failure of such Party to perform any of its obligations under this Contract; and 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 Article 14.1

10.2 Specific Events of Force Majeure:

Subject to the provisions of Article 14.1, Events of Force Majeure shall include only the following to the extent that they or their consequences satisfy the above requirements:

The following events and circumstances:

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, and

Explosions or fires Public disorder, insurrection, rebellion, sabotage, riots or violent demonstrations of a local character; Declaration of the Site as war zone.

Any order, regulation, directive, requirement from any Governmental, legislative, executive or judicial authority.

10.3 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:

Immediately notify the other party in writing of the force majeure events within 2 working days of the occurrence of the force majeure event

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

Use all reasonable efforts to resume full performance of the obligation as soon as practicable

Keep the other party informed of all such efforts to resume full performance of the obligation on a regular basis

Provide prompt notice of the resumption of full performance or obligation to the other party.

10.4 Mitigation of events of force majeure: The Contractor

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 applying other ways in which to perform 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 Company 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.

10.5 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 Contract. 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.

10.6 Terminations 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 1 (one) month during the Term of the Contract the Contract



shall be terminated at the discretion of the Company and neither Party shall be liable to the other for any consequences arising on account of such termination.

11. SUBLETTING OF WORK ORDER:

CONTRACTOR shall not assign or transfer the whole or any part of this Work Order or any other benefits accruing there from nor shall it subcontract / sublet the whole or any part of the Works.

12. SAFETY CODE:

The Contractor shall ensure adequate safety precautions at site as required under the law of the land to facilitate safe working during the execution of work and shall be entirely responsible for the complete safety of their workmen as well as other workers at site and premises during execution of contract.

The contractor shall observe the safety requirements as laid down in the contract and in case of sub-contract (only after written approval of company), it shall be the responsibility of main contractor that all safety requirements are followed by the employees and staff of the sub-contractor.

The contractor employing two hundred employees or more, including contract workers, shall have a safety co-ordinator in order to ensure the implementation of safety requirements of the contract and a contractor with lesser number of employees, including contract workers, shall nominate one of his employees to act as safety co-ordinator who shall liaise with the safety officer on matters relating to safety and his name shall be displayed on the notice board at a prominent place at the work site.

The contractor shall be responsible for non-compliance of the safety measures, implications, injuries, fatalities and compensation arising out of such situations or incidents.

In case of any accident, the contractor shall immediately submit a statement of the same to the owner and the safety officer, containing the details of the accident, any injury or casualties, extent of property damage and remedial action taken to prevent recurrence and

in addition, the contractor shall submit a monthly statement of the accidents to the owner at the end of each month.

13. SECRECY CLAUSE:

The technical information, drawing and other related documents forming part of order and the information obtained during the course of investigation under this order shall be the Company's exclusive property and shall not be used for any other purpose except for the execution of the order. The technical information drawing, records and other document shall not be copied, transferred, or divulged and/or disclosed to third party in full/part, not misused in any form whatsoever except to the extent for the execution of this order.

This technical information, drawing and other related documents shall be returned to the Company with all approved copies and duplicates including drawing/plans as are prepared by the Contractor during the executions of this order, if any, immediately after they have been used for agreed purpose.

In the event of any breach of this provision, the contractor shall indemnify the Company against any loss, cost or damage or claim by any party in respect of such breach.



14. ENVIRONMENTAL, HEALTH & SAFETY PLAN

Contractor will make ensure that the Environment, Health & Safety (EHS) requirements are clearly understood and faithfully implemented at all levels at site as per instruction of Company.

Contractors must comply with these requirements:

- a) Comply with all of the elements of the EHS Plan and any regulations applicable to the work
- b) Comply with the procedures provided in the interests of Environment, Health and

Safety

- c) Ensure that all of their employees designated to work are properly trained and competent
- d) Ensure that all plant and equipment they bring on to site has been inspected and serviced in accordance with legal requirement and manufacturer's or suppliers' instructions
- e) Make arrangements to ensure that all employees designated to work on or visit the site present them for site induction prior to commencement of work
- f) Provide details of any hazardous substances to be brought onsite

- g) Ensure that a responsible person accompanies any of their visitors to site

All contractors' staff is accountable for the following:

Use the correct tools and equipment for the job and use safety equipment and protective clothing supplied, e.g. helmets, goggles, ear protection, etc. as instructed Keep tools in good condition

Report to the Supervisor any unsafe or unhealthy condition or any defects in plant or equipment

Develop a concern for safety for them and for others Prohibit horseplay not to operate any item of plant unless they have been specifically trained and are authorized to do so.

15. VENDOR CODE OF CONDUCT:

Contractor confirms to have gone through the Policy of BYPL on legal and ethical code required to be followed by contractor 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.

Contractor 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.

In event of any such breach, irrespective of whether it causes any loss/damage, company (BYPL) shall have the right to recover loss/damage from Contractor.

The Contractor hereby indemnifies and agrees to keep indemnified the company (BYPL) against any claim/litigation arising out of any violation of Vendor Code of Conduct by the Contractor or its officers, agents & representatives etc.



16. COMPLETION PERIOD:

The repaired transformer shall be delivered within 4 months for 1 no. 16/20 MVA 66/11 KV, B-27148 and GEC make PTR from the date of JVR.

17.ACCEPTANCE:

Acceptance of this order implies and includes acceptance of all terms and conditions enumerated in this work order in the technical specification and drawings made available to you, detailed scope of work, detailed technical specification & detailed equipment, drawing. Complete scope of work and the Contractors and Company's contractual obligation are strictly limited to the terms set out in the order. No amendments to the concluded order shall be binding unless agreed to in writing for such amendment by both the parties.

However, during the course of the execution of the order if at any time the Company's representative observe and form an opinion that the work under the order is not being performed in accordance with the terms of this work order, the Company reserves its right to cancel this work order forthwith without assigning any reason and the Company will recover all damages including losses occurred due to loss of time from the contractor

SECTION – IV : GENERAL CONDITIONS OF CONTRACT (GCC)

SECTION – IV

Page **36** of **73**

GENERAL CONDITIONS OF CONTRACT (GCC)

This GCC shall form an integral part of the Agreement and will be of full force and effect as if they were expressly set out in the body of the Agreement.

Reference to any legislation or law to any provision thereof shall include references to any such law as it may, after the date hereof, from time to time, amended, supplemented or re-enacted, and any reference to a statutory provision, shall include any subordinate legislation made from time to time under that provision.

1. DEFINITION & INTERPRETATION

1.1 Definition

In the Agreement (as defined below) the words and expressions defined below shall have the meanings assigned to them herein except where the context requires otherwise:

- 1.1.1 "Accounting Year" means the financial year commencing from 1 April of any calendar year and ending on 31 March of the next calendar year.
- 1.1.2 "Applicable Laws" means all Law / Laws in force and effect, as of the date hereof and which may be promulgated or brought into force and effect hereinafter in India including any revisions, amendments or re-enactments including without limitation regulations, rules and notifications made there under and judgments, decrees, injunctions, writs and orders of any court or regulators or quasi-judicial body or any appropriate authorities, as may be in force and effect during the subsistence of the Contract. It includes Law/Laws of Country/State legislation, statutes, ordinance, notification, circular, regulations and other Laws, and bye Laws of any legally constituted public authority.
- 1.1.3 "Change in Law" means the occurrence of any of the following after the execution of agreement:
- (i) The enactment of any new Indian Law;
 - (ii) The repeal, modification or re-enactment of any existing Indian Law;
 - (iii) The commencement of any Indian Law which has not entered into effect until the date of performance the Contract;
 - (iv) Change in the interpretation or application of any Indian Law by a court as compared to such interpretation or application twenty-eight (28) days prior to the last date of submission of Tender;
 - (v) It also includes changes in the tax rates upward or downward.
- 1.1.4 "Change in Service" means any addition to, deletion from, suspension of or other modification, to the Services, or to the quality, function or as delineated in this agreement, including any such addition, deletion, suspension or other modification, which requires a change in one or more of the service specification and the completion schedule.
- 1.1.5 "Communication" means instruction or information or written notice issued on letter head or through electronic mail exchange between Parties and excludes verbal or short messaging services (SMS). The notice shall be served by delivering a copy by electronic mail, or registered post/speed post etc. Unless otherwise stated in the agreement, all communications to be given under the Contract shall be in writing. Communication may be sent to competent authority or authority delegated to such officer/employee. Communication shall be on letter head of Party signed by competent authority/authorized signatory of the Party.
- 1.1.6 "**Company/Owner/Purchaser/First Party**" the terms used in this agreement shall refer to BSES YAMUNA Power Limited (BYPL) having its office at Shakti Kiran Building, Karkardooma, Delhi-110032 and shall include its authorized representatives, agents, successors and assignees.
- 1.1.7 "**Contractor/Agency/Vendor**" means the successful bidder to whom this Agreement is awarded. It is entity named in the Execution Cover and includes assignees, administrator, executors, successors, associated company/subsidiary/joint venture/firm/representative of the Contractor. It is also termed as 'Contractor' or 'Agency'.

- 1.1.8 “Contract” / “Agreement”/“Work Order” means the agreement between the Company and the Contractor for the performance of the Services, including the Contract / Agreement/ Work Order duly signed and executed between the Parties, the letter of acceptance, the Conditions of Contract, the schedules, Annexures, the Company/BYPL’s requirements, including but not limited to the tender, other tender documents and such further documents which are listed in the Contract / Agreement/Work Order and includes any amendment thereto made in accordance with the provisions hereof giving binding effect to the terms and conditions agreed by the Parties. This includes Work Order / Letter of Intent(LOI) issued to the Contractor by the Company/BYPL.
- 1.1.9 “Agreement Period” shall mean duration of Services to be performed and includes extension thereof after mutual consent of both Parties.
- 1.1.10 “Agreement Value/Consideration” means the price of the defined Services including taxes payable to the Contractor for the performance of the Services subject to such additions thereto and deductions there from as may be made under the provisions of this Agreement. The Agreement Value is in consideration of providing the Service by the Contractor as per scope of work and as per Service specifications stipulated in the Agreement; the Agreement Value includes all and any fees, charges, local cess, taxes (GST and Income Tax), levies together with all cost and expenses. The Agreement Value may also term as ‘Service Fee(s)’ or ‘Agreement fees’/Consideration elsewhere in the Agreement. Agreement Value is fixed lump sum for the Agreement Period unless mentioned in Agreement elsewhere.
- 1.1.11 “Force Majeure” shall have the meaning as ascribed in this agreement and annexures thereto.
- 1.1.12 “Good Industry Practice” means the exercise of the highest degree of skill, diligence, prudence and foresight in compliance with the obligations under the Contract which would be expected from a skilled and experienced Contractor engaged, being internationally accepted and customized in day to day performance in industry including for the supply of Manpower.
- 1.1.13 “HSE Conditions” shall mean the BYPL’s health, safety and environment conditions containing the requirements and conditions to be met with respect to safety, health and environment.
- 1.1.14 “KPI” shall mean Key Performance Indicator as set out in the Contract/Agreement, its schedules/annexures etc. The performance of the Manpower employed by the Contractor for execution of Services shall be measured through KPI. The payment to Contractor shall be based on Manpower’s performance as measured through KPI. It includes metrics in numerical, frequency and measuring process. Total manpower shall be monitored & calculated skill wise but it will be cumulative on monthly basis
- 1.1.15 “Manpower” means a person/s, labour (including Contractor’s staff / personnel) known, introduced, security personnel employed and deployed by the Contractor in Contractor’s provision of the Services who has skill, efficiency and mannerism to execute, perform Services under this Contract as per Scope Of Work of the Contract. The Manpower deployed shall have valid licenses, PAN card details / KYC information.
- 1.1.16 “Contract cum Performance Bank Guarantee (CPBG)” means the bank guarantee to be procured in accordance with terms of agreement for the performance of the Contractor’s obligations under the Contract. The CPBG format is furnished in the Annexure, annexed to agreement.
- 1.1.17 “Service(s)” / “Works” shall mean Company/BYPL’s requirements describing in detail including the nature of the Services and activities to be performed by the Contractor and its Manpower, in accordance with specifications, the duration of such requirement, and Services performed, the expected time of commencement and completion, detailed responsibilities and other relevant particulars. It is ‘scope of work’ which is to be executed, performed successfully and satisfactorily by the Contractor in accordance with the Contract and ancillary services as may be Communicated by the BYPL from time to time under the Contract Period.
- 1.1.18 “Site” means the designated place/office or establishment or construction site, office, branch, including right of way and/or places provided by the BYPL where the Services is to be executed and any other place as may be specifically designated in the Contract/Agreement as forming part of the Site or designated as such by the Company/BYPL.

- 1.1.19 "Sub-Contractor" means a Sub-Contractor whom a part of the Contract is Sub Contracted by the Contractor with the prior written approval of the Company/BYPL, and the permitted legal successors in title to such person, but not any assignee of such person.
- 1.1.20 "Sub-Contract" shall mean obligations under the Contract have been awarded by the Contractor to Sub-Contractor.
- 1.1.21 "Tax Invoice" /" Running Bill" (RA Bill/bill) shall have the meaning ascribed to it under GST Laws.

1.2 Interpretation

In the Contract except where the context requires otherwise:

- 1.2.1 Words indicating one gender include all genders
- 1.2.2 "Written" or "in writing" means hand-written, written, or electronically made and resulting in a permanent record
- 1.2.3 Any reference to any provision of an act of Parliament or of a state legislature shall be construed, at the particular time, as including a reference to any modification, extension or re-enactment thereof, to all instruments, orders or regulations then in force
- 1.2.4 The singular shall include plural and vice versa, and words denoting natural persons shall include partnerships, firms, companies, corporations, joint ventures, trusts, associations, organizations or other entities
- 1.2.5 The headings are inserted for convenience and shall not limit, alter or affect the meaning of the Contract.
- 1.2.6 The terms defined in schedule and the BYPL's Requirements shall have the same meaning ascribed thereto when used elsewhere in the Contract and vice versa;
- 1.2.7 The words "include" and "including" shall be construed without limitation
- 1.2.8 The schedules/annexures shall form an integral part of the Conditions of Contract and shall be in full force and effect as though they were expressly set out in the body of the Conditions of Contract.
- 1.2.9 The word "consent" wherever used, shall mean prior written consent;
- 1.2.10 In the event any portion or all of the Contract is held to be void or unenforceable, the Parties agree to negotiate in good faith to arrive at an amicable understanding which shall accomplish the intent of the Parties as originally set forth in the Contract;
- 1.2.11 No failure on the part of any Party to exercise, and no delay in exercising, any right hereunder shall operate as a waiver thereof, and no single or partial exercise of any such right shall preclude any other or further exercise thereof or the exercise of any other right
- 1.2.12 References to recitals, Articles or schedules in the Contract shall, except where the context otherwise requires, be deemed to be references to recitals, Articles and schedules of or to the Contract; and
- 1.2.13 In case the day on or by which any thing is to be done is not a Business Day, that thing must be done on or by the immediately occurring next Business Day

2. PRIORITY OF CONTRACT DOCUMENTS

The several documents forming the Agreement are to be taken as mutually explanatory of one another, but in case of ambiguities or discrepancies, the same shall be explained and adjusted by the company, who shall, accordingly, issue suitable instructions thereon to the Contractor. In such event, unless otherwise provided in the agreement or explained by way of instructions by the company, as mentioned above, the priority of the documents forming the Agreement shall be as follows:

- i) Contract Agreement/Work Order.
(a) Special Conditions of Contract
(b) General Conditions of Contract
- (ii) The Letter of Acceptance/ Intent
- (iii) Agreed Minutes of the Tender Negotiation Meetings
- (iv) Agreed Minutes of the Tender Technical Meetings
- (v) The Priced Bill of Quantities
- (vi) The Technical Specifications / Scope of work

(vii) The Tender document, including all Appendices and/or Addenda, Corrigendum the latest taking precedence.

