



**OIL INDIA LIMITED**  
**(A Govt. of India Enterprise)**  
**P.O. DULIAJAN, DIST - DIBRUGARH**  
**ASSAM, INDIA, PIN-786602**

**CONTRACTS DEPARTMENT**  
**TEL: (91) 374-2808653**  
**E-mail: [contracts@oilindia.in](mailto:contracts@oilindia.in)**  
**Website: [www.oil-india.com](http://www.oil-india.com)**  
**FAX: (91) 374-2803549**

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**FORWARDING LETTER**

**Sub: IFB No. CDI7412P25 for “Hiring the services for carrying out augmentation of existing power distribution network in greater Tipling area to cater power supply to the ongoing 8 MGD Water Treatment Plant and Water Intake Plant in Oil India Limited.”**

Dear Sir(s),

- 1.0** OIL INDIA LIMITED (OIL), a “Maharatna” Category, Government of India Enterprise, is a premier Oil Company engaged in exploration, production and transportation of crude oil & natural gas with its Headquarters at Duliajan, Assam. Duliajan is well connected by Air with nearest Airport being at Dibrugarh, 45 km away.
- 2.0** In connection with its operations, OIL invites National Competitive Bids (NCB) from competent and experienced/approved Contractors for the mentioned work/service under **OPEN E-TENDER SINGLE STAGE TWO BID SYSTEM** through OIL’s E-Procurement Portal: “<https://etender.srm.oilindia.in/irj/portal>” for “**Hiring the services for carrying out augmentation of existing power distribution network in greater Tipling area to cater power supply to the ongoing 8 MGD Water Treatment Plant and Water Intake Plant in Oil India Limited**”. One complete set of Bid Document covering OIL's IFB for hiring of above services is uploaded in OIL’s E-Procurement Portal. You are invited to submit your most competitive bid on or before the scheduled bid closing date and time through OIL’s E-Procurement Portal. For your ready reference, few salient points of the IFB (covered in detail in the Bid Document) are highlighted below:

(i)	IFB No./E-Tender No.	:	<b>CDI7412P25</b>
(ii)	Type of Bid	:	Open Indigenous E-Tender, Single Stage Two Bid System
(iii)	Bid Closing Date & Time	:	As mentioned in the E-procurement portal.
(iv)	Technical Bid Opening Date & Time	:	As mentioned in the E-procurement portal.
(v)	Price Bid Opening Date & Time	:	As mentioned in the E-procurement portal.

(vi)	Bid Submission Mode	:	Bids must be uploaded online in OIL's E-Procurement Portal.
(vii)	Bid Opening Place	:	Office of CGM-Contracts Contracts Department, Oil India Limited, Duliajan-786602, Assam, India.
(viii)	Bid Validity	:	Minimum <b>120 (One Hundred Twenty)</b> days from Original Bid Closing Date (OBCD).  Note: In exceptional circumstances, OIL may solicit the Bidder's consent to an extension of the period of validity. The request and the response thereto shall be made in writing. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request will neither be required nor permitted to modify their bid.
(ix)	Mobilization Period	:	30 days from date of issue of Work Order.
(x)	Bid Security/EMD Amount	:	<b>Rs. 13,71,340.00 (This, being a Works Contract is excluded from the purview of Public Procurement Policy for MSEs Order,2012)</b>
(xi)	Bid Security/EMD Validity	:	45 days beyond bid validity period
(xii)	Amount of Performance Security	:	5% of Contract Value. <b>Refer Clause No. 24.0</b> of Instruction to Bidder (ITB)
(xiii)	Validity of Performance Security	:	90 (Ninety) days beyond warrantee period.
(xiv)	Location of job	:	Field Head Quarter, Duliajan
(xv)	Duration of the Contract	:	<b>15 months</b> inclusive of mobilization period.
(xvi)	Quantum of Liquidated Damage for Default in Timely Mobilization/ Completion	:	<b>Refer Clause No. 30.0</b> of General Conditions of Contract (GCC).
(xvii)	Bids to be addressed to	:	CGM-Contracts, Contracts Department, Oil India Limited, Duliajan-786602, Assam, India.
(xviii)	Pre-Bid conference	:	Applicable (Date shall be intimated in OIL's E-Tender portal)
(xix)	Last Date of receipt of Queries	:	<b>16.09.2024</b>

**3.0 GUIDELINES FOR PARTICIPATING IN OIL'S E-PROCUREMENT:**

- 3.1 To participate in OIL's E-procurement tender, bidders should have a legally valid digital certificate **of Class 3 with Organization's Name and Encryption certificate** as per Indian IT Act from the licensed Certifying Authorities operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India (<http://www.cca.gov.in>). **Digital Signature Certificates having "Organization Name" field as "Personal" are not acceptable.** However, aforesaid Digital Signature Certificates having Bidder's Name in the "Organization Name" field are acceptable. **"Only in case of sole proprietorship firms, Digital Signature Certificates issued in the name of the proprietor is also acceptable provided the bid is submitted in the capacity of a proprietorship firm."**
- 3.2 Digital Signature Certificate comes in a pair of signing/verification and encryption/decryption certificate. Bidder should have both the Signing/verification and Encryption/Decryption certificate for Signing and encryption, decryption purpose respectively. The driver needs to be installed once, without which the DSC will not be recognized. While participating on e-Tendering the DSC token should be connected to your system.
- 3.3 Encryption certificate is mandatorily required for submission of bid. In case bidder created response with one certificate (using encryption key) and bidder change his Digital Signature Certificate then old certificate [Used for encryption] is required in order to decrypt his encrypted response for getting the EDIT mode of the response. Once decryption is done, bidder may use new DSC certificate for uploading and submission of their offer. It is the sole responsibility of the bidder to keep their DSC certificate properly. In case of loss of the certificate, OIL INDIA LTD. will not be responsible.
- 3.4 For participation, applicants already having User ID & Password for OIL's E-Procurement Portal need to register against the IFB. New vendors/existing vendors not having User ID & Password for OIL's E-Procurement Portal shall obtain User ID & password through online vendor registration system in E-Portal.
- 3.4.1 Bidders without having E-Tender Login ID and password should complete their online registration at least 07 (Seven) days prior to the scheduled bid closing date and time of the tender. For online registration, bidder may visit OIL's E-Tender site - <https://etender.srm.oilindia.in/irj/portal>.
- 3.4.2 Necessary Login ID & Password will be issued by OIL only after submitting the complete online registration by the Bidder. In the event of late registration/incomplete registration by bidder, OIL INDIA LIMITED shall not be responsible for late allotment of User ID & Password and request for bid closing date extension on that plea shall not be entertained by Company.
- 3.5 Parties, who do not have a User ID, can click on Guest login button in the E-Tender portal to view and download the tender. The detailed guidelines are given in User Manual available in OIL's E-Procurement site. For any clarification in

this regard, bidders may contact E-Tender Support Cell at Duliajan at [erp\\_mm@oilindia.in](mailto:erp_mm@oilindia.in) and [esupport@oilindia.in](mailto:esupport@oilindia.in), Ph.: 0374- 2807171/7192.

- 3.7 The link for OIL's E-Procurement Portal is available on OIL's web site ([www.oil-india.com](http://www.oil-india.com)).
- 4.0 IMPORTANT NOTES:** Bidders shall take note of the following important points while participating in OIL's e-procurement tender:
- i) **BACKING OUT BY BIDDER:** In case any bidder withdraws their bid within the bid validity period, as declared in the "Bid Security Declaration Form", bidder shall be suspended for the period of two years. This suspension of two year shall be automatic without conducting any enquiry.
  - ii) **BACKING OUT BY L-1 BIDDER AFTER ISSUE OF LOA:** In case LOA issued is not accepted by the L1 bidder or the Performance Security is not submitted as per the terms of the contract within the time specified in the Bid Document the bidder shall be suspended for the period of two years. This suspension of two years shall be automatic without conducting any enquiry.
  - iii) **FURNISHING FRAUDULENT INFORMATION/DOCUMENT:** The information and documents furnish by the bidder/contractor in respect of the subject tender/contract are accepted to be true and genuine. However, if it is detected during technical scrutiny or after award of the contract or after expiry of the contract, that the bidder had submitted any fake/fraudulent document or furnished false statement, the offer/contract shall be rejected/cancelled, as the case may be and the bidder (if fake document/false statement pertains to such bidder) shall be dealt as per the Banning Policy (available in OIL's website) of Company. The bidder has to submit an undertaking in this regard as per attached **PROFORMA-IX**.
  - iv) **ERRING/DEFAULTING AGENCIES:** Erring and defaulting agencies like bidder, contractor, supplier, vendor, service provider will be dealt as per OIL's Banning Policy available in OIL's website: [www.oil-india.com](http://www.oil-india.com).
  - v) Bid should be submitted online in OIL's E-procurement site up to 11.00 AM (IST) (Server Time) on the date as mentioned and will be opened on the same day at 2.00 PM (IST) at the office of the GM-Contracts in presence of the authorized representatives of the bidders.
  - vi) If the digital signature used for signing is not of "Class-3" with Organizations name, the bid will be rejected.
  - vii) The tender is invited under **SINGLE STAGE-TWO BID SYSTEM**. The bidders shall submit both the "**TECHNICAL**" and "**PRICED**" bids through electronic form in the OIL's e-Procurement portal within the Bid Closing Date and Time stipulated in the e-Tender. The Technical Bid should be submitted as per Scope of Work & Technical Specifications along with all technical documents related to the tender and uploaded in "**Technical Attachments**" **Tab only**. **Bidders to note that no price details should be uploaded in "Technical Attachments" Tab Page. Details of prices as per Price Bid format/Priced bid can be**

uploaded under “Notes & Attachments” tab. A screen shot in this regard is shown below. Offer not complying with above submission procedure will be rejected as per Bid Evaluation Criteria.

- 5.0 INTEGRITY PACT:** The Integrity Pact is applicable against this tender. OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide Integrity Pact, (PART-VI) of the tender document. This Integrity Pact (PART-VI) has been duly signed digitally by OIL's competent signatory. The (PART-VI) has to be returned by the bidder (along with the Un-priced Techno-Commercial Bid) duly signed (digitally) by the same signatory who signed the bid, i.e., who is duly authorized to sign the bid. Uploading the Integrity Pact with digital signature will be construed that all pages of the Integrity Pact has been signed by the bidder's authorized signatory who sign the Bid.

## 6.0 SCREEN SHOTS

The screenshot displays the 'Notes and Attachments' tab in the E-tender system. The interface includes a top navigation bar with tabs for 'Basic Data', 'Questions', 'Technical Attachments', 'Notes and Attachments', 'Conditions', 'Summary', and 'Tracking'. The 'Notes and Attachments' tab is active, showing a 'Notes' section with a table for adding notes and an 'Attachments' section with a table for adding attachments. Two callout boxes with red arrows point to the 'Notes and Attachments' and 'Technical Attachments' tabs, providing instructions on where to upload 'Priced Bid' and 'Technical Bid' files respectively.

**On “EDIT” Mode, Bidders are advised to upload “Technical Bid” and “Priced Bid” in the places as indicated above.**

### Notes:

- \* The “Technical Bid” shall contain all techno-commercial details **except the prices**.
- \*\* The “Priced bid” must contain the price schedule and the bidder’s commercial terms and conditions, if any. For uploading Priced Bid, click on Add Attachment, a browser window will open, select the file from the PC and name the file under Description, Assigned to General Data and click on OK to digitally sign and upload the File. Please click on Save Button of the Response to Save the uploaded files.

- 7.0 MAINTENANCE OF TOTAL BID VALUE IN THE RESPONSE:** For convenience of the Bidders and to improve transparency, the rates/costs quoted by bidders against the E-tender shall be available for online viewing to all the Techno-commercially qualified Bidders against the tender after price bids are opened in the system. For tenders where **Detailed Price Information under RFX Information Tab is “No price”**, the Price Bid is invited against the tender through attachment form under “Notes & Attachment”. In such tenders, Bidders must upload their pricing as per the **“Price Bid Format”** under **“Notes & Attachment”** and additionally fill up the **on-line field “Total Bid Value”** under **“RFX Information”** Tab Page with the Total Cost (Including the GST component) as per the amount of the Price Bid in attachment form.

The screenshot shows the 'Create RFX Response' interface. At the top, there are navigation buttons: 'Submit', 'Read Only', 'Print Preview', 'Check', 'Technical RFX Response', and 'Close'. Below this, the RFX Response Number is 60038748 and the RFX Owner is BHARALI. The 'Event Parameters' section includes a 'Currency' dropdown set to 'Indian Rupee', 'Detailed Price Information' set to 'No Price', and a 'Total Bid Value' input field. Three callouts provide instructions: 1) 'Bidder to select the currency of the Response' points to the 'Currency' dropdown. 2) '"Total Bid Value" is mandatory in "No Price" RFX only' points to the 'Detailed Price Information' dropdown. 3) '"Total Bid Value" considering all the taxes & duties.' points to the 'Total Bid Value' input field.

The "Total Bid Value" as entered by the Bidder in the on-line response shall be displayed in the E-tender portal amongst the techno-commercially qualified bidders and Company will not take any responsibility whatsoever towards incorrect information furnished by the bidders on the "Total Bid Value" field. It is to be noted that Amount mentioned in the "Total Bid Value" field will not be considered for bid evaluation and evaluation will be purely based on the Price bid submitted as per the "Price Bid Format" under "Notes & Attachments" tab page.

Thanking you.

Yours faithfully,  
**OIL INDIA LIMITED**

**(NABANITA DEKA)**  
**CHIEF MANAGER-CONTRACTS (S)**  
For **CGM-CONTRACTS (HoD)**  
For **RESIDENT CHIEF EXECUTIVE**

**Date: 06.09.2023**

**INSTRUCTIONS TO BIDDERS**

**1.0 ELIGIBILITY OF THE BIDDER:**

- 1.1 The eligibility criteria of the bidder are listed under BID EVALUATION CRITERIA – BID REJECTION CRITERIA (BEC-BRC) of the tender document.
- 1.2 Bidder shall bear all costs associated with the preparation and submission of bid. Oil India Limited, hereinafter referred to as Company, will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

**2.0 BID DOCUMENTS:**

- 2.1 The services required, bidding procedures and contract terms are prescribed in the Bid Document. This Bid Document includes the following:

- i. A Tender Forwarding Letter.
- ii. Instructions to Bidders (ITB)
- iii. Bid Evaluation Criteria - Bid Rejection Criteria (BEC-BRC)
- iv. General Conditions of Contract (GCC): PART-I
- v. Schedule of Work, Unit, Quantities (SOQ): PART-II
- vi. Special Conditions of Contract (SCC): PART-III
- vii. Schedule of Company's Plants, Materials and Equipment (SCPME): PART-IV [Not applicable for this Tender]
- viii. Safety Measures (SM): PART-V
- ix. Integrity Pact (IP): PART-VI
- x. Bid Form: PROFORMA-I
- xi. Statement of Non-Compliance: PROFORMA-II
- xii. Authorisation for Attending Bid Opening: PROFORMA-III
- xiii. PROFORMA of Letter of Authority: PROFORMA-IV
- xiv. Bid Security Declaration-PROFORMA-V**
- xv. PROFORMA for E-Remittance: PROFORMA-VI
- xvi. Format of Performance Security: PROFORMA-VII
- xvii. Agreement Form: PROFORMA-VIII
- xviii. Format of undertaking by Bidders towards submission of authentic information / documents: PROFORMA-IX
- xix. Certificate of Compliance of Financial Criteria: PROFORMA-X
- xx. Certificate of Annual Turnover & Net Worth: PROFORMA-XI
- xxi. Undertaking by vendor on submission of bank guarantee: PROFORMA-XII
- xxii. Price Bidding Format (Attached under “**Notes and Attachments**” tab in the main bidding engine of OIL’s E-Tender portal)
- xxiii. Technical Evaluation Sheet for BEC-BRC & others
- xxiv. Commercial check List

- 2.2 The bidder is expected to examine all instructions, forms, terms 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 will be at the Bidder's risk & responsibility and may result in the rejection of its bid.

- 2.3 Bidders shall be deemed, prior to submitting their bids, to have satisfied themselves about the weather conditions, working culture in the area, socio-political environment, safety & security aspects, law & order situation and

law of the land, and obtain for themselves all necessary information as to the risks, contingencies and all other circumstances, which may influence or affect the various obligations under the Contract.

**3.0 TRANSFERABILITY OF BID DOCUMENTS:**

- 3.1 Bid Documents are non-transferable. Bid can be submitted only in the name of the bidder in whose name the Bid Document has been issued.
- 3.2 In case of e-Tender, Bidder must submit the bid using Organizational Class-3 Digital Signature issued by the Competent Authority in favour of the bidder. Bid submitted using Digital Signature other than the Digital Signature of the bidder shall be summarily rejected.
- 3.3 Unsolicited bids will not be considered and will be rejected straightway.

**4.0 AMENDMENT OF BID DOCUMENTS:**

- 4.1 At any time prior to the deadline for submission of bids, the Company may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the Bid Documents through issuance of an Addendum(s) / Corrigendum(s) / Amendment(s).
- 4.2 The Addendum will be uploaded in OIL's E-Tender Portal in the Tab "Technical Rfx" and under External Area - "Amendments" folder. The Company may, at its discretion, extend the deadline for bid submission. Bidders are expected to take the Addendum into account in preparation and submission of their bid. **Bidders are to check from time to time the E-Tender portal ["Technical RFX" Tab and under the folder "Amendments"] for any amendments to the bid documents before submission of their bids. No separate intimation shall be sent to the Bidders.**

**5.0 PREPARATION OF BIDS:**

- 5.1 Language of Bids: The bid prepared by the bidder and all correspondence and documents relating to the bid exchanged by the Bidder and the OIL shall be written in English language. Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an accurate translation of the relevant passages in English, duly authenticated by local chamber of Commerce of bidder's country, in which case, for purposes of interpretation of the bid, the translation shall prevail.
- 5.2 Bidder's / Agent's Name & Address: Bidders should indicate in their bids their detailed postal address including the Fax / Telephone / Cell Phone Nos. and E-mail address. Similar information should also be provided in respect of their authorized Agents in India, if any.
- 5.3 Documents comprising the bid: Bids are invited under **Two-Bid System**. The bid to be uploaded by the Bidder in OIL's E-Tender portal shall comprise of the following components:
  - (A) Technical Bid (to be uploaded in "Technical Attachments" tab):
    - a) Complete technical details of the services offered.

- b) Documentary evidence established in accordance with Clause No. 8.0.
- c) Bid Security Declaration as **PROFORMA-V** in accordance with Clause No. 9.0 hereunder.
- d) Bid Form as per **PROFORMA-I**.
- e) Statement of Non-compliance as per **PROFORMA-II**.
- f) Integrity Pact, digitally signed by OIL's competent personnel as PART-VI.
- g) **PROFORMA-IV** attached with the bid document to be signed by the bidder's authorized representative.
- h) All other relevant Undertakings and PROFORMAS as applicable as part of Bid.

Note: **No price should be mentioned in the Technical Bid being uploaded in "Technical Attachments" tab. If any price is mentioned by the bidder in their Technical bid, then their bid will be rejected straightway.**

(B) Price Bid (to be uploaded in "Notes and Attachments" tab)

The Price Bid Format containing the prices along with the currency quoted and any other commercial information pertaining to the service offered.

**6.0 BID FORM:** The bidder shall complete the Bid Form and upload the same along with their Technical bid.

**7.0 BID PRICE:**

7.1 Prices must be quoted by the Bidders online as per the price bid format available in OIL's E-Tender Portal under "Notes & Attachment" Tab. Prices must be quoted by the bidders as per the Price Bidding format.

7.2 Prices quoted by the successful bidder must remain firm during performance of the Contract and must not be subject to variation on any account, except as otherwise mentioned in the bid document.

7.3 All duties (except customs duty which will be borne by the Company) and taxes (excluding GST) including Corporate Income Tax, Personal Tax, Assam Entry Tax etc. and other Cess / levies payable by the successful bidder under the Contract for which this Bid Document is being issued, shall be included in the rates, prices and total Bid Price submitted by the bidder and the evaluation and comparison of bids shall be made considering the quoted GST in the Price Bid Format. For example, personal taxes and / or any corporate taxes arising out of the profits on the contract as per rules of the country shall be borne by the bidder.

**8.0 DOCUMENTS ESTABLISHING BIDDER'S ELIGIBILITY AND QUALIFICATIONS:** These are listed in BEC-BRC of the tender documents.

**9.0 BID SECURITY**

9.1 The Bid Security is required to protect the Company against the risk of Bidder's conduct, which would warrant forfeiture of the Bid Security, pursuant to sub-clause 9.8.

9.2 All the bids must be accompanied by Bid Security in Original as prescribed under, for the amount as mentioned in the “Forwarding Letter” of the tender documents:

a. The Bid Security may be submitted in the form of irrevocable Bank Guarantee (as per **PROFORMA-V**) issued by Nationalized or Scheduled Bank in favour of M/s Oil India Limited and payable at DULIAJAN. The Bank Guarantee must be on Non-Judicial Stamp Paper of requisite value as per Indian Stamp Act purchased in the name of Banker.

b. Alternately Bid Security can also be paid through Bank Draft/Cashier’s Cheque/ Banker’s Cheque/Fixed Deposit Receipt (Account OIL INDIA LIMITED)/irrevocable Letter of Credit/NEFT/RTGS/Electronic Fund Transfer through Online Payment Gateway of OIL’s e-tender portal (subject to credit in OIL’s account within prescribed time) to designated account of OIL.

i. If the Bid Security is submitted in the form of Bank Draft, Banker’s Cheque, Cashier’s Cheque, Fixed Deposit Receipt or Letter of Credit, the same should be in favour of “Oil India Limited” payable at Duliajan.

ii. Bid Security amount through NEFT or RTGS mode may be deposited on or before bid closing date and time to the following designated OIL’s bank account:

<b>Bank Details of Beneficiary: OIL INDIA LIMITED</b>		
<b>a</b>	Bank Name	STATE BANK OF INDIA
<b>b</b>	Branch Name	Duliajan
<b>c</b>	Branch Address	Duliajan, Dist.-Dibrugarh
<b>d</b>	Bank Account No.	<b>10494832599</b>
<b>e</b>	Type of Account	Current Account
<b>f</b>	IFSC Code	<b>SBIN0002053</b>
<b>g</b>	MICR Code	786002302
<b>h</b>	SWIFT Code	SBININBB479

iii. If the bid security is submitted through NEFT or RTGS mode, details such as **UTR No., Tender No., Bidder’s name & Deposited Amount etc.** must be uploaded with the Unpriced Techno-Commercial Bid documents.

c. In case of Bidders submitting Bid Security in the form of Bank Guarantee/ Bank Draft/Cashier’s Cheque/Banker’s Cheque/Fixed Deposit Receipt/Letter of Credit, the original hard copy of Bid Security should reach the office of GM-CONTRACTS on or before **12.45 p.m. (IST)** on the bid closing / opening date otherwise bid will be rejected.

d. A scanned copy of Bid Security document should also be uploaded along with the Unpriced Techno-Commercial Bid documents.

e. This Bid Security Deposit shall be refunded to all unsuccessful

bidders but is liable to be forfeited in full or part, at Company's discretion, as per **Clause No. 9.8** below. Bids without Bid Security Deposit in the manner specified above will be summarily rejected.

f. No other mode of payment will be accepted by the Company. The Bid Security shall not earn any interest to the bidder from the Company.

**Note:**

i. Bidders claiming waiver of Bid Security shall upload supporting documents as mentioned in **Para No. 10.0** below along with technical bid.

ii. Any offer not accompanied with the Bid Security shall be treated as invalid and summarily rejected unless the bidder is exempted from submission of Bid Security as per Bid Security Exemption Criteria of this tender and proper proof towards this exemption is submitted by the bidder. Any subsequent deposit of Bid Security after the bid closing date shall not be permitted. Also, adjustment of Bid Security due against the instant tender, against dues from the Company or on any account shall not be permitted.