In the event of any conflict between the above-mentioned documents, the more stringent requirement or conditions which shall be favorable to the company shall govern and the decision of company/BYPL shall be final and binding upon the parties.

3. AMENDMENT

Any modification, amendment or other change to the Agreement shall be affected only by a written instrument signed by the authorized representatives of both, the Company and the Contractor.

4. LANGUAGE AND MEASUREMENT

All correspondence and documents relating to this order placed on the Contractor shall be written in English language. Metric System shall be followed for all dimension, units etc.

5. EXAMINATION OF SITE & LOCAL CONDITIONS

The contractor is deemed to have visited all the sites that comes under Company's licensed area under the Contract and therefore, ascertained all site conditions and information pertaining to the services to be provided under this contract. The company shall not accept any claim whatsoever arising out of the difficulties at site/terrain/local conditions, if any.

6. TAXES & DUTIES

- (i) Prices shall be inclusive of all taxes and duties including labour cess (except GST). However, Income Tax(TDS) as per applicable rate in accordance with Income Tax Act will be deducted from contractor's bills.
- (ii) GST at actual shall be paid extra on submission of GST Registration and self-declaration on Contractor's letter head stating that you have deposited/or will deposit the Tax as per the applicable GST laws. Contractor shall furnish its GST registration number.
- (iii) Any statutory variations i.e. increase/decrease in Taxes / Duties introduced by central Govt. / State Govt. shall be reimbursed/recovered to/from Contractor against documentary evidence and proof.
- (iv) As Per Notification No. 39/2021 # Central Tax dated 21st December, 2021 w.e.f 01/01/2023 registered person (ie, Recipient/Purchaser) can avail tax credit on those invoices only which have been reflected in GSTR 2A or GSTR2B (it means 100% matching of invoice is required). Also, GST has to be deposited by Supplier/Contractor by filing of GSTR- 1 and GSTR-3B.
- (v) In view of above, if the same is not complied with by the supplier/Contractor and the Recipient/Purchaser is not in position to avail / utilize Input Tax Credit due to non-compliance or non-filing of GSTR-1 and GSTR-3B for the month/quarter (as applicable) in which the supply was made, then Recipient/Purchaser has right to hold 100% GST amount from next payment due of the subsequent month till the time default is not cured.
- (vi) For releasing of the payment kept on hold on account of non-compliance of GST Act, supplier/Contractor shall submit payment proof i.e GST Portal screenshot reflecting name of Recipient/Purchaser along with GSTR-1 and GSTR-3B for month/quarter (as applicable) in which the same has been discharged. Payment shall not be released, till the time necessary proof showing the discharge of GST liabilities by the contractors for the period in default are submitted to the Company.
- (vii) Further, the recipient/purchaser shall also be entitled to recover any financial loss suffered by the Company (including tax, interest, penalty and lapse of input credit) due to non-compliance or non-filing of GSTR-1 and GSTR-3B by the supplier/Contractor.

(viii) In case where delivery of goods is being made on FOR site basis, the Supplier/Contractor is responsible to comply with rules applicable for E-way bill. Any violation in provision of E-way Bill will attract penalty and seizure of Transit Material. Any Penalty and Pre-Deposit due to violation of rules/provision shall be paid and borne by Supplier/Contractor. Also, Supplier/Contractor is responsible to get the goods released from the concerned authority. Delay in supply due to seizure of goods shall attract liquidated damages as per Order / Agreement provisions.

7. PAYMENT

- 7.01 All monitoring, measurement, billing & payment processes shall be on IT enabled platform of BYPL as per Company's guidelines issued from time to time and bidders to ensure adherence.
- 7.02 Contractor shall upload correct monthly running bills along with all supporting documents in online BTS (Bill Tracking Systems) software or any other IT enabled platform of BYPL as per Company's guidelines issued from time to time for certification / approval purpose and bidders to ensure adherence. Further the contractor shall also submit original bill (hard copy) along with all supporting documents at Vendor Support Cell of BYPL. The bills shall be made in favour of BSES Yamuna Power Ltd, Shakti Kiran Building, Karkardooma, Delhi.
- 7.03 Company shall make payments, without any interest/charges and after deduction of taxes, penalties as applicable, against the bills within 30 days from the date of receipt of the bills, duly verified and certified by Engineer in Charge.
- 7.04 The billing period shall be till the end of the calendar month for all the bills.
- 7.05 The bill shall consist of the prescribed documents on standard stationary designed by the Company. Contractor shall collect the details of such documents and formats from the Company.
- 7.06 The Contractor shall submit to the Company proof of all taxes paid, PF / ESI deposited & Employee salary paid in previous month along with the bills of the current month.
- 7.07 Notwithstanding anything with the release of payment of bills by the Company to the Contractor, the Contractor shall at all times ensure the due and timely payment of wages to all persons, including workmen, employed by the Contractor pursuant to this Agreement and compliance with other applicable statutory requirements within time limits. Nothing contained herein shall establish any link between release of payment of the bill by the Company to the Contractor and the payment of any salary, wages or any other dues whatsoever by the Contractor to its employees and workmen.
- 7.08 Contractor shall, at no point of time, claim or have the right to claim any additional fees, expenses or charges of any nature whatsoever, other than the Rates set out in the contract.
- 7.09 The company may modify the procedure for the submission of bills. The Contractor shall be obliged to submit its bill as per the procedure stipulated by the company from time to time.

8. TAX INVOICE SUBMISSION PROCEDURE AND CERTIFICATION

- 8.1 Tax Invoice shall be submitted to the Company for certification. Contractor must pay due attention for submission of Tax Invoice in time and along with relevant Documents to Company.

8.2 Tax Invoice shall be certified by Company after verifying relevant original Documents submitted by Contractor. If original Document associated with Tax Invoice is misplaced or lost during transit or for any genuine reason(s) attributable to Contractor, the reason(s) should be informed to Company in writing in stipulated period as instructed by Company. A true copy of certified Document with an indemnity bond or Bank Guarantee, as the case may be, must be submitted in the format provided by the Company.

8.2 Incomplete Tax Invoice will not be considered for processing of payments in terms of the Contract. Company reserves right to recover payable amount or part of Tax Invoice from available financial security or other dues of the contractor with the Company. Contractor shall be paid in terms of the Contract based on certification of Tax Invoice along with associated relevant Document(s) by the Company only.

9. TIME ESSENCE OF CONTRACT

Time is the essence of the contract and the contractor shall be responsible for performance of his works in accordance with the specified schedule. If at any time, the contractor is falling behind the schedule for reasons attributable to him, he shall take necessary action to make good for such delays by increasing his work force or by working overtime or otherwise to accelerate the progress of the work and to comply with schedule timelines and shall communicate such actions in writing to the company, to the satisfaction of the Company that his action will compensate for the delays. The contractor shall not be allowed any extra compensation for such actions.

Time shall be the essence of the Contractor. Contractor shall complete his work in accordance with the specified time-lines/ Schedules as per the terms of the contract or as may be instructed by the Company from time to time.

10. LIQUIDATED DAMAGE

10.1 If the work under the agreement is not carried out to the satisfaction of the authorized personnel/Engineer – in-charge of BYPL including events of delay for reasons attributable to the Contractor, the Contractor shall be liable to pay and/or reimburse to the Company a sum:

- a) Equivalent to charges for completion /rectification of work plus 30% overhead charges, which will be recovered from the Contractor's invoice/outstanding payment/CPBG;
- b) Equivalent to the penalties defined in various clauses of tender/contract.

10.2 The parties agree that the above amounts, including the amounts set out in the provisions relating to the penalty, are a reasonable estimate of the additional expenses required to be incurred by the Company due to the breach by the Contractor of the terms and conditions of this agreement. The Company shall be entitled to set off the entire amounts due from the Contractor against the amount payable by Company to the Contractor and CPBG.

11. INSPECTION & QUALITY CONTROL

Inspection shall be performed by BYPL or its appointed authorized inspection agency. The contractor at his sole expenses shall correct defective works. Such rectification needs to be done / completed within the timelines specified by BYPL.

12. REPORTS AND INFORMATION

The Contractor shall be obliged to submit or furnish to Company, all or any information as desired by company, in the form of a report or otherwise. The report may be required at regular interval as specified/required by company. The information shall be provided in a format to be specified by the company to the Contractor. However, company, reserves the right to revise this format which would be communicated to the Contractor and it shall be valid and binding obligation on the Contractor to submit the desired information in the revised format.

13. STATUTORY OBLIGATIONS

The Contractor shall ensure the due compliance of all the applicable statutory acts, including but not limited to the following acts, where special attention of the Contractor is required to be drawn towards the compliance of provision (along with the latest amendments/additions) including any statutory approval required from the Central/State Governments, Ministry of Labour.

- The Child Labour (Prohibition and Regulation) Act, 1986.
-
- The Agreement Labour (Regulation and Abolition) Act, 1970.
-
- The Employee's Pension Scheme, 1995.
-
- The Employee's Provident Funds and miscellaneous provisions Act, 1952.
-
- The Employees State Insurance Act, 1948.
-
- The Industrial Disputes Act, 1947.
-
- The Maternity Benefit Act 1961.
-
- The Minimum Wages Act, 1948.
-
- The Payment of Bonus Act, 1965.
-
- The Payment of Gratuity Act, 1972.
-
- The payment of Wages Act, 1936.
-
- The Delhi Shops & Establishment Act, 1954.
-
- The Workmen's Compensation Act. 1923.
-
- The Company's Liability Act, 1938.
- The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013
- The Delhi Preservation of Trees Act 1994

Further the Contractor shall be liable to comply with all the amendment in existing acts / upcoming new comprehensive labour acts/codes related to applicable labour laws.

The Contractor shall, prior to commencement of the jobs under this agreement, furnish to the Company the Registration No and Codes of permanent Provident Fund and ESI of its employees.

Contractor shall bear the entire responsibility, liability and risk relating to coverage of its workforce under different statutory regulations including Workmen's Compensation Act, ESI Act, Factories Act 1948, the Agreement Labour (Regulation and Abolition) Act 1970, as amended from time to time, and any other relevant laws/regulations as the case may be. Contractor shall also be solely responsible for the payment of all benefits such as Provident Fund, Bonus, Retrenchment Compensation, leave etc. applicable as per the various statutory laws/regulations and shall keep the Company indemnified in this regard against any claim. The Company shall be entitled to deduct from any money due to or become due to Contractor, any money paid or payable by way of compensation as aforesaid or cost or expenses in connection with any claims thereto and Contractor shall abide by the decision of the Company as regards the sum payable by Contractor under the provisions of this clause

The Contractor shall obtain all registration/permissions licenses etc., which are/may be required under any labour or other legislations for providing the services under this Agreement.

In case it is desired by any Labour authorities to produce the records with respect to salary/ PF/ESI/EDIL/Bonus etc., the said record/register will be made available by the Contractor.

The contractor shall follow all law of the land and prevailing orders issued by various Govt. Departments like Dept. of Power / DERC/ NGT/Dept. of Forest/ Dept. of Environment / DPCB / CPCB/ Court orders etc.

14. REPRESENTATION, WARRANTIES AND GUARANTEES

The Contractor hereby represents warrants and guarantees that:

- 14.1 It is a legally recognized entity under the laws of India;
- 14.2 The Agreement contains valid and binding obligations and is enforceable in accordance with the terms hereof;
- 14.3 It has studied the technical feasibility, Site conditions and other prevailing conditions and all other operational details and based on these studies carried out, has agreed to provide to the Company the services as contemplated in this Agreement;
- 14.4 It has appraised itself of all applicable rules and regulations, and shall at all times comply with such rules and regulations;
- 14.5 It shall procure vehicles and hire manpower suitable for the purposes of rendering services as contemplated in this agreement;
- 14.6 The Services would be conducted in a safe and efficient manner at the Site and at all times in compliance with Good Industry Practices and requirements of the Company, and in any event, in accordance to this Work Order/agreement;
- 14.7 It shall procure all consents, licenses, permits, approvals and certificates and authorizations as may be required from any governmental authority for the performance of services at the Site;

- 14.8 It shall duly pay the duties, taxes and levies as are set out in this agreement or otherwise, which are to be paid by the Contractor;
- 14.9 There is no action, suit or proceeding, at law or in equity, or to the best of knowledge of Contractor, any official investigation before or by any governmental authority, arbitration tribunal or other body pending or, to the best of its knowledge, threatened against or affecting it or any of its property, rights or assets, which could reasonably be expected to have material adverse effect on its ability to perform its obligations under this Agreement or on the validity or enforceability of this agreement.

15. EVENTS OF DEFAULTS

Company may, without prejudice to any of its other rights or remedies under the Contract or in law, terminate the whole or any part of this Contract by giving written notice to the Contractor, if in the opinion of Company, contractor has neglected to proceed with the Contracts with due diligence or commits a breach of any of the provisions of this Contract including but not limited to any of the following cases:

- 15.1 Failing to complete execution of Contract as per the terms and conditions specified in the Contract.
- 15.2 Failing to complete Contracts in accordance with the approved schedule of Contract.
- 15.3 Failing to comply with any reasonable instructions or orders issued by Company in connection with the Contract.
- 15.4 Failing to comply with any of the terms or conditions of this Contract.
- 15.5 In the event Company terminates this Contract, in whole or in part, on the occurrence of any event of default, Company reserves the right to engage any other vendor or agency to complete the Contract or any part thereof, and in addition to any other right Company may have under the Contract or in law including without limitation, including the right to penalize for delay under clause "Liquidated Damage" of this Contract, the contractor shall be liable to Company for any additional costs that may be suffered/borne by Company for the execution of the Contract.
- 15.6 Failure on the part of the Contractor to maintain its confidentiality obligations and or compromising its integrity, which are required to be of highest standards, in so far as the present scope of work is concerned.

16. RISK & COST

If the Contractor fails to execute the work as per specification/Agreement/as per the direction of Engineer-in-change within the scheduled period and/or even after the extended period, the company shall be having the right to cancel/terminate the agreement and the company reserves the right to get the work executed from any other source at the Risk & Cost of the Contractor. The Extra Expenditure so incurred shall be debited to/recovered from the Contractor.

17. LIMITATION OF LIABILITY

- 17.1 The Contractor's liability (except Third Party Liability; covered under the agreement and addendums thereto) for all damages, losses, acts or omissions, howsoever occasioned, shall not, at any time exceed an amount

equivalent to Contract Value.

- 17.2 Notwithstanding anything stated in the agreement, the limitation of Liability shall not be available/applicable in case of wilful default/breach/negligent act/misconduct on the part of the Contractor and/or its employees.

18. TERMINATION

18.1 TERMINATION BY COMPANY FOR NON PERFORMANCE

During the course of the execution, if at any time the Company observe and forms an opinion that the work under the order is not being performed satisfactory and the performance of the Contractor not found satisfactory, the Company reserves its right to cancel/ terminate this Agreement giving 30 days' notice without assigning any reason and the Company will recover all damages including losses occurred due to loss of time from the Contractor. After termination of the agreement, the Contractor shall immediately stop all activities related to the work terminated. This is without prejudice to other rights under the terms of contract. The Contractor shall hand over the Company all drawing/documents prepared for this contract up to the date of cancellation of order.