- 9.3 Any bid not secured in accordance with sub-clause 9.2 above shall be rejected by the Company as non-responsive.
- 9.4 The bidders shall extend the validity of the Bid Security suitably, if and when specifically advised by OIL, at the bidder's cost.
- 9.5 Unsuccessful Bidder's Bid Security will be discharged and / or returned within 30 days after finalization of the Tender.
- 9.6 Successful Bidder's Bid Security will be discharged and / or returned upon Bidder's furnishing the Performance Security and signing of the contract. Successful bidder will however ensure validity of the Bid Security till such time the Performance Security in conformity with Clause No. 24.0 below is furnished.
- 9.7 Bid Security shall not accrue any interest during its period of validity or extended validity.
- 9.8 The Bid Security may be forfeited:
- a. If the bidder withdraws the bid within its original / extended validity.
  - b. If the bidder modifies / revises their bid suo-moto within its original / extended validity.
  - c. If the bidder does not accept the contract.
  - d. If the bidder does not furnish Performance Security Deposit within the stipulated time as per tender / contract.
  - e. If it is established that the bidder has submitted fraudulent documents or has indulged into corrupt and fraudulent practice, the bid security shall be forfeited after due process in addition to other action against the bidder.
- 9.9 In case any bidder withdraws their bid during the period of bid validity, Bid Security will be forfeited, and the party shall be debarred as per the prevailing Banning Policy of the Company (OIL).

9.10 A bid shall be rejected straightway if Original Bid Security is not received within the stipulated date & time mentioned in the Tender and / or if the Bid Security validity is shorter than the validity indicated in Tender and / or if the Bid Security amount is lesser than the amount indicated in the Tender.

9.11 The Bank Guarantee issuing bank branch must ensure the following:

The Bank Guarantee issued by the bank must be routed through SFMS platform as per the following details:

- (i) MT 760 / MT 760 COV for issuance of bank guarantee.
- (ii) MT 760 / MT 767 COV for amendment of bank guarantee.

[Tender Number should reflect in the SFMS text under MT 760 / MT 760 COV]

The above message / intimation shall be sent through SFMS (indicating the Contract Number) by the BG issuing bank branch to ICICI BANK LTD., Duliajan Branch; IFS Code – ICIC0000213; SWIFT Code – ICICINBBXXX; Branch Address: Kunja Bhavan, Daily Bazaar, Duliajan, Dibrugarh, Assam – 786602.

<b>Bank Details of Beneficiary</b>	
<b>A</b>	Bank Name ICICI Bank Ltd.
<b>B</b>	Branch Name Duliajan
<b>C</b>	Branch Address Kunja Bhavan, Daily Bazaar, Duliajan, Dibrugarh, Assam – 786602
<b>D</b>	IFSC Code ICIC0000213
<b>E</b>	Unique identifier code (Field 7037) OIL503988890
<b>F</b>	Company name Oil India Limited
<b>H</b>	SWIFT Code ICICINBBXXX

**10.0 EXEMPTION FROM SUBMISSION OF BID SECURITY: (This, being a Works Contract is excluded from the purview of Public Procurement Policy for MSEs Order,2012)** In case any bidder is exempted from paying the Bid security, they should upload the supporting documents along with their technical bid. The detailed guidelines for exemption of the Bid security are given below.

**a) MSEs Units (manufacturers / Service Providers** only and not their dealers / distributors) are eligible for exemption of Bid Security.

**b) Central Government Departments and Central Public Sector Undertakings (CPSUs)** are also exempted from submitting bid security.

Note: Bids without EMD shall be rejected, if the technical offer does not include a valid copy of relevant Document/Certificate towards exemption of EMD, issued by appropriate authority.

- c) Documentation required to be submitted by MSEs: **Refer Clause No. 32.0 below.**

**11.0 PERIOD OF VALIDITY OF BIDS**

- 11.1 Bids shall remain valid as per the requirement mentioned in forwarding letter from the date of closing of bid prescribed by the Company. Bids of shorter validity will be rejected as being non-responsive. If nothing is mentioned by the bidder in their bid about the bid validity, it will be presumed that the bid is valid for **120 days** from Original Bid Closing Date.
- 11.2 In exceptional circumstances, the Company may solicit the Bidder's consent to an extension of the period of validity. The request and the response thereto shall be made in writing through Fax or e-mail. A Bidder may refuse the request. A Bidder granting the request will neither be required nor permitted to modify their Bid.

**12.0 SIGNING & SUBMISSION OF BIDS:**

12.1 Signing of bids:

- 12.1.1 Bids are to be submitted online through OIL's E-procurement portal with digital signature. The bid and all attached documents should be digitally signed by the bidder using "Class 3" digital certificates with Organization's Name [e-commerce application (Certificate with personal verification and Organisation Name)] as per Indian IT Act 2000 obtained from the licensed Certifying Authorities operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India before bid is uploaded. Digital Signature Certificates having Bidder's Name in the "Organization Name" field are only acceptable. Digital Signature Certificate having "Organization Name" field other than Bidder's Name shall be rejected summarily.

The bid including all uploaded documents shall be digitally signed by duly authorized representative of the bidder holding a Power of Attorney to bind the Bidder to the contract.

If any modifications are made to a document after attaching digital signature, the digital signature shall again be attached to such documents before uploading the same.

In case the digital signature is not of "Class-3" with organization name, the bid will be rejected. Bidder is responsible for ensuring the validity of digital signature and its proper usage by their employees.

- 12.1.2 The original and all copies of the bid shall be typed or written in indelible inks. Since bids are to be submitted ONLINE with digital signature, manual signature is NOT relevant. The Letter of Authority (as per **PROFORMA-IV**) shall be indicated by written Power of Attorney accompanying the Bid.
- 12.1.3 Any physical documents submitted by bidders shall contain no interlineations, white fluid erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such correction shall be initialed by the person or persons who has / have digitally signed the Bid.

12.1.4 Any Bid, which is incomplete, ambiguous, or not in compliance with the Bidding process shall be rejected.

12.2 **Submission of bids:**

The tender is processed under **Two-Bid System**. Bidder shall submit the Technical bid and Priced bid along with all the Annexures and Proforma (wherever applicable) and copies of documents in electronic form through OIL's e-procurement portal within the Bid Closing Date & Time stipulated in the e-tender. For submission of Bids online at OIL's E-Tender Portal, detailed instructions is available in "User Manual" available in OIL's E-Tender Portal. Guidelines for bid submission are also provided in the "Forwarding Letter". The Technical Bid is to be submitted as per Terms of Reference/Technical Specifications of the bid document and Priced Bid as per the Price Schedule. The Technical Bid should be uploaded in the "Technical Attachment" Tab Page only. Prices to be quoted as per Price Bid Format and should be uploaded as 'Attachment' under "Notes & Attachments" Tab. No price should be given in the "Technical Attachment", otherwise bid shall be rejected. The priced bid submitted in physical form shall not be considered. However, the following documents in one set should necessarily be submitted in physical form in sealed envelope super-scribing the Tender no., Brief Description of services and Bid Closing/Opening date & Time along with the bidder's name and should be submitted to CGM-Contracts, Oil India Ltd., Duliajan-786602 (Assam) on or before 12.45 Hrs (IST) on the bid closing date indicated in the IFB:

- a) Printed catalogue and literature if called for in the bid document.
- b) Any other document required to be submitted in original as per bid document.

Documents sent through E-mail / Fax / Telephonic method will not be considered.

12.2.1 All the conditions of the contract to be made with the successful bidder are given in various Sections of the Bid Document. Bidders are requested to state their non-compliance to each clause as per PROFORMA-II of the bid document and the same should be uploaded along with the Technical Bid.

12.2.2 Timely delivery of the documents in physical form as stated in Para 12.2 above is the responsibility of the bidder. Bidders should send the same through Registered Post or by Courier Services or by hand delivery to the Officer in Charge of the particular tender before the Bid Closing Date and Time. Company shall not be responsible for any postal delay / transit loss.

12.2.3 Bids received through the e-procurement portal shall only be accepted. Bids received in any other form shall not be accepted.

**13.0 DEADLINE FOR SUBMISSION OF BIDS:**

13.1 Bids should be submitted online as per the online tender submission deadline. Bidders will not be permitted by System to make any changes in their bid/quote after the bid submission deadline is reached. Bidders are requested to take note of this and arrange to submit their bids within the submission deadline to avoid last minute rush/network problems.

- 13.2 No bid can be submitted after the submission dead line is reached. The system time displayed on the e-procurement web page shall decide the submission dead line.
- 13.3 The documents in physical form as stated in Para 12.2 must be received by Company at the address specified in the "Forwarding Letter" on or before 12.45 Hrs (IST) on the Bid Closing Date mentioned in the "Forwarding Letter". Timely delivery of the same at the address mentioned in the Forwarding Letter is the responsibility of the Bidders.
- 14.0 LATE BIDS:** Bidders are advised in their own interest to ensure that their bids are uploaded in system much before the closing date and time of the bid. The documents in physical form if received by the Company after the deadline for submission prescribed by the Company shall be rejected and shall be returned to the Bidders in unopened condition immediately.
- 15.0 MODIFICATION AND WITHDRAWAL OF BIDS:**
- 15.1 The Bidder after submission of Bid may modify or withdraw its Bid prior to Bid Closing Date & Time in the e-portal using Digital Signature by the person or persons who has / have digitally signed the Bid. Withdrawal or modification of bid through physical correspondence shall not be considered and accepted.
- 15.2 No Bid can be modified or withdrawn subsequent to the deadline for submission of Bids.
- 15.3 No Bid can be withdrawn in the interval between the deadline for submission of Bids and the expiry of the period of Bid Validity specified by the Bidder on the Bid Form. Withdrawal of a Bid during this interval by a Bidder shall be debarred from participation in future tenders of OIL.
- 16.0 EXTENSION OF BID SUBMISSION DATE:** Normally no request for extension of Bid Closing Date & Time will be entertained. However, OIL at its discretion, may extend the Bid Closing Date and / or Time due to any reasons.
- 17.0 BID OPENING AND EVALUATION:**
- 17.1 Company will open the Bids, including submission made pursuant to Clause 12.2, in presence of Bidder's representatives who choose to attend at the date, time and place mentioned in the Forwarding Letter. However, an authorization letter (as per **PROFORMA-III**) from the Bidder must be produced by the Bidder's representative at the time of Bid Opening. Unless this Letter is presented, the representative will not be allowed to attend the Bid Opening. The Bidder's representatives who are allowed to attend the Bid Opening shall sign a register evidencing their attendance. Only one representative against each Bid will be allowed to attend.
- 17.2 In technical bid opening, only "Technical Attachment" will be opened. Bidders therefore should ensure that technical bid is uploaded in the "Technical Attachment" Tab Page only in the E-portal.
- 17.3 In case of any unscheduled holiday or Bandh on the Bid Opening Date, the Bids will be opened on the next full working day. Accordingly, Bid Closing Date / time will get extended up to the next working day and time.

- 17.4 Bids which have been withdrawn pursuant to **Clause 15.0** shall not be opened. Company will examine bids to determine whether they are complete, whether requisite Bid Security Declarations have been furnished, whether documents have been digitally signed and whether the bids are generally in order.
- 17.5 At bid opening, Company will announce the Bidder's names, written notifications of bid modifications or withdrawal, if any, the presence of requisite Bid Security Declaration and such other details as the Company may consider appropriate.
- 17.6 Normally no clarifications shall be sought from the Bidders. However, for assisting in the evaluation of the bids especially on the issues where the Bidder confirms compliance in the evaluation and contradiction exists on the same issues due to lack of required supporting documents in the Bid (i.e. document is deficient or missing), or due to some statement at other place of the Bid (i.e. reconfirmation of confirmation) or vice versa, clarifications may be sought by OIL. In all the above situations, the Bidder will not be allowed to change the basic structure of the Bid already submitted by them and no change in the price or substance of the Bid shall be sought, offered or permitted.
- 17.7 Prior to the detailed evaluation, Company will determine the substantial responsiveness of each bid to the requirement of the Bid Documents. For purpose of these paragraphs, a substantially responsive bid is one, which conforms to all the terms and conditions of the Bid Document without material deviations or reservation. A material deviation or reservation is one which affects in any substantial way the scope, quality, or performance of work, or which limits in any substantial way, in-consistent way with the Bid Documents, the Company's right or the bidder's obligations under the contract, and the rectification of which deviation or reservation would affect unfairly the competitive position of other bidders presenting substantial responsive bids. The Company's determination of Bid's responsiveness is to be based on the contents of the Bid itself without recourse to extrinsic evidence.
- 17.8 A 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.
- 17.9 The Company may waive minor informality or nonconformity or irregularity in a Bid, which does not constitute a material deviation, provided such waiver, does not prejudice or affect the relative ranking of any Bidder.

**18.0 OPENING OF PRICED BIDS:**

- 18.1 In case of composite bid system, Price bids will be opened on the scheduled bid closing date itself.
- 18.2 In case of two-bid system, Company will open the Priced Bids of the techno-commercially qualified Bidders on a specific date in presence of representatives of the qualified bidders. The techno-commercially qualified Bidders will be intimated about the Priced Bid Opening Date & Time in advance.

18.3 In case of any unscheduled holiday or Bandh on the Priced Bid Opening Date, the Bids will be opened on the next working day.

18.4 The Company will examine the Price quoted by Bidders to determine whether they are complete, any computational errors have been made, the documents have been properly signed, and the bids are generally in order.

Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price (that is obtained by multiplying the unit price and quantity) the unit price shall prevail and the total price shall be corrected accordingly. If there is a discrepancy between words, and figures, the amount in words will prevail. If any Bidder does not accept the correction of the errors, their Bid will be rejected.

**19.0 EVALUATION AND COMPARISON OF BIDS:** The Company will evaluate and compare the bids as per BEC-BRC of the Tender Documents.

19.1 Discounts / rebates:

19.1.1 Unconditional discounts / rebates, if any, given in the bid will be considered for evaluation.

19.1.2 Post bid or conditional discounts / rebates offered by any bidder shall not be considered for evaluation of bids. However, if the lowest bidder happens to be the final acceptable bidder for award of contract, and if they have offered any discounts / rebates, the contract shall be awarded after taking into account such discounts/rebates.

**20.0 CONTACTING THE COMPANY:**

20.1 Except as otherwise provided in **Clause 17.0** above, no Bidder shall contact Company on any matter relating to its bid, from the time of the bid opening to the time the Contract is awarded except as required by Company vide sub-clause 17.6.

20.2 An effort by a Bidder to influence the Company in the Company's bid evaluation, bid comparison or Contract award decisions may result in the rejection of their bid.

**21.0 AWARD OF CONTRACT:**

21.1 **Award criteria:** The Company will award the Contract to the successful Bidder as per the evaluation criteria mentioned under BEC-BRC of the tender document, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.

**22.0 COMPANY'S RIGHT TO ACCEPT OR REJECT ANY BID:** Company reserves the right to accept or reject any or all bids 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 of the grounds for Company's action.

**23.0 NOTIFICATION OF AWARD:**

23.1 Prior to the expiry of the period of bid validity or extended validity, Company will notify the successful Bidder in writing by registered letter or by fax or E-

mail (to be confirmed in writing by registered / couriered letter) that its Bid has been accepted.

- 23.2 The notification of award will constitute the formation of the Contract.
- 23.3 Upon the successful Bidder's furnishing of Performance Security pursuant to Clause 24.0 below, the Company will promptly notify each un-successful Bidder.

**24.0 PERFORMANCE SECURITY:** Successful bidder has to submit Performance Security amount as mentioned in Forwarding Letter, within 02 Weeks from the date of issue of Letter of Award (LOA).

24.1 a. The Performance Security should be submitted in the form of irrevocable Bank Guarantee (as per **PROFORMA-VII**) issued by Nationalized or Scheduled Bank in favour of M/s Oil India Limited and payable at DULIAJAN. The Bank Guarantee must be on Non-Judicial Stamp Paper of requisite value as per Indian Stamp Act purchased in the name of Banker. A duly filled undertaking towards details of the BG (as per **PROFORMA-XII**) must also be submitted along with the original BG.

b. Alternately, the Performance Security can also be paid through Bank Draft / Cashier's Cheque / Banker's Cheque / Fixed Deposit Receipt (Account OIL INDIA LIMITED) / irrevocable Letter of Credit / NEFT / RTGS (subject to credit in OIL's account within prescribed time) to designated account of OIL.

i. If the Performance Security is submitted in the form of Bank Draft, Banker's Cheque, Cashier's Cheque, Fixed Deposit Receipt or Letter of Credit, the same should be in favour of "Oil India Limited" payable at Duliajan.

ii. Performance Security amount through NEFT or RTGS mode may be deposited on or before bid closing date and time to the following designated OIL's bank account:

<b>Bank Details of Beneficiary: OIL INDIA LIMITED</b>		
<b>a</b>	Bank Name	STATE BANK OF INDIA
<b>b</b>	Branch Name	Duliajan
<b>c</b>	Branch Address	Duliajan, Dist-Dibrugarh
<b>d</b>	Bank Account No.	<b>10494832599</b>
<b>e</b>	Type of Account	Current Account
<b>f</b>	IFSC Code	<b>SBIN0002053</b>
<b>g</b>	MICR Code	786002302
<b>h</b>	SWIFT Code	SBININBB479

iii. If the Performance security is submitted through NEFT or RTGS mode, the bidder shall submit details such as **UTR No., Contract No., Bidder's name & Deposited Amount etc.**

c. In case of Bidders submitting Performance Security in the form of Bank Guarantee/Bank Draft/Cashier's Cheque/Banker's Cheque/Fixed Deposit Receipt/Letter of Credit, the original hard copy of Performance Security shall be submitted within the time frame as stipulated in the LOA.

d. No other mode of payment other than the mode covered under Point Nos. a. & b. will be accepted by the Company.

24.2 Performance Security shall not accrue any interest during its period of validity or extended validity.

24.3 The Bank Guarantee issuing bank branch must ensure the following:  
The Bank Guarantee issued by the bank must be routed through SFMS platform as per the following details:

- (i) MT 760/MT 760 COV for issuance of bank guarantee.
- (ii) MT 760/MT 767 COV for amendment of bank guarantee.

[Tender Number should reflect in the SFMS text under MT 760/MT 760 COV]

The above message / intimation shall be sent through SFMS by the BG issuing Bank branch to HDFC Bank, Duliajan Branch, IFS Code – HDFC0002118; SWIFT Code - HDFCINBBCAL. Branch Address: HDFC Bank Limited, Duliajan Branch, Utopia Complex, BOC Gate, Jayanagar, Duliajan, Dibrugarh, PIN – 786602. The Bank details are as under:

<b>Bank Details of Beneficiary</b>		
<b>A</b>	Bank Name	HDFC BANK LTD
<b>B</b>	Branch Name	DULIAJAN
<b>C</b>	Branch Address	Utopia Complex, BOC Gate, Jayanagar, Duliajan, Dibrugarh, PIN – 786602
<b>D</b>	Banker Account No.	21182320000016
<b>E</b>	Type of Account	Current Account
<b>F</b>	IFSC Code	HDFC0002118
<b>G</b>	MICR Code	786240302
<b>H</b>	SWIFT Code	HDFCINBBCAL

24.4 This Performance Security must be valid for **90 (Ninety) days** after the date of expiry of the contract period / defect liability period (if any). In the event of contract being extended within the provisions of the contract agreement, the contractor will have to extend suitably the validity of the "Security Deposit" for the extended period.

24.5 The Performance Security Deposit will be refunded to the Contractor after **90 (Ninety) days** of satisfactory completion of works / defect liability period (if any) under the contract (including extension, if any), but a part or whole of which shall be used by the Company in realization of liquidated damages or claims, if any or for adjustment of compensation or loss due to the Company for any reason.

**25.0 SIGNING OF CONTRACT:**

- 25.1 At the same time as the Company notifies the successful Bidder that its Bid has been accepted, the Company will either call the successful Bidder for signing of the agreement or send the Contract Form provided in the Bid Documents, along with the General & Special Conditions of Contract, Technical Specifications, Schedule of Rates incorporating all agreements agreed between the two parties.
- 25.2 The successful Bidder shall sign and date the contract and return it to the Company after receipt of LOA. Till the contract is signed, the LOA issued to the successful bidder shall remain binding amongst the two parties.
- 25.3 In the event of failure on the part of the successful Bidder to sign the contract, OIL reserves the right to terminate the LOA issued to the successful Bidder and invoke the Performance Security if submitted by the successful Bidder. In case the Bidder fails to sign the contract or submit the Performance Security within the stipulated time as defined in the tender document, Oil India Limited will suspend the Bidder for a period of two years without conducting any enquiry.

**26.0 CREDIT FACILITY:** Bidders should indicate clearly in the Bid about availability of any credit facility inclusive of Government to Government credits indicating the applicable terms and conditions of such credit.

**27.0 MOBILIZATION AND ADVANCE PAYMENT:**

- 27.1 Request for advance payment shall not be normally considered. However, depending on the merit and at the discretion of the Company, advance against mobilization charge may be given at an interest rate of 1% above the prevailing Bank rate (CC rate) of SBI from the date of payment of the advance till recovery / refund.
- 27.2 Advance payment agreed to by the Company shall be paid only against submission of an acceptable bank guarantee whose value should be equivalent to the amount of advance plus the amount of interest covering the period of advance. Bank guarantee shall be valid for 2 months beyond completion of mobilization and the same may be invoked in the event of Contractor's failure to mobilize as per agreement.
- 27.3 In the event of any extension to the mobilization period, Contractor shall have to enhance the value of the bank guarantee to cover the interest for the extended period and also to extend the validity of bank guarantee accordingly.

**28.0 GOODS AND SERVICES TAX:**

- 28.1 In view of **GST** Implementation from 1st July 2017, all taxes and duties including Excise Duty, CST / VAT, Service tax, Entry Tax and other indirect taxes and duties have been submerged in **GST**. Accordingly, reference of Excise Duty, Service Tax, VAT, Sales Tax, Entry Tax or any other form of indirect tax except of **GST** mentioned in the bidding document shall be ignored.

Bidders are required to submit copy of the GST Registration Certificate while

submitting the bids wherever **GST** (CGST & SGST / UTGST or IGST) is applicable.

28.2 Bidder should also mention the **Harmonised System of Nomenclature (HSN)** and **Service Accounting Codes (SAC)** at the designated place in the Price Bid Format.

28.3 **Where the OIL is entitled to avail the input tax credit of GST:**

OIL will reimburse the GST to the Supplier of Goods / Services (Service Provider) at actual against submission of Invoices as per format specified in rules/ regulation of GST to enable OIL to claim input tax credit of GST paid. In case of any variation in the executed quantities, the amount on which the GST is applicable shall be modified in same proportion. Returns and details required to be filled under GST laws & rules should be timely filed by supplier with requisite details.

The input tax credit of **GST** quoted shall be considered for evaluation of bids, as per evaluation criteria of tender document.

28.4 **Where the OIL is not entitled to avail/take the full input tax credit of GST:**

OIL will reimburse GST to the Supplier of Goods / Services (Service Provider) at actual against submission of Invoices as per format specified in rules / regulation of GST subject to the ceiling amount of GST as quoted by the bidder. In case of any variation in the executed quantities (If directed and / or certified by the In-Charge) the ceiling amount on which GST is applicable will be modified on pro-rata basis.

The bids will be evaluated based on total price including GST.

28.5 It is the responsibility of the bidder to quote the correct GST rate. The classification of goods / services as per GST (Goods & Service Tax) Act should be correctly done by the contractor to ensure that input tax credit on GST (Goods & Service Tax) is not lost to the OIL on account of any error on the part of the contractor.

28.6 Further, it is the responsibility of the bidders to make all possible efforts to make their accounting / IT system GST compliant in order to ensure availability of Input Tax Credit (ITC) to Oil India Ltd.

28.7 GST liability, if any, on account of supply of free samples against any tender shall be to bidder's account.

28.8 In case the bidder is covered under Composition Scheme under GST laws, then bidder should quote the price inclusive of the GST (CGST & SGST / UTGST or IGST). Further, such bidder should mention "Cover under composition system" in column for GST (CGST & SGST/UTGST or IGST) of price schedule.

28.9 OIL will prefer to deal with registered supplier of goods / services under GST. Therefore, bidders are requested to get themselves registered under GST, if not registered yet. However, in case any unregistered bidder is submitting their bid, their prices will be loaded with applicable GST while evaluation of

bid. Where OIL is entitled for input credit of GST, the same will be considered for evaluation of bid as per evaluation methodology of tender document.

- 28.10 Procurement of Specific Goods: Earlier, there is no tax incidence in case of import of specified goods (i.e. the goods covered under List-34 of Customs Notification no. 12/2012-Cus dated. 17.03.2012 as amended). Customs duty is not payable as per the policy. However, under GST regime, IGST Plus GST compensation cess (if applicable) would be leviable on such imports. Bidders should quote GST as inclusive considering IGST component for the imported Materials portion while quoting their prices on destination basis. However, GST rate to be specified in the price bid format.
- 28.11 The Supplier of Goods / Services may note the Anti-profiteering Clause (Clause No. 12.5) of Part-I GCC and quote their prices accordingly.
- 28.12 In case the GST rating of bidder on the GST portal / Govt. official website is negative / black listed, then the bid may be rejected by OIL.