18.2 PREMATURE TERMINATION

The order can be terminated by the Company before the expiry of its term under the following conditions:

- (i) The Contractor repudiates this order or otherwise evidences intention not to be bound by this order;
- (ii) The Contractor assigns, mortgages, or charges or purports to assign, mortgage, or charge any of its obligations or rights in contravention to the provisions of this order; or, transfers or negates any of its obligations in contravention to the provisions of this order.
- (iii) The Contractor breaches the Secrecy/Non-disclosure Clause/Confidentiality obligations.
- (iv) If at any stage during the tenure of the work order, Contractor is found to be involved or indulging or even attempting illegal, unlawful action or activities or some fraudulent or even trying to take or ask bribe from any customer or to give bribe official/staff or misuse or abuse any meter or property of the Company.
- (v) The Company shall be entitled to deduct from any money due or to becomes due to the Contractor, money paid or payable by way of compensation as aforesaid or cost or expenses in connection with any claims thereto. The Contractor shall abide by the decision of the Company as to the amount payable by the Contractor under the provision of this clause.

18.3 TERMINATION BY COMPANY FOR CONVENIENCE

The Company shall, in addition to any other right enabling it to terminate the Contract, have the right to terminate the Contract at any time without assigning any reason, by giving a written notice of minimum 30 days to the Contractor. The Contract shall stand terminated on the date as per the notice but such termination shall be without prejudice to the rights of the Parties accrued on and before the date of termination.

19. GOVERNING LAW AND ARBITRATION

- 19.1 Governing Law: This Work Order/Agreement shall be governed by the laws of India and each party submits to the exclusive jurisdiction of the courts in New Delhi.

- 19.2 Dispute Resolution Mechanism. All disputes and differences arising out of or in connection with this Agreement shall be resolved amicably by mutual discussion within 30 days. If the dispute cannot be resolved by mutual discussions and agreement, the parties will take such dispute to an arbitral panel comprising Sole Arbitrator jointly appointed by the parties to agreement.
- 19.3 In the event parties fail to appoint the sole arbitrator within 30 days from the date of request made by party, the Sole Arbitrator shall be appointed as per the provisions of The Arbitration and Conciliation Act 1996 as amended upto date. The arbitration shall be conducted in New Delhi in accordance with the provisions of the Arbitration and Conciliation Act 1996. The award of the arbitral panel shall be final and binding on all parties. The arbitration proceedings shall be conducted in English. The venue and seat of Arbitration shall be in Delhi Only. The cost of arbitration shall be shared equally between the parties unless otherwise directed by the Arbitrator.

20. FORCE MAJEURE

20.1 General

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

(i) Such event or circumstance, despite the exercise of reasonable diligence, could not have been prevented, avoided or reasonably foreseen by such Party;

(ii) Such event or circumstance materially and adversely affects the ability of the affected Party to perform its obligations under this agreement, 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 Agreement and to mitigate the consequences thereof. 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 Agreement; and

(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 the relevant clause

20.2 Specific Events of Force Majeure

Subject to the provisions of the agreement, Events of Force Majeure shall include only the following to the extent that they or their consequences satisfy the above requirements:

- (i) The following events and circumstances:
- 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, and
 - Explosions or fires or flood
- (ii) Public disorder, insurrection, rebellion, sabotage, riots or violent demonstrations of a local character;
- (iii) Declaration of the Site as war zone.
- (iv) Any order, regulation, directive, requirement from any Governmental, legislative, executive or judicial authority.

20.3 Notice of Events of Force Majeure

If a force majeure event prevents a party from performing any obligations under the Agreement in part or in full, that party shall:

- (i) Immediately notify the other party in writing of the force majeure events within 2 working days of the occurrence of the force majeure event
- (ii) Be entitled to suspend performance of the obligation under the Agreement 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.

20.4 Mitigation of Events of Force Majeure

The Contractor 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 applying other ways in which to perform the agreement;
- (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 Company 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.

20.5 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.

20.6 Termination for Certain Events of Force Majeure

If any obligation of any Party under the Agreement is or is reasonably expected to be delayed or prevented by a Force Majeure event for a continuous period of more than 1 (one) month during the Term of the Agreement, the Agreement shall be terminated at the discretion of the Company and neither Party shall be liable to the other for any consequences arising on account of such termination.

The Company reserves the right to demand the Contractor's services on holidays as well as beyond the normal working hours.

The Contractor will ensure that none of their person is engaged in any unlawful activities subversive of the Company's interest failing which suitable action may be taken against the Contractor as per the terms and condition of this order.

The Contractor shall be liable for payment of all taxes and duties as applicable, to the State/ Central Govt. or any local authority.

The Contractor's employees shall not be treated as Company's employees / persons for any purpose whatsoever & facilities/ benefits applicable to the Company's employees shall not be applicable to Contractor's employees. If due to any reasons whatsoever the Company is made liable to meet any obligation under any of the laws & enactment etc., for any reason whatsoever the same shall be recovered from the Contractor either from the present and future amount payable to him or as per law.

21. NOTICE & COMMUNICATION

Any notice or other formal communication to be given under this agreement shall be in writing and signed by or on behalf of the party giving it and shall be sent by registered post, A.D. to the addresses of Contractor or BYPL as mentioned herein above or to any other addresses as agreed by the parties, in writing from time to time.

Any notice or other formal communication can also be sent through official e-mail ID of authorized person of Contractor or BYPL.

22. SAFETY CODE

- 22.1 The Contractor shall ensure adequate safety precautions at site, as required under the law of the land to facilitate safe working, during the execution of work under agreement/work order and shall be entirely responsible for the complete safety of their workmen as well as other workers at site and premises during performance of work under agreement.
- 22.2 The Contractor shall observe the safety requirements as laid down in the agreement and in case of sub-contract/assignment (only after written approval of company), it shall be the responsibility of Contractor that all safety requirements are followed by the employees and staff of the sub-contractor.
- 22.3 The Contractor employing two hundred employees or more, including employees deputed under agreement, shall have a safety officer in order to ensure the implementation of safety requirements of the agreement and if the Contractor having lesser number of employees, including agreement workers, shall nominate one of its employees to act as safety coordinator who shall liaise with the safety officer on matters relating to safety and his name shall be displayed on the notice board at a prominent place at the work site.
- 22.4 The Contractor shall be responsible for non-compliance of the safety measures, implications, injuries, fatalities and compensation arising out of such situations or incidents.
- 22.5 In case of any accident, the Contractor shall immediately submit a statement of the same with BYPL and the safety officer, containing the details of the accident, any injury or casualties, extent of properly damage and remedial action taken to prevent recurrence and in addition, the Contractor shall submit a monthly statement of the accidents to BYPL at the end of each month.
- 22.6 The contractor / safety officer shall be responsible for providing training to all staff & workers, safety compliances, testing and fitness of all T&P, PPE, annual safety audit reports etc. in line with CEA norms

23. CONTRACTOR'S OBLIGATIONS

- 23.1 The performance of Services as completed by the Contractor shall be wholly in accordance with the Contract and fit for the purposes for which they are intended to and as defined in the Contract. The Services shall include any Service which is necessary to satisfy the Company's requirements and as implied by the Contract.
- 23.2 The Contractor shall execute the Services within the time frame for completion as specified in the order/agreement and Scope of Work. Without prejudice to the provisions of the Contract, before commencing the Services, the Contractor shall satisfy itself regarding the BYPL's requirements. The Contractor shall give notice to BYPL, within

forty-eight (48) hours of the receipt of BYPL's requirements, of any error, fault or other defect in the BYPL's requirements or such items of reference.

- 23.3 The Contractor takes full responsibility for the adequacy and stability of Services to be performed at the Site.
- 23.4 The Contractor shall at all times endeavour to adopt best practices as is prevalent in like industry and shall always be required to achieve the desired quality and confirm to the schedule of Service(s) at no additional cost to the company/BYPL.
- 23.5 The Contractor is deemed to have satisfied itself as to the correctness and sufficiency of the BYPL's requirements and other terms of the Contract relating to its risks, liabilities and obligations set out in or implied by the Contract and all matters and things necessary for the proper performance of the Services.
- 23.6 The Contractor shall, whenever required by the BYPL, submit details of the arrangement and methods which the Contractor proposes to adopt for the performance of the Services. No alteration to these arrangements or methods shall be made without the approval of BYPL.
- 23.7 Contractor agrees to provide all preliminary information or data as may be required by the Company/BYPL within fifteen days of issuance of the signed LOI/Work order or as per mutually agreed timelines.
- 23.8 In case the Contractor comes across with any ambiguity and/ or discrepancy in the BYPL's requirements, it shall immediately Communicate such ambiguity and/ or discrepancy to BYPL, for seeking appropriate instructions to resolve such ambiguities and discrepancies.
- 23.9 Contractor to maintain sufficient cash flow as working capital to meet daily expenses for the Manpower.
- 23.10 The Contractor shall not use the name of the company/BYPL in any manner for credit arrangement or otherwise and it is agreed that the company/BYPL shall not in any way be responsible for any debts, liabilities or obligations of the Contractor or its Manpower.

24. INDEMNITY

The Contractor shall indemnify, defend, save and hold harmless all directors, company and its employees against any and all suits, proceedings, actions, demands and third party claims for any loss, damage, cost and expense suffered by company on account of the negligence, act or omission inaction by the Contractor or its employees under this Agreement. Agencies shall also wholly indemnify and compensate company against any theft, misappropriation, fraudulent act or omission, any collusion with customer/s, intentional recording of incorrect reading/DATA, or any other offence under the applicable laws or breach of obligation under the present agreement, and would also render itself liable to appropriate legal action being initiated against it by company.

The Contractor shall also be responsible and liable to company for any loss or damage caused to company for any negligence or inaction, damage to the property of company caused by the Contractor or its employees.

25. SECRECY & CONFIDENTIALITY

- 25.1 The technical information, data and other related documents forming part of order and the information obtained during the course of investigation under this order shall be the Company's exclusive property and shall not be used for any other purpose except for the execution of the order. The technical information drawing, records and other

document shall not be copied, transferred, or divulged and/or disclosed to third party in full/part, not misused in any form whatsoever except to the extent for the execution of this order.

- 25.2 These technical information, drawing and other related documents shall be returned to the Company with all approved copies and duplicates including data/drawing/plans as are prepared by the Contractor during the executions of this order, if any, immediately after they have been used for agreed purpose.
- 25.3 In the event of any breach of this provision, the Contractor shall indemnify the Company against any loss, cost or damage or claim by any party in respect of such breach.
- 25.4 The Contractor shall not use the name/logo/emblem of the Company in any manner either for credit arrangement or otherwise and it is agreed that the Company shall not in any way be responsible for the debts, liabilities or obligations of the Contractor and/or his employees.
- 25.5 The Contractor hereby covenant that the Contractor shall be responsible for theft, if any committed, by his staff and the Contractor shall indemnify Company from and against all claims, demands, actions, suits and proceedings, whatsoever that may be brought or made against the Company by or on behalf of any person, body, authority whatsoever and whomsoever and all duties, penalties, levies, taxes, losses, damages, costs, charges and expenses and all other liabilities of whatsoever nature which the Company may be liable to pay, incur or sustain by virtue of or as a result of the performance or non- performance or observance or non- observance by the Contractor of any of the terms and conditions of this agreement. The Company shall have full power and rights at its discretion to pay or defend or compromise any suits, claims or demands brought or made, whether pending or threatened touching upon this agreement as it may consider necessary or desirable and shall be entitled to recover from the Contractor all sums of money including all legal costs, charges and expenses incurred by virtue of any such compromises which shall not be called into question by the Contractor but shall be final and binding on the Contractor.
- 25.6 Contractor shall submit signed NDA as per the format 4.3 attached.

26. NON-EXCLUSIVITY

The award of the work order/agreement to the Contractor shall not preclude the Company from awarding the same order for similar work at the same rates, or on any terms and conditions to other party or parties. The Company at its discretion may place the order on any other party.

27. SEVERABILITY

If any provision of this Agreement is or becomes invalid or unenforceable by the courts of any jurisdiction to which it is subject, such invalidity or unenforceability shall not prejudice the remaining provisions of this Agreement, which shall continue in full force and effect.

28. ASSIGNMENT & SUBLETTING

The Contractor shall not, without company's prior consent in writing assign or sublet or transfer any portion of services awarded to the Contractor as envisaged herein and falling under this contract. Moreover, any such consent shall not relieve the Contractor from any obligation, responsibility, or duty under this Contract.

29. ASSIGNMENT BY THE COMPANY

The rights and obligations of BYPL under the Contract shall be assignable to Affiliates, associate company, joint venture or any other company including change in Management Control and BYPL's lenders without consent of the Contractor. Upon written notice of seven Business Days (07 days) by BYPL, the Contract shall be deemed to have been assigned to the third party under this Article. This Article fulfils its meaning notwithstanding the notice is not accepted by the Contractor and BYPL shall not be obliged to the Contractor after seven days (07) of issue of any further notice.

30. NO JOINT VENTURE

The Contractor shall not constitute a joint venture, consortium or other unincorporated grouping of two or more Persons, following the execution of the Contract.

31. WAIVER OF RIGHTS

No delay or forbearance by company in exercising any right or power under this Agreement shall be construed as a waiver of such right or power, nor shall any single or partial exercise of such right or power preclude any further exercise of such right of power.

32. THE COMPANY'S RIGHT TO VARY QUANTITIES

The Company 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. BYPL may increase or reduce the area/ scale of operations after starting of execution of the contract and the size of contract may be adjusted accordingly.

33. VENDOR CODE OF CONDUCT

Contractor 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 agreement.

Contractor 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 agreement.

In event of any such breach, irrespective of whether it causes any loss/damage, company (BYPL) shall have the right to recover loss/damage including liquidated damages from Contractor.

The Contractor hereby indemnifies and agrees to keep indemnified the company (BYPL) against any claim/litigation/liability/penalty including litigation cost arising out of any violation of Vendor Code of Conduct by the Contractor or its officers, agents & representatives etc.

34. DISCLOSURE OF RELATIONSHIP

The Contractor acknowledges & undertakes that the Contractor or any partner of the Contractor or director of the Contractor is not related to any of the officers of the Company or the Company's Representative, or alternatively,

is a close relative of an officer of the Company or the Company's Representative and has no financial interest/stake in the Company's business. The Parties agree that breach of the above provisions shall entitle the Company to terminate the Contract under Clause 23, without payment of any compensation to the Contractor. The Contractor agrees and acknowledges and shall ensure that its employees, directors and partners do not develop any such interest during the Contract Period.

35. MSME

- 35.1 If the Contractor is covered under the definition of supplier/Contractor under the purview of Micro, Small & Medium Enterprises Development Act, 2006, it shall declare so at the time of its registration as vendor with the Company failing which it will be presumed that it is a non-MSME unit.
- 35.2 Contractor shall provide to Company the proof of classification of its enterprise and filing memorandum with the authorities concerned under the Micro, Small & Medium Enterprises Development Act, 2006 (herein referred to as "the MSMED Act") within one week of receipt of the Contract
- 35.3 The Contractor further declares and undertakes to intimate Company of any change in its status or constitution under this section from time to time under this Contract. The Contractor must provide MSME registration number along with PAN card and GST registration number on Tax Invoice failing which the Contractor shall not claim any benefit under the MSMED Act.
- 35.4 The Contractor to furnish the undertaking to the Company in this regard.

36. COVID GUIDELINES

Looking to the prevailing Covid19 situation, Contractor will ensure that the work carried out in the field by their staff shall be as per the guidelines issued by MHA / BYPL/ Engineer-in-charge from time to time. Further Contractor shall be required to provide to their staff masks/ sanitizers/ all PPEs required for working in Covid19 situation. The Contractor shall further ensure to work as per the guidelines issued by BYPL and the instruction of the Engineer in charge.

37. CLEANLINESS & PRECAUTIONS TO BE TAKEN WHILE DOING WORK AT SITE TO PREVENT DUST POLLUTION

All debris shall be removed and disposed of at assigned areas on daily basis. Surplus excavated earth shall be disposed of in an approved manner. In short, the contractor shall be fully responsible for keeping the work site clean at all times. In case of non- compliance, company shall get the same done at Contractor's risk and costs.

While carrying out any civil work including road/ pit digging, plinth/ fence making, road restoration etc. contractor shall adhere to below mentioned guidelines.

- (a) No construction material/ debris shall be stored on metalled road.
- (b) Wind breakers of appropriate height on all sides of ear marked area using CGI sheets shall be raised to ensure that no construction material dust fly outside ear marked area.
- (c) The construction material i.e. coarse sand, stone aggregates, excavated earth, cement and any other material to and from the site shall be transported under wet and covered condition to ensure their non-slippage en-route to avoid air contamination.
- (d) The contractor shall provide mask and helmet to every worker working on the construction site and involved in loading/unloading and carriage of construction material and construction debris to prevent inhalation of dust

particles.

- (e) Over loading of vehicles shall be strictly prohibited
- (f) The construction material at site shall be stored under wet and covered condition.
- (g) The dumping sites for temporarily storing the excavated earth shall be properly levelled, watered and rehabilitated by plantation to avoid flying of dust.
- (h) The worker at the site shall be sensitized to adopt / observe the dust controlled measures in true spirit.
- (i) If any C&D (Construction & Demolition) waste is generated at site, the same will be transported to the C&D waste site only and the record for the same will be maintained by the agency.
- (j) Wet jet in grinding and stone cutting is being permitted at site.
- (k) The necessary record for dust control is being maintained by the department on day to day basis and being monitored regularly.
- (l) Contractor shall ensure that no tree shall be harmed and no tree roots shall be destroyed/cut while performing the task under agreement.
- (m) The contractor shall comply the provisions of The Delhi Preservation of Trees Act 1994.

The Execution contractor shall be responsible for all the preventive and protective environmental steps as per guidelines. Any violations from the above guidelines have been viewed very seriously by the authorities. Contractor shall be liable for the penalties / other action by the authorities, the contractor shall indemnify BYPL from all liabilities on this account.

38. ENVIRONMENTAL, HEALTH & SAFETY

The Contractor will ensure that the Environment, Health & Safety (EHS) requirements are clearly understood and faithfully implemented at all levels at site as per instruction of Company/BYPL. Contractors must comply with the requirements, as follows:

- (i) Comply with all of the elements of the EHS Plan and any regulations applicable to the work
- (ii) Comply with the procedures provided in the interests of Environment, Health and Safety
- (iii) Ensure that all of their employees designated to work are properly trained and competent
- (iii) Ensure that all plant and equipment they bring on to site has been inspected and serviced in accordance with legal requirement and manufacturer's or supplier/Contractor s' instructions
- (iv) Make arrangements to ensure that all employees designated to work on or visit the site present themselves for site induction prior to commencement of work
- (v) Provide details of any hazardous substances to be brought onsite
- (vi) Ensure that a responsible person accompanies any of their visitors to site

39. ACCEPTANCE

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 the Contractor consisting of general conditions and complete scope of work.

Contractor's and Company's contractual obligations are strictly limited to the terms set out in the CONTRACT.

SECTION – V : Technical Specification & Scope of Work(attached after page no. 73)

SECTION – VI: PRICE BID

SECTION-VI: BILL OF QUANTITY/ PRICE FORMAT

FOR 16/20 MVA 66/11 KV PTR					
(A)	SUPPLY PART :				
S.N	Item Description	Unit	Unit Rate without taxes Rs.	GST %	Unit Landed Rate in Rs.
1	HV Copper leg coils complete with insulation	Per kg.			
2	LV Copper leg coils complete with insulation	Per kg.			
3	Fresh Transformer Oil of standard quality as per Technical Specification & IS:335 type II	Per ltr.			
4	HV Bushing for 66/11KV Power Transformer	Each			
5	HV Bushing Metal Parts for 66/11KV Power Transformer	Per trf.			
6	LV Bushing for 66/11 KV Power Transformer	Per trf.			
7	LV Bushing Metal Part for 66/11 KV Power Transformer	Each			
8	OLTC (Tap Changer) for 66/11 KV Power Transformer	Each			
9	Complete Marshalling Box and cooling control panel without WTI/OTI for 66/11 KV power transformer	Each			
10	Set of Gaskets for 66/11 KV Power Transformer	Each			

11	Sundry item viz, cover bolts plug, caps screw, washer, insulation Material, arcing horn, air release plug, minor repair of tank required if any aluminium's name plate, including wheel and axle Equalizing pipe, MS plate for OLTC chamber and any other covered above but required to complete repair for 66/11 KV Power Transformer	Each			
12	Silica gel Breather with fresh Silica gel	Each			
13	Double Float Buchholz Relay for main tank	Each			
14	Valve on side of Buchhloz Relay	Each			
15	Magnetic oil level gauge	Each			
16	Radiator	Per kg.			
17	Radiator Valve (Butterfly Valve)	Each			
18	Radiator/Filter Drain Valve	Each			
19	Conservator oil Drain valve	Each			
20	Top & bottom Sampling valve	Each			
21	Top and Bottom oil filter valve for main tank	Each			
22	OLTC Conservator oil Drain valve	Each			
23	Valve between OLTC and Conservator	Each			
24	Radiator air release plug	Each			
25	Pressure Release valve	Each			
26	Cooling Fan	Each			
27	Fan Stand	Each			
28	Oil Surge Relay magnetic type	Each			
29	Sudden Pressure Valve relief(S.P.R/ RPRR)	Each			
30	LV & HV WTI CT	Each			

31	NCT(Neutral CT)	Each			
32	WTI with 4 switches, digital type with repeaters with PT 100 sensors and current converter unit	Each			
33	OTI with 4 switches, digital type with repeaters with PT 100 sensors and current converter unit	Each			
34	Air cell	Each			
35	Marshalling box stand	Each			
36	Knife switch arrangement	Each			
(B)	LABOUR PART:				
S.N	Item Description	Unit			
1	Labour charges for complete repairs of transformer at bidder/repairer's work for 66/11KV Power Trf.	Per Trf.			
2	Painting as per specifications For 66/11KV Power Trf.	Per Trf.			
3	Loading at site/ stores, to and fro transportation to bidder/repairer's factory and back to Grid/Site, unloading at Grid/Site Including insurance cover for 66/11KV Power Trf. and dragging(if required)	Per Trf.			
4	Repairing /Servicing of OLTC	Per Trf.			
5	Repairing /Servicing of Marshalling box	Per Trf.			
6	Testing of Repaired Transformer as per Technical Specification	Per Trf.			
(C)	CREDITS:				
S.N	Item Description	Unit	Unit Rate in Rs.	Taxes(GST/ TCS)	Unit Landed Rate in Rs.
1	Scrap of old copper leg coils with oil soaked paper insulation	Per kg.			

2	Scrap transformer Oil	Per ltr.			
3	Scrap Radiators/ any Iron parts	Per kg.			
4	Scrap HV/LV bushing Metal parts(Brass)	Per kg.			
5	Scrap HV/LV bushing Metal parts(Copper)	Per kg.			
6	Scrap OLTC	Each			

NOTE:

- 1) Prices quoted above shall remain firm for entire duration of the contract from the date of award of contract.
- 2) The bidder shall quote the prices strictly in the above format / item description / content. The bid shall be liable for rejection, if contractor fail to do so. If at any stage, the content is found to be changed from the given price format, the content as per the given price format will prevail and binding on the contractor
- 3) The bidder needs to quote for all the line items as mentioned above; failing which the bids are liable for rejection.

ANNEXURE –I : BID FORM

To,

**Head of Department,
Contracts & Material Department,
BSES YAMUNA Power Ltd,
IIIrd Floor, A Block,
Shakti Kiran Building, Karkardooma,
Delhi 110032.**

Dear Sir,

- 1 We understand that BYPL is desirous of awarding the contract for..... (Name of the Work) work in its licensed distribution network area in Delhi.
- 2 Having examined the Tender Documents for the above named works, we the undersigned, offer to deliver the goods/services in full conformity with the Terms and Conditions, technical specifications & Scope of Work as may be determined in accordance with the terms and conditions of the contract. The quoted amounts for this work are in accordance with the Price Schedules attached herewith and are made part of this bid.
- 3 If our Bid is accepted, we undertake to deliver the entire goods/services as per delivery/ completion schedule mentioned in Section III from the date of award of order/letter of intent.
- 4 If our Bid is accepted, we will furnish a Contract Cum Performance Bank Guarantee (CPBG) for due performance of the Contract in accordance with the Terms and Conditions of the NIT.
- 5 We agree to abide by this Bid for a period of 180 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 are aware of the provision of all Laws associated with the supply of equipment's/materials or Services 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 BYPL is not bound to accept the lowest, or any bid BYPL may receive.
9. There is provision for Resolution of Disputes under this Contract, in accordance with the Laws and Jurisdiction of contract
- 10 We do hereby agree and shall abide the terms of tender documents/agreement, in full

Dated this..... day of..... 2023

Signature..... In the capacity of

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

(IN BLOCK CAPITALS)

ANNEXURE – II: BIDDER’S DETAILS

S.No.	Item	Description
1	Company Name	
2	BYPL Vendor Code (If Registered)	
3	Area of Specialization	
4	Company Founded Year	
5	Type of Company	
6	Constitution(Company Registration number)	
7	Name of Director / Mobile Number	
8	Name of other main person / Mobile Number	
9	Vendor Address	
10	Vendor Contact no	
11	Vendor Email ID	-
12	No. of Manpower on payroll (Executive/Skilled/Semi-Skilled/Un-skilled)	-
13	No. of Contractual Manpower (Executive/Skilled/Semi-Skilled/Un-skilled)	-
14	Other Office / Factory Address	
15	ISO certification	
16	PAN	
17	PF/ESI	
18	Shop Establishment Certificate (If Applicable)	
19	Electrical License Detail (If Applicable)	
20	GST	
21	GST Registration Date	
22	SSI	
23	MSME Registration Number (If Applicable)	
24	Turn Over FY 2018-19 (Rs. Cr.)	
25	Turn Over FY 2019-20 (Rs. Cr.)	

S.No.	Item	Description
26	Turn Over FY 2020-21 (Rs. Cr.)	
27	Turn Over FY 2021-22 (Rs. Cr.)	
28	Profit after Tax FY 2018-19 (Rs. Cr.)	
29	Profit after Tax FY 2019-20 (Rs. Cr.)	
30	Profit after Tax FY 2020-21 (Rs. Cr.)	
31	Profit after Tax FY 2021-22 (Rs. Cr.)	
32	Net worth (Rs Cr.)	
33	Bank Guarantee Limit (in Cr.)	
34	Over Draft/Cash Credit Limit (in Cr.)	
35	Present Order Booking (Rs Cr.)	
36	Order executed with Reliance ADA (Rs Cr.)	
37	Name & Detail of relative working in BYPL	
38	Main Customer	
39	Details of orders executed / Under Execution	Please submit the details in Attachment - A

ATTACHMENT – A

Reference List of Order Executed / under Execution by the Vendor (M/s)

A) Major Orders Executed

<u>SN</u>	<u>Name of Project</u>	<u>Client name & address</u>	<u>Client contact Detail</u> (Person name, e-mail ID, Mobile & landline number)	<u>Vendor's Scope of Work</u>	<u>Date Of Award</u>	<u>Value of Work</u> (Rs in Lakhs)	<u>Completion date as per Order</u>	<u>Actual Completion Date</u>	<u>LD / Penalty imposed, if any</u> (Rs in Lakhs)	<u>Litigation / Arbitration</u> (Y/N) (If Yes, furnish details)	<u>Remarks</u>
1.											
2.											
3.											
4.											
5.											

B) Orders Under Execution

<u>SN</u>	<u>Name of Project</u>	<u>Client name & address</u>	<u>Client contact Detail</u> (Person name, e-mail ID, Mobile & landline number)	<u>Vendor's Scope of Work</u>	<u>Date Of Award</u>	<u>Value of Work</u> (Rs in Lakhs)	<u>Completion date as per Order</u>	<u>Actual Completion Date</u>	<u>LD / Penalty imposed, if any</u> (Rs in Lakhs)	<u>Litigation / Arbitration</u> (Y/N) (If Yes, furnish details)	<u>Remarks</u>
1.											
2.											
3.											
4.											
5.											

ANNEXURE – III: ACCEPTANCE FORM FOR PARTICIPATION IN REVERSE AUCTION EVENT

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

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 commercially qualified based on the tender requirements shall be eligible to participate in the reverse auction event.

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

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

For.....

Signature:

Name:

Designation:

FORMAT – 4.1

EMD BANK GUARANTEE

(To be issued in a Non-Judicial Stamp Paper of Rs.100/-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/services of [name and/or description of the goods/services] (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 SHAKTI KIRAN BUILDING, KARKARDOOMA, Delhi 110032 ,(herein after called —the “Purchaser”)in the sum of (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 _____ 2023. 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 180 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(s)

FORMAT – 4.2

PROFORMA OF CONTRACT CUM PERFORMANCE BANK GUARANTEE

(TO BE ISSUED ON RS 100/- STAMP PAPER)

This Guarantee made at _____ this [] day of [] 2023

1. WHEREAS **M/s BSES Yamuna Power Limited**, a Company incorporated under the provisions of Companies Act, 1956 having its Registered Office at **Shakti Kiran Building, Karkardooma, Delhi 110032**, India hereinafter referred to as the "Company", (which expression shall unless repugnant to the context or meaning thereof include its successors, administrators, executors and assigns).
2. AND WHEREAS the Company 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 "Contractor", 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 General Conditions of Contract, the Contractor is obliged to provide to the Company 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 Company granting the Contractor the Contract, the Bank hereby unconditionally and irrevocably guarantees and undertakes, on a written demand, to immediately pay to the Company 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 Contractor and without the Company 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 Company to invoke this Guarantee and as to whether the Contractor has not performed its obligations under the Contract shall be binding on the Bank. The Bank acknowledges that any such demand by the Company of the amounts payable by the Bank to the Company 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 Contractor or any dispute raised, invoked, threatened or pending before any court, tribunal, arbitrator or any other authority.
6. The Bank also agrees that the Company at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor without proceeding against the Contractor notwithstanding any other security or other guarantee that the Company may have in relation to the Contractor's liabilities.
7. The Bank hereby waives the necessity for the Company first demanding the aforesaid amounts or any part thereof from the Contractor before making payment to the Company and further also waives any right the Bank may have of first requiring the Company to use its legal remedies against the Contractor, 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 Company to timely pay or perform any of its obligations under the Contract.
9. The Bank further unconditionally and unequivocally agrees with the Company that the Company 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 Company against the Contractor under the terms and conditions of the Contract; or

(iii)Extend and/or postpone the time for performance of the obligations of the Contractor 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 Company or any indulgence shown by the Company to the Contractor 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 Contractor, and this Guarantee shall not be affected or discharged by the liquidation, winding-up, bankruptcy, reorganization, dissolution or insolvency of the Contractor 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 Company to secure the performance of the obligations of the Contractor 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 _____ (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 Company and agrees that any change in the constitution of the Bank or the Contractor shall not discharge our liability hereunder.
15. Company 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 of 2023 at

(Signature)

.....