**29.0 INTEGRITY PACT:**

- 29.1 OIL shall be entering into an Integrity Pact with the Bidders as per format enclosed vide PART-VI of the Bid Document. The Integrity Pact has been duly signed digitally by OIL's competent signatory and uploaded in the OIL's e-portal. The Integrity Pact shall be returned by the bidder (along with the technical Bid) duly signed by the same signatory who signed the Bid i.e. who is duly authorized to sign the Bid. Uploading the Integrity Pact in the OIL's E-portal with digital signature will be construed that all pages of the Integrity Pact has been signed by the bidder's authorized signatory who has signed the bid. If any bidder refuses to sign Integrity Pact or declines to submit the Integrity Pact, their bid shall be rejected straightway.
- 29.2 OIL has appointed Shri Ram Phal Pawar, IPS (Retd.), Dr. Tejendra Mohan Bhasin, Former Vigilance Commissioner, CVC and Shri Om Prakash Singh, IPS (Retd.) as Independent External Monitors (IEM) for a period of 03 (Three) years to oversee implementation of Integrity Pact in OIL. Bidders may contact the Independent External Monitors for any matter relating to the Integrity Pact at the following addresses:
- a. Shri Ram Phal Pawar, IPS (Retd.), Former Director, NCRB, MHA  
E-mail: [rpawar61@hotmail.com](mailto:rpawar61@hotmail.com)
  - b. Dr. Tejendra Mohan Bhasin, Former Vigilance Commissioner, CVC  
E-mail: [tmbhasin@gmail.com](mailto:tmbhasin@gmail.com)
  - c. Shri Ajit Mohan Sharan, IAS (Retd.), Former Secretary, Ministry of Ayush  
E-mail: [ams057@gmail.com](mailto:ams057@gmail.com)

**30.0 LOCAL CONDITIONS:**

It is imperative for each Bidder to be fully informed themselves of all Indian as well as local conditions, factors and legislation which may have any effect on the execution of the work covered under the Bidding Document. The bidders shall be deemed, prior to submitting their bids to have satisfied themselves of all the aspects covering the nature of the work as stipulated in

the Bidding Document and obtain for themselves all necessary information as to the risks, contingencies and all other circumstances, which may influence or affect the various obligations under the Contract.

No request will be considered for clarifications from the Company (OIL) regarding such conditions, factors and legislation. It is understood and agreed that such conditions, factors and legislation have been properly investigated and considered by the Bidders while submitting the Bids. Failure to do so shall not relieve the Bidders from responsibility to estimate properly the cost of performing the work within the provided timeframe. Company (OIL) will assume no responsibility for any understandings or representations concerning conditions made by any of their officers prior to award of the Contract. Company (OIL) shall not permit any Changes to the time schedule of the Contract or any financial adjustments arising from the Bidder's lack of knowledge and its effect on the cost of execution of the Contract.

**31.0 SPECIFICATIONS:** Before submission of Bids, Bidders are requested to make themselves fully conversant with all Conditions of the Bid Document and other relevant information related to the works / services to be executed under the contract.

\*\*\*\*\***END OF ITB**\*\*\*\*\*

**PRE-QUALIFICATION CRITERIA (PQC)**

**BID EVALUATION CRITERIA (BEC) – BID REJECTION CRITERIA (BRC)**

**1.0 BID EVALUATION CRITERIA (BEC):**

The bid shall conform to the specifications and terms and conditions given in the Bidding Documents. Bids will be rejected in case material and services offered do not conform to the required parameters stipulated in the technical specifications. Notwithstanding the general conformity of the bid to the stipulated specifications, the following requirements will have to be particularly met by the Bidders without which the same will be considered as non-responsive and will not be considered for evaluation. All the documents related to BEC shall be submitted along with the Technical Bid.

**1.1 Eligibility Criteria:**

**The bidder must be incorporated in India and must maintain more than 20% local content (LC) for the offered services to be eligible to bid against this tender.**

Regarding calculation of local content and submission of documents during bidding & execution of contracts, provision of Purchase preference policy linked with Local Content (PP-LC) notified vide Letter No. FP-20013/2/2017-FP-PNG dated 17.11.2020 by-MoPNG (including subsequent amendments thereof, if any) shall be applicable.

If such local content is not maintained during execution of contract, OIL reserves the right to invoke the Performance Securities submitted by the bidding and supporting companies, in addition to resorting to other options as may be deemed appropriate.

Whether or not the bidders want to avail PP-LC benefit against this tender, it is mandatory for them to meet the following at the bidding stage:

- (a) Without specifying the unit rates and bid amount in the technical bid, the bidder must provide the percentage (%) of local content in their bid, without which the bid shall be summarily rejected being non-compliant.
- (b) The Bidder shall submit an undertaking from the authorised signatory of bidder having the Power of Attorney alongwith the bid, specifying the LC Percentage and such undertaking shall become a part of the contract, if awarded. [Format enclosed as Proforma-XVI].
- (c) Bidder to submit a copy of their Certificate of Incorporation/registration in India.

**1.2 Technical Criteria:**

**1.2.1 A. Electrical Experience:** Bidder must have experience of successfully completing at least one **SIMILAR work** over last 07 (seven) years reckoned from the original bid closing date with PSUs / Central Government / State Government Organization / Nationalised Banks/Public Limited Company/ Municipal corporation/Municipality in India as under:

One similar completed work costing not less than the amount equal to **Rs. 5,48,53,300.00.**

**OR**

Two similar completed works each costing not less than the amount equal to **Rs. 3,42,83,300.00.**

**OR**

Three similar completed works each costing not less than the amount equal to **Rs. 2,74,26,650.00.**

**B. Civil Experience:** Successful Construction of any RCC building. Documentary evidence as per Notes to BEC Clause No. 1.2.1 must be submitted along with the bid.

**C.** The Electrical experience [BEC Clause 1.2.1(A)] and Civil experience [BEC Clause No 1.2.2 (B)] may be from a single order/contract or may be separately from different order/contracts. In case, both the experiences are from a single order/contract, the electrical experience alone must fulfil Clause **1.2.1 (A).**

**1.2.2** The bidders not having required Civil construction work experience as clause 1.2.1(B), may form a consortium with any other contractor having experience as clause 1.2.1(B). Please refer Clause **1.2.4** for further details.

**1.2.3** The Bidder shall have Valid Electrical Contractor's License issued by any State Govt. Electrical Licensing Board. The Electrical Contractor's license shall be valid as on original bid closing date. The copy of the valid Electrical Contractors' License shall be submitted along with the bid.

**Notes to BEC Clause No. 1.2.1:**

**A. "SIMILAR work"** mentioned above means – Experience in successfully completing the following:

Supply, erection, installation and commissioning of 11 kV or of a higher voltage substation work involving supply, erection & commissioning of following minimum equipment:

- (i) Transformer of voltage grade 11 kV and above.
- (ii) VCB Panels of voltage grade 11 kV and above.
- (iii) PCC/PMCC/LT Switchboards comprising of Air Circuit Breakers/MCCBs

**B.** For proof of requisite Experience (refer Clause No. 1.1.1), the following documents / photocopy (self-attested / attested) must be submitted along with the bid:

**(i)** Contract document / LoA / WO showing details of work,

**AND**

**(ii)** Job Completion Certificate showing:

- (i)** Gross value of job done
- (ii)** Nature of job done and Work order no. / Contract no.
- (iii)** Contract period and date of completion

**OR**

SES (Service Entry Sheet) / Certificate of Payment (COP) issued by the company indicating the following:

- (i)** Work order no. / Contract no.
- (ii)** Gross value of jobs done
- (iii)** Period of Service
- (iv)** Nature of Service

**C.** Only Letter of Intent (LOI) / Letter of Award (LOA) and/ or Work Order(s), Job Completion certificate are not acceptable as evidence of experience. Successful completion of the awarded contract(s) to the extent of value/volume, as stipulated respectively under Clause 1.2 will only be treated as acceptable experience.

**D.** In case requisite experience is against **OIL's contract**, bidder shall only be required to categorically specify OIL's Contract Number and date to consider the experience.

**E.** Following work experience will also be taken into consideration:

**(a)** If the prospective bidder is executing similar work which is still running and the contract value/quantity executed prior to original bid closing date is equal to or more than the minimum prescribed value in the BEC.

**(b)** In case the start date of the requisite experience is beyond the prescribed 07 (seven) years reckoned from the original bid closing date but completion is within the prescribed 07 (seven) years reckoned from the original bid closing date.

**(c)** If the prospective bidder has executed a contract in which similar work is a component of the contract.

- In case the document submitted as per **Para B, (i) & (ii)** above are not sufficient to establish the value/quantity/period of the similar work against **Para E (a), (b) & (c)** above the bidder shall also have to submit the breakup of the works executed under such contract(s) clearly indicating the value / quantity / period of SIMILAR work which should be certified by the end user or a certificate issued by a practicing

Chartered / Cost Accountant Firm (with Membership Number, UDIN & Firm Registration Number).

- F.** Experience of executing similar work through 'sub-contracting' shall not be considered for evaluation.
- G.** SIMILAR work executed by a bidder for its own organization / subsidiary cannot be considered as experience for the purpose of meeting BEC.

**1.2.4 BID FROM CONSORTIUM OF COMPANIES:** In case the bidder is a Consortium of Companies provided the Leader of the Consortium complies to '**Clause No. 1.1 - Eligibility Criteria**' above w.r.t. being incorporated/constituted in India and maintaining more than or equal to 20% local content for the offered services and complies to the following requirement by the consortium:

(a) Acceptable Memorandum of Understanding (MOU) has to be made between the consortium partners, which should be duly signed by the authorized executives of the consortium members clearly defining the role/scope of work of each partner/member, binding the members jointly and severally to any & all responsibilities and obligations under the contract, if awarded, and identifying the Leader of the Consortium.

(b) MOU/Agreement concluded amongst consortium partners, should be addressed to the Company, clearly stating that the MOU/ Agreement is applicable to this Tender and shall be binding on them for the entire contract period, including extension, if any. The MOU must unconditionally and unequivocally declare that the MOU shall remain valid during the validity of the Contract. The MOU/Agreement should be submitted along with the Technical bid.

(c) The leader or any member of the consortium shall satisfy the minimum experience requirement as per **Clause No. 1.2.1 (A)** above.

(d) The leader of the consortium must confirm unconditional acceptance of full responsibility of executing the "Scope of Work" of this tender. This confirmation must be submitted along with the technical bid.

(e) Only the leader of the consortium shall register against the tender in GeM portal and submit bid on behalf of the consortium. The other members of the consortium shall ratify all the acts and decisions of the leader of consortium, which are taken in connection with and/or during the evaluation of the tender and execution of the contract.

(f) The **Bid Security** shall be in the name of the Leader of the consortium on behalf of consortium with specific reference to consortium bid and with name(s) & address(es) of Consortium members. Similarly, the **Performance Security** shall be in the name of the Leader on behalf of the Consortium.

(g) The leader of the consortium on behalf of the consortium shall coordinate with OIL during the period the bid is under evaluation as well as during the execution of works in the event contract is awarded and he shall also be

responsible for resolving dispute/misunderstanding/undefined activities, if any, amongst all the consortium members.

(h) Any correspondence exchanged with the leader of consortium shall be binding on all the consortium/joint venture members.

(i) Payment shall be made by OIL only to the leader of the consortium towards fulfilment of contract obligations.

(j) In case of consortium bids, the bid shall be signed by the leader of consortium. The power of attorney from each member authorizing the leader for signing and submission of Bid on behalf of individual member must accompany the bid.

(k) Documents/details submitted with the bid pertaining to qualification must be furnished by each partner/member of consortium and should be complete in all respects clearly bringing up their experience especially in the form of work in their scope.

(l) **Constitution of Consortium:** The members of the consortium should not be more than 03 (Three). If during evaluation of bid, a consortium leader proposes any alterations/changes in the constitution or replacement or inclusion or expulsion of any partner(s)/member(s) of the consortium which had originally submitted the bid, the bid of such a consortium shall be liable for rejection.

m) **Signing of Contract:** In the event of award of contract to the consortium, the contract to be signed by the members of the consortium and the liability of each one of them shall be jointly and severally.

n) Members of the consortium are not allowed to quote separately/independently against this tender. All the bids received in such case shall be summarily rejected. Further, all bids from parties with technical support from the same Principal shall be rejected.

o) Certified copies (attested by Director/Company Secretary) of Board resolutions passed by respective Board of Directors of the companies (Consortium leader and members) agreeing to entering into such consortium with each other for submission of bid for the NIT and authorizing designated executives of each company to sign in the MOU to be provided along with the technical bid.

p) The MOU/Agreement should be legally valid i.e. it should be on a non-judicial stamp paper and notarized. In case of involvement of overseas bidder/consortium partner, the MOU/Agreement need not be on a non-judicial stamp paper, however it should be notarized.

**1.2.5 THIRD PARTY INSPECTION:**

**1.2.5.1** Oil India Limited (OIL) has engaged the following 17 (Seventeen) Independent Inspection Agencies to verify and certify various documents required against BEC/BRC of the tender:

<b>Sl. No.</b>	<b>Name of Independent Inspection Agency</b>	<b>Contact E-Mail ID</b>
1.	M/s. Dr. Amin Controllers Private Limited	<a href="mailto:rkjain@rcaindia.net">rkjain@rcaindia.net</a> ; <a href="mailto:pradeep.mathur@rcaindia.net">pradeep.mathur@rcaindia.net</a> <a href="mailto:info@rcaindia.net">info@rcaindia.net</a>
2.	M/s. TUV India Private Limited	<a href="mailto:noida@tuv-nord.com">noida@tuv-nord.com</a> ; <a href="mailto:mumbai@tuv-nord.com">mumbai@tuv-nord.com</a> <a href="mailto:salim@tuv-nord.com">salim@tuv-nord.com</a>
3.	M/s. Conformity India International Private Limited	<a href="mailto:mktg@ciindia.in">mktg@ciindia.in</a>
4.	M/s. Ravi Energie Private Limited	<a href="mailto:baroda@ravienergie.com">baroda@ravienergie.com</a> <a href="mailto:tpia@ravienergie.com">tpia@ravienergie.com</a>
5.	M/s. SGS India Private Limited	<a href="mailto:dhaval.vora@sgs.com">dhaval.vora@sgs.com</a> <a href="mailto:sgs.india@sgs.com">sgs.india@sgs.com</a>
6.	M/s. Assure Quality Management Certification Services Private Limited	<a href="mailto:aqmcs@aqmcs.com">aqmcs@aqmcs.com</a>
7.	M/s. IRCLASS Systems and Solutions Private Limited	<a href="mailto:industrial_services@irclass.org">industrial_services@irclass.org</a> <a href="mailto:Bhavesh.satam@irclass.org">Bhavesh.satam@irclass.org</a>
8.	M/s. TUV Rheinland (India) Pvt. Ltd.	<a href="mailto:Shailesh.deotale@ind.tuv.com">Shailesh.deotale@ind.tuv.com</a> <a href="mailto:Kaushal.gohil@ind.tuv.com">Kaushal.gohil@ind.tuv.com</a> <a href="mailto:info@ind.tuv.com">info@ind.tuv.com</a> <a href="mailto:ravi.kumar@ind.tuv.com">ravi.kumar@ind.tuv.com</a>
9.	M/s. Gulf Lloyd Industrial Services(I) Pvt. Ltd.	<a href="mailto:contact@gulflloyds.com">contact@gulflloyds.com</a> <a href="mailto:inspection@gulflloyds.com">inspection@gulflloyds.com</a>
10.	M/s. Baltic Testing India Pvt Ltd.	<a href="mailto:office@balticcontrolindia.com">office@balticcontrolindia.com</a>
11.	M/s. Sanmarg Engineering Validation & Assessment Pvt. Ltd.	<a href="mailto:Amrita@sanmargeva.com">Amrita@sanmargeva.com</a>
12.	M/s. Meenar Global Consultants LLP	<a href="mailto:sales@mgcllp.in">sales@mgcllp.in</a>
13.	M/s. Rites Limited	<a href="mailto:nrinspn@rites.com">nrinspn@rites.com</a> <a href="mailto:info@rites.com">info@rites.com</a> <a href="mailto:sbu.ninsp@rites.com">sbu.ninsp@rites.com</a>
14.	M/s. Bureau Veritas (India) Private Limited	<a href="mailto:bvindia.corporate@bureauveritas.com">bvindia.corporate@bureauveritas.com</a>

15.	M/s. TUV SUD South Asia Private Limited	<a href="mailto:Hemant.chavan@tuvsud.com">Hemant.chavan@tuvsud.com</a> Jayashree.rane@tuvsud.com
16.	M/s. Adornment Engineers India Private Limited	jks@adornmentengineers.com
17	M/s. TCRC Inspections Pvt. Ltd.	<a href="mailto:admin@tcrcinspections.com">admin@tcrcinspections.com</a> <a href="mailto:ashismallick@tcrcgroup.com">ashismallick@tcrcgroup.com</a> tenders@tcrcgroup.com

**1.2.5.2** The Bidders have to get verified and certified the various documents required against BEC/BRC of the tender by any one of the above Independent Inspection Agencies and submit the duly certified Inspection Certificate as per **Proforma XIV** (attached herewith) by the Inspection Agencies along with the Technical Bid of the Tender. All Charges of the Third-Party Independent Inspection Agencies towards verification of bidder's documents and certification thereof shall be borne by the respective bidders and payments on account of above inspection, verification and certification shall be made directly by the Bidder to the Inspection Agency(s). OIL will not be responsible for any payment dispute between Bidders and Third-Party Inspection Agencies.

**1.2.5.3** As mentioned above, Bidder(s) have to submit the verified documents along with the Technical Bids. Bid submitted with un-verified supporting documents shall not be considered. **However, in case a bidder submits its bid alongwith all relevant supporting documents as per BEC/BRC without getting all/some of them verified by the designated Independent Inspection agency, such bid can be provisionally considered provided it is accompanied by an Undertaking by the Bidder on their official letterhead to submit the duly verified copies/verification certificate within 07 (Seven) days of bid opening.** Company will neither send any reminder nor seek any clarification in this regard from such bidders, and the bid will be rejected outright if the bidder fails to submit the verified copies/verification certificate within 07 (Seven) days of bid opening at its own risk and responsibility.

**1.2.5.4** The methodology of inspection/verification of documents is broadly as under but not limited to:

(a) It is obligatory on the part of the interested Bidders, who choose to participate against the tender, to understand the tender requirements in entirety and the requisite documents sought for in support of the Bid Evaluation Criteria/Bid Rejection Criteria (BEC/BRC) mentioned in the tender in particular. The Bidder must produce all the appropriate documents before any of the OIL's empaneled third-party certifying agencies for verification/certification. Neither OIL nor the third-party certifying agency shall be held accountable in any manner regarding the choice of documents by the bidder for verification. Therefore, getting the appropriate

documents inspected/verified by the agency in support of BEC/BRC clauses is the sole responsibility of the Bidder.

(b) The prospective bidder shall contact any of the empaneled inspection agencies. The agency shall go through the Tender Document, especially the requirements of BEC/BRC and list the documents to be verified. They shall depute their qualified/competent inspector to the Bidder's premises to check the original documents and certify the copies which the bidder shall submit along with their bids. OIL will reserve the right to ask the inspection agencies to verify the documents with source, if required at no extra cost to OIL. Verification of documents by OIL's empaneled third party agency shall not automatically make the bidder eligible for award of contract.

(c) Verification of documents (but not limited to) are normally categorized as under:

➤ **General Requirement (as applicable):**

- Check Bidder's PAN Card
- Check Bidder's GST Certificate
- Check ITR of company
- Check Bidder's Certificate of Incorporation – Domestic Bidder.

➤ **Additional Documents : (If applicable against the tender)**

- Joint Ventures Agreements – To cross-check with JV Partners
- Consortium Agreements – To cross-check with Consortium Partners
- Holding/Parent/Subsidiary/Sister Subsidiary/Co-Subsidiary Company – To check the Share Holding pattern.

➤ **Technical Criteria**

- To check Experience Proof- Completion Certificates, Reference contact verification, Original Work Order/Contract Copy and any other document(s), if called for vide BEC/BRC of the Tender.

➤ **Financial Criteria**

- Check and verify Audited Balance Sheet/CA certificate.
- To check the Line of Credit, if incorporated in the tender.

**Note: If any documents LOI/LOA/Contracts, etc. are submitted towards BEC/BRC experience criteria issued by Oil India Limited, such documents need not be verified by TPI agency. Further TPI Verification and certification is not required for financial documents having Unique Document Identification Number (UDIN). Self-Undertaking furnished by the bidder in support of their bid may not be TPI verified.**

**1.3 Financial Criteria:**

(i) Annual Financial Turnover of the bidder in any of preceding 03 (three) financial / accounting years, reckoned from the original bid closing date should be at least **Rs. 2,93,85,690.00 (Rupees Two Crore Ninety-Three Lakh Eighty-Five Thousand Six Hundred Ninety)** only.

- (ii) **Net worth** of bidder must be positive for preceding financial / accounting year.
- (iii) In case of bid from Consortium of Companies as per Clause 1.2.4, any one of the consortium members shall have an annual financial turnover from operation of minimum **Rs. 2,93,85,690.00 (Rupees Two Crore Ninety-Three Lakh Eighty-Five Thousand Six Hundred Ninety)** and other members of the consortium shall have an annual financial turnover from operation of minimum **Rs. 1,46,92,845.00**, during any of the preceding 03 (Three) financial/accounting years reckoned from the original bid closing date. Net worth of all the members must be Positive for the financial/accounting year preceding the original bid closing date.
- (iv) All the consortium members shall meet the financial criteria as indicated above on their own and shall not rely on the strength of their parent/ultimate parent/holding company to meet the financial criteria. Otherwise, their bid shall be categorically rejected.

**Note:**

- Annual Financial Turnover of the bidder from operations shall mean: "Aggregate value of the realisation of amount made from the sale, supply or distribution of goods or on account of services rendered, or both, by the company (bidder) during a financial year" as per the Companies Act, 2013 Section 2 (91).
- Net worth shall mean: "Share capital + Reserves created out of profits and securities Premium – Aggregate value of accumulated losses (excluding revaluation reserves) – deferred expenditure – Miscellaneous Expenditure to the extent not written off and carried forward Loss - Reserves created out of write back of depreciation and amalgamation"
- The Net worth to be considered against the clause above, should be read in conjunction with the definition of Net worth as mentioned in Section 2 (57) of The Companies Act, 2013.

**Notes to BEC Clause No. 1.3:**

**A.** For proof of Annual Turnover & Net worth any one of the following documents must be submitted along with the bid:

(i) A certificate\* issued by a practicing Chartered / Cost Accountant (with Membership Number and Firm Registration Number), certifying the Annual turnover & Net worth as per format prescribed in **PROFORMA-XV**.

OR

(ii) Audited Balance Sheet along with Profit & Loss account.

\*Note:

- Mention of UDIN (Unique Document Identification Number) is mandatory for all Certificates issued w.e.f. February 1, 2019 by Chartered Accountant in Practice.

- In case the bidder is a Central Govt. organization / PSU / State Govt. organization / Semi-State Govt. Organization or any other Central / State Govt. Undertaking, where the auditor is appointed only after the approval of Comptroller and Auditor General of India and the Central Government, their certificates may be accepted even though FRN is not available. However, bidder to provide documentary evidences for the same.

**B.** Considering the time required for preparation of Financial Statements, if the last date of preceding financial/accounting year falls within the preceding six months / within the due date for furnishing of audit report as per Section 139(1) of IT Act, 1961 (read along with latest circulars/notifications issued by CBDT from time to time) reckoned from the original bid closing date and the Financial Statements of the preceding financial / accounting year are not available with the bidder, then the financial turnover of the previous three financial / accounting years excluding the preceding financial/accounting year will be considered. In such cases, the Net worth of the previous financial/accounting year excluding the preceding financial / accounting year will be considered. However, the bidder has to submit an undertaking in support of the same along with their technical bid as per **PROFORMA-X**.

**C.** In case the bidder is a Government Department, they are exempted from submission of documents mentioned under para **A.** and **B.** above.