(Name)

.....

(Designation with Bank Stamp)

Attorney as per

Power of Attorney No.....

Date.....

Beneficiary's bank detail with IFSC Code:

1. Name of the Bank : State Bank of India
2. Branch Name & Full Address: Industrial Finance Branch, 14-15 Floor,
Jawahar Vaypar Bhawan, 1, Tolstoy Marg, New Delhi 110001
3. Bank Account No:
10277791808
4. IFSC Code:

SBIN0009601

Vendor has to fill this form & submit along with the PERFORMANCE BANK GUARANTEE

1. Bank Email ID-----Bank Phone No-----
2. Where to Dispatched the BG -Local Address of bank -----
3. Where to Dispatched the BG Head Office Address -----

FORMAT – 4.3
NON-DISCLOSURE AGREEMENT

THIS NON-DISCLOSURE AGREEMENT ("Agreement") is made and entered into at Delhi on the _____ day of _____, 2023

By and Between

M/s BSES Yamuna Power Limited, a company registered under the Companies Act, 1956 and having its registered office at **Shaktikiran Building, Karkardooma, Delhi 110032** (hereinafter referred to as the "Disclosing Party" which expression shall unless repugnant to the meaning and context mean and include its successors and permitted assigns) of the FIRST PART

And

_____, a company incorporated under the Companies Act, 1956 and having its registered office at _____, (hereinafter referred to as the "Receiving Party" which expression shall unless repugnant to the meaning and context mean and include its successors and permitted assigns) of the OTHER PART

Disclosing Party and Receiving Party are hereinafter individually referred to as the "Party" and collectively as the "Parties".

WHEREAS the Disclosing Party is in discussions with the Receiving Party for Security Management Services ("Project") and the Disclosing Party may in conjunction with the aforesaid disclose to the Receiving Party information relating to their businesses which is confidential and sensitive in nature and the Receiving Party is willing to undertake to restrict the use and further disclosure of the information in accordance with the terms and conditions set out herein:

1. The "Receiving Party" acknowledges and confirms the confidential and sensitive nature of all information, documents and material relating to Persons and entities which may be accused of or related to the theft of electricity which is a penal offense under the provisions of the electricity act 2003As well as the various data and tools which may be available by way of documents as well as other modes of proof("Project") (i) that may be disclosed or made available to the Receiving Party by the Disclosing Party or its employees/ representatives/ advisors/ consultants; (ii)Receiving Party may gain or gather from any source; (iii) Receiving Party may process or arrive at during the course of the Project; (iv) Receiving Party may have come across during its discussions with any person in the course of the Project; and (v) all negotiations and discussions between the Parties relating to the Project (all the information referred to above is hereinafter referred to as the "Confidential Information").
2. Confidential Information is understood to include but is not limited to information made available in written, machine recognizable, graphic or sample form including, without limitation, drawings, photographs, models, design or performance specifications, its analysis, compilations, studies, notes and all other information and data disclosed orally or visually which has been developed / is exclusive to the Disclosing Party and includes information provided in various meetings.

Provided, however, that Confidential Information shall not include information which (a) is, or becomes, publicly known, otherwise than through a wrongful act of the Receiving Party or its representatives; (b) is in the possession of the Receiving Party prior to receipt from the Disclosing Party or its representatives without an obligation of confidentiality; (c) is independently developed by the Receiving Party, provided that it was not derived from the Confidential Information; (d) is furnished to others by the Disclosing Party without restrictions, similar to those herein on the rights of such others to use or disclose; or (e) is approved in writing by the Disclosing Party for disclosure.

3. The Receiving Party shall not disclose the Confidential Information to any other person save and except with the express consent in writing given by the Disclosing Party. The Receiving Party, however, may disclose such part of the Confidential Information where (i) such disclosure is in response to a valid order of a court or any other governmental body having jurisdiction over this Agreement or (ii) such disclosure is otherwise required by law,

provided that Receiving Party has given prior written notice to the Disclosing Party forthwith it came to learn about such disclosure requirement or the demand for such for disclosure and made all reasonable efforts to protect the Confidential Information in connection with such disclosure.

4. The Receiving Party shall with reference to the Confidential Information take all actions as may be necessary to (i) maintain the confidentiality thereof; (ii) limit its use of such Confidential Information solely for the purpose of the Project; (iii) avoid disclosure even to any of its employees that are not associated with the Project; (iv) avoid any dissemination or publication by any of its employees/ representatives associated with the Project; (v) avoid writing about sensitive information which is disclosed verbally and is sensitive to the operations; and (vi) safeguard the Confidential Information from being accessed by any unauthorized person. Such actions shall include but not be limited to obtaining appropriate non-disclosure undertakings from its employees directly or indirectly engaged in the Project.
5. The Receiving Party hereby agrees to indemnify and hold harmless the Disclosing Party and its directors and employees from and against any damage, loss, cost or liability (including all expenses and costs of enforcing rights under the Agreement) arising out of or resulting from (i) any use or disclosure by the Receiving Party of Confidential Information in violation of the Agreement; (ii) any leakage of the Confidential Information at the end of the Receiving Party or its employees/ representatives; and (iii) breach or violation of any of the other covenants herein.
6. The Receiving Party will, promptly upon the request of the Disclosing Party, deliver to the Disclosing Party, the documents comprising the Confidential Information or any part thereof and will destroy any copies, notes, or extracts thereof, without retaining any copy thereof, except that any portion of the Confidential Information that consists of analysis and any written Confidential Information not so requested and returned, shall be retained and kept subject to the terms of this Agreement, or upon the Disclosing Party's request destroyed (such destruction to be confirmed in writing).
7. The term of this Agreement is 3 years from the date of execution of this Agreement. However, the obligation to maintain confidentiality of the Disclosing Party's information shall survive the termination of this Agreement. Any violation of this agreement may lead to termination of all the relations with the Receiving party and black listing/ debaring of the Agency for future engagements.
8. This Agreement shall be governed by the laws of India. Any dispute, difference or claim related to or arising under, out of or in connection with this Agreement shall be resolved subject to the jurisdiction of Delhi Courts.

For the Disclosing Party

Authorized Signatory

Name:

Designation:

For the Receiving party

Authorized Signatory

Name:

Designation:

FORMAT – 4.4

NO DEVIATION DECLARATION

NO DEVIATION –A(Technical)

NIT NO & DATE:

DUE DATE OF TENDER:

We hereby accept all terms and conditions of the technical scope of work as mandated in the tender documents subject to the following deviations as mentioned against the applicable technical qualifying requirement:

S.NO.	SL.NO OF TECHNICAL SPECIFICATION/SCOPE OF WORK	DEVIATIONS, IF ANY

SIGNATURE & SEAL OF BIDDER

NAME OF BIDDER

Note-The above template is indicative only, may vary depending on the nature of procurement/value.

NO DEVIATION –B(Commercial)

NIT NO & DATE:

DUE DATE OF TENDER:

We hereby accept all terms and conditions of the commercial requirement as mandated in tender document subject to the following deviations as mentioned against the applicable commercial qualifying requirement:

S.NO.	S. NO OF COMMERCIAL REQUIREMENTS	DEVIATIONS, IF ANY

SIGNATURE & SEAL OF BIDDER

NAME OF BIDDER

Note:-It is important to explicitly include all such terms and conditions which are considered absolutely necessary to be accepted by bidder without any deviation. Tender document shall have a stipulation that deviation to such criteria shall make the bid liable for rejection.

FORMAT – 4.5

BIDDER'S COMMUNICATION DETAILS

Bidder should furnish the below details for future communication: -

<u>GENERAL INFORMATION</u>	
NAME OF Company	
POSTAL ADDRESS	

FOR TECHNICAL QUERY:		
CONTACT PERSON & DESIGNATION	NAME	DESIGNATION
E-MAIL	MOBILE NO	TELEPHONE NO

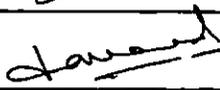
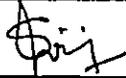
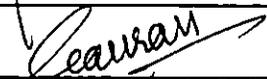
FOR COMMERCIAL QUERY:		
CONTACT PERSON & DESIGNATION	NAME	DESIGNATION
E-MAIL	MOBILE NO	TELEPHONE NO

Note: No communication shall be entertained from any other email id, except as mentioned above. Bidder needs to inform the company if any changes in the email id on their letter head duly signed by the authorized signatory.



Technical Specification for Repairing and Servicing of Power Transformer

Specification no – BSES-TS-131-RPTR-R0

Rev:		0
Date:		30 Aug 2022
Pages:		40
Prepared by	Jeena Borana	
	Javed Ahmed	
Reviewed by	Srinivas Gopu	
	Abhinav Srivastava	
Approved by	Gaurav Sharma	
	Gopal Nariya	

Index

RECORD OF REVISION.....	3
1.0 SCOPE.....	4
2.0 CODES & STANDARDS	4
3.0 MAJOR DESIGN CRITERIA & PARAMETERS	4
4.0 TERMS AND CONDITIONS FOR SERVICING OF POWER TRANSFORMER.....	5
5.0 TERMS AND CONDITIONS FOR REPAIRING OF POWER TRANSFORMER.....	12
6.0 FITTINGS AND ACCESSORIES ON POWER TRANSFORMER.....	14
7.0 APPROVED MAKE OF COMPONENTS	15
8.0 QUALITY ASSURANCE	17
9.0 PROGRESS REPORTING	17
10.0 INSPECTION DURING REPAIR	17
11.0 TESTING OF TRANSFORMER.....	19
12.0 PACKING, SHIPPING, HANDLING AND STORAGE.....	21
13.0 DEVIATIONS.....	22
14.0 DRAWING AND DOCUMENTS.....	22
ANNEXURE - A SCOPE OF WORK.....	25
ANNEXURE – B SERVICE CONDITIONS.....	25
ANNEXURE – C FORMAT FOR DATA OF TEMPERATURE RISE TEST	25
ANNEXURE – D HANDING OVER/TAKING OVER OF POWER TRANSFORMER	26
ANNEXURE – E JOINT VERIFICATION REPORT OF POWER TRANSFORMER	32
ANNEXURE – F STAGE INSPECTION REPORT FOR POWER TRANSFORMER.....	38
ANNEXURE – G TECHNICAL SPECIFICATION OF TRANSFORMER OIL.....	40

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER**1.0 SCOPE**

For Scope of Work, refer Annexure A

2.0 CODES & STANDARDS

Materials, equipment and methods used in the Repairing and Servicing of Power Transformer shall conform to the latest edition of following standards –

Indian Standards

IS : 335	Insulating oil
IS : 1271	Thermal evaluation and classification of electrical insulation
IS : 60137	Bushing for alternating voltage above 1000V
IS : 16227	Current transformers
IS : 3347	Dimensions for porcelain transformer bushing
IS : 3637	Gas operated relays
IS : 3639	Fitting and accessories for power transformers
IS : 4201	Application guide for CT's
IS : 2026-7	Guide for loading of oil immersed transformers
IS : 8478	Application guide for On load tap changer
IS : 8468	On load tap changer
IS 10028	Code of practice for selection, installation & maintenance of transformers
IS : 60947	LV switchgear & controlgear Part-1
IS : 2026	Power Transformers
IS : 5561	Electrical power connectors
IS : 6272	Specification for Industrial cooling fans
IS : 1866	Code of practice for electrical maintenance and supervision of mineral insulating oil in the equipment
IS : 3043	Code of practice for earthing
IS : 6792	Method for determination of electrical strength of insulating oils.
IS: 12676	OIP Paper insulated condenser bushing dimension and requirements
	Indian Electricity Rules
	Indian electricity act
	CBIP manual

3.0 MAJOR DESIGN CRITERIA & PARAMETERS

3.1	Voltage variation on supply side	+ / - 10%
3.2	Frequency variation on supply side	+ / - 5%
3.3	Transient condition	-20% or +10% combined variation of voltage and frequency
3.4	Service condition	Refer annexure B

4.0 TERMS AND CONDITIONS FOR SERVICING OF POWER TRANSFORMER

4.1	General Terms and Conditions	<ul style="list-style-type: none">i) The vendor shall have to lift the transformer from the substation after getting consent and written approval from owner. A complete list of material along with handing Over/Taking over Performa as per Annexure-D shall be handed over to the vendor.ii) Before lifting of transformers, the vendor to check and ensure that core coil assembly is fitted with the transformers. During Joint verification at vendors work if core/coil found missing the vendor shall repair the same on his cost and risk by giving credit of scrap of Copper/core approximate nearest/equal to quantity of the same make transformer core/coil.iii) Vendor has to give the inspection call before opening of the transformer at his works and the transformer shall be opened in presence of the representative of owner. The joint verification of the transformer shall be done and report for repairing/servicing shall be prepared as per formats attached as Annexure-E. Based on the above report, vendor has to take the approval of the work before proceeding with the repairing/servicing work.
4.2	On site inspection of Transformer	<ul style="list-style-type: none">- Physical inspection of transformer at site/sub-station shall be checked for the present condition of the transformer and all components /accessories as a bench mark for preliminary assessment of extent of servicing/repair required and preparation of handing over/taking over document jointly with the Owner as per Annexure-D.- The owner shall carryout field test as per clause 8.0 and furnish Field Test Report of transformer along with brief history and last DGA report to vendor as a benchmark document.

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

4.3	Field check before lifting of transformer	<p>Bidder shall carryout following checks on the transformer including accessories jointly with Owner's representative at site and record the observations in handing over/taking over document as per Annexure-D</p> <ul style="list-style-type: none">a) Check tank, radiators, Conservator and bushing for oil leaks. If oil level has fallen down below specified level (at site temp.), the cause of leakage should be determined. Check for leaks on all joints, valves, connections etc. shall be carried out.b) Check HV & LV bushing surface for damage, signs of chipping, dirt, oil films etcc) Check condition of relief vents.d) Check functioning of cooling arrangement.e) Check calibration of local & remote temperature indicators.f) Check operation of buchholz relay and magnetic oil level gauge.g) Check functioning of tap changer both local/remote as well as automatic/ manual control. Check motors and it's controls.h) Check that all control, alarm, power supply circuit are in order, switches are functioning and fuses in the circuit are well placed and of proper rating.i) Check the condition of Painting.j) Check the presence of nameplate, caution plate etc.
4.4	Transportation of transformer	<p>Following shall be in scope of the vendor :-</p> <ul style="list-style-type: none">i) Lifting, dragging, loading and transportation of the transformer from the site to vendor's works and unloading, handing of transformer in vendor's works.ii) Transportation of new Oil (to be supplied by the owner as a free issue item in case of servicing) from owner's store to vendor works.iii) Complete transit insurance.