## **2.0 COMMERCIAL EVALUATION CRITERIA**

**2.1** Bids are to be submitted under Single-Stage Two-Bid System i.e., Un-priced Techno-Commercial Bid and Price Bid in their respective fields in e-tender portal. Only the Price Bid should contain the quoted price.

2.2 The price quoted by the successful bidder must be firm during the performance of the contract and not subject to variation on any account except as mentioned in the bid document. Any bid submitted with adjustable price quotation other than the above will be treated as non-responsive and rejected.

**Note: The breakup of the quoted/offered price i.e., the duly filled Price Bid Format SHALL NOT be uploaded with the technical bid; otherwise, the bid shall be rejected straightway.**

2.3 Bid Security in Original shall be furnished as a part of the Technical Bid and shall reach the office of CGM- Contracts, OIL at Duliajan on or before 12.45 Hrs (IST) on the bid closing date. A scanned copy of the bid security shall however be uploaded in OIL's E-Procurement portal along with the Technical Bid. The amount of Bid Security shall be ₹ **13,71,340.00** Bid without proper & valid Bid Security will be rejected.

2.4 Bid Documents / User Id & Password for OIL's E-Tender portal are not transferable.

2.5 Any bid received in the form of Physical document/ Telex/ Cable/ Fax/ E-mail will not be accepted.

2.6 Bids shall be typed or written in indelible ink. The bidder or his authorized representative shall sign the bid digitally, failing which the bid will be rejected.

2.7 Bids shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by bidder, in which case such corrections shall be initiated by the persons(s) signing (digitally) the bid. However, white fluid should not be used for making corrections. Any bid not meeting this requirement shall be rejected.

2.8 Any bid containing false statement will be rejected and action will be taken by Company as per Bid Document.

2.9 Bidder must accept and comply with the following provisions as given in the Tender Document in toto, failing which offer will be rejected:

- (i) Firm price
- (ii) Bid Security
- (iii) Period of validity of Bid
- (iv) Price Schedule
- (v) Performance Bank Guarantee / Security deposit
- (vi) Delivery / Completion Schedule
- (vii) Scope of work
- (viii) Guarantee of material / work
- (ix) Liquidated Damages clause
- (x) Tax liabilities
- (xi) Arbitration / Resolution of Dispute Clause
- (xii) Force Majeure
- (xiii) Applicable Laws
- (xiv) Specifications
- (xv) Integrity Pact

2.10 There should not be any indication of price in the Un-priced Techno-Commercial Bid. A bid will be straightway rejected if this is given in the Un-priced Techno-Commercial Bid.

2.11 Bid received with validity of offer less than **One Hundred and Twenty (120) Days** from Bid Closing Date will be rejected.

2.12 The Integrity Pact is applicable against this tender. OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide **PROFORMA-XIII** of the tender document. This Integrity Pact proforma has been duly signed by OIL's competent signatory. The proforma must be returned by the bidder (along with the Un-priced Techno-Commercial Bid) duly signed (digitally) by the same signatory who signed the bid, i.e., who is duly authorized to sign the bid. Uploading the Integrity Pact with digital signature will be construed that all pages of the Integrity Pact have been signed by the bidder's authorized signatory who sign the Bid.

**3.0 PRICE EVALUATION CRITERIA**

3.1 Price bid shall be opened in respect of only the techno-commercially acceptable bidders whose bids have been found to be substantially responsive. A substantially responsive bid is one that meets the terms and conditions of the Tender and/or the acceptance of which bid will not result in indeterminate liability on OIL.

3.2 Bidders are required to quote for all the items in the BOQ/Price Bid/ Financial Document. In case the bidder does not quote against any of the line items, the total bid value shall be considered as inclusive of the cost of the service/item.

3.3 It is to be clearly understood that the assumptions made in respect of the quantities for various operations are only for the purpose of evaluation of the bid and the Contractor will be paid on the basis of the actual number of days/parameters.

3.4 The bidders are advised not to offer any discount/rebate separately and to offer their prices after considering discount/rebate, if any.

3.5 Conditional and unsolicited discount will not be considered in evaluation. However, if such bidder happens to be the lowest recommended bidder, unsolicited discount without any condition will be considered for computing the contract price.

**3.6 The inter-se-ranking of the techno-commercially qualified bidders will be determined on overall lowest cost basis (L-1 offer) i.e., considering the Total quoted price inclusive of all liabilities and GST.**

3.7 Based on the evaluation of techno-commercially qualified bidders, the job will be awarded to the L-1 bidder.

3.8 In case of identical overall lowest offered rate by more than 01 (one) bidder, the selection will be made by draw of lot between the parties offering the same overall lowest price.

3.9 OIL will prefer to deal with registered bidder under GST. Therefore, bidders are requested to get themselves registered under GST, if not registered yet. However, in case any unregistered bidder is submitting their bid, their prices will be loaded with applicable GST while evaluation of bid.

3.10 When a bidder mentions taxes as extra without specifying the rates & amount, the offer will be loaded with maximum value towards taxes received against the tender for comparison purposes. If the bidder emerges as lowest bidder after such loading, in the event of order on that bidder, taxes mentioned by OIL on the Purchase Order/Contracts will be binding on the bidder.

3.11 Input Tax Credit on GST (Goods & Service Tax) for this service is NOT available to OIL & the bids will be evaluated based on total price including GST.

3.12 For evaluation purpose, quoted unit rates against each Line Item of the price bidding format shall be considered only upto 02 (two) decimal places without rounding off for evaluation.

**4.0 GENERAL**

4.1 In case bidder takes exception to any clause of bidding document not covered under BEC/BRC, then the Company has the discretion to load or reject the offer on account of such exception if the bidder does not withdraw/modify the deviation

when/as advised by company. The loading so done by the company will be final and binding on the bidders. No deviation will however be accepted in the clauses covered under BEC/BRC.

4.2 To ascertain the substantial responsiveness of the bid the Company reserves the right to ask the bidder for clarification in respect of clauses covered under BEC/BRC also and such clarifications fulfilling the BEC/BRC clauses in toto must be received on or before the deadline given by the company, failing which the offer will be evaluated based on the submission. However, mere submission of such clarification shall not make the offer responsive, unless company is satisfied with the substantial responsiveness of the offer.

4.3 If any of the clauses in the BEC/BRC contradict with other clauses of bidding document elsewhere, the clauses in the BEC/BRC shall prevail.

4.4 Bidder(s) must note that requisite information(s)/financial values etc. as required in the BEC/BRC & Tender are clearly understandable from the supporting documents submitted by the Bidder(s); otherwise, Bids shall be rejected.

4.5 OIL will not be responsible for delay, loss, or non-receipt of applications for participating in the bid sent by mail and will not entertain any correspondence in this regard.

4.6 The originals of such documents [furnished by bidder(s)] shall have to be produced by bidder(s) to OIL as and when asked for.

**5.0 PURCHASE PREFERENCE CLAUSE: MSEs Units (manufacturers / Service Providers: (NOT APPLICABLE FOR THIS TENDER)**

**6.0 PURCHASE PREFERENCE POLICY (PPP-MII): This service is not splittable**

i) Purchase preference under Public Procurement (Preference to Make in India) Order, 2017 of Department for Promotion of Industry and Internal Trade (DPIIT), Govt. of India and as amended time to time with modifications as notified vide MoPNG Order No. FP-20013/2/2017-FP-PNG-Part (4) (E-41432) dated 26<sup>th</sup> April 2022 (including subsequent amendments thereof, if any) shall be applicable for this Tender. Bidders to check the provisions of the Notifications for their eligibility to bid and seek benefits for Purchase preference, accordingly. The minimum local content and the margin of purchase preference are as per notifications from Department for Promotion of Industry and Internal Trade (DPIIT), Govt. of India from time to time.

**8.0 COMPLIANCE OF THE COMPETITION ACT, 2002:** The bidder shall strictly comply with the provisions of the Competition Act, 2002, more particularly, Section-3 of the Act. Any violation the provisions of the Act shall attract penal action under the Act.

**9.0 CHECKLIST FOR BEC-BRC:** Enclosed as **TECHNICAL EVALUATION SHEET (PROFORMA-XX)** and **COMMERCIAL CHECK-LIST (PROFORMA-XII)**. To be submitted along with the technical bid.

\*\*\*\*\***END OF PQC**\*\*\*\*\*

**GENERAL CONDITIONS OF CONTRACT (GCC)**

**1.0 APPLICABILITY, DEFINITION & INTERPRETATION:**

**1.1 Applicability**

All clauses in the General Conditions of Contract [GCC] shall apply to all transactions except as otherwise stated in the Special Conditions of Contract [SCC] and/or BEC-BRC. Furthermore, in the event if there is any conflict between the Principal text of the Agreement and the Appendixes, the Principal text will prevail.

**1.2 Definition & Interpretation**

In the contract (as hereinafter defined) the following words and expressions shall have the meaning hereby assigned to them except where the context otherwise requires:

**1.2.1 COMPANY / OIL / Operator:**

Shall mean Oil India Limited [OIL] a public sector undertaking, incorporated under COMPANY's Act 1956 having its registered office at Duliajan-786602, Assam, India and includes its successor and permitted assigns.

**1.2.2 CONTRACTOR:**

Shall mean the person or persons, firm or COMPANY or corporation incorporated in India or abroad, who has been awarded with the contract and includes contractor's legal representatives, his successors and permitted assigns.

**1.2.3 Contract:**

Shall mean a written agreement between the COMPANY and the CONTRACTOR for execution of the services / works including all contract documents and subsequent amendments, if any.

**1.2.4 Site:**

Shall mean the place in which the operations / services are to be carried out or places approved by OIL for the purposes of the CONTRACT together with any other places designated in the CONTRACT as forming part of the site.

**1.2.5 COMPANY's Site Representative / Engineer:**

Shall mean the person or the persons appointed by the COMPANY from time to time to act on its behalf at the site for overall co-ordination, supervision and project management at site.

**1.2.6 Sub-Contract:**

Shall mean order / contract placed by the CONTRACTOR for any portion of the CONTRACT or work sublet with necessary written consent of COMPANY on third party. Such sub-letting shall not relieve the CONTRACTOR from any obligation, duty or responsibility under the CONTRACT.

**1.2.7 Sub-Contractor:**

Shall mean any person or firm or COMPANY (other than CONTRACTOR) to whom any part of the work has been entrusted by CONTRACTOR, with written consent of OIL or the persons appointed by OIL, successors and permitted assigns of such persons, firm or COMPANY).

**1.2.8 Contractor's Representative:**

Shall mean such person / or persons duly appointed representative at the site and base as the CONTRACTOR may designate in writing to the COMPANY as having authority to act for the CONTRACTOR in matters affecting the work and to provide the requisite services.

**1.2.9 Contract Price / Value:**

Shall mean the sum accepted or the sum calculated in accordance with the rates accepted in tender and / or the contract rates as payable to the CONTRACTOR for the entire execution and completion of the services / works, including amendments / modification / change order issued by the COMPANY.

**1.2.10 Firm price:**

The prices will remain unchanged, except for statutory changes, during currency of the CONTRACT unless specifically agreed to in writing by COMPANY.

**1.2.11 Service / Works / Operations:**

Shall mean and include all items and things to be supplied / done and all work / Service to be performed by the CONTRACTOR as specified in the Scope of Work under this CONTRACT and shall also include all extra, additional, altered or substituted works / services as required for the purpose of successful execution of the Contract.

**1.2.12 Equipment / Materials / Goods :**

Shall mean and include any equipment, machinery, instruments, stores, goods which CONTRACTOR is required to provide to the COMPANY for / under the CONTRACT and amendments thereto.

**1.2.13 Drawings:**

Shall mean and include all Engineering sketches, general arrangements / layout drawings, sectional plans, all elevations, photographs, etc. related to the CONTRACT together with modification and revision thereto.

**1.2.14 Specifications:**

Means and includes all technical specifications, provision attached and referred to in the tender / contract document regarding method and manner of performing the services and qualities of the service / materials to be provided under the contract and also as modified by the COMPANY / its site representative during the execution of contract in the best interest of service.

**1.2.15 Engineer In-charge (EIC):**

Shall mean the person designated from time to time by the COMPANY and shall include those who are expressly authorized by the COMPANY to act for and on its behalf for operation of the contract.

**1.2.16 Inspectors:**

Shall mean any person or outside Agency nominated by COMPANY to inspect equipment, materials and services, if any, in the CONTRACT (stage wise as well as final) as per the terms of the CONTRACT.

**1.2.17 Tests:**

Shall mean such process or processes to be carried out by the CONTRACTOR as are prescribed in the CONTRACT, considered necessary by the COMPANY or their representative to ascertain quality, workmanship, performance and efficiency of equipment or services thereof.

**1.2.18 Approval:**

Shall mean and include the written consent duly signed by COMPANY or their authorized official in respect of all documents, drawings or other particulars in relation to the CONTRACT

**1.2.19 Day:**

Shall mean a calendar day of twenty-four (24) consecutive hours beginning at 00:00 hours with reference to local time at the site.

**1.2.20 Month:**

Shall mean a calendar month as per Gregorian calendar.

**1.2.21 Year:**

Shall mean calendar year as per Gregorian calendar.

**1.2.22 Working day:**

Means any day which is not declared to be holiday by the COMPANY.

**1.2.23 Bid / offer:**

Shall mean the proposal / Offer along with supporting documents submitted by the bidder in response to the tender or enquiry in accordance with the terms of Tender or Enquiry, for consideration by COMPANY, prior to award of contract.

**1.2.24 Guarantee:**

Shall mean the period and other conditions governing the warranty / guarantee of the services as provided in the CONTRACT.

**1.2.25 Mobilization:**

Shall mean rendering the equipment fully manned and equipped as per CONTRACT and ready to begin work at site designated by the COMPANY and accepted by the COMPANY after inspection.

**1.2.26 De-mobilization:**

Shall mean the removal of all items forming part of the Mobilization from the site of the COMPANY and inspection and acceptance thereafter by the COMPANY including compliance of requirement in relation to re-export of imported equipment/materials under concessional duty scheme in accordance with relevant notification from Customs Authorities.

**1.2.27 Willful Misconduct:**

Shall mean intentional disregard of good and prudent standards of performance or proper conduct under the Contract with knowledge that it is likely to result in any injury to any person or persons or loss or damage of property of the Company or Third Party.

**1.2.28 Gross Negligence:**

Shall mean any act or failure to act (whether sole, joint or concurrent) by a person or entity which was intended to cause, or which was in reckless disregard of or unjustifiable indifference to, avoidable and harmful consequences such person or entity knew, or should have known, would result from such act or failure to act. Notwithstanding the foregoing, Gross negligence shall not include any action taken in good faith for the safeguard of life or property.

**1.2.29 Criminal Negligence:**

Shall mean that the crime happened negligently, there was duty of care upon the Person but inadvertently due to his negligence, the duty was breached, which causes harm to the people in the form of death or serious injury.

**1.2.30 GST Legislations:**

‘GST legislations’ means ‘any or all of the following legislations as may be applicable to the CONTRACTOR and OIL:

- (A) The Central Goods & Services Tax Act, 2017;
- (B) The Integrated Goods & Services Act, 2017;
- (C) The Union Territory Goods & Services Tax Act, 2017;
- (D) The respective State Goods & Service Tax Acts’
- (E) The Goods and Services (Compensation to States) Act, 2017
- (F) The Customs Act and the Customs Tariff Act.
- (G) Any other applicable Act related to GST

**2.0 CONTRACT DOCUMENT:**

**2.1 Governing language:** The governing language for the CONTRACT shall be English. All CONTRACT documents and all correspondence and communication to be given and all other documentation to be prepared and supplied under the CONTRACT shall be written in English and the CONTRACT shall be construed and interpreted in accordance with English language.

**2.2 Entire Agreement:** The CONTRACT constitutes the entire agreement between OIL and the CONTRACTOR with respect to the subject matter of the CONTRACT and supersedes all communication, negotiations and agreement (whether written or oral) of the parties with respect thereto made prior to the date of this agreement, unless such communication(s) expressly forms part of the contract or included by reference.

**2.3 Amendment in CONTRACT:** No Amendment of the Contract shall be valid unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each party thereto. OIL shall not be bound by any printed conditions, provisions in the CONTRACTOR’s BID, forms of acknowledgement of CONTRACT, invoice and other documents which purport to impose any condition at variance with or supplement to CONTRACT.

**3.0 WAIVERS AND AMENDMENTS:**

**3.1 Waivers:** It is fully understood and agreed that none of the terms and conditions

of this contract shall be deemed waived by either party unless such waiver is executed in writing only by the duly authorized representatives of both the parties. The failure of either party to execute any right shall not act as a waiver of such right by such party.

**3.2 Change Program:** It is agreed that CONTRACTOR shall carry out work in accordance with the completion program (e.g. Drilling programme) to be furnished by the COMPANY, which may be changed from time to time by reasonable modifications in the program as COMPANY sees fit. COMPANY's instruction in this regard shall be final and binding.

**4.0 CONTRACT TIMELINE:**

**4.1** Effective Date of Contract: The contract shall become effective as on the date COMPANY notifies the CONTRACTOR in writing that it has been awarded the contract. This date of issuance of Letter of Award (LOA) by the COMPANY will be the Effective Date of Contract. All terms and conditions of the contract shall come into force with the date of issuance of LOA.

**4.2 Date of Commencement of Operation:**

The date on which the mobilization is completed in all respects and CONTRACTOR is ready to commence operation as per the contract provision [Certified by the COMPANY's representative] will be treated as the date of Commencement of Operation.

**4.3 Duration of the contract:**

The contract shall be valid for a period as defined in the LOA and Special Conditions of Contract [SCC].

**5.0 SCOPE OF WORK / CONTRACT:**

Scope of the CONTRACT shall be as defined in the CONTRACT, specifications, drawings and Appendices.

**6.0 GENERAL OBLIGATION OF CONTRACTOR:**

CONTRACTOR shall, in accordance with and subject to the terms and conditions of this Contract:

**6.1** Perform the work described in the Terms of Reference / Scope of Work. The CONTRACTOR shall execute the work with professional competence and in an efficient and workman like manner.

**6.2** Except as otherwise provided in the Terms of Reference and the special Conditions of the contract, employ all labours / personnel as required to perform the work.

**6.3** Perform all other obligations, work and services which are required by the terms of this contract or which reasonably can be implied from such terms as being necessary for the successful and timely completion of the work.

**6.4** Comply with all applicable statutory obligations specified in the contract.

**6.5** CONTRACTOR shall be deemed to have satisfied himself before submitting their bid as to the correctness and sufficiency of its bid for the services required and of the rates and prices quoted, which rates and prices shall, except insofar as otherwise provided, cover all its obligations under the contract.

**6.6** CONTRACTOR shall be deemed, prior to submitting their bids, to have satisfied

themselves about the weather conditions, working culture in the area, socio-political environment, safety & security aspects, law & order situation and law of the land, and obtain for themselves all necessary information as to the risks, contingencies and all other circumstances, which may influence or affect the various obligations under the Contract.

**6.7** CONTRACTOR shall give or provide all necessary supervision during the performance of the services and as long thereafter within the warranty period as COMPANY may consider necessary for the proper fulfilling of CONTRACTOR's obligations under the contract.

**7.0 GENERAL OBLIGATION OF COMPANY:**

COMPANY shall, in accordance with and subject to the terms and conditions of this contract:

**7.1** Pay CONTRACTOR in accordance with terms and conditions of the contract.

**7.2** Allow CONTRACTOR access, subject to normal security and safety procedures, to all areas as required for orderly performance of the work as specified in the Scope of Works of the contract or work connected therewith.

**7.3** Perform all other obligations required of COMPANY by the terms of this contract.

**8.0 DUTIES AND POWER / AUTHORITY:**

**8.1 OIL's site representative / engineer:**

The duties and authorities of OIL's site representative / engineer are to act on behalf of OIL for:

- i. Overall supervision, co-ordination and Project Management at site
- ii. Proper and optimum utilization of equipment and services.
- iii. Monitoring of performance and progress
- iv. Commenting / countersigning on reports made by the CONTRACTOR's representative at site in respect of works, receipts, consumption etc. after satisfying himself with the facts of the respective cases.
- v. He shall have the authority, but not obligation at all times and any time to inspect / test / examine / verify any equipment machinery, instruments, tools, materials, personnel, procedures and reports etc. directly or indirectly pertaining to the execution of the work. However this shall not construe to imply an acceptance by the inspector.

Hence, the overall responsibility of quality of work shall rest solely with the CONTRACTOR.

- vi. Each and every document emerging from site in support of any claim by the CONTRACTOR has to have the countersignature / comments of the OIL's representative / engineer without which no claim shall be entertained by the OIL.

**8.2 CONTRACTOR's representative:**

(a) The CONTRACTOR's representative shall have all the powers requisite for the performance of the Service/Works, subject to holding due authorization from the CONTRACTOR.

(b) Representative(s) shall liaise with OIL's representative / engineer for the

proper co-ordination and timely completion of the works and on any matter pertaining to the works.

(c) Representative(s) shall extend full co-operation to OIL's representative / inspector / engineer in the manner required by them for supervision / inspection / observation of equipment, material, procedures, performance, reports and records pertaining to works.

(d) To have complete charge of CONTRACTOR's personnel engaged in the performance of the work and to ensure compliance of rules and regulations and safety practice.

**9.0 PERSONNEL TO BE DEPLOYED BY CONTRACTOR:**

CONTRACTOR warrants that it shall provide competent, qualified and sufficiently experienced personnel to perform the work correctly and efficiently.

**9.1** The CONTRACTOR should ensure that their personnel observe all statutory safety requirement including those prescribed by the COMPANY. Upon COMPANY's written request, CONTRACTOR, entirely at its own expense, shall remove immediately any personnel of the CONTRACTOR determined by the COMPANY to be unsuitable and shall promptly replace such personnel with personnel acceptable to the COMPANY. Replacement personnel should be mobilized within 15 days from the date of issuance of notice without affecting the operation of the COMPANY.

**9.2** The CONTRACTOR shall be solely responsible throughout the period of the contract for providing all requirements of their personnel including but not limited to, their transportation to & fro from Duliajan / field site, enroute / local boarding, lodging, personal protective gear & medical attention etc. COMPANY shall have no responsibility or liability in this regard.

**9.3** However, COMPANY shall provide available medical assistance/facilities to CONTRACTOR's Personnel in case of emergency at its own establishment on chargeable basis.

**9.4** CONTRACTOR's key personnel shall be fluent in English language (both writing and speaking).

**10.0 PERFORMANCE SECURITY:**

**10.1** On receipt of notification of award from the COMPANY, the CONTRACTOR shall furnish the Performance Security to COMPANY within 15 (fifteen) days from the date of issue of LOA for an amount specified in the Forwarding Letter and Letter of Award (LOA) as per Proforma-Form and must be in the form of a Bank Draft / Cashier's Cheque / Banker's Cheque\* / NEFT / RTGS / Electronic fund transfer to designated account of OIL# or Fixed Deposit Receipt (account OIL INDIA LIMITED) or irrevocable Bank Guarantee or irrevocable Letter of Credit (LC) from:

a. Any schedule Indian Bank or any Branch of an International bank situated in India and registered with Reserve Bank of India as scheduled foreign bank in case of domestic CONTRACTOR / service provider.

OR

b. Any scheduled bank in India or from International bank which has its branch in India registered with Reserve Bank of India, in case of foreign CONTRACTOR / service provider.

OR

c. Any foreign Bank which is not a Scheduled Bank in India, provided the Bank Guarantee issued by such Bank is counter-guaranteed by any Branch situated in

India of any Scheduled Bank incorporated in India.

Note: Bank Guarantee issued by a Scheduled Bank of India at the request of some other Non-Scheduled Bank of India shall not be acceptable.

- 10.2** Bank Guarantee issued by a Bank, amongst others, must contain the following particulars of such bank:

Full address

Branch Code

Code Nos. of the authorized signatory with full name and designation.

Phone Nos.

Fax Nos.

E-mail address.

- 10.3** The domestic CONTRACTOR / Service Provider(s) will have to submit the Bank Guarantee from any of the scheduled banks and on non- judicial stamp paper of requisite value as per the Indian Stamp Act, purchased in the name of the issuing banker.
- 10.4** The foreign CONTRACTOR / Service Provider(s) will submit the Bank Guarantee from Banks of Indian origin situated in their country. In case no such bank of Indian origin is situated in their country, the Bank Guarantee may be submitted from the bankers as specified above.
- 10.5** The Performance Security shall be denominated in the currency of the contract.
- 10.6** The Performance Security specified above must be valid for the entire duration of the Contract and claim period should be valid for a minimum of **03 (three) months** beyond the contract period. The Performance Security will be discharged by COMPANY not later than 30 days following its expiry of claim period. In the event of any extension of the Contract period, Bank Guarantee should be extended by CONTRACTOR by the period equivalent to the extended period.
- 10.7** The Performance Security shall be encashed by COMPANY on account of CONTRACTOR's failure to fulfil its obligations under the Contract and / or non-performance / un-satisfactory performance of the Contractor. Company shall not be required to proof any loss or damage on account of Contractor's non-performance / un-satisfactory performance.
- 10.8** The Performance Security will not accrue any interest during its period of validity or extended validity.
- 10.9** Failure of the successful Bidder to comply with the requirements of clause 10.0 shall constitute sufficient grounds for annulment of the award and forfeiture of the Bid Security. In such an eventuality, action will be initiated as per the Banning Policy of OIL in vogue.

# Subject to credit in OIL's account within prescribed time

\* The validity of Bank Draft / Cashier's / Banker's Cheque (as applicable) should not be less than **03 (three) months**.

In the event CONTRACTOR fails to honour any of the commitments entered into under this agreement, and / or in the event of termination of the contract under provisions of Integrity Pact and / or in respect of any amount due from the CONTRACTOR to OIL, OIL shall have unconditional option under the guarantee to invoke the above bank guarantee and claim the amount from the bank. The bank shall be obliged to pay the amount to OIL on demand.

**11.0 SIGNING OF CONTRACT:**

**11.1** The successful bidder is required to sign a formal detailed contract with OIL within a maximum period of 60 days of date of LOA. Until the contract is signed, **the LOA as well as GCC & SCC as prescribed in the Tender, shall remain binding amongst the two parties.** In the event of failure on the part of the successful Bidder to sign the contract, OIL reserves the right to terminate the LOA issued to the successful Bidder and invoke the Bid Security or the Performance Security if submitted by the successful Bidder. Such CONTRACTOR shall be put on holiday as per the Banning Policy of OIL [available at [www.oil-india.in](http://www.oil-india.in)].

**12.0 CLAIMS, TAXES & DUTIES:**

**12.1 Claims:** CONTRACTOR agrees to pay all claims, taxes and fees for equipment, labour, materials, services and supplies to be furnished by it hereunder and agrees to allow no lien or charge resulting from such claims to be fixed upon any property of COMPANY. COMPANY may, at its option, pay and discharge any liens or overdue charges for CONTRACTOR's equipment, labour, materials, services and supplies under this CONTRACT and may thereupon deduct the amount or amounts so paid from any sum due, or thereafter become due, to CONTRACTOR hereunder.

**12.2 Notice of claims:** CONTRACTOR or COMPANY, as the case may be, shall promptly give the other, notice in writing of any claim made or proceeding commenced for which that party is entitled to indemnification under the CONTRACT. Each party shall confer with the other concerning the defense of any such claims or proceeding, shall permit the other to be represented by counsel in defense thereof, and shall not affect settlement of or compromise any such claim or proceeding without the other's written consent.

**12.3 Taxes:**

**12.3.1** CONTRACTOR, unless specified otherwise in the CONTRACT, shall bear all tax liabilities, duties, Govt. levies etc. including GST and customs duty, Corporate and personnel taxes levied or imposed on the CONTRACTOR on account of payments received by it from the COMPANY for the work done under this CONTRACT. It shall be the responsibility of CONTRACTOR to submit to the concerned Indian authorities, the returns and all other concerned documents required for this purpose and to comply in all respects with the requirements of the laws in this regard, in time.

**12.3.2** Tax levied on CONTRACTOR as per the provisions of Indian Income Tax Act and any other enactment/rules on income derived/payments received under the contract will be on CONTRACTOR's account.

**12.3.3** CONTRACTOR shall be responsible for payment of personal taxes, if any, for all the personnel deployed in India by CONTRACTOR.

**12.3.4** The CONTRACTOR shall furnish to the COMPANY, if and when called upon to do so, relevant statement of accounts or any other information pertaining to work done under the contract for submitting the same to the Tax authorities, on specific request from them in accordance with provisions under the law. CONTRACTOR shall be responsible for preparing and filing the return of income etc. within the prescribed time limit to the appropriate authority.

**12.3.5** Prior to start of operations under the contract, the CONTRACTOR shall furnish the COMPANY with the necessary documents, as asked for by the COMPANY and/ or any other information pertaining to the contract, which may be required to be submitted to the Income Tax authorities at the time of obtaining "No Objection

Certificate" for releasing payments to the CONTRACTOR.

- 12.3.6** Corporate income tax will be deducted at source from the invoice at the specified rate of income tax as per the provisions of Indian Income Tax Act as may be in force from time to time and COMPANY will issue TDS Certificate to the CONTRACTOR as per the provisions of Income Tax Act.
- 12.3.7** Corporate and personnel taxes on CONTRACTOR shall be the liability of the CONTRACTOR and the COMPANY shall not assume any responsibility on this account.
- 12.3.8** All local taxes, levies and duties, sales tax, octroi, etc. on purchases and sales made by CONTRACTOR shall be borne by the CONTRACTOR.
- 12.3.9** CONTRACTOR shall provide all the necessary compliances/ invoice/documents for enabling OIL to avail Input tax credit benefits in respect of the payments of GST which are payable against the CONTRACT. The CONTRACTOR should provide tax invoice issued under GST legislations for the goods and Services (indicating GST). Payment towards the components of GST shall be released by OIL only against appropriate documents i.e.: Tax Invoice/Bill of entry for availing input tax credit (as applicable).
- 12.3.10** The tax invoices as per above provisions should contain all the particulars as required under the invoicing rules under the GST legislations, including, but not limited to the following:
- i. Name, Address and the GST Registration Number (under the relevant Tax Rules) of the Service Provider (CONTRACTOR)
  - ii. Name and Address and GST Registration Number of the Service Receiver (Address of OIL)
  - iii. Description, Classification and Value of taxable service/goods and the amount of applicable tax (CGST, SGST, IGST, UTGST and cess)
- 12.3.11** In case of imported goods, CONTRACTOR/supplier is required to provide original Bill of Entry or copy of Bill of Entry duly attested by Custom authority.
- 12.3.12** The CONTRACTOR should mention the Place of supply in the invoice raised under GST Law.
- 12.3.13** OIL would not accept any invoice without its GSTIN mentioned on the invoice

*Note: CONTRACTOR who is under composition levy of the GST legislation would raise Bill of supply instead of Tax invoice, which will have GSTIN of supplier as well as OIL.*

**12.4 Goods and Services Tax:**

- 12.4.1** "GST" shall mean Goods and Services Tax charged on the supply of material(s) and services. The term "GST" shall be construed to include the Integrated Goods and Services Tax (hereinafter referred to as "IGST") or Central Goods and Services Tax (hereinafter referred to as "CGST") or State Goods and Services Tax (hereinafter referred to as "SGST") or Union Territory Goods and Services Tax (hereinafter referred to as "UTGST") depending upon the import/interstate or intrastate supplies, as the case may be. It shall also mean GST compensation Cess, if applicable.

**12.4.2** Where the OIL is entitled to avail the input tax credit of GST:

OIL will reimburse the GST to the Supplier of Goods / Services (Service Provider) at actual against submission of Invoices as per format specified in rules / regulation of GST to enable OIL to claim input tax credit of GST paid. In case of any variation in the executed quantities, the amount on which the GST is applicable shall be modified in same proportion. Returns and details required to be filled under GST laws & rules should be timely filed by supplier with requisite details.

**12.4.3** Where the OIL is not entitled to avail/take the full input tax credit of GST:

OIL will reimburse GST to the Supplier of Goods / Services (Service Provider) at actual against submission of Invoices as per format specified in rules/ regulation of GST subject to the ceiling amount of GST as quoted by the bidder. In case of any variation in the executed quantities (If directed and/or certified by the In-Charge) the ceiling amount on which GST is applicable will be modified on pro-rata basis.

**12.4.4** The CONTRACTOR will be under obligation for charging correct rate of tax as prescribed under the respective tax laws. Further the CONTRACTOR shall avail and pass on benefits of all exemptions/concessions available under tax laws. Any error of interpretation of applicability of taxes/ duties by the CONTRACTOR shall be to CONTRACTOR's account.

**12.4.5** In case of statutory variation in GST, other than due to change in turnover, payable on the contract value during contract period, the Supplier of Goods/ Services (Service Provider) shall submit a copy of the 'Government Notification' to evidence the rate as applicable on the Bid due date and on the date of revision.

**12.4.6** Beyond the contract period, in case OIL is not entitled for input tax credit of GST, then any increase in the rate of GST beyond the contractual delivery period shall be to Service provider's account whereas any decrease in the rate GST shall be passed on to the OIL.

**12.4.7** Beyond the contract period, in case OIL is entitled for input tax credit of GST, then statutory variation in applicable GST on supply and on incidental services, shall be to OIL's account.

**12.4.8** Claim for payment of GST / Statutory variation, should be raised within two [02] months from the date of issue of 'Government Notification' for payment of differential (in %) GST, otherwise claim in respect of above shall not be entertained for payment of arrears.

**12.4.9** The base date for the purpose of applying statutory variation shall be the Bid Opening Date.

**12.4.10** The CONTRACTOR will be liable to ensure to have registered with the respective tax authorities, wherever applicable and to submit self- attested copy of such registration certificate(s) and the CONTRACTOR will be responsible for procurement of material in its own registration (GSTIN) and also to issue its own Road Permit/ E-way Bill, if applicable etc.

**12.5 Anti-profiteering clause**

**12.5.1** As per Clause 171 of GST Act it is mandatory to pass on the benefit due to reduction in rate of tax or from input tax credit to the consumer by way of commensurate reduction in prices.

**12.5.2** In case rating of Contractor is negative/black listed after award of work for supply

of goods/services, then OIL shall not be obligated or liable to pay or reimburse GST to such vendor / Contractor and shall also be entitled to deduct / recover such GST along with all penalties/interest, if any, incurred by OIL.

**13.0 CUSTOMS DUTY, IF APPLICABLE:**

**13.1.1** CONTRACTOR shall be responsible to import the equipment / tools / spares / consumables etc. required for execution of the contract. The CONTRACTOR shall undertake to complete all the formalities as required under the Customs Act/Foreign Trade Policy (FTP) and indemnify OIL from all the liabilities of Customs in this regard.

**13.1.2** CONTRACTOR will be solely responsible for payment of all applicable Customs Duty and to comply all Rules and Regulations. Total Contract Price/Value is inclusive of all Customs Duty, if not mentioned otherwise elsewhere in the Contract.

**13.1.3** Above clause is to be read with Customs Duty Clause in SCC, if any.

**14.0 INSURANCE:**

**14.1** CONTRACTOR shall at his own expense arrange secure and maintain insurance with reputed insurance companies to the satisfaction of the Company as follows:

Contractor at his cost shall arrange, secure and maintain insurance as may be necessary and to its full value for all such amounts to protect the works in progress from time to time and the interest of Company against all risks as detailed herein. The form and the limit of such insurance, as defined here in together with the under works thereof in each case should be as acceptable to the Company. However, irrespective of work acceptance the responsibility to maintain adequate insurance coverage at all times during the period of Contract shall be that of Contractor alone. Contractor's failure in this regard shall not relieve him of any of his responsibilities & obligations under Contract. All costs on account of insurance liabilities covered under Contract will be to Contractor's account and will be included in Value of Contract. However, the Company may from time to time, during the currency of the Contract, ask the Contractor in writing to limit the insurance coverage risk and in such a case, the parties to the Contract will agree for a mutual settlement, for reduction in value of Contract to the extent of reduced premium amounts. Contractor shall cover insurance with Indian Insurance Companies.

**14.2** Any deductible set forth in any of the above insurance shall be borne by Contractor.

**14.3** CONTRACTOR shall require all of his sub-Contractor to provide such of the foregoing insurance coverage as Contractor is obliged to provide under this Contract and inform the Company about the coverage prior to the commencement of agreements with its sub-Contractors.

**14.4** All insurance taken out by Contractor or their sub-contractor shall be endorsed to provide that the underwriters waive their rights of recourse on the Company and to the extent of the liabilities assumed by Contractor under this Contract.

**14.5 Certificate of Insurance:**

Before commencing performance of the CONTRACT, CONTRACTOR shall furnish OIL with certificates of insurance indicating:

- a) Kinds and amounts of insurance as required herein
- b) Details of coverage
- c) Insurance corporation or companies carrying the aforesaid coverage
- d) Effective and expiry dates of policies
- e) That OIL shall be given thirty (30) days written advance notice of any material change in the policy
- f) Waiver of subrogation endorsement has been attached to all policies and
- g) The territorial limits of all policies.

**14.6** Contractor shall also inform the Company at least 60 days in advance regarding the expiry cancellation and / or changes in any of such documents & ensure revalidation / renewal, etc., as may be necessary well in time.

**14.7** If any of the above policy expire or/are cancelled during the term of this CONTRACT and CONTRACTOR fails for any reason to renew such policies, OIL in no case shall be liable for any loss/damage occurred during the term when the policy is not effective. Furthermore, a penal interest @ 1% of the Total contract value shall be charged towards not fulfilling of the contractual obligations. Notwithstanding above, should there be a lapse in any insurance required to be taken by the Contractor for any reason whatsoever, loss / damage claims resulting therefrom shall be to the sole account of Contractor.

**14.8** Contractor on demand from Company shall furnish the Insurance Policy having detail terms and conditions, with respect to any Certificate of Insurance submitted to the Company.

CONTRACTOR shall, at his own expense, arrange appropriate comprehensive insurance to cover all risks assumed by the CONTRACTOR under this CONTRACT in respect of CONTRACTOR's equipment, tools and any other belongings of the CONTRACTOR and its personnel as well deputed under this CONTRACT during the entire period of their engagement in connection with this CONTRACT including extensions if any. The CONTRACTOR shall also carry adequate insurance cover against damage/loss to third party person/property. OIL will have no liability on this account.

**14.9 Principal Assured:**

The following are to be included as Principal Assured(s) in the Insurance Policies (except in case of Workmen's Compensation / Employer's Liability insurance):

"Oil India Limited, and CONTRACTOR's name (as appearing in the Contract/LOA)"

**14.10 Waiver of subrogation:**

All insurance policies of the CONTRACTOR with respect to the operations conducted hereunder as set forth in clauses hereof, shall be endorsed by the underwriter in accordance with the following policy wording:

"The insurers hereby waive their rights of subrogation against Oil India Limited or any of their employees or their affiliates and assignees".

**14.11 Deductible:**

The CONTRACTOR shall take policy with minimum deductible as per IRDA prescribed for the policy(ies). That portion of any loss not covered by insurance provided for in this article solely by reason of deductible provision in such insurance policies shall be to the account of the CONTRACTOR.

**14.12 Compliance with Sec 25(1), of "The General Insurance Business (Nationalization) Act 1972"**

Section 25(1) of “The General Insurance Business (Nationalization) Act 1972“ is reproduced below:

“No person shall take out or renew any policy of insurance in respect of any property in India or any ship or other vessel or aircraft registered in India with an insurer whose principal place of business is outside India save with the prior permission of the Central Government”.

The above requirement of aforesaid Act needs to be complied with by the CONTRACTOR wherever the aforesaid provisions of Act apply, and compliance confirmations submitted.

**14.13 Loss Payee Clause:**

The Insurance Policies should mention the following in Loss Payee Clause:

“In respect of Insurance claims in which OIL’s interest is involved, written consent of OIL will be required”.

**14.14 On account payment to OIL in case of claim**

In case any loss or damage happen and where OIL’s interest is involved, OIL reserves the right to recover the loss amount from the CONTRACTOR prior to final settlement of the claim.

**14.15** CONTRACTOR shall require all of its SUB-CONTRACTORS to provide such of the foregoing insurance cover as the CONTRACTOR is obligated to provide under this CONTRACT.

**14.16** CONTRACTOR shall at all time during the currency of the contract provide, pay for and maintain the following insurance amongst others:

- i) **Workman Compensation and / Employers’ Liability Insurance:** Workmen's compensation and employer's liability insurance as required by the laws of the country of origin of the employee.
- ii) **Commercial General Liability Insurance:** Commercial General Public Liability Insurance covering liabilities including contractual liability for bodily injury, including death of persons, and liabilities for damage of property. This insurance must cover all operations of CONTRACTOR required to fulfil the provisions under this Contract.
- iii) **Comprehensive General Automotive Liability:** Automobile Public Liability Insurance covering owned, non-owned and hired automobiles used in the performance of the work hereunder, with bodily injury limits and property damage limits shall be governed by Indian Insurance Regulations.
- iv) **Carrier’s Legal Liability Insurance:** Carrier’s Legal Liability Insurance in respect of **all CONTRACTOR’s items** to be transported by the CONTRACTOR to the site of work, for physical loss or destruction of or damage to goods or merchandise, while in transit.
- v) **Public Liability Act Policy:** Public Liability Act Policy covering the statutory liability arising out of accidents occurring during the currency of the contract due to handling hazardous substances as provided in the Public Liability Insurance Act 1991 and the Rules framed there under.

- vi) **Pradhan Mantri Suraksha Bima Yojana (PMSBY) and Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY):** CONTRACTOR shall, ensure that all his/ its personnel deployed under this contract have obtained additional insurance coverage under the Pradhan Mantri Suraksha Bima Yojana (PMSBY) and Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) through the participating banks and submit the proof of such insurance coverage to the satisfaction of OIL.
- vii) CONTRACTOR's equipment used for execution of the work hereunder shall have an insurance cover with a suitable limit (as per international standards).
- viii) **Any other insurance policy set forth in the SCC**

**Note: An undertaking by the service provider has to be mandatorily provided during the Mobilization time that they have taken all the Insurance provisions as per the contract and as the Law and Insurance Regulation.**

**15.0 LIABILITY:**

- 15.1** Except as otherwise expressly provided herein, neither COMPANY nor its servants, agents, nominees, CONTRACTORS, or sub- CONTRACTORS shall have any liability or responsibility whatsoever to whomsoever for loss of or damage to the equipment and/or loss of or damage to the property of the CONTRACTOR and/or their CONTRACTORS or sub-CONTRACTORS, irrespective of how such loss or damage is caused and even if caused by the negligence of COMPANY and/or its servants, agent, nominees, assignees, CONTRACTORS and sub-CONTRACTORS.
- 15.2** The CONTRACTOR shall protect, defend, indemnify and hold harmless COMPANY from and against such loss or damage and any suit, claim or expense resulting there from. Neither COMPANY nor its servants, agents, nominees, assignees, CONTRACTORS, sub-CONTRACTORS shall have any liability or responsibility whatsoever for injury to, illness, or death of any employee of the CONTRACTOR and/or of its CONTRACTORS or sub-CONTRACTOR irrespective of how such injury, illness or death is caused and even if caused by the negligence of COMPANY and/or its servants, agents nominees, assignees, CONTRACTORS and sub-CONTRACTORS. CONTRACTOR shall protect, defend, indemnify and hold harmless COMPANY from and against such liabilities and any suit, claim or expense resulting there from.
- 15.3** The CONTRACTOR hereby agrees to waive its right of recourse and further agrees to cause its underwriters to waive their right of subrogation against COMPANY and/or its underwriters, servants, agents, nominees, assignees, CONTRACTORS and sub- CONTRACTORS for loss or damage to the equipment of the CONTRACTOR and/or its sub-CONTRACTORS and/or their employees when such loss or damage or liabilities arises out of or in connection with the performance of the contract limited to the CONTRACTOR's liabilities agreed to under this Contract.
- 15.4** The CONTRACTOR hereby further agrees to waive its right of recourse and agrees to cause its underwriters to waive their right of subrogation against COMPANY and/or its underwriters, servants, agents, nominees, assignees, CONTRACTORS and sub-CONTRACTORS for injury to, illness or death of any employee of the CONTRACTOR and of its CONTRACTORS, sub-CONTRACTORS and/or their employees when such injury, illness or death arises out of or in connection with the performance of the contract limited to the CONTRACTOR's liabilities agreed to under this Contract.
- 15.5** Except as otherwise expressly provided herein, neither CONTRACTOR nor its

servants, agents, nominees, CONTRACTORS or sub- CONTRACTORS shall have any liability or responsibility whatsoever to whomsoever for loss of or damage to the equipment and/or loss or damage to the property of the COMPANY and/or their CONTRACTORS or sub-CONTRACTORS, irrespective of how such loss or damage is caused and even if caused by the negligence of CONTRACTOR and/or its servants, agents, nominees, assignees, CONTRACTORS and sub-CONTRACTORS. The COMPANY shall protect, defend, indemnify and hold harmless CONTRACTOR from and against such loss or damage and any suit, claim or expense resulting there from.

**15.6** Except as otherwise expressly provided herein, neither CONTRACTOR nor its servants, agents, nominees, assignees, CONTRACTORS, sub- CONTRACTORS shall have any liability or responsibility whatsoever to whomsoever for injury or illness, or death of any employee of the COMPANY and/or of its CONTRACTORS or sub-CONTRACTORS irrespective of how such injury, illness or death is caused and even if caused by the negligence of CONTRACTOR and/or its servants, agents, nominees, assignees, CONTRACTORS and sub- CONTRACTORS. COMPANY shall protect, defend indemnify and hold harmless CONTRACTOR from and against such liabilities and any suit, claim or expense resulting there from.

**15.7** The COMPANY agrees to waive its right of recourse and further agrees to cause its underwriters to waive their right of subrogation against CONTRACTOR and/or its underwriters, servants, agents, nominees, assignees, CONTRACTORS and sub-CONTRACTORS for loss or damage to the equipment of COMPANY and/or its CONTRACTORS or sub-CONTRACTORS when such loss or damage or liabilities arises out of or in connection with the performance of the contract.

**15.8** The COMPANY hereby further agrees to waive its right of recourse and agrees to cause it underwriters to waive their right of subrogation against CONTRACTOR and/or its underwriters, servants, agents, nominees, assignees, CONTRACTORS and sub- CONTRACTORS for injury to, illness or death of any employee of the COMPANY and of its CONTRACTORS, sub-CONTRACTORS and/or their employees when such injury, illness or death arises out of or in connection with the performance of the Contract.

**16.0 LIMITATION OF LIABILITY:**

a) Notwithstanding any other provisions herein to the contrary, except only in cases of Wilful misconduct and/or criminal acts and/or criminal negligence, neither the CONTRACTOR nor the COMPANY (OIL) shall be liable to the other, whether in Contract, tort, or otherwise, for any consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided however that this exclusion shall not apply to any obligation of the CONTRACTOR to pay Liquidated Damages to the COMPANY and/or COMPANY's right to forfeit the Performance Bank Guarantee(s) in terms of the contract.

b) Notwithstanding any other provisions incorporated elsewhere in the contract, the aggregate liability of the CONTRACTOR in respect of this contract, whether under Contract, in tort or otherwise, shall not exceed 100% of the Contract Price (if not specified otherwise in SCC), provided however that this limitation shall not apply to the cost of repairing or replacing defective equipment by the CONTRACTOR, or to any obligation of the CONTRACTOR to indemnify the COMPANY with respect to Intellectual Property Rights.

c) COMPANY shall indemnify and keep indemnified CONTRACTOR harmless from and against any and all claims, costs, losses and liabilities in excess of the aggregate liability amount in terms of clause (b) above.

**17.0 LIABILITY OF UNION GOVERNMENT OF INDIA:**

It is expressly understood and agreed upon by and between CONTRACTOR and OIL INDIA LIMITED, and that OIL INDIA LIMITED is entering into this agreement solely on its own behalf and not on behalf of any other person or entity. In particular, it is expressly understood and agreed that Union of India is not a party to this agreement and has no liabilities, obligations or rights, whatsoever hereunder. It is expressly understood and agreed that OIL INDIA LIMITED is an independent legal entity with power and authority to enter into contracts solely on its own behalf under the applicable laws of India and general principles of the Contract law. The bidder/ CONTRACTOR expressly agrees, acknowledges and understands that OIL INDIA LIMITED is not an agent, representative or delegate of the Union of India. It is further understood and agreed that Union of India is not and shall not be liable for any acts, omissions, commissions, breaches or other wrongs arising out of the contract. Accordingly, bidder/ CONTRACTOR hereby expressly waives, releases and foregoes any and all actions or claims, including cross claims, impleader claims or counter claims against the Union of India arising out of this contract and covenants not to sue the Union of India as to any manner, claim, cause of action or thing whatsoever arising of or under this agreement.