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

4.5	Servicing of Transformer at Vendor's work	<p>i) Un-tanking the transformer at vendor's works in presence of owner's representative. During un-tanking, inspection and testing at vendor's works shall be carried out. This will help to assess exact quantum and nature of servicing/repair involved. Preparation of joint verification report highlighting condition of the transformer including it's core and winding and nature of replacement /repairing of components to be carried out.</p> <p>ii) Transportation of new Oil (to be supplied by the owner as a free issue item in case of servicing) from owner's store to vendor works.</p> <p>iii) Servicing of the transformer including repair/replacement of parts/accessories as per approval of the owner.</p> <p>iv) Repairing of core and change of winding is excluded from the scope of servicing of Transformer.</p>
4.6		<p>i) After servicing, the Power Transformer shall be deemed to be fully ready for charging and will be fitted with all necessary components and accessories, which are necessary for efficient performance and trouble free operation of transformer under various operating and atmospheric conditions.</p> <p>ii) Loading and transformation of the transformer after servicing from the vendor's works and finally unloading the transformer at sub-station site/store as per direction of the owner.</p> <p>iii) Dismantling of transformer before dispatch from site and Erection, Testing and commissioning of the refurbished transformer are excluded from the scope of the vendor. However, the vendor shall depute their representative during testing and commissioning of the transformer at site with no additional financial implication to the Owner.</p>
4.7	Major checks during Un-tanking of the transformer	Transformer should be un-tanked in presence of owner for the following checks and Joint Verification Report shall be prepared.
4.8	Core and Coil	<p>i) While un-tanking, looseness in laminations, core bolts, insulating block shall be checked. The top yoke shall be checked for any kind of weld and burnt marking.</p> <p>ii) If any bolt/nut is found loose that should be tightened. Moreover, if there is any slacking of windings, Tie-rod/Coil Clamping Screws shall also be tightened.</p>
4.9	Condition of Coil	i) Visual inspection regarding the colour of the insulation paper. If it has oxidized fully and the colour has

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

		<p>become black or the paper has become brittle, respective winding shall be replaced by new one and repairing shall be done as per clause 5.0 of this specification.</p> <ul style="list-style-type: none"> ii) For the paper that appears in order, the small piece shall be checked for degree of polymerization for assessing the life of the paper. iii) The complete winding shall be given hot oil bath. Complete coil to be washed properly with clean oil under pressure to remove sludge and other accumulations, which prevent proper circulation of oil. iv) All spacers shall be checked properly for any deformation. If any spacer is found displaced, the same shall be put at the proper place by loosening the top bolt. If required the press board should be changed. v) The entire paper of the tie rod shall be removed and new paper wrapped. vi) Proper drying of all the replaced papers should be ensured while carrying out the job. vii) The connection between the windings and bushing shall be checked for healthiness and if required shall be attended. viii) The complete core coil shall be kept in the vacuum oven and shall be taken out only when it is completely dehydrated. The I.R. value should be more than 2000MΩ and Polarisation index $(PI = IR_{(10 \text{ min})} / IR_{(1 \text{ min})})$ factor shall be more than 1.5 respectively.
4.10	OLTC	<ul style="list-style-type: none"> i) Complete cleaning of the OLTC contacts and pitting, if any, shall be properly done. After cleaning contact resistance to be checked to ensure the proper cleaning of the contacts. ii) Papers of all the tapping leads is to be changed with the good quality crape papers, the test certificate and sources of the papers shall be scrutinized by the owner. iii) All lugs /crimping at the OLTC taps shall be checked and re-crimped if required. iv) Separation plate/Phase Barrier plate to be checked for any sort of mechanical damage and if found damaged shall be replaced after taking approval from the owner. v) Moving contacts of OLTC will be checked properly for wear and tear and if required the same shall be changed.

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

		<ul style="list-style-type: none">vi) Insulation rods to be checked for its proper mechanical and insulating strength by applying high voltage across OLTC.vii) Complete wiring of OLTC both in remote and manual mode to be checked.viii) Vendor has to submit the list of the spares required for OLTC for the review of the owner.ix) If required, wiring of OLTC is to be carried out by reputed make FRLS cable and report for owner will verify the same.x) Manual operating handle, if not available, shall be provided.xi) Oil surge relay of OLTC to be checked for proper functioning and if required shall be changed.
4.11	Transformer tank	<ul style="list-style-type: none">i) For complete tank cleaning and removal of the sludge and carbon, hot oil cleaning shall be carried out. For flushing out the sludge, hot oil cleaning to continue till sludge is completely removed.ii) All carbon shall be removed.iii) Painting of the entire outer surface and inner surface of the tank and all other accessories shall be carried out.
4.12	Radiators	<ul style="list-style-type: none">i) For complete cleaning and removal of the sludge and carbon from the radiator, hot oil cleaning shall be carried out. For flushing out the sludge from the radiator, hot oil cleaning to continue till sludge is completely removed.ii) Air pressure test as per relevant standard shall be carried out for the radiators. Damaged radiator fins shall be repaired/replaced.iii) Painting of the entire outer surface of the radiators shall be carried out.
4.13	Conservator and air cell	<ul style="list-style-type: none">i) Conservator shall be cleaned by hot oil cleaningii) Leakage in the air cell shall be checked. If required, the air cell shall be replaced with approval from the Owner.iii) Painting of the entire outer surface of the conservator shall be carried out.
4.14	Bushing	<ul style="list-style-type: none">i) All types of bushing shall be checked for hair crack and damages and it shall be replaced wherever required. In case bushing-having damage to any skirt, it should be replaced by new one. The bushings shall conform to the latest IS 3347 & IS 12676ii) Before using the old bushing it should be subjected to high voltage at 90% of the voltage and if the bushing does not withstand the test, it shall be replaced.iii) In case the bushing CT has been provided for WTI, the

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

		<p>ratio and proper functioning is to be checked.</p> <p>iv) Tan Delta and capacitive leakage test shall be carried out for capacitive type bushings.</p> <p>v) For new bushings minimum creepage distance shall be 31 mm/kV</p> <p>vi) For 66kV OIP bushing of approved make and 33kV and 11kV porcelain bushing shall be used</p>
4.15	Support insulator and busbars	<p>i) Damaged support insulator shall be replaced with the porcelain glazed insulator of the creepage distance not less than 31 mm/ KV. The insulator shall be reputed make and subjected to the approval of the Owner.</p> <p>ii) If required, busbars shall be provided for connecting the three/four runs of 1CX1000 sq.mm., 11KV XLPE cable.</p> <p>iii) Provision for screen earthing of the cable shall be provided.</p>
4.16	Axles and wheels	Proper functionality of flanged bi-directional wheels and axles shall be ensured.
4.17	Silica gel breather	<p>i) Breather shall be checked and it shall be ensured that the breather is leak proof and it breaths through the capillary only. In case the breather is not serviceable, it shall be replaced.</p> <p>ii) If the old breather is retained, Silica gel and oil in sealing cup shall be changed.</p>
4.18	WTI, OTI and Marshalling Box	<p>i) WTI & OTI should be properly calibrated for indication of the correct temperature and initiating the alarm and trip contacts. In case, WTI and OTI are not serviceable, the same shall be replaced</p> <p>ii) Functioning of RTD's of oil and winding temperature indicators, if provided, shall be checked.</p> <p>iii) The Complete wiring, NO & NC contacts are to be checked and if required rewiring of the cubicle should be done. In case anything is found burnt/damaged, the same shall be repaired with the guarantee of one year.</p> <p>iv) All cabling as required is to be done by FRLS cable. All contactors shall be of approved vendor.</p> <p>v) All door and flange gasket neoprene or EPDM should be changed for proper environment protection.</p> <p>vi) Space heater and cubicle light shall be checked for proper operation.</p>
4.19	Remote indications	<p>i) Remote WTI, OTI & TPI should be properly calibrated. In case, these are not serviceable, the same shall be replaced</p> <p>ii) Proper functioning of all alarm to be checked and corrected as required.</p> <p>iii) Cooler control and fan failure scheme shall be checked</p>

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

		<p>and necessary correction shall be made as required.</p> <ul style="list-style-type: none">iv) The Complete wiring and NO & NC contacts are to be checked and if required rewiring of the cubicle should be done. In case anything is found burnt/damaged the same shall be repaired with the guarantee of one year.v) All cabling as required is to be done by FRLS cable. All contactor shall be of approved make.vi) All door and flange gasket neoprene or EPDM should be changed for proper environment protection.vii) Space heater and cubicle light shall be checked for proper operation.
4.20	General Work	<ul style="list-style-type: none">i) Accessories, which are not serviceable, shall be replaced. Before replacement joint verification report shall be prepared and approval shall be obtained from the Owner.ii) In case of OLTC, servicing/repairing detailed report from OEM to be submitted.iii) All gaskets shall be changed by new ones. In addition, the vendor shall provide a complete set of spare gaskets for all joints. The gasket shall be type-B conforming to IS-4253 (Part-II)/1980 and any amendments thereof.iv) All nuts & bolts shall be replaced by new ones. Steel bolts and nuts exposed to atmosphere shall be cadmium plated or zinc plated. On outdoor equipments all bolts, nuts and washers in contacts with non-ferrous parts, which may carry current, shall be phosphor-bronze, where transfer of current is through the bolts.v) All fuses shall be replaced by new ones.vi) Checking for the functionality of all protective relaying i.e., Buchholz, OSR, PRV, PRD, MOG etc. for proper functioning. If required these shall be changed after taking approval from owner.
4.21	Painting	<ul style="list-style-type: none">i) Tank and other metallic parts shall be thoroughly cleaned with caustic soda and there after with emery paper to remove oil, original old paint and rust (if any) to ensure good bond between metal and Paint. After above process, Tank internals shall be cleaned by Shot/Sand blasting method.ii) One coat of high quality and heat resistant Epoxy based rust resisting primer as per IS:2074 with latest amendments. shall be applied on the complete outer surface of tank, conservator, radiator and other metal parts before applying the two coats of battleship grey

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

		<p>shade 692 (IS 5) polyurethane paint. All paints shall be oil and weather resistant type. The total paint thickness shall not be less than 80 micron with the glossy finish however vendor should take the approval of final paint shade from owner.</p> <p>iii) The internal surfaces of transformer shall be painted by two coats of bright yellow heat resistant & oil resistant paint. Paint shall neither dissolve nor react in hot transformer oil.</p> <p>iv) Each earthing point to be checked and it should be free from the paint</p>
--	--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

5.0 TERMS AND CONDITIONS FOR REPAIRING OF POWER TRANSFORMER

	All the scope of work mentioned hereunder is included in the scope of repairing in addition to the work under clause 4.0 for servicing of transformer.	
5.1	Scope of work	<p>Following additional scope of work is also included in the scope of work for repairing of transformer</p> <p>i) Repair/replacement of damaged core identified during Joint Verification Report and approved by the owner.</p> <p>ii) Replacement of winding as per approval of the owner.</p> <p>Before re-installing the core and coil into the tank after repair, stage inspection shall be carried out in presence of Owner's representative and stage inspection report shall be prepared.</p>

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

5.2	General terms and condition	<ul style="list-style-type: none">i) Vendor has to furnish the list of all the spares required for servicing of the transformer. All the accessories or parts being used for replacement shall be new and of approved make in line with the list attached as clause 6.0 The vendor has to submit the test report of these components at the time of inspection.ii) All the works as listed under clause no.4.0 for servicing and both of the clause no.4.0 & 5.0 for repairing, have to be completed before offering final inspection of the transformer.iii) Before re-installing the core and coil into the tank, stage inspection shall be carried out in presence of Owner's representative. The joint stage inspection report shall be prepared as per formats attached as Annexure-E. Standard quality plan for Stage inspection is attached as Annexure-F .iv) In case of transformer having no name plate the dimension of tank, radiator & conservator to be measured at the time of JVR and submitted for technical approval for quantity of oil.v) The Vendor may be allowed to dispose all detained material after approval of estimate for repair from the Owner.vi) In case of replacement of winding, the Vendor shall retain the one coil of HT & LT for physical verification till the stage inspection and estimate approval.vii) Any deviation with respect to the scope of work and specification should be clearly brought out by the vendor. In case of no deviation, it will be deemed that vendor has agreed on all the work as mentioned in the specification.viii) Vendor shall offer inspection call to owner after completion of servicing work for which at least 1-week advance notice shall be given. Test will be performed in presence of owner's representative. Standard quality plan for final inspection to be approved by BSES
-----	-----------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

5.3	Core and Coil	<ul style="list-style-type: none"> i If core lamination is found to be damaged, the same shall be replaced and the weight of the damaged core shall be recorded in JVR. ii In case of rewinding the following shall be followed: iii The conductors shall be of electrolytic copper. Current density in winding should not be more than 2.5 A/sq mm. For any deviation prior approval of the owner is required. iv Temperature rise test shall be carried out after reassembly of the transformer. v All insulation materials shall be of quality appropriate to the insulation classes of respective transformer and shall conform to IS-2026 and amendments thereof. <ul style="list-style-type: none"> a. After removing the top ring and core if sludge is found in between the windings, the HT windings shall be taken out and LT windings shall be cleaned properly with hot oil before putting it in the oven. b. All top rings to be changed by new ones. c. Binding between the winding layers to be checked and if loosened proper care shall be taken. d. If there is any slight deformation in the coil the same shall be corrected.
5.4	Transformer oil	Vendor shall replace transformer oil of approved make as per Annexure-G.

6.0 FITTINGS AND ACCESSORIES ON POWER TRANSFORMER

6.1	Rating and Diagram Plate	Required (in case of Repair only)
6.2	Material	Anodized aluminum 16SWG
6.3	Background	SATIN SILVER
6.4	Letters, diagram & border	Black
6.5	Process	Etching
6.6	Name plate details	<p>Following details shall be provided on rating & diagram plate as a minimum</p> <ul style="list-style-type: none"> i) Type/kind of transformer with winding material. ii) Standard to which it is repaired. iii) Name of vendor who repaired the transformer. iv) Transformer new serial no. v) Month & year of repair. vi) Rated frequency. vii) Rated voltages in KV. viii) Number of phases.

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

		<ul style="list-style-type: none"> ix) Rated power in KVA x) Type of cooling. xi) Rated current in Ampere. xii) Vector group symbol. xiii) 1.2/50μ sec wave impulse voltage withstand level in kv. xiv) Power frequency withstand voltage in KV. xv) Impedance voltage at rated current & freq. In % at principal, minimum, maximum tap. xvi) Load loss at rated current. xvii) No-load loss at rated voltage & frequency. xviii) Auxiliary loss if applicable. xix) Continuous ambient temp. at which ratings apply. xx) Top oil and winding temp. rise at rated load and ambient temp. xxi) Winding connection diagram. xxii) Transport weight of transformer. xxiii) Weight of core and frame. xxiv) Weight of winding. xxv) Weight of core and winding. xxvi) Weight of tank & fitting. xxvii) Total weight. xxviii) Volume of oil. xxix) Weight of oil. xxx) NCT, WCT details. xxxii) Tapping details. xxxiii) Name of Owner. xxxiv) PO no. and date. xxxv) Guarantee period.
6.7	Instruction plate for OLTC	Required.
6.8	Oil filling instruction	Required.
6.9	Valve schedule instruction	Required.