**18.0 CONSEQUENTIAL DAMAGE:**

Except as otherwise expressly provided, neither party shall be liable to the other for special, indirect or consequential damages resulting from or arising out of the contract, including but without limitation, to loss or profit or business interruptions, howsoever caused and regardless of whether such loss or damage was caused by the negligence (either sole or concurrent) of either party, its employees, agents or sub- CONTRACTORS.

**19.0 RISK PURCHASE:**

In the event, CONTRACTOR's failure to provide the services as per the Contractual scope, terms and conditions, COMPANY (OIL) reserves the right to hire the services from any other source at the CONTRACTOR's risk & cost and the difference in cost shall be borne by the CONTRACTOR. Further, OIL shall retain the right of forfeiture of Performance Bank Guarantee and any other action as deemed fit. In certain operational situations OIL reserves the right to take over the site including the service equipment at the risk and cost of the CONTRACTOR.

**20.0 INDEMNITY AGREEMENT:**

**20.1** Except as provided hereof CONTRACTOR agrees to protect, defend, indemnify and hold COMPANY harmless from and against all claims, suits, demands and causes of action, liabilities, expenses, cost, liens and judgments of every kind and character, without limit, which may arise in favour of CONTRACTOR's employees, agents, CONTRACTORS and sub-CONTRACTORS or their employees or in favour of any third party(is) on account of bodily injury or death, or damage to personnel/property as a result of the operations contemplated hereby, regardless of whether or not said claims, demands or causes of action arise out of the negligence or otherwise, in whole or in part or other faults.

**20.2** Except as provided hereof COMPANY agrees to protect, defend, indemnify and hold CONTRACTOR harmless from and against all claims, suits, demands and causes of action, liabilities, expenses, cost, liens and judgments of every kind and character, without limit, which may arise in favour of COMPANY's employees, agents, CONTRACTORS and sub-CONTRACTORS or their employees or in favour of

any third party(is) on account of bodily injury or death, or damage to personnel/property as a result of the operations contemplated hereby, regardless of whether or not said claims, demands or causes of action arise out of the negligence or otherwise, in whole or in part or other faults.

**21.0 INDEMNITY APPLICATION:**

The indemnities given herein above, whether given by COMPANY or CONTRACTOR shall be without regard to fault or to the negligence of either party even though said loss, damage, liability, claim, demand, expense, cost or cause of action may be caused, occasioned by or contributed to by the negligence, either sole or concurrent of either party.

**22.0 ROYALTY PATENTS:**

Each party shall hold harmless and indemnify the other from and against all claim and proceedings for or on account of any patent rights, design, trade mark or other protected rights arising from any use of materials, equipment, processes, inventions and methods, which have not been imposed on the attending party by the terms of the contract or the specifications forming part thereof.

**23.0 WARRANTY AND REMEDY OF DEFECTS:**

**23.1** CONTRACTOR warrants that they shall perform the work in a first class, workmanlike, and professional manner and in accordance with their highest degree of quality, efficiency and current state of the art technology/industry practices and in conformity with all specifications, standards and drawings set forth or referred to in the Terms of Reference and with instructions and guidance, which COMPANY may, from time to time, furnish to the CONTRACTOR.

**23.2** Should COMPANY discover at any time during the tenure of the Contract or till the Unit / equipment / tools are demobilised from site or base camp (if applicable) that the work does not conform to the foregoing warranty, CONTRACTOR shall after receipt of notice from COMPANY, promptly perform any and all corrective work required to make the services conform to the Warranty. Such corrective Work shall be performed entirely at CONTRACTOR's own expenses. If such corrective Work is not performed within a reasonable time, the COMPANY, at its option may have such remedial Work performed by others and charge the cost thereof to CONTRACTOR subject to a maximum of the contract value payable for the defective work which needs corrective action which the CONTRACTOR must pay promptly. In case CONTRACTOR fails to perform remedial work, or pay promptly in respect thereof, the performance security shall be forfeited.

**24.0 SUBCONTRACTING / ASSIGNMENT:**

**24.1** CONTRACTOR shall not subcontract, transfer or assign the contract, or any part under this contract, to any third party(ies). Except for the main services under this contract, CONTRACTOR may sub-contract the petty support services subject to COMPANY's prior written approval. However, CONTRACTOR shall be fully responsible for complete execution and performance of the services under the Contract.

**24.2** Consequent upon of placement of contract, if successful bidder(s)(other than Micro / Small Enterprise) is procuring materials/services from their sub-vendor, who is a Micro or Small Enterprise registered with District Industry Centers or Khadi and Village Industries Commission or Khadi and Village Industries Board or Coir Board or National Small Industries Corporation or Directorate of Handicrafts and

Handloom or any other body specified by Ministry of MSME with prior consent in writing of the purchasing authority/Engineer in Charge the details like Name, Registration No., Address, Contact No., details of material and value of procurement made, etc. of such enterprises shall be furnished by the CONTRACTOR at the time of submission of invoice/bill.

**25.0 RECORDS, REPORTS AND INSPECTION:**

The CONTRACTOR shall, at all times during the currency of the contract, permit the COMPANY and its authorized employees and representatives to inspect all the Work performed and to witness and check all the measurements and tests made in connection with the said work. The CONTRACTOR shall keep an authentic, accurate history and logs including safety records of each service item with major items consumed, which shall be open at all reasonable times for inspection by the COMPANY's designated representatives and its authorized employees. The CONTRACTOR shall provide the COMPANY's designated representatives with a daily written report, on form prescribed by the COMPANY showing details of operations during the preceding 24 hours and any other information related to the said services requested by the COMPANY whenever so requested. The CONTRACTOR shall not, without COMPANY's written consent allow any third person(s) access to the said information or give out to any third person information in connection therewith.

**26.0 CONFIDENTIALITY, USE OF CONTRACT DOCUMENTS AND INFORMATION:**

**26.1** CONTRACTOR shall not, without COMPANY's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing pattern, sample or information furnished by or on behalf of COMPANY in connection therewith, to any person other than a person employed by CONTRACTOR in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only, as may be necessary for purposes of such performance with prior permission from COMPANY. However, nothing hereinabove contained shall deprive the CONTRACTOR of the right to use or disclose any information which is:

- a) possessed by the CONTRACTOR, as evidenced by the CONTRACTOR's written records, before receipt thereof from the COMPANY which however the CONTRACTOR shall immediately inform to COMPANY ; or
- b) required to be disclosed by the CONTRACTOR pursuant to an order of a court of competent jurisdiction or other governmental agency having the power to order such disclosure, provided the CONTRACTOR uses its best efforts to provide timely notice to COMPANY of such order to permit COMPANY an opportunity to contest such order subject to prior permission from COMPANY.

**26.2** CONTRACTOR shall not, without COMPANY's prior written consent, make use of any document or information except for purposes of performing the contract.

**26.3** Any document supplied to the CONTRACTOR in relation to the contract other than the Contract itself remain the property of COMPANY and shall be returned (in all copies) to COMPANY on completion of CONTRACTOR's performance under the Contract if so required by COMPANY.

**26.4** During the currency of the Contract, COMPANY and its employees, agents, other CONTRACTORS, sub-CONTRACTORS (of any tier) and their employees etc. may be exposed to certain confidential information and data of the CONTRACTOR. Such information and data held by the COMPANY, its employees, agents, other

CONTRACTORS, sub-CONTRACTORS (of any tier) and their employees in the strictest Confidence and shall not be disclosed to any other party except on a need to know basis.

However, the above obligation shall not extend to information which:

- i) is, at the time of disclosure, known to the public which CONTRACTOR shall immediately inform COMPANY ;
- ii) is lawfully becomes at a later date known to the public through no fault of CONTRACTOR subject to CONTRACTOR's undertaking that no information has been divulged by them to the public;
- iii) is lawfully possessed by CONTRACTOR before receipt thereof from COMPANY which should be immediately informed to COMPANY;
- iv) is developed by CONTRACTOR independently of the information disclosed by COMPANY which should be shared with the COMPANY;
- v) CONTRACTOR is required to produce before competent authorities or by court order subject to prior permission from COMPANY;

**27.0 REMUNERATION AND TERMS OF PAYMENT:**

- 27.1** COMPANY shall pay to the CONTRACTOR during the term of the Contract the amount due from time to time calculated according to the rates of payment set and in accordance with other provisions hereof. No other payments shall be due from COMPANY unless specifically provided for in the Contract. All payments will be made in accordance with the terms hereinafter described.
- 27.2** Request for payment/part payment to third party i.e. other than the party on whom the contract has been awarded will not be entertained by OIL under any circumstances.
- 27.3** MANNER OF PAYMENT: All payments due by COMPANY to CONTRACTOR hereunder shall be made at CONTRACTOR's designated bank. Bank charges, if any will be on account of the CONTRACTOR.
- 27.4** Payment of any invoices shall not prejudice the right of COMPANY to question the validity of any charges therein, provided COMPANY within one year after the date of payment shall make and deliver to CONTRACTOR written notice of objection to any item or items the validity of which COMPANY questions.
- 27.5** INVOICES: Mobilization charges will be invoiced only upon completion of mobilization as certified by COMPANY representative and CONTRACTOR is ready at site for starting the services / operation. Payment of mobilization charges shall be made within 45 days following the date of receipt of undisputed invoices by COMPANY.
- 27.6** CONTRACTOR shall send invoice to COMPANY on the day following the end of each month for all daily or monthly charges due to the CONTRACTOR.
- 27.7** CONTRACTOR will submit 02 (two) sets of all invoices duly super scribed 'Original' and 'copy' as applicable to the COMPANY for processing payment. Separate invoices for the charges payable under the contract shall be submitted by the CONTRACTOR for foreign currency and Indian currency.
- 27.8** Payment of monthly invoices, if undisputed, shall be made within 30 days

following the date of receipt of invoice by COMPANY.

- 27.9** COMPANY shall within 30 days of receipt of the invoice notify the CONTRACTOR of any item under dispute, specifying the reasons thereof, in which event, and payment of the disputed amount may be withheld until settlement of the dispute, but payment shall be made of any undisputed portion on or before the due date. This will not prejudice the COMPANY's right to question the validity of the payment at a later date as envisaged in clause no. **27.4** above.
- 27.10** The acceptance by CONTRACTOR of part payment on any billing not paid on or before the due date shall not be deemed a waiver of CONTRACTOR's rights in any other billing, the payment of which may then or thereafter be due.
- 27.11** Payment of Final demobilization charges shall be made if applicable within 45 days on receipt of invoice by COMPANY accompanied by the following documents from the CONTRACTOR:
- a) Audited account up to completion of the Contract.
  - b) Tax audit report for the above period as required under the Indian Tax Laws.
  - c) Documentary evidence regarding the submission of returns and payment to taxes for the expatriate personnel engaged by the CONTRACTOR or by its sub-CONTRACTOR.
  - d) Proof of re-export of all items including the unutilized spares and consumables (excepting consumables consumed during the contract period) and also cancellation of re-export bond if any.
  - e) Any other documents as required by applicable Indian Laws.

In case, no demobilization charges are payable, the documents mentioned above will have to be submitted by the CONTRACTOR before release of the final payment by the COMPANY. A certificate from Chartered Accountant on (a), (b) & (c) above will suffice

- 27.12** CONTRACTOR shall maintain complete and correct records of all information on which CONTRACTOR's invoice are based up to 02 (two) years from the date of last invoice. Such records shall be required for making appropriate adjustments or payments by either party in case of subsequent audit query/objection.
- 28.0** **PAYMENT OF COMMISSION / FEE / REMUNERATION OF INDIAN AGENT / CONSULTANT / REPRESENTATIVE / RETAINER / ASSOCIATE OF FOREIGN PRINCIPAL (APPLICABLE IN ICB TENDERS ONLY):**

The Commission/Fee/remuneration of the Indian agent/consultant/associate/representative/retainer, if any, will be paid within 30 days of the payment of invoice made to the CONTRACTOR, The amount of commission/fee/remuneration as a percentage of invoice value as per contract provisions will be deducted by COMPANY/OIL from the monthly invoices of the CONTRACTOR and paid to the Indian agent/consultant/representative/retainer/associate.

- 29.0** **DETAILS OF STATUTORY PAYMENTS LIKE EPF AND ESI, ETC:**

Wherever applicable, the CONTRACTOR (including those engaging 'International Workers') shall have itself registered under Employees' Provident Fund and Miscellaneous Provisions Act, 1952 and Employees' State Insurance Act, 1948 and follow the relevant statutory provisions including Rules made there-under

concerning contractual workers.

The CONTRACTOR shall be required to submit the following documents/details to the Corporation:

- (i) Copy of PF-ECR duly stamped by the designated Bank, along with a print of the digitally signed PDF data sheet of the ECR, as proof of payment, each month, details of this PDF data sheet shall be verified by the appropriate authority (i.e. Payment Making Authority) in the COMPANY from the official website of EPFO (<http://www.epfindia.gov.in>).
- (ii) (a) Copy of the online challan endorsed/stamped by the designated bank as proof of receipt of payment towards monthly contribution of ESI contribution.  
  
(b) Copy of Return of contribution in respect of ESI for each contribution period of the six months i.e. for the contribution period ended 30th Sept and the contribution period ended 31st March.
- (iii) As an Annexure to each EPF-ECR and ESI Challan(s), CONTRACTOR shall also furnish the following Certificates:
  - 1) The furnished information is correct to the best of his knowledge.
  - 2) In case any discrepancies or irregularities is / are noticed in this undertaking, then OIL is free to inform the PF / ESIC Authorities.
  - 3) Before the completion of contract, CONTRACTOR shall serve one-month notice to all his contractual workers, informing that their services will be terminated.
  - 4) Within one month on completion / expiry of the contract, CONTRACTOR shall pay all the dues / terminal dues such as leave with wages, bonus (if applicable), Gratuity (if applicable), to all his contractual workmen, failing which CONTRACTOR's Bank Guarantee / Security Deposit may be withheld by OIL.

COMPANY may verify the deposit of statutory contribution made by the CONTRACTORS with the EPFO / ESI authorities, where deemed necessary. However, before making payment of the last bill / invoice of the CONTRACTOR, the COMPANY may verify the details / status of the payment towards EPF / ESI made by the CONTRACTOR from the authorities / official website of EPF / ESI (i.e. <http://www.epfindia.gov.in> and <http://www.esic.in>). In case the information furnished by the CONTRACTOR is found to be incorrect the COMPANY shall take appropriate action against the CONTRACTOR in accordance with law.

The CONTRACTOR agrees and undertakes to indemnify OIL for any liabilities arising out of declarations made by him in future on violation or provisions of the EPF Act 1952 and ESI Act 1948.

**30.0 TIMELY MOBILIZATION AND LIQUIDATED DAMAGES:**

- a) Time is the essence of this Contract. If the CONTRACTOR fails to mobilize and deploy the required manpower / equipment and / or fails to commence the operation within the period specified as specified under mobilization clause under SCC, OIL shall have, without prejudice to any other right or remedy in law or contract including sub clause (b) below, the right to terminate the contract.
- b) If the contractor is unable to mobilize / deploy and commence the operation within the period specified in sub clause (a) above, it may request OIL for

extension of the time with unconditionally agreeing for levy and recovery of LD. Upon receipt of such a request, OIL may at its discretion, extend the period of mobilization and shall recover from the CONTRACTOR, as an ascertained and agreed Liquidated Damages, a sum equivalent to @ 0.5% of contract value including mobilization cost, per week or part thereof of delay subject to maximum of 7.5% of the Contract Price.

c) The parties agree that the sum specified above is not a penalty but a genuine pre-estimate of the loss / damage which will be suffered by OIL on account of delay on the part of the CONTRACTOR and the said amount will be payable without proof of actual loss or damage caused by such delay.

d) LD will be calculated on the basis of Total Contract value [(if not specified otherwise in SCC] excluding duties and taxes, where such duties / taxes have been shown separately in the contract. However, the applicable GST on the LD shall have to be borne by the CONTRACTOR. Accordingly, the liquidated damages shall be recovered from the CONTRACTOR along with applicable GST.

**31.0 FORCE MAJEURE:**

In the event of either party being rendered unable by 'Force Majeure' to perform any obligation required to be performed by them under the contract, the relative obligation of the party affected by such 'Force Majeure' will stand suspended as provided herein. The term force majeure as employed herein shall mean Acts of God such as earthquake, hurricane, typhoon, flood, volcanic activity etc.; war (declared / undeclared); riot, revolts, rebellion, terrorism, sabotage by persons other than the CONTRACTOR's Personnel; fires, explosions, ionising radiation or contamination by radio-activity or noxious gas, if not caused by CONTRACTOR's fault; declared epidemic or disaster; acts and regulations of respective Govt. of the two parties, namely the COMPANY and the CONTRACTOR and civil commotions, lockout not attributable to the CONTRACTOR.

Upon occurrence of such cause, the party claiming that it has been rendered unable as aforesaid thereby, shall notify the other party in writing within 72 (Seventy Two) hours of the alleged beginning and ending thereof, giving full particulars and satisfactory evidence in support of its claim.

Should 'force majeure' condition as stated above occurs and should the same be notified within 72 (Seventy two) hours after its occurrence the 'force majeure' rate (if specified in the SCC of the Contract) shall apply for the first 15 (fifteen) days for each such occasion.

Either party shall have the right to terminate the Contract if such 'force majeure' conditions continue beyond successive 60 (Sixty) days [or exclusively mentioned in the SCC of the Contract] with prior written notice of 15 days, provided termination of the Contract does not result into safety hazard to the life and property on account of withdrawal of operations or the operation is at critical stage. COMPANY shall have the absolute right to decide whether any safety hazard exists or operation is at critical position and decision of the COMPANY shall binding upon the CONTRACTOR.

Should either party decide not to terminate the Contract even under such condition, no payment would apply after expiry of fifteen (15) days force majeure period. [or exclusively mentioned in the SCC of the Contract]

Time for performance of the relative obligation suspended by Force Majeure shall then stand extended by the period for which such cause lasts.

If however, relative obligation of the party affected by such 'Force Majeure' is limited to part of the obligation(s), the contract shall not be terminated and the parties shall continue to perform their respective obligations, which are not affected by the 'force majeure' condition, provided the obligations affected by the 'force majeure' do not preclude the parties in performing the obligations not affected by such conditions.

**32.0 SET-OFF:**

Any sum of money due and payable to the CONTRACTOR (including Performance Security refundable to them) under this or any other Contract, whether in progress or in future, may be appropriated by OIL and set-off against any claim of OIL (or such other person or persons contracting through OIL) for payment of a sum of money arising out of this contract or under any other contract made by the CONTRACTOR with OIL (or such other person or persons contracting through OIL).

**33.0 WITHHOLDING:**

COMPANY may withhold or nullify the whole or any part of the amount due to CONTRACTOR, after informing the CONTRACTOR of the reasons in writing, on account of subsequently discovered evidence in order to protect COMPANY from loss on account of:

- 33.1** For non-completion of jobs assigned as per Scope of Work/Terms of Reference.
- 33.2** Defective work not remedied by CONTRACTOR.
- 33.3** Claims by COMPANY's recognized sub-CONTRACTOR of CONTRACTOR or others filed or on the basis of reasonable evidence indicating probable filing of such claims against CONTRACTOR.
- 33.4** Failure of CONTRACTOR to pay or provide for the payment of salaries/ wages, contributions, taxes or enforced savings with-held from wages etc with respect to personnel engaged by the CONTRACTOR.
- 33.5** Failure of CONTRACTOR to pay the cost of removal of unnecessary debris, materials, tools, or machinery.
- 33.6** Any failure by CONTRACTOR to fully reimburse COMPANY under any of the indemnification provisions of this Contract. If, during the progress of the work CONTRACTOR shall allow any indebtedness to accrue for which CONTRACTOR, under any circumstances in the opinion of COMPANY, may be primarily or contingently liable or ultimately responsible and CONTRACTOR shall, within five days after demand is made by COMPANY, fail to pay and discharge such indebtedness, then COMPANY may during the period for which such indebtedness shall remain unpaid, with-hold from the amounts due to CONTRACTOR, a sum equal to the amount of such unpaid indebtedness.
- 33.7** Withholding will also be effected on account of the following:
  - i) Order issued by a Court of Law or statutory authority in India.
  - ii) Income-tax deductible at source according to law prevalent from time to time in the country.
  - iii) Any obligation of CONTRACTOR which by any law prevalent from time to time to be discharged by COMPANY in the event of CONTRACTOR's failure to adhere to such laws.

iv) Any payment due from CONTRACTOR in respect of unauthorized imports.

When all the above grounds for withholding payments are removed, payment shall thereafter be made for amounts so with-held.

**33.8** COMPANY reserves the right to disburse or deposit the amount so withheld to the concerned person(s) or agency or government authority, as the case may be, besides nullifying such amount on account of loss suffered by the COMPANY against **33.2, 33.3, 33.6 & 33.7** above.

**34.0 APPLICABLE LAWS:**

The Contract shall be deemed to be a Contract made under, governed by and construed in accordance with the laws of India for the time being in force and shall be subject to the sole and exclusive jurisdiction of Courts situated in Dibrugarh (or the Place where the contract is executed) and Principal Bench of Gauhati High Court (or the High Court under whose territorial jurisdiction, the place of execution of contract falls).

This Agreement including all matter connected with this Agreement, shall be governed by the laws of India (both substantive and procedural) for the time being in force and shall be subject to exclusive jurisdiction of Courts, mentioned hereinabove. Foreign companies, operating in India or entering into Joint ventures in India, shall also be governed by the laws of India and shall be subject to sole and exclusive jurisdiction of above Courts.

The CONTRACTOR shall ensure full compliance of various Indian Laws and Statutory Regulations, as stated below, to the extent applicable, as stated below, but not limited to, in force from time to time and obtain necessary permits/licenses etc. from appropriate authorities for conducting operations under the Contract:

- a) The Mines Act 1952
- b) The Oil Mines Regulations, 1984
- c) The Employees' Compensation Act, 1923
- d) The Code of Wages, 2019
- e) The Contract Labour (Regulation & Abolition) Act, 1970 and the rules framed there under
- f) The Employees' Pension Scheme, 1995
- g) The Interstate Migrant Workmen Act., 1979 (Regulation of employment and conditions of service).
- h) The Employees Provident Fund and Miscellaneous Provisions Act, 1952
- i) Goods and Service Tax Act
- j) Customs & Excise Act & Rules
- k) Factories Act, 1948
- l) Industrial Disputes Act, 1947
- m) Payment of Gratuity Act, 1972
- n) Environmental Protection Act, 1986 & other pollution control Acts.

Note: The above Acts are only indicative and not exhaustive. The Acts shall include the rules and regulations framed thereunder.

**35.0 LABOUR LAWS:**

- i) CONTRACTOR shall comply with the provisions of various labour related laws, including but not limited to the Code of Wages, 2019, Employee Provident Fund and Miscellaneous Provisions Act 1952, COMPANY's Liability Act 1938, Employees' Compensation Act 1923, Industrial Disputes Act 1947, the Maternity

Benefit Act 1961 and Contract Labour (Regulation and Abolition) Act 1970, Employment of Children Act 1938, Employees' State Insurance Act, 1948 or any modifications / amendment thereof or any other law relating thereto and rules made there under from time to time.

- ii) No Labour below the age of eighteen [18] years shall be employed on the work.
- iii) CONTRACTOR shall not pay less than what is provided under law to labourers engaged by him on the work.
- iv) CONTRACTOR shall at his expense comply with all labour laws and keep the COMPANY indemnified in respect thereof.
- v) CONTRACTOR shall pay equal wages for men and women in accordance with applicable Labour laws.
- vi) If the CONTRACTOR is covered under the Contract Labour (Regulation and Abolition) Act, he shall obtain a license from licensing authority [i.e. office of the Labour Commissioner] by payment of necessary prescribed fee and the deposit, if any, before starting the work under the Contract. Such fee / deposit shall be borne by the CONTRACTOR.
- vii) CONTRACTOR must obtain the PF Code from the concerned PF Authority under Employees Provident Fund and Miscellaneous Provisions Act, 1952. Similarly, CONTRACTOR must obtain ESI Code under Employees State Insurance Act.
- viii) CONTRACTOR being the employer of the labours / personnel to be engaged under the contract shall be liable to pay gratuity to the labours / personnel as per the provision of the Payment of Gratuity Act, 1972 and accordingly, shall keep the COMPANY indemnified in respect thereof. If however, COMPANY requires to pay gratuity to such labour(s) as per the direction of the competent authority under the Act, COMPANY shall recover such amount from the outstanding dues payable to the CONTRACTOR under the contract or any other contract(s).
- ix) CONTRACTOR shall furnish to Engineer in Charge the distribution return of the number & description, by trades of the work people employed on the works. CONTRACTOR shall also submit on the 4<sup>th</sup> & 19<sup>th</sup> of every month to Engineer in Charge a true statement showing in respect of the 2<sup>nd</sup> half of the preceding month & the 1<sup>st</sup> half of the current month (1) the accidents that occurred during the said fortnight showing the circumstances under which they happened and the extent of damage and injury caused by them and (2) the number of female workers who have been allowed Maternity Benefit as provided in the Maternity Benefit Act 1961 on Rules made there under and the amount paid to them.
- x) Engineer in Charge shall on a report having been made by an inspecting officer as defined in Contract Labour (Regulation and Abolition) Act 1970 have the power to deduct from the money due to the CONTRACTOR any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non-fulfillment of the conditions of the Contract for the benefit of workers, non-payment of wages or of deductions made from his or their wages which are not justified by the terms of the Contract or non-observance of the said regulations.
- xi) The CONTRACTOR shall indemnify the COMPANY against any payments to be made under and for the observance of the provisions of the aforesaid acts without prejudice to his right to obtain indemnity from his sub-CONTRACTOR.

**36.0 STATUTORY REQUIREMENTS:**

During the tenure of this CONTRACT nothing shall be done by the CONTRACTOR

in contravention of any law, act and/or rules/regulations, thereunder or any amendment

**37.0 GENERAL HEALTH, SAFETY & ENVIRONMENT (HSE) GUIDELINES:**

- 37.1** It will be solely the CONTRACTOR's responsibility to fulfil all the legal formalities with respect to the Health, Safety and Environmental aspects of the entire job (namely; the person employed by him, the equipment, the environment, etc.) under the jurisdiction of the district of that state where it is operating. Ensure that all sub-CONTRACTORS hired by CONTRACTOR comply with the same requirement as the CONTRACTOR himself and shall be liable for ensuring compliance all HSE laws.
- 37.2** It will be entirely the responsibility of the Contractor/his Supervisor/representative to ensure strict adherence to all HSE measures and statutory rules during operation in OIL's installations and safety of workers engaged by him. The crew members will not refuse to follow any instruction given by company's Installation Manager/Safety Officer/Engineer/Official/Supervisor/Junior Engineer for safe operation.
- 37.3** Any compensation arising out of the job carried out by the Contractor whether related to pollution, Safety or Health will be paid by the contractor only.
- 37.4** Any compensation arising due to accident of the Contractor's personnel while carrying out the job, will be payable by the contractor.
- 37.5** When there is a significant risk to health, environment or safety of a person or place arising because of a non-compliance of HSE Measures Company shall have the right to direct the contractor to cease work until the non-compliance is corrected.

**38.0 POLLUTION AND CONTAMINATION:**

The CONTRACTOR shall be liable for all surface and sub-surface pollution to the extent caused by CONTRACTOR and resulting from CONTRACTOR's operation/service or spillage or dumping of solvents/additive substances or pollutants, which the CONTRACTOR brings to the Site for use in connection with Work to be performed under this Contract.

Notwithstanding anything to the contrary contained herein, it is agreed that except on the ground of willful misconduct or criminal misconduct, COMPANY shall release, indemnify and hold CONTRACTOR and its sub-CONTRACTORS harmless from any and all claims, judgments, losses, expenses and any costs related thereto (including but not limited to Court costs and "Attorney's fees") for:

- a) Damage to or loss of any reservoir or producing formation; and/ or
- b) Damage to or loss of any well; and/ or
- c) Any other subsurface damage or loss; and/ or
- d) Any property damage or loss or personal injury or death arising out of or in connection with a blowout, fire explosion and loss of well control regardless of cause.

**39.0 STATUTORY VARIATION / NEWLY ENACTED LAW:**

- 39.1** All duties, taxes except otherwise specified in the Contract as applicable on the

closing date of bid submission as per relevant acts and rules shall be in CONTRACTOR's account. Variation in case of custom duty on CIF value declared by the bidder shall be to COMPANY account.

- 39.2** In the event of introduction of any new legislation or any amendment or enforcement of any Act or Law, rules or regulations of Government of India or State Government(s) or Public Body, which becomes effective after the date of submission of Price Bid or revised price bid, if any, for this CONTRACT and which results in increased / decreased cost of the works under the CONTRACT through increased / decreased liability of taxes and / or duties, required to be paid by the CONTRACTOR, (other than personnel and Corporate taxes), the Parties shall agree to a revision in pricing to reflect such change subject to the production of documentary proof to the satisfaction of the COMPANY / CONTRACTOR as applicable to the extent which directly is attributable to such introduction of new legislation or change or amendment as mentioned above and adjudication by the competent authority (applicable when disputed by COMPANY) & the courts wherever levy of such taxes / duties are disputed by COMPANY / CONTRACTOR.
- 39.3** Any increase in net amount of the duties and taxes (i.e. the amount of taxes/duties payable minus eligible credit of taxes/duties paid on input services/inputs) after the contractual completion/mobilization date during the extended period will be to the CONTRACTOR's account, where delay in completion /mobilization period is attributable to the CONTRACTOR. However, any decrease in net amount of the duties and taxes (i.e. the amount of taxes/duties payable minus eligible credit of taxes/duties paid on input services/inputs) after the contractual completion/mobilization date will be to COMPANY's account.
- 39.4** The Contract Price and other prices given in the Schedule of Prices are based on the applicable tariff as indicated by the CONTRACTOR in the Schedule of Prices. In case this information subsequently proves to be wrong, incorrect or misleading, COMPANY will have no liability to reimburse/pay to the CONTRACTOR the excess duties, taxes, fees, if any finally levied/imposed by the concerned authorities. However, in such an event, COMPANY will have the right to recover the difference in case the rate of duty/tax finally assessed is on the lower side.
- 39.5** Notwithstanding the provision contained in Clause-39.1 to 39.4 above, the COMPANY shall not bear any liability in respect of:
- i. Personal taxes on the personnel deployed by CONTRACTOR, his sub-CONTRACTOR/sub-sub-CONTRACTORS and Agents etc.
  - ii. Corporate taxes and Fringe benefit tax in respect of CONTRACTOR and all of their sub-CONTRACTORS, agents etc.
  - iii. Other taxes & duties including Customs Duty and GST in addition to new taxes etc. in respect of sub-CONTRACTORS, vendors, agents etc. of the CONTRACTOR.
  - iv. Any liability on the CONTRACTOR, which was accrued under the old law or contract, which the CONTRACTOR is obligated to pay either to the COMPANY or to the Government Authority.
- 39.6** In order to ascertain the net impact of the amendment/ revisions/enactment of various provisions of taxes/duties, the CONTRACTOR is liable to provide following disclosure to COMPANY:
- i. Details of each of the input services used in relation to providing service to

COMPANY including estimated monthly value of input service and GST tax amount.

ii. Details of Inputs (material/consumable) used/required for providing service to COMPANY including estimated monthly value of input and GST paid/payable on purchase of inputs.

**39.7** The above provisions would be applicable only in case of variation in rate of taxes and duties on supply of services to OIL and not applicable on taxes and duties on input (goods and services) towards such services.

**39.8** Any claim or reduction on account of change in law shall be accompanied with undertaking that the provisions of anti- profiteering clause under GST Act have been complied with.

**40.0 SEVERABILITY:**

Should any provision of this agreement be found to be invalid, illegal or otherwise not enforceable by any court of law, such finding shall not affect the remaining provisions hereto and they shall remain binding on the parties hereto.

**41.0 COMMISSION OF MISCONDUCT / SUBMISSION OF FRAUDULENT DOCUMENT BY THE BIDDER/CONTRACTOR AND BANNING THEREOF:**

The information and documents furnished by the bidder/CONTRACTOR in respect of the tender/contract are accepted by COMPANY to be true and genuine. However, if it comes to the notice of the COMPANY anytime either during the pendency of the tender or after award of the contract or after completion the contract that a Bidder/CONTRACTOR furnished fraudulent document/false information in relation to the subject tender/contract or committed any misconduct, appropriate action shall be taken against the Bidder/CONTRACTOR for debarment/banning of the bidder/CONTRACTOR from participating in any future tender of the COMPANY in terms of the COMPANY's Banning Policy besides making the CONTRACTOR liable for other penal action including termination of ongoing contract(s) at his/her risk and peril. In such event, the Bid Security/Performance Security in respect of ongoing contract(s) shall be forfeited by the COMPANY.

**42.0 SETTLEMENT OF DISPUTES:**

**42.1 Arbitration (Applicable for Suppliers/CONTRACTORS other than PSU and MSME):**

1) Except as otherwise provided elsewhere in the contract, if any dispute, difference, question or disagreement arises between the parties hereto or their respective representatives or assignees, in connection with construction, meaning, operation, effect, interpretation of the contract or breach thereof which parties are unable to settle mutually, the same shall be referred to Arbitration as provided hereunder:

2) A party wishing to commence arbitration proceeding shall invoke Arbitration Clause by giving 30 days notice to the other party. The notice invoking arbitration shall specify all the points of dispute with details of the amount claimed to be referred to arbitration at the time of invocation of arbitration and not thereafter. If the claim is in foreign currency, the claimant shall indicate its value in Indian Rupee for the purpose of constitution of the arbitral tribunal.

3) It is agreed and undertaken by the Parties that irrespective of country of

origin of the CONTRACTOR, the arbitration proceedings shall be governed by the Arbitration and Conciliation Act, 1996 and under no circumstances, the proceedings shall be construed as International Arbitration.

4) The number of arbitrators and the appointing authority will be as under:

Claim amount (excluding claim for interest and counter claim, if any)	Number of Arbitrator	Appointing Authority
Up to Rs. 25.00 Lakh	Not applicable	Not applicable
Above Rs. 25.00 Lakh Up to Rs. 25 Crore	Sole Arbitrator	OIL
Above Rs. 25 Crore	3 Arbitrators	One Arbitrator by each party and the 3 <sup>rd</sup> Arbitrator, who shall be the presiding Arbitrator, by the two Arbitrators.

5) The parties agree that they shall appoint only those persons as arbitrators who accept the conditions of the arbitration clause. No person shall be appointed as Arbitrator or Presiding Arbitrator who does not accept the conditions of the arbitration clause.

6) If any of the Arbitrators so appointed dies, resigns, becomes incapacitated or withdraws for any reason from the proceedings, it shall be lawful for the concerned party/arbitrators to appoint another person in his place in the same manner as aforesaid. Such person shall proceed with the reference from the stage where his predecessor had left if both parties consent for the same; otherwise, he shall proceed de novo.

7) Parties agree and undertake that neither shall be entitled for any pre-reference or pendent-lite interest on its claims. Parties agree that any claim for such interest made by any party shall be void.

8) The arbitral tribunal shall complete the proceedings, make and publish the award within time stipulated in the Arbitration and Conciliation Act, 1996(as amended)

9) If after commencement of the arbitration proceedings, the parties agree to settle the dispute mutually or refer the dispute to conciliation, the arbitrators shall put the proceedings in abeyance until such period as requested by the parties. Where the proceedings are put in abeyance or terminated on account of mutual settlement of dispute by the parties, the fees payable to the arbitrators shall be determined as under:

(i) 20% of the fees if the claimant has not submitted statement of claim.

(ii) 40% of the fees if the pleadings are complete

(iii) 60% of the fees if the hearing has commenced.

(iv) 80% of the fees if the hearing is concluded but the award is yet to be passed.

10) Each party shall be responsible to make arrangements for the travel and stay etc. of the arbitrator appointed by it. Claimant shall also be responsible for making

arrangements for travel/stay arrangements of the Presiding Arbitrator and the expenses incurred shall be shared equally by the parties.

In case of sole arbitrator, both parties shall equally share all expenditures that may be required to be incurred.

11) The fees and other administrative/secretarial expenses of the arbitrator(s) shall not exceed the model fee as stipulated in Schedule of the Act and such expenses shall be equally borne by the parties.

12) The Place/Seat of Arbitration shall be Guwahati or the place where the contract is executed. The venue of the arbitration shall be decided by the Arbitrator(s) in discussion with the parties. The cost of arbitration sittings shall be equally borne by the parties.

13) The Arbitrator(s) shall give reasoned and speaking award and it shall be final and binding on the parties.

14) Subject to aforesaid, provisions of the Arbitration and Conciliation Act, 1996 and any statutory modifications or re-enactment thereof shall apply to the arbitration proceedings under this clause.

**42.2 Arbitration (applicable in case of Contract awarded on Public Sector Enterprise):**

- a) In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract (s) between Central Public Sector Enterprises (CPSEs) and also between CPSEs and Government Departments/Organizations (excluding disputes -concerning Railways, Income Tax, Customs & Excise Departments), such dispute or difference shall be taken up by either party for resolution through AMRCD as mentioned in OPE OM No. 4(1)/2013-DPE(GM)/FTS-1835 dated 22-05-2018.
- b) A party wishing to commence arbitration proceeding shall invoke Arbitration Clause and refer the dispute(s) to AMRCD with a copy to the other party. The notice invoking arbitration shall specify all the points of dispute with details of the amount claimed to be referred to arbitration at the time of invocation of arbitration and not thereafter
- c) Upon such reference, the dispute shall be decided by the Competent Authority appointed under the AMRCD, whose decision shall bind the parties finally and conclusively. The parties in the dispute will share equally the cost of the arbitration as intimated by the Arbitrator.

**42.3 Arbitration (Applicable to Micro, Small and Medium Enterprise)**

In the event of any dispute or difference relating to, arising from or connected with the Contract, efforts shall be made to resolve the dispute(s) amicably by mutual consultation and in case such dispute(s) cannot be resolved through mutual consultation, then same shall be resolved through the procedure as prescribed in Section-18 of the Micro, Small and Medium Enterprises Development Act, 2006

**42.4 Resolution of disputes through conciliation by OEC**

(Not Applicable in cases where value of dispute is less than Rs. 25 Lakhs and more than 2 Crore)

If any dispute, difference, question or disagreement arises between the parties

hereto or their respective representatives or assignees, in connection with construction, meaning, operation, effect, interpretation of the contract or breach thereof which parties are unable to settle mutually, Company at its discretion, on its own or on the request of the CONTRACTOR, may refer the dispute to Outside Expert Committee ("OEC") to be constituted by Corporate Business Committee (CBC), OIL as provided hereunder:

- a) The party desirous of resorting to conciliation shall send a notice of 30 (thirty) days to the other party of its intention of referring the dispute for resolution through OEC. The notice invoking conciliation shall specify all the points of disputes with details of the amount claimed to be referred to OEC and the party concerned shall not raise any new issue thereafter.
- b) OIL shall nominate three outside experts, one each from Financial/commercial, Technical and Legal fields from the Panel of Outside Experts maintained by OIL who shall together be referred to as OEC (Outside Experts Committee).
- c) Parties shall not claim any interest on claims/counterclaims from the date of notice invoking conciliation till execution of settlement agreement, if so arrived at. In case, parties are unable to reach a settlement, no interest shall be claimed by either party for the period from the date of notice invoking conciliation till the date of OEC recommendations in any further proceeding.
- d) The Proceedings of the OEC shall be broadly governed by Part III of the Arbitration and Conciliation Act, 1996 including any modifications thereof. Notwithstanding above, the proceedings shall be summary in nature and Parties agree to rely only upon documentary evidence in support of their claims and not to bring any oral evidence in the OEC proceedings.
- e) OEC shall hear both the parties and recommend possible terms of settlement between the parties. The recommendations of OEC shall be non-binding and the parties may decide to accept or not to accept the same. Parties shall be at liberty to accept the OEC recommendation with any modification they may deem fit.
- f) Where recommendations are acceptable to both the parties, a settlement agreement will be drawn up in terms of the OEC recommendations or with such modifications as may be agreed upon by the parties. The settlement agreement shall be signed by both the parties and authenticated by all the OEC members either in person or through circulation. This settlement agreement shall have the same legal status and effect as that of an arbitration award on agreed terms on the substance of the dispute rendered by an arbitral tribunal under Section 30 of the Arbitration and Conciliation Act, 1996.
- g) OIL will share all other guidelines regarding reconciliation through OEC with the CONTRACTOR when it resorts to settlement through OEC. Both parties agree to adhere to these guidelines.
- h) All the expenditure incurred in the OEC proceedings shall be shared by the parties in equal proportion. The parties shall maintain account of expenditure and present to the other for the purpose of sharing on conclusion of the OEC proceedings.
- i) The OEC proceedings must be completed within a period of 03 (three) months from the date of constitution of the OEC with a provision of extension of one months, subject to mutual agreement. The Place of OEC shall be either at New Delhi or Guwahati.

j) If the parties are not able to resolve the dispute through OEC or do not opt for conciliation through OEC, the party may invoke arbitration clause as provided in the contract.

k) The parties shall be represented by their in-house employees/executives. No party shall bring any advocate or outside consultant/advisor/agent. Ex-officers of OIL who have handled the matter in any capacity directly or indirectly shall not be allowed to attend and present the case before OEC on behalf of Contractor. However, ex- employees of parties may represent their respective organizations.

l) Solicitation or any attempt to bring influence of any kind on either OEC Members or OIL is completely prohibited in conciliation proceedings and OIL reserves the absolute right to close the conciliation proceedings at its sole discretion if it apprehends any kind of such attempt made by the Contractor or its representatives.

#### **42.5 Exclusions**

Parties agree that following matters shall not be referred to conciliation or arbitration:

i) Any claim, difference or dispute relating to, connected with or arising out of OIL's decision to initiate any proceedings for suspension or debarment or banning, or decision to suspend or to ban or to debar business dealings with the bidder/CONTRACTOR and/or with any other person involved or connected or dealing with bid/contract/bidder/CONTRACTOR.

ii) Any claim, difference or dispute relating to, connected with or arising out of OIL's decision under the provisions of Integrity Pact executed between OIL and the Bidder/CONTRACTOR.

iii) Any claim, difference or dispute relating to, connected with or arising out of OIL's decision to comply with any order or directive of any statutory or government authority.

iv) Any claim which is less than Rs. 25 Lakh.

#### **43.0 COMPLETION OF CONTRACT:**

Unless otherwise terminated under the provisions of any other relevant Clause or extended through written communication, this Contract shall be deemed to have been completed at the expiry of the Period specified in the contract or period of defect liability, as provided for under the Contract, whichever is later.

#### **44.0 TERMINATION:**

**44.1 Termination on expiry of the contract:** This Agreement shall be deemed to have been automatically terminated on the expiry of the contract period unless OIL has exercised its option to extend this contract in accordance with the provisions, if any, of this contract.

**44.2 Termination of contract for death:** If the CONTRACTOR is an individual or a proprietary concern and the individual or the proprietor dies or if the CONTRACTOR is a partnership concern and one of the partners dies then unless, the COMPANY is satisfied that the legal heir of the individual or the proprietary concern or the surviving partners are capable of carrying out and completing Contract, the COMPANY is entitled to cancel the Contract for the uncompleted part without being in any way liable for any compensation payment to the estate of

the deceased CONTRACTOR and/or to the surviving partners of the CONTRACTOR's firm on account of the cancellation of Contract. The decision of the COMPANY in such assessment shall be final & binding on the parties. In the event of such cancellation, the COMPANY shall not hold the estate of the deceased CONTRACTOR and/or the surviving partners of CONTRACTOR's firm liable for any damages for non-completion of the Contract.

**44.3 Termination on account of Force Majeure:** Unless the contract provides otherwise, either party shall have the right to terminate this Contract on account of Force Majeure as set forth in Article-31.0 above.

**44.4 Termination on account of insolvency:** In the event that the CONTRACTOR or its collaborator or its guarantor at any time during the term of the Contract, becomes insolvent or makes a voluntary assignment of its assets for the benefit of creditors or is adjudged bankrupt or under the process of insolvency or liquidation, then the COMPANY shall, by a notice in writing have the right to terminate the Contract and all the CONTRACTOR's rights and privileges hereunder, shall stand terminated forthwith.

However, COMPANY shall be at liberty to give the Receiver or Liquidator or Insolvency Professional Manager, as appointed by the Competent Court/Tribunal, the option of carrying out the Contract subject to its technical & financial competence and his providing a guarantee for due and faithful performance of the Contract.

**44.5 Termination for Unsatisfactory Performance:** If the COMPANY considers that, the performance of the CONTRACTOR is unsatisfactory, or not as per the provision of the Contract, the COMPANY shall notify the CONTRACTOR in writing and specify in details the cause of dissatisfaction. The COMPANY shall have the option to terminate the Contract by giving 15 days notice in writing to the CONTRACTOR, if CONTRACTOR fails to comply with the requisitions contained in the said written notice issued by the COMPANY. In the event CONTRACTOR rectifies its non-performance to the satisfaction of the COMPANY, the option of termination may not be exercised by the COMPANY. If however CONTRACTOR repeats non-performance subsequently, COMPANY shall exercise the option to terminate contract by giving 07 days notice. Such CONTRACTOR shall be put on holiday as per the Banning Policy of OIL [available at [www.oil-india.in](http://www.oil-india.in)].

**44.6 Termination due to change of ownership and Assignment:** In case the CONTRACTOR's rights and /or obligations under this Contract and/or the CONTRACTOR's rights, title and interest to the equipment/ material, are transferred or assigned without the COMPANY's written consent, the COMPANY may at its option, terminate this Contract. COMPANY shall not be however under any obligation to accord consent to the CONTRACTOR for change of ownership & assignment of the contract.

**44.7** If at any time during the term of this Contract, breakdown of CONTRACTOR's equipment results in CONTRACTORs being unable to perform their obligations hereunder for a period of 15 successive days, COMPANY at its option, may terminate this Contract in its entirety or partially to the extent of non-performance, without any further right or obligation on the part of the COMPANY, except for the payment of money then due. No notice shall be served by the COMPANY under the condition stated above.

**44.8 Termination for delay in mobilization:** CONTRACTOR is required to mobilize complete equipment along with crew for commencement of services at the specified site within the maximum allowed number of days from the date of

LOA/Notice for Mobilization as specified in the special conditions of contract. If the CONTRACTOR (successful bidder) fails to complete the mobilization as above, OIL shall have, without prejudice to any other clause of the CONTRACT, the right to terminate the contract.

**44.9** Notwithstanding any provisions herein to the contrary, the Contract may be terminated at any time by the COMPANY on giving 30 (thirty) days written notice to the CONTRACTOR due to any other reason not covered under the above Article from **44.1 to 44.8** and in the event of such termination the COMPANY shall not be liable to pay any cost or damage to the CONTRACTOR except for payment of services as per the Contract upto the date of termination.

**44.10 Consequence of Termination:** In all cases of termination herein set forth, the relative obligations of the parties to the Contract shall be limited to the period up to the date of termination. Notwithstanding the termination of this Contract, the parties shall continue to be bound by the provisions of this Contract that reasonably require some action or forbearance after such termination.

Upon termination of this Contract, CONTRACTOR shall return to COMPANY all of COMPANY's properties, which are at the time in CONTRACTOR's possession.

In the event of termination of contract, COMPANY will issue Notice of termination of the contract with date or event after which the contract will be terminated. The contract shall then stand terminated and the CONTRACTOR shall demobilize their personnel & materials.

Demobilization charges shall not be payable by COMPANY in case of Article from **44.4 to 44.7**

**45.0 TO DETERMINE THE CONTRACT:**

In such an event (i.e. termination under Article No. 44.4 to 44.9 above), the contract shall stand terminated and shall cease to be in force from the date of such notification by the COMPANY. Thereafter the CONTRACTOR shall stop forthwith any of the work then in progress, except those work which the COMPANY may, in writing, require to be done to safeguard any property or work, or installations from damages, and the COMPANY may take over the remaining unfinished work of the CONTRACTOR and complete the same through a fresh CONTRACTOR or by other means, at the risk and cost of the CONTRACTOR, and any of its sureties if any, shall be liable to the COMPANY for any excess cost occasioned by such work having to be so taken over and completed by the COMPANY over and above the cost at the rate/cost specified in the schedule of quantities and rates/prices.