7.0 APPROVED MAKE OF COMPONENTS

7.1	Core Lamination	Nippon/JFE/Posco
7.2	Insulating Material (press board, kraft paper, press paper)	Sumitomo corporation, Japan Weidmann, Switzerland Raman Boards, Thandavapura Munkajo Paper, AB Sweden Senepathy Whiteley, Bangalore
7.3	Copper / Aluminium (rod)	Sterlite industries, Lonavala Birla Copper, Bharuch

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

		Hindustan Copper, New Delhi Bharat Alum. Co., New delhi National Alum. Co. , new delhi
7.4	Transformer Oil	Apar, Mumbai Savita Chemicals, Mumbai Rajpetro
7.5	Gasket	Nu-Cork products, Gurgaon Talbro, Faridabad Cortica Mfg. Chemical Gujarat Cork, Valaad Everest Electric
7.6	Condenser Bushing	Alstom BHEL, Bhopal CGL, Nashik ABB
7.7	Porcelain Bushing	CJI
7.8	Buchholz Relay	Proyog / ATVUS
7.9	Temperature Indicator	Precimeasure / Perfect Controls
7.10	OLTC	CTR, Pune
7.11	MOG	Sukrut Udyog, Pune Atvus Industries, Kolkata
7.12	Pressure relief valve	Sukrut/Qualitrol
7.13	Oil Surge relay	Sukrut Udyog, Pune Atvus Industries, Kolkata
7.14	Repeater for WTI/OTI	Accord/Precimeasure
7.15	Temperature Scanner	Accord/Precimeasure
7.16	Neutral CT	Pragati / ECS / KAPPA
7.17	WCT	Pragati / ECS / KAPPA
7.18	Switch	L&T/ Siemens/Anchor
7.19	HRC Fuse links and base	Siemens/L&T/GE
7.20	AC contactor & over load relay	L&T/Siemens/Schneider
7.21	Terminals	Connectwell / elmex
7.22	Push Button / Actuator	L&T / Siemens
7.23	Thermostat	Velco/Girish
7.24	Heater	Velco/Girish
7.25	Selector Switch	Siemens / Kaycee
7.26	Tap position indicator	Accord
7.27	Digital tap change counter	Selectron
7.28	LED indication lamp	MIMIC/Siemens/Binay
7.29	Lugs/Glands	Jainson/Dowells/Comet
7.30	Radiators	CTR/Hi-Tech Radiators/Tarang Engineers
7.31	Sudden Pressure Relay	Sukrut / Qualitrol
7.32	Aircell	Sukrut(Unirub)/Pronol / Rubber Product

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

7.33	Auxiliary Relays	ABB/Siemens/Schneider/L&T/GE
7.34	Timers	L&T /Siemens

Note – Any other make of component to be approved by purchaser

8.0 QUALITY ASSURANCE

8.1	Vendor quality plan	To be submitted for purchaser approval.
8.2	Inspection point	To be mutually identified and agreed in quality plan.

9.0 PROGRESS REPORTING

9.1	Outline Document	To be submitted for purchaser approval for outline of production, inspection, testing, inspection, packing, dispatch, documentation programme. The vendor shall submit Time schedule for Servicing / repairing of Power Transformer within 5 Days of receipt of Transformer at there works.
9.2	Detailed Progress report	To be submitted to Purchaser once a month containing i) Progress on material procurement ii) Progress on servicing (As applicable) iii) Progress on assembly (As applicable) iv) Progress on internal stage inspection v) Reason for any delay in total programme vi) Details of test failures if any in manufacturing stages.(if applicable) vii) Progress on final box up Constraints / Forward path

10.0 INSPECTION DURING REPAIR

10.1	Inspection and Testing during repair	
10.2	Core	i) Sample testing of core material for checking specific loss, bending properties, magnetization characteristics & thickness. ii) Check on the quality of varish if used on the stampings for a) measurement of thickness & hardness of varish on stampings. b) Solvent resistance test to check that varish

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

		<p>does not react in hot oil.</p> <p>c) Check overall quality of varnish by sampling to ensure uniform hipping color, no bare spots, no burnt varish layer and no bubbles on varished surface.</p> <p>iii) Check on the amount of burrs.</p> <p>iv) Bow check on stampings.</p> <p>v) Check for the overlapping of stampings. Corners of the sheet are to be apart.</p> <p>vi) Visual & dimensional check during assembly stage.</p> <p>vii) Check on complete core for measurements of iron-loss and check for any hot spot by exciting the core so as to induce the designed value of flux density in the core.</p> <p>viii) Check for inter laminar insulation between core sectors before & after pressing.</p> <p>ix) Visual & dimensional checks for straightness & roundness of core, thickness of limbs & suitability of clamps.</p> <p>x) High voltage test (2KV for one min.) between core and clamps.</p> <p>xi) Certification of all the tests.</p>
10.3	Insulating Materials	<p>i) Sample check for physical properties of materials.</p> <p>ii) Check for dielectric strength.</p> <p>i) Visual and dimensional checks.</p> <p>ii) Certification of all tests.</p>
10.4	Windings	<p>i) Sample check on winding conductor for mechanical properties & electrical conductivity.</p> <p>ii) Visual & dimensional check on conductor for scratches, dept. mark etc.</p> <p>iii) Sample check on insulating paper for PE value, bursting strength, electric strength.</p> <p>iv) Check for reaction of hot oil on insulating paper.</p> <p>v) Check for bending of the insulating paper on the conductor.</p> <p>vi) Check to ensure that physical condition of all material taken for winding is satisfactory & free of dust.</p> <p>vii) Check for absence of short circuit between</p>

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

		parallel strands. viii) Check for brazed joints wherever applicable. ix) Measurement of voltage ratio to be carried out when core/yoke is completely restocked and all connections are ready. x) Certification of all above results.
10.5	Oil	As per Annexure –G & IS 335 (2018) Type II, All test results shall confirm to Annexure-G of specification.

11.0 TESTING OF TRANSFORMER

11.1	Routine tests	Tests shall be carried out in accordance with IS 2026 & IEC-60076
11.2	Test before lifting of transformer by vendor for servicing/repair	<ul style="list-style-type: none"> i) Followings Tests shall be performed before handing over the transformer to the vendor for the servicing. Tests shall be carried out at site by owner and the test results along with brief history of the transformer shall be handed over to the vendor. <ul style="list-style-type: none"> a) Measurement of insulation resistance & polarization index between HV & LV, HV & Earth, LV & Earth (In case the transformer has been kept out of service under DGA failure, no megger testing is necessary) b) Measurement of resistance at all taps. Vector Group and polarity test at principal tap. d) Measurement of Magnetising current at LT voltage at principal tap. e) Magnetic balance test at principal tap f) Single Phase Short Circuit test . g) Ratio test of HV WTI CT, LV WTI CT and neutral CT h) Turns Ratio test i) Test report of oil as per IS 1866-2000 i.e., colour / dirtyness, B.D.V. Resistivity, water content, surface tension, neutralization value, DDA, flashpoint, and Tan-Delta as far as available. j) DGA analysis of oil mainly for hydrogen, methane, ethane, ethylene, acetylene, CO and CO₂ content. k) Furan test

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

		<p>Based on the above tests, if it is concluded that transformer is not faulty, the transformer will be given for servicing.</p> <p>ii) If it is concluded that transformer is faulty, the transformer should be segregated for repairs.</p>
11.3	Acceptance test after servicing / repair of Transformer	<p>After servicing/repair all routine tests in accordance with IS: 2026 and IEC60076 shall be carried out on each transformer. The sequence of routine testing shall be as follows-</p> <ul style="list-style-type: none">i) Measurements of insulation resistance and Polarisation Index. Min value of IR shall be 2000 Mega ohms and min PI value shall be 1.5.ii) Measurements of winding resistance corrected at 75°C and principal tap (HV and LV) and two extreme taps.iii) Vector Group, Ratio test and polarity testiv) Separate sources withstand voltage test (HV & LV) at 75% of original test voltage.v) Measurement of iron losses at 90%, 100% and 110% of rated voltage.vi) Induced voltage withstand test at 75% of original test voltage.vii) Load losses measurement corrected at 75°C at Principal tap and Impedance measurement at principal tap (HV and LV) of the transformer.viii) Regulation corrected at 75°C, unity p.f. and 100% load.ix) Efficiency corrected at 75°C and 100% load.x) Magnetic balance test.xi) Temperature rise test, only in case of rewinding.xii) Lightning impulse test on each transformer, only incase of rewinding.xiii) Measurement of Zero phase sequence impedancexiv) Measurement of noise levelxv) Test on on-load tap changer.xvi) All component parts and auxiliary equipment such as oil, bushings, tap changing gear, C.T.s, etc. shall be routine tested as per relevant Indian Standards.

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

		<p>High voltage test shall be performed on auxiliary equipment and wiring after complete assembly. Performance testing of relays, WTI, OTI, MOG & PRVs</p> <p>xvii) Oil leakage test on transformer completed with all fittings (without radiator in case of servicing) & filled with oil at pressure equal to weight of oil + 0.7 atmospheric pressure on bottom valve for a period of 12 hours.</p> <p>xviii) Operation of OLTC shall be tested for two complete forward and two complete backward directions at full load current of the transformer.</p> <p>xix) SFRA testing</p> <p>xx) Oil BDV test</p> <p>xxi) Oil sample sealing for complete oil testing from CPRI/ERDA as per Annexure-G</p> <p>xxii) One sample sealing for DGA test (before & after HRT) from CPRI/ERDA</p>
--	--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

12.0 PACKING, SHIPPING, HANDLING AND STORAGE

12.0	Packing	
12.1	Packing protection	Against corrosion, dampness, heavy rains, breakage and vibration
12.2	Packing for accessories and spares	Robust wooden non-returnable packing case with all the above protection and identification labels.
12.3	Packing identification label	<p>In each packing case, following details are required:</p> <ul style="list-style-type: none"> 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'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

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

		instructions.
12.4	Shipping	<p>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.</p> <p>ii) The vendor shall be responsible for all transit damage due to improper packing.</p>
12.5	Handling and Storage	Detail handling & storage instruction sheet / manual needs to be furnished before commencement of supply.

13.0 DEVIATIONS

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

14.0 DRAWING AND DOCUMENTS

Drawing submission shall be as per the matrix given below. All documents/ drawing shall be provided on A3/A4 sheet 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 may liable for rejection.

S.no	Documents to be submitted	With the bid	After Award	
			For Approval	Prior to dispatch
1	Copy of specification along with company seal & signature on each page.	✓		
2	Type test reported similar rated transformer	✓		
3	Detailed reference list of customers	✓		

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

S.no	Documents to be submitted	With the bid	After Award	
			For Approval	Prior to dispatch
	already using the serviced/repaired transformer during the last 5 years with particular emphasis on units of similar design and rating.			
4	Details of manufacturers quality assurance standard and programme and ISO 9000 series or equivalent national certification.	✓		
5	Deviations from this specification. Only deviations approved in writing before award of contract shall be accepted.	✓		
6	Details of facilities of the bidder where the transformer is intended to be repaired.	✓		
7	Guaranteed technical particulars		✓	
8	Design details		✓	
9	All Calculations pertaining to winding and core in case of repair.		✓	
10	Vendor list		✓	
11	Detailed dimensional drawing for all components, general arrangement drawing showing detailed component layout and detailed schematic and wiring drawings for all components which are replaced by Vendor.		✓	
12	Terminal arrangement & cable box details etc (as applicable)		✓	
13	Marshalling box and support structure drawing & details of Schematic & wiring drawings		✓	
14	Fan mounting structure drawings		✓	
15	Rating and diagram plate in case of repair		✓	
16	Transport / shipping dimension and weights, space required for handling parts for maintenance		✓	
17	List of makes of all fittings and accessories		✓	
18	Quality assurance program.		✓	

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

S.no	Documents to be submitted	With the bid	After Award	
			For Approval	Prior to dispatch
19	Detailed installation and commissioning instructions		✓	
20	Inspection and test reports carried out in manufacturers works			✓
21	Test certificates of all bought out items.			✓
22	Operation and maintenance instructions as well as trouble shooting charts.			✓

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER**ANNEXURE - A SCOPE OF WORK**

Scope shall include transportation, servicing, testing, replacement of accessories and Repairing of Power transformer as per this specification. This specification covers assessment, estimation, complete repairing and servicing, testing and safe transportation to and from of Power Transformer damaged/failed transformers laying at various stores/sites of BSES.

Sr. No	Description	Scope of Work
1.0	Testing of transformer before handing over (at owners site)	NO
1.1	Testing of transformer at site after repair / servicing	NO
1.2	Supervising commissioning of transformer when put back in service	YES
1.3	Routine testing as per this specification	YES
1.4	Submission of Documentation as detailed below	YES

ANNEXURE – B SERVICE CONDITIONS

1.0	Delhi Atmospheric conditions	
1.1	Average grade atmosphere :	Heavily polluted, dry
1.2	Maximum altitude above sea level	1000 M
1.3	Ambient Air temperature	Highest 50 deg C, Average 40 deg C
1.4	Minimum ambient air temperature	0 Deg C
1.5	Relative Humidity	90 % Max
1.6	Seismic Zone	4 as per IS 1893
1.7	Rainfall	750 mm concentrated in four months

ANNEXURE – C FORMAT FOR DATA OF TEMPERATURE RISE TEST

The vendor shall conduct and furnish temperature rise test on transformer after repair at its work in following format.

Time in Hrs.	Current in amp	Voltage in KV	Input in KW	Cooler A Temp. in DEG C			Top oil temp. in DEG C	Average ambient Temp. in DEG C	Top oil rise in DEG C
				Top	Bottom	Diff.			

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER**ANNEXURE – D HANDING OVER/TAKING OVER OF POWER TRANSFORMER**

HANDING OVER/TAKING OVER OF POWER TRANSFORMERS BEING SENT FOR REPAIR/SERVICING

PLACE:
DATE :

1.0	Name of the Vendor	
2.0	Address	
3.0	Phone / Fax No	
4.0	Name of Representative with Designation	

A	Transformer Details		
Name Plate details (English /Hindi/Marathi)			
1.0	Make		
2.0	Capacity		
3.0	Voltage Rating		
4.0	Serial Number		
5.0	Year of Manufacture		
6.0	Weight of Core & Winding		
7.0	Weight of Oil		
8.0	Quantity of Oil		
B.	List of accessories/Items handed over along with Main transformer		
Sr. No	Description	Handed over /Received	REMARKS Appearing Healthy – AH Missing – M No provision – NP Damaged - D
1.0	Main tank valves (butterfly valve, drain valve, filter valve etc)		
2.0	Conservator tank with oil level indicating glass tube		
3.0	MOG with Low oil level alarm		
4.0	Oil circulation valves of conservator (Top & Bottom)		
5.0	Air Cell		
6.0	Conservator oil drain valve		
7.0	Main silica gel breather assy.		
8.0	Main silica gel breather		

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

	pipe		
9.0	Silicagel breather assembly for OLTC		
10.0	Pipe for silicagel breather assembly for OLTC		
11.0	Conservator mounting brackets /Frame		
12.0	Equalising pipe connecting conservator tank with main transformer tank		
13.0	Buchholz relay		
14.0	Oil surge relay for OLTC		
15.0	Air release cock of Buchholz relay		
16.0	Oil drain cock of Buchholz relay		
17.0	Valves on either side of buchholz relay		
18.0	Air release valve on top cover of the tank		
19.0	Explosion vent/PRV		
20.0	Connecting pipe between explosion vent & conservator		
21.0	Air release cock (brass) on top of explosion vent		
22.0	HV side turrets connecting pipe with equilising pipe		
23.0	HV Bushings		
23.1	Porcelain insulators		
23.2	Metal Parts (brass)		
23.3	Clamps		
24.0	LV Bushings		
24.1	Porcelain insulators		
24.2	Metal Parts (brass)		
24.3	Clamps		
25.0	11KV Copper Bus Bar		
25.1	NOS. and Size		
25.2	Weight		
26.0	11KV Lightning arrestor		
26.1	Quantity and present condition		

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

27.0	Blanking plates		
28.0	Main tank oil filtration valves		
28.1	Top		
28.2	Bottom		
28.3	Emergency oil drain valve (bottom)		
28.4	Oil sampling valves- top/middle/bottom		
29.0	Marshalling Box		
29.1	WTI		
29.2	OTI		
29.3	Transducer for OTI		
29.4	Transducer for WTI		
29.5	AC Main switch		
29.6	Strip Heater		
29.7	Lamp holder		
29.8	Lamp Switch		
29.9	Fans contactors		
29.10	Cable entry gland plate		
29.11	Condition of wiring		
29.12	Condition of door		
29.13	Door-lock Handle		
29.14	Door glass		
30.0	Radiator valves top & Bottom		
31.0	Number of radiators and condition		
32.0	Axle & Wheels assy.		
33.0	No. of cooling Fans / Make		
34.0	OLTC Details		
34.1	Make		
34.2	Type		
34.3	Serial number		
34.4	OLTC Operating handle		
34.5	Local /Remote Switch		
34.6	AC Mains ON/OFF switch		
34.7	Driving Motor		
34.8	Brakes		
34.9	Step by Step relays		
34.10	Direction sequence switch		
34.11	Control supply transformer		

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

34.12	Raise /Lower Switch		
34.13	Raise contactor		
34.14	Lower Contactor		
34.15	OLTC Operation Counter		
34.16	Driving mechanism door handle		
34.17	Driving mechanism door glass		
35.0	Selector switch oil single relay		
36.0	Selector switch conservator		
37.0	Equalising pipe connecting to conservator and selector switch oil circulation valves		
38.0	Silica gel breather of selector switch conservator		
39.0	Selector switch chamber air release cock		
40.0	Selector switch chamber oil circulation valves		
41.0	Selector switch chamber oil level indicating glass		
42.0	Oil in selector switch		
43.0	General condition of OLTC driving mechanism		
43.1	Name Plate		
43.2	Caution plate		
43.3	Transformer oil		
43.4	Total quantity of oil handed over to vendor at site		
45.0	RTCC		
45.1	Tap position indicator		
45.2	Remote WTI		
45.3	Remote OTI		
45.4	Automatic voltage regulator		
45.5	Raise/Lower PB/switch		
45.6	Contactor		
45.7	Auto manual switch		
45.8	AC Main switch		

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

45.9	Strip Heater		
45.10	Lamp holder		
45.11	Lamp Switch		
45.12	Cable entry gland plate		
45.13	Condition of wiring		
45.14	Condition of door		
45.15	Door-lock Handle		
45.16	Indication/Alarm conditions		
45.17	Fan Failure Scheme		
45.18	Annunciator (FACIA)		
C.	List of Test report and past history handed over along with main transformer		
Sr. No	Description	Handed over/Received	Remarks Satisfactory – S Not satisfactory – NS
1.0	IR Values		
1.1	HV-LV+E		
1.2	LV-HV+E		
1.3	HV – LV		
1.4	Oil Temperature		
2.0	PI Values		
2.1	HV		
2.2	LV		
3.0	Transformer oil BDV at 2.5mm gap		
3.1	Main Tank		
3.2	Bottom		
3.3	Top		
4.0	OLTC		
5.0	DGA Report		
6.0	Oil Test report as per IS 1866-2000		
6.1	Colour / Dirtiness		
6.2	Water Content (ppm)		
6.3	Flash Point Deg C		
6.4	Pour point Deg C		
6.5	Neutralisation value (mg KOH/gm)		
6.6	Interfacial Tension (mN/m)		
6.7	Dielectric dissipation factor at 90 Deg C (at 40HZ & 60HZ)		

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

6.8	Resistivity (90 Deg C X 10 ¹² (ohm-cm)		
6.9	Sediment and sludge		
7.0	Magnetisation currents at low voltage (principal tap)		
8.0	Magnetic balance		
9.0	Turn ratio test		
10.0	Winding resistance HV & LV		
11.0	Single phase short circuit		
12.0	Ratio of WTI CT (HV & LV) & neutral CT		
D.	Brief history of Transformer		
1.0	Load Condition		
2.0	NOS of Through faults		
3.0	NOS of Failures & abnormalities		
4.0	Repair carried in life time		
5.0	Date of dehydration		
6.0	Oil leakage & condition of gaskets		
7.0	Others (if any)		

NOTE: The transformer tank is handed over/Taken over with complete core and core assembly.

Signature & seal of
Handing over officer
(rep of Owner)

Signature & seal of
(Rep. Of the vendor)

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER**ANNEXURE – E JOINT VERIFICATION REPORT OF POWER TRANSFORMER**

(For repairing / Servicing at vendors work)

Repairing agency details				
1.	Name of the company			
2.	Address			
3.	Phone / fax No			
4.	Name of representative & designation			
A Transformer Details				
1.0	Name Plate details			
2.0	Make			
3.0	Capacity			
4.0	Voltage rating			
5.0	Serial number			
6.0	Year of manufacture			
7.0	Weight of Core & winding			
8.0	Weight of oil			
9.0	Quantity of oil			
B Joint Verification report of Core, Coil assembly & oil				
Sr No	Description	Unit	QTY	Remarks Good Condition-GC Servicing required-SR Damaged to be replaced-TBR
1.0	Total weight of core & coil assembly (3 limbs)	Kg		
2.0	HV winding			
2.1	Weight per limb	Kg		
2.2	Inner diameter	Mm		
2.3	Outer diameter	Mm		
2.4	Total number of turns	No's		
2.5	Wire size of the conductor			
2.6	Cross sectional area of conductor	mm ²		
2.7	Number of parallel paths	No's		
2.8	Current density	A/mm ²		
3.0	LV winding			
3.1	Weight per limb	Kg		
3.2	Inner diameter	Mm		
3.3	Outer diameter	Mm		
3.4	Total number of turns	No's		
3.5	Wire size of the conductor			
3.6	Cross sectional area of conductor	mm ²		
3.7	Number of parallel paths	No's		

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

3.8	Current density	A/mm ²		
4.0	Oil quantity as per name plate	Litre		
4.1	Oil quantity drained out from main tank at factory	Litre		
4.2	Oil quantity received at site	Litre		

NOTES

1. Before lifting of transformers, the vendor to check and ensure that core coil assembly is fitted with the transformers. During JVR if coil/core found missing the vendor will repair the same on his cost and risk by giving credit of scrap of copper/core approximate nearest/equal to quantity of the same make of transformer core/coil.
2. In case of rewinding the conductors shall be of electrolytic grade copper. Current density in winding should be around 2.5A/mm². Under no circumstances, current density more than 2.6A/mm² is acceptable.
3. If core lamination is found to be damaged the weight of the damaged core has to be provided and recorded in JVR.
4. The vendor may be allowed to dispose all detained material after approval of estimate for repair from the owner.
5. In case of replacement of winding, the vendor shall retain one coil of HT & LT for physical verification till stage inspection and estimate approval.

C Joint Verification report of accessories			
Sr No	Description	Remarks as per handing over document Appearing healthy – AH Missing – M No provision – NP Damaged - D	Remarks of JVR Good condition – GC Servicing required – SR To be replaced – TBR Missing to be provided-TBD
1.0	Main tank valves (butterfly valve, drain valve, filter valve etc)		
2.0	Conservator tank with oil level indicating glass tube		
3.0	MOG with Low oil level alarm		
4.0	Oil circulation valves of conservator(Top & Bottom)		
5.0	Air Cell		
6.0	Conservator oil drain valve		

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

7.0	Main silica gel breather assy.		
8.0	Main silica gel breather pipe		
9.0	Silicagel breather assembly for OLTC		
10.0	Pipe for silicagel breather assembly for OLTC		
11.0	Conservator mounting brackets /Frame		
12.0	Equalising pipe connecting conservator tank with main transformer tank		
13.0	Buchholz relay		
14.0	Oil surge relay for OLTC		
15.0	Air release cock of Buchholz relay		
16.0	Oil drain cock of Buchholz relay		
17.0	Valves on either side of buchholz relay		
18.0	Air release valve on top cover of the tank		
19.0	Explosion vent/PRV		
20.0	Connecting pipe between explosion vent & conservator		
21.0	Air release cock (brass) on top of explosion vent		
22.0	HV side turrets connecting pipe with equilising pipe		
23.0	HV Bushings		
23.1	Porcelain insulators		
23.2	Metal Parts (brass)		
23.3	Clamps		
24.0	LV Bushings		
24.1	Porcelain insulators		
24.2	Metal Parts (brass)		
24.3	Clamps		
25.0	11KV Copper Bus Bar		
25.1	NOS. and Size		
25.2	Weight		
26.0	11KV Lightning arrestor		
26.1	Quantity and present condition		

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

27.0	Blanking plates		
28.0	Main tank oil filtration valves		
28.1	Top		
28.2	Bottom		
28.3	Emergency oil drain valve (bottom)		
28.4	Oil sampling valves- top/middle/bottom		
29.0	Marshalling Box		
29.1	WTI		
29.2	OTI		
29.3	Transducer for OTI		
29.4	Transducer for WTI		
29.5	AC Main switch		
29.6	Strip Heater		
29.7	Lamp holder		
29.8	Lamp Switch		
29.9	Fans contactors		
29.10	Cable entry gland plate		
29.11	Condition of wiring		
29.12	Condition of door		
29.13	Door-lock Handle		
29.14	Door glass		
30.0	Radiator valves top & Bottom		
31.0	Number of radiators and condition		
32.0	Axle & Wheels assy.		
33.0	No. of cooling Fans / Make		
34.0	OLTC Details		
34.1	Make		
34.2	Type		
34.3	Serial number		
34.4	OLTC Operating handle		
34.5	Local /Remote Switch		
34.6	AC Mains ON/OFF switch		
34.7	Driving Motor		
34.8	Brakes		
34.9	Step by Step relays		
34.10	Direction sequence switch		
34.11	Control supply transformer		
34.12	Raise /Lower Switch		
34.13	Raise contactor		
34.14	Lower Contactor		

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

34.15	OLTC Operation Counter		
34.16	Driving mechanism door handle		
34.17	Driving mechanism door glass		
35.0	Selector switch oil single relay		
36.0	Selector switch conservator		
37.0	Equalising pipe connecting to conservator and selector switch oil circulation valves		
38.0	Silica gel breather of selector switch conservator		
39.0	Selector switch chamber air release cock		
40.0	Selector switch chamber oil circulation valves		
41.0	Selector switch chamber oil level indicating glass		
42.0	Oil in selector switch		
43.0	General condition of OLTC driving mechanism		
43.1	Name Plate		
43.2	Caution plate		
43.3	Transformer oil		
43.4	Total quantity of oil handed over to vendor at site		
45.0	RTCC		
45.1	Tap position indicator		
45.2	Remote WTI		
45.3	Remote OTI		
45.4	Automatic voltage regulator		
45.5	Raise/Lower Pb/switch		
45.6	Contactors		
45.7	Auto manual switch		
45.8	AC Main switch		
45.9	Strip Heater		
45.10	Lamp holder		
45.11	Lamp Switch		
45.12	Cable entry gland plate		
45.13	Condition of wiring		
45.14	Condition of door		
45.15	Door-lock Handle		
45.16	Indication/Alarm conditions		



BSES-TS-131-RPTR-R0

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

45.17	Fan Failure Scheme		
45.18	Annunciator (FACIA)		
46.0	Any other observations		

NOTE: Please attach copy of handing over/ taking over document.

Signature and seal of
Owners representative

Signature and seal of
Vendor's representative

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER**ANNEXURE – F STAGE INSPECTION REPORT FOR POWER TRANSFORMER**

(For repair / servicing at vendor's works)

Repairing agency details				
1.0	Name of the company			
2.0	Address			
3.0	Phone / fax No			
4.0	Name of representative & designation			
A Transformer Details				
1.0	Name Plate details			
2.0	Make			
3.0	Capacity			
4.0	Voltage rating			
5.0	Serial number			
6.0	Year of manufacture			
7.0	Weight of Core & winding			
8.0	Weight of oil			
9.0	Quantity of oil			
B Joint Verification report of Core, Coil assembly & oil				
Sr. No	Description	Unit	QTY	Remarks Good Condition-GC Servicing required-SR Damaged to be replaced-TBR
1.0	Total weight of core & coil assembly (3 limbs)	Kg		
2.0	HV winding			
2.1	Weight per limb	Kg		
2.2	Inner diameter	Mm		
2.3	Outer diameter	Mm		
2.4	Total number of turns	No's		
2.5	Wire size of the conductor			
2.6	Cross sectional area of conductor	mm ²		
2.7	Number of parallel paths	No's		
2.8	Current density	A/mm ²		
3.0	LV winding			
3.1	Weight per limb	Kg		
3.2	Inner diameter	mm		
3.3	Outer diameter	mm		
3.4	Total number of turns	No's		
3.5	Wire size of the conductor			
3.6	Cross sectional area of conductor	mm ²		
3.7	Number of parallel paths	No's		

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER

3.8	Current density	A/mm ²		
-----	-----------------	-------------------	--	--

1. In case of rewinding the conductors shall be of electrolytic grade copper. Current density in winding should be around 2.5A/mm². Under no circumstances, current density more than 2.6 is acceptable.
2. The vendor may be allowed to dispose all detained material after approval of estimate for repair from the owner.
3. In case of replacement of winding, the vendor shall retain one coil of HT & LT for physical verification till stage inspection and estimate approval.

Signature and seal of
Owners representative

Signature and seal of
Vendor's representative

TECHNICAL SPECIFICATION FOR REPAIRING AND SERVICING OF POWER TRANSFORMER**ANNEXURE – G TECHNICAL SPECIFICATION OF TRANSFORMER OIL**

Sr No	Item description	Specification requirement
1.1	Function	
1.1.1	Viscosity	
1.1.1.1	Viscosity at 40°C	15 mm ² /s, Max
1.1.1.2	Viscosity at 0°C	1800 mm ² /s, Max
1.1.2	Pour Point	- 10°C, Max
1.1.3	Water content	30 mg/Kg, Max
1.1.4	Breakdown voltage	
1.1.4.1	New unfiltered oil	30 kV, Min
1.1.4.2	After filtration	70 kV, Min
1.1.5	Density at 20°C	0.895 g/ml, Max
1.1.6	Dielectric dissipation factor at 90°C	0.005, Max
1.1.7	Particle Content	Manufacturer to specify the data
1.2	Refining/Stability	
1.2.1	Appearance of oil	Clear, free from sediment and suspended matter
1.2.2	Acidity	0.01 mg KOH/g, Max
1.2.3	Interfacial tension at 27°C	0.04 N/m, Min
1.2.4	Total sulphur content	Manufacturer to specify the data
1.2.5	Corrosive sulfur	Not-corrosive
1.2.6	Potentially Corrosive sulfur	Not-corrosive
1.2.7	DBDS	Not detectable (<5 mg/kg)
1.2.8	Inhibitor	Not detectable (<0.01%)
1.2.9	Metal Passivator	Not detectable (<5 mg/kg)
1.2.10	Other additives	Manufacturer to specify the data
1.2.11	2-furfural and related Compounds content	Not detectable (<0.05 mg/kg) for each individual compound
1.3	Performance	
1.3.1	Oxidation stability, test duration 164 h	
1.3.1.1	Total acidity	1.2 mg KOH/g, Max
1.3.1.2	Sludge	0.8%, Max
1.3.1.3	DDF at 90°C	0.5, Max
1.3.2	Gassing Tendency	Manufacturer to specify the data
1.3.3	ECT	Manufacturer to specify the data
1.4	Health,safety and Environment	
1.4.1	Flash point	135°C, Min
1.4.2	PCA content Max	3%, Max
1.4.3	PCB content	Not detectable (<2 mg/Kg)