**46.0 WITHOUT DETERMINING THE CONTRACT:**

In such an event (i.e. termination under Article No. 44.4 to 44.9 above), the COMPANY may take over the work of the CONTRACTOR or any part thereof and complete the same through a fresh CONTRACTOR or by other means, at the risk and cost of the CONTRACTOR. The CONTRACTOR and any of its sureties are liable to the COMPANY for any excess cost over and above the cost at the rates specified in the schedule of quantities and rates/prices, occasioned by such work having been taken over and completed by the COMPANY.

**47.0 ERRING/DEFAULTING AGENCIES:**

Erring and defaulting agencies like bidder, CONTRACTOR, supplier, vendor,

service provider will be dealt as per OIL's Banning Policy available in OIL's website: www.oil-india.com. Moreover, OIL reserves the right to take legal or any other action on the basis of merit of the case.

**48.0 MISCELLANEOUS PROVISIONS:**

CONTRACTOR shall give notices and pay all fees at their own cost required to be given or paid by any National or State Statute, Ordinance, or other Law or any regulation, or bye-law of any local or other duly constituted authority as may be in force from time to time in India, in relation to the performance of the services and by the rules & regulations of all public bodies and companies whose property or rights are affected or may be affected in any way by the services.

CONTRACTOR shall conform in all respects with the provisions of any Statute, Ordinance of Law as aforesaid and the regulations or bye-law of any local or other duly constituted authority which may be applicable to the services and with such rules and regulation, public bodies and Companies as aforesaid and shall keep COMPANY indemnified against all penalties and liability of every kind for breach of any such Statute, Ordinance or Law, regulation or bye-law.

During the tenure of the Contract, CONTRACTOR shall keep the site where the services are being performed reasonably free from all unnecessary obstruction and shall store or dispose of any equipment and surplus materials and clear away and remove from the site any wreckage, rubbish or temporary works no longer required. On the completion of the services, CONTRACTOR shall clear away and remove from the site any surplus materials; rubbish or temporary works of every kind and leave the whole of the site clean and in workmanlike condition to the satisfaction of the COMPANY.

Key personnel cannot be changed during the tenure of the Contract except due to sickness/death/resignation of the personnel or any other justified situation in which case the replaced person should have equal experience and qualification, which will be again subject to prior approval, by the COMPANY.

\*\*\*\*\***End of GCC**\*\*\*\*\*

**SPECIAL TERMS AND CONDITIONS**

**1. Pre-Bid Conference:**

It is proposed to hold a pre-bid conference with the prospective bidders to enable them to seek clarification on the technical specification, tender documents and familiarization with the site conditions that are necessary for submission of appropriate bids (technical bid & price bid). All clarifications sought for will be finalized during the pre-bid conference and confirmatory minutes for the pre-bid conference will be circulated among all participants and any changes if required will be incorporated in the tender through corrigendum/addendum. The date and time of pre-bid conference will be informed to the bidder at the time of issue of the tenders or will be informed later on. It is up to the prospective bidder to take part in the pre-bid conference, however considering the nature of the job and site conditions, it is advisable that the prospective bidders attend the conference on physical mode rather than any virtual mode. Non-attendance of pre-bid conference does not debar the prospective bidder from participating & submission of tender. No separate pre-bid conference will be conducted for the firms who do not attend the pre-bid conference on the date & time fixed for the purpose.

During the pre-bid conference site visit shall be arranged for the participants for better understanding of the site conditions.

**2. Technical & other Deviations:**

The work shall be carried out as per SoQ, GCC, SCC and approved drawings confirming to CEA regulations 2023, Indian Standard, IEC, IE rules, and as per directions of Engineer in Charge.

**3. CONDITIONS:**

3.1. This specification covers design and construction of sub-station building, design, manufacture and testing as may be necessary before dispatch, delivery at site, all preparatory work, assembly and installation, commissioning, putting into operation of sub-station equipment consisting of HT panels, transformers, LT panels, HT and LT cabling etc. and final testing and handing over of sub-station equipment shall be carried out at Duliajan.

3.2 Proposed work to be carried out in 3(three) different locations within a radius of 1 km. Location wise tentative job requirement is as below:

- a) At OCS#3 Switchyard: Disconnection, removal and shifting of existing 3 MVA transformer and supply, erection testing, commissioning of 5 MVA transformer. Civil works including transformer pedestal/platform/ RCC Trench/Sub-station building, boundary wall, area development, earthing chamber etc. Supply erection, testing and commissioning of HT panel, station transformer, LT panel, battery charger, laying of HT/LT cables, internal and external electrification of sub-station building.
- b) At CBUS sub-station: Disconnection, removal and shifting of existing transformer, supply, erection testing, commissioning of new transformer, HT/LT cable laying and termination work and any other associated works.

c) At 'C' sub-station: Disconnection, removal and shifting of existing PMCC panel, supply, erection testing and commissioning of new panel, cable laying, termination work, earthing work and any other associated works.

The bidder should visit the site in his own interest and get familiarize with the site conditions before tendering.

**4.TERMS OF PAYMENTS:**

For electrical items, 70% payment will be released against supply part after receipt of material at site.

Balance 30% against supply will be released after successful installation, commissioning and handing over.

For, Installation and commissioning of electrical items, 100% payment will be released after successful installation, commissioning and handing over, on actual basis.

For Civil works, 100% payment against a line item will be released after successful completion and handing over of that particular line item.

**5.Completeness of Tender:**

All sundry equipment, fittings, unit assemblies, accessories, hardware items, foundation bolts, termination lugs and glands for electrical connections, and all other items including dismantling, if any, which are useful and necessary for efficient assembly and installation of equipment and components of the work shall be deemed to have been included in the tender irrespective of the fact whether such items are specifically mentioned in the tender documents or not.

**6.Despatch & Storage and Custody of Materials:**

Successful bidder shall plan the construction of substation buildings as per Project Scheduling/GNATT chart in such that they are ready for storing respective equipment on their arrival at Duliajan. No separate storage accommodation shall be provided by OIL. The despatch clearance for all the ordered equipment shall be given by OIL only after ensuring that respective substation building is ready for storing them inside the substation buildings on their arrival at Duliajan. Watch and ward of the stores and their safe custody shall be the responsibility of the contractor till the final taking over of the installation by OIL.

**7.Care of the Building site:**

Care shall be taken by the contractor while handling and installing the various equipment and components of the work to avoid damage to the building site & environment. Contractor shall be responsible for repairing all damages and restoring the same to their original finish at his cost. Contractor shall also remove at his cost all unwanted and waste materials arising out of the installation from the site of work. For safety and surveillance purpose, at least 04 nos. of CCTV cameras to be installed from contractor end at construction site during the entire project period.

**8.Completion Period**

The completion period shall be 14(fourteen) months from the date of issue of work order. This period is for the entire work of planning, designing, approval of drawings

etc., Construction of substation building, delivery at site including transportation, Installation, testing, commissioning of equipment and handing over of the entire system to the satisfaction of the Engineer-in-charge. Bidder should provide project bar chart along with the bid.

**9.Guarantee:**

9.1. All equipment shall be guaranteed for a minimum period of 12 months by the contractor, from the date of handing over/taking over the installation by OIL for any unsatisfactory performance and/or break down due to defective design, workmanship or material. The equipment or components, or any part thereof, so found defective during guarantee period shall be forthwith repaired or replaced free of cost, to the satisfaction of the Engineer- in-Charge. In case it is felt by OIL that undue delay is being caused by the contractor in doing this, the same will be got done by OIL at the risk and cost of the contractor. The decision of the Engineer-in-charge in this regard shall be final & binding on the contractor. The bidder shall guarantee among other things, the following:

9.1.1. Quality, strength and performance of the materials used as per manufacturers standards.

9.1.2. Safe mechanical and electrical stress on all parts under all specified conditions of operation.

9.1.3 For civil structure: All civil structures to be under defect liability for a period of 12 months from the date of handing over. Any damages, cracks or defects arises during that period to be corrected or rectified by the contractor. No additional payment will be made to the contractor for any repairing works carried out during defect liability period.

10.Power supply: Electricity shall be provided on chargeable basis as per OIL rate applicable to the outside parties. A temporary three phase power supply of not more than 5 KW shall be provided, at a single point, during execution of work for lighting & other purpose only, but not for welding. Further arrangements for temporary tapping power connection from this point shall be made by the contractor and for welding purpose, contractor has to arrange his own Diesel engine driven welding set

11.Water Supply: Water supply shall be made available by the contractor on their own for construction of substation buildings.

12.Acceptable makes of Various Equipment:

The Acceptable makes of various equipment/ components /accessories have been indicated in " Make List-Annexure-XVII" specified in the tender document. The bidder shall work out the cost of the offer on this basis.

**13.Data, Manual and Drawings to be furnished:**

13.1. After award of Contract:

13.1.1 The successful bidder would be required to submit the following drawings within 30 days from the date of award of work order for approval.

a) Work Plan, Project Scheduling, GNATT chart

- b) General arrangement (GA) drawing indicating entry/exit doors, ramps, location of various electrical items, ventilation, cable trench etc. for civil works
- c) Structural drawing for foundation, column, etc. for civil works
- d) For cable trenches: general arrangement and structural drawing.
- e) For transformer foundation/ pedestal: general arrangement and structural drawing.
- f) General arrangement and dimensional drawings along with GTA of the equipment like HT panels, transformers, LT panel etc. in the sub-station building.
- g) Details of foundations for the equipment and the weight of assembled equipment.
- h) Cable layout between HT panel boards, transformers & LT panel etc. Any other drawings necessary for the job and all civil Engineering drawings.
- i) Detailed technical literature and datasheet for appraisal and evaluation of the following equipment and items:
  - i) 5 MVA 33/11KV oil cooled transformer
  - ii) 11KV air insulated panel.
  - iii) 800 KVA 11/0.415 KV oil cooled transformer
  - iv) 500 KVA 11/0.415 KV oil cooled transformer
  - v) LT panels
  - vi) Battery & charger
  - vii) All HT/LT cables, termination and through joint kits
  - viii) Fittings and fixtures for internal and external electrification
    - ix) Safety item
    - x) Testing and Measuring Instruments
    - xi) Any other item as per SoQ/ direction of OIL Engineer-in-Charge.

13.2 After completion, while handing over the sub stations to OIL, the bidder shall hand over 3 sets of the operating and maintenance manual of all the equipment installed & used in the sub stations, their drawings, test certificates, guarantee certificates, list of operational spares with part no. for three years operation of the equipment and any other relevant documents regarding installation, adjustments, operation and maintenance including preventive maintenance & trouble shooting together with all relevant data sheets in a bound form as well as in soft copies.

**14.Extent of Work:**

14.1. The work shall comprise of design, supply, installation, testing and commissioning of electrical equipment including construction of sub-station building, concrete cable trench, transformer foundation/pedestal and all the associated civil and electrical works. Any work/items required for complete

installation and commissioning of the project that has not been mentioned in the tender document, the contractor has to arrange the same without any extra cost.

14.2 Proposed work to be carried out in 3(three) different locations within a radius of 1 km. Location wise tentative job requirement is as below:

- a) At OCS#3 Switchyard: Disconnection, removal and shifting of 3 MVA transformer and supply, erection testing, commissioning of 5 MVA transformer. Civil works including transformer pedestal/platform/ RCC Trench/Sub-station building, boundary wall, area development, earthing chamber etc. Supply erection, testing and commissioning of HT panel, station transformer, LT panel, battery charger, laying of HT/LT cables, internal and external electrification of sub-station building.
- b) At CBUS sub-station: Disconnection, removal and shifting of transformer, supply, erection testing, commissioning of new transformer, HT/LT cable laying and termination work and any other associated works.
- c) At 'C' sub-station: Disconnection, removal and shifting of existing PMCC panel, supply, erection testing and commissioning of new panel, cable laying, termination work, earthing work and any other associated works.

14.3. Getting CEA inspection done & obtaining approval for energizing the installation.

### **15. Inspection and Testing**

15.1. All major equipment i.e. HT panel, transformers, LT panel, HT & LT cables etc. shall be offered for Pre dispatch inspection at manufacturer's works at no additional cost as per approved QAP. The contractor will intimate the date of testing of equipment at the manufacturer's works before dispatch. The Engineer-in-charge or departmental representative will witness such testing. The cost of the Engineer's visit to the factory will be borne by OIL. Equipment will be inspected at the manufacturer's premises and shall be dispatch to site only after receipt of dispatch clearance from the Inspecting Engineer from OIL.

### **16. COMPLIANCE WITH REGULATIONS AND INDIAN STANDARDS.**

16.1. All works shall be carried out in accordance with relevant regulation, both statutory and those specified by the Indian Standards, CEA regulation 2023 & IEC & other standards related to the works covered by this specification.

16.2. The entire Electrical jobs shall be carried out under the supervision of an Electrical supervisor having a valid Electrical supervisor's certificate of competency.

16.3 The contractor should have a valid Electrical Contractors' License throughout the period of the contract.

16.4 In case the Electrical contractors' license/Electrical Supervisors' certificate of competency/Electrical workmen Permit expires during contract period the same shall be renewed by the contractor.

17. Contractor will obtain approval for energization and operation from Central Electricity Authority (CEA) prior to handing over of the project. In this regard, all necessary formalities and compliances shall be under the scope of the contractor.

18. Nothing in this specification shall be construed to relieve the successful bidder of his responsibility for the design, manufacture and installation of the equipment with all accessories in accordance with currently applicable statutory regulations and safety codes.

19. Successful bidder shall arrange for compliance with statutory provisions, safety regulations and OIL's requirements of safety codes in respect of labour employed on the work by the bidder. OIL will be at liberty to make arrangement for the safety requirements at the cost of bidder and recover the cost thereof from him.

20. Indemnity:

The Successful bidder shall defend, indemnify and hold the Company, its officers, officials, employees and labours harmless from any and all claims, injuries, damages, losses or suits including attorney fees, arising out of or in connection with the performance of this Agreement, except for injuries and damages caused by the sole negligence of the Company. The successful bidder shall be liable in accordance with the Indian Law and Regulations for contractor related accident occurring due to any cause and the contractor shall be responsible for any accident or damage incurred or claims arising there from during the period of erection, construction and putting into operation the equipment and ancillary equipment under the supervision of the successful bidder in so far as the latter is responsible. The Successful bidder shall also provide all insurance including third party insurance as may be necessary to cover the risk. No extra payment would be made to the successful bidder on account of the above.

**21. Tools & Tackles:**

No tools and tackles required for carrying out the jobs under the scope of this contract would be made available by OIL.

**22. Coordination with other Agencies:**

The Successful bidder shall co-ordinate with other agencies and exchanges freely all technical information so as to make the execution of this work/contract smooth. No remuneration should be claimed from OIL for such technical cooperation. If any unreasonable hindrance is caused to other agencies and any completed portion of the work has to be dismantled and re-done for want of cooperation and coordination by the bidder during the course of work, such expenditure incurred will be recovered from the successful bidder if the restoration work to the original condition or any required dismantled portion of the work not undertaken by the bidder himself.

23. The work should be carried out with least disturbance during shifting & shut down taken in consultation with OIL Engineer In Charge.

**24. Mobilization advance:**

No mobilization advance shall be paid to the contractor.

**25. Insurance and storage:**

All consignments are to be duly insured up to the destination from point of despatch at the cost of the contractor and handed over. The insurance covers shall be valid till the equipment is duly installed, tested and commissioned. The equipment at site have to be stored securely by the contractor till handed over to OIL. The necessary arrangement to prevent theft/pilferage has to be made by the contractor.

**26. Painting/Marking of Electrical Works:**

This shall include cost of painting of the entire electrical works as required. The major equipment like HT panel, transformers, LT panel, cable trays etc. shall be factory final finish painted. The agency shall be required to do only touching to the damages caused to the painting during transportation, handling & installation at site. However, hangers, supports etc. of & cable tray etc. shall be painted with required shade including painting with two coats of anticorrosive primer paint at site. The following has to be incorporated during installation and commissioning:

- a) Neutral earth pit cover to be painted yellow.
- b) Body earth pit cover to be painted green.
- c) Surge arrestor earth pit cover to be painted black
- d) Available earth pit resistance values should be written on the earth pit cover (Both Individual and combined).

**27. Training:**

The scope of work includes 'On the job technical training' of OIL work personnel at site for a period of minimum two days. No additional payment shall be made to the contractor for on job training purpose.

**28. Interpreting Specifications:**

In case of contradiction between Indian Standards, General Conditions of Contract, Special Conditions of

contract, Specifications Drawings, Bill of Quantity, the following shall prevail in order of precedence.

- (i) Letter of intent / Detailed Letter of intent along with statement of Agreed Variations and its enclosures.
- [ii] Bill of Quantity.
- (iii) Special Conditions of Contract
- (iv) Job specifications
- (v) Drawings
- (vi) General Condition of contract
- {vii} Indian Standard/Technical/Material Specifications.

**29. Mobilization:**

After issue of LoA mobilization notice will be issued to the contractor

**29.1: Mobilization Period:** 30(thirty) days from the date of issue of mobilization notice.

29.2: Activities to be covered by the contractor during mobilization period:

Submission of all statutory requirements like

- a) Electrical Contractors' License
- b) Electrical Supervisors' certificate of competency
- c) Electrical Workmen Permit
- d) Labour Clearance
- e) The Electrical Contractor's License must remain valid throughout the contract period. The contractor must submit an undertaking confirming the license's validity for the entire contract duration and commit to renewing it if it expires during the contract period.

**30. Work Order:**

Work Order shall be issued once mobilization has been completed and contract agreement has been signed.

**31. GENERAL HSE POINTS:**

31.1. It will be solely the Contractor's responsibility to fulfill all the legal formalities with respect to the Health, Safety and Environmental aspects of the entire job (namely; the person employed by him, the equipment, the environment, etc.) under the jurisdiction of the district / state where it is operating. Ensure that all sub-contractors hired by him comply with the same requirement as the contractor himself and shall be liable for ensuring compliance of all HSE laws by the sub or sub-sub-contractors.

31.2. Every person deployed by the contractor must wear safety gadgets to be provided by the contractor. The Contractor shall provide proper Personnel Protective Equipment as per the hazard identified and risk assessed for the job and conforming to statutory requirement and company PPE schedule. If the Contractor fails to provide the safety items as mentioned above to the working personnel, the Contractor may apply to OIL for providing the same. OIL will provide the safety items, if available. But in turn, OIL will recover the actual cost of the items by deducting from Contractor's Bill. However, it will be the Contractor's sole responsibility to ensure that the persons engaged by him use the proper PPE while at work. All the safety gears mentioned above are to be provided to the working personnel before commencement of the work.

31.3. The Contractor shall prepare written Safe Operating Procedure (SOP) for the work to be carried out, including an assessment of risk, wherever possible and safe methods to deal with it/them. The SOP should clearly state the risk arising to men, machineries & material from the operation / operations to be done by the contractor and its necessary mitigations. A copy of the SOP to be submitted to the Engineer In Charge for approval.

31.4. Contractor has to ensure that all work is carried out in accordance with the Statute and SOP and for the purpose he may deploy adequate qualified and competent personnel for the purpose of carrying out the job in a safe manner.

31.5. All persons deployed by the contractor must undergo initial medical examination (IME). IME of the person engaged by the contractor to be carried out in Govt. Health Centres.

31.6. It will be entirely the responsibility of the Contractor/his supervisor/representative to ensure strict adherence to all HSE measures and statutory rules during operation in OIL's installations and safety of workers engaged by him.

31.7. Any compensation arising out of the job carried out by the Contractor whether related to pollution, Safety or Health will be paid by the contractor only.

31.8. Any compensation arising due to accident of the Contractor's personnel while carrying out the job will be payable by the contractor.

31.9. The contractor shall have to report all incidents including near miss to the Engineer In Charge of OIL.

30.10. The contractor has to keep a register of the persons employed by him/her. The contractor's supervisor shall take and maintain attendance of his men every day for the work, punctually.

31.11. If the company arranges any safety class / training for the working personnel at site (company employee, contractor worker, etc) the contractor will not have any objection to any such training.

31.12. To arrange daily toolbox meeting and regular site safety meetings and maintain records.

31.13. Records of daily attendance, accident report (if any) are to be maintained

31.14. A contractor employee must, while at work, take reasonable care for the health and safety of people who are at the employee's place of work and who may be affected by the employee's act or omissions at work.

31.15. A contractor employee must, while at work, cooperate with his or her employer or other persons as far as is necessary to enable compliance with any requirement under the act or the regulations that is imposed in the interest of health, safety and welfare of the employee or any other person.

31.16. In case Contractor is found non-compliant of HSE laws as required company will have the right for directing the contractor to take action to comply with the requirements, and for further non-compliance, the contractor will be penalized prevailing relevant Acts/Rules/Regulations.

31.17. When there is a significant risk to health, environment or safety of a person or place arising because of a non-compliance of HSE Measures Company will have the right to direct the contractor to cease work until the non-compliance is corrected.

31.18. The contractor should prevent the frequent change of his contractual employees as far as practicable.

31.19. For any HSE matters not specified in the contract document, the contractor will abide the relevant and prevailing Acts/rules/regulations/ pertaining to Health, Safety and Environment.

31.20 Necessary cold/Hot work/ Electrical isolation /energisation/work at height/vehicle entry permits, etc. are to be obtained from authorized personnel before starting the job (s).

31.21 First aid box to be provided by the contractor and same has to be kept ready at work site for contractor's personnel while carrying out the job (s).

31.22 Proper barricading to be provided to the entire construction site during the course of project work

31.23 Live high voltage electrical equipment are present near to the project site. Contractor has to take extra pre-caution while executing the project. Shutdowns if required shall be provided by OIL.

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**ANNEXURE-I**

**TECHNICAL SPECIFICATIONS OF 5 MVA 33KV/11KV TRANSFORMER.**

**1. Scope:**

This Specification provides for design, engineering, manufacture, assembly, inspection and testing before dispatch, packing and delivery at destination with oil filled condition, Installation and commissioning at site with off load tap switch, complete with all fittings, accessories, associated equipment spares, supply of 20% extra Transformer Oil required for its satisfactory operation in OIL's switchyard.

OEM's representative shall supervise the installation, and commissioning of the transformer at site.

Transformer manufacturing shall commence only after approval of drawing by OIL's Engineer-In-Charge.

Provision should be kept in the transformer tank for implementation of Nitrogen Injected fire protection and suppression system.

**2. System Conditions:**

The equipment shall be suitable for installation & successful operation in the following system condition.

**2.1 Parameter Data**

Frequency: 50 Hz (+/-) 5%

Nominal System Voltages, Primary Side: 33 kV Nominal System Voltages, Secondary Side: 11 kV Maximum System Voltage, Primary Side: 36 kV Maximum System Voltage, Secondary Side: 12 kV

Nominal Short circuit Level, Primary Side (33 kV): 31.5 kA Nominal Short circuit Level, Secondary Side (11 kV): 25 kA

**2.2 Site Conditions:**

Altitude: 121m

Maximum Temperature: 50<sup>o</sup> C Minimum Temperature: 10<sup>o</sup> C

Relative Humidity: 40-95%

**3. Codes & Standards:**

The design, material, fabrication, manufacture, inspection, testing before dispatch and performance of power transformers at site shall comply with all currently applicable statutory regulations and safety codes in the locality where the equipment will be installed. The equipment shall also conform to the latest applicable standards and codes of practice. Nothing in this specification shall be construed to relieve the contractor of this responsibility.

The equipment and materials covered by this specification shall conform to the latest applicable provision of the following standards.

IS:5 Colour for ready mixed paints  
IS:335 Three Phase Induction Motors  
IS:1271 Classification of insulating materials for electrical machinery and apparatus in relation to their stability in services  
IS:2026(Part I to IV) Power transformer  
IS:2071 Method of high voltage testing  
IS:2099 High voltage porcelain bushings  
IS:2147 Degree of protection  
IS:2705 Current Transformers  
IS:3202 Code of practice for climate proofing of electrical equipment  
IS:3347 Dimensions for porcelain Transformer Bushings  
IS:3637 Gas operated relays  
IS:3639 Fittings and accessories for power Transformers  
IS:5561 Electric Power Connectors  
IS:6600 Guide for loading of oil immersed Transformers  
IS:10028 Code of practice for selection, installation and maintenance of transformers, Part I, II and III  
C.B.I.P. Publication Manual on Transformers

If the standard is not quoted for any item, it shall be presumed that the latest version of Indian Standard shall be applicable to that item.

The equipment complying other internationally accepted standards, may also be considered if they ensure performance superior to the Indian Standards.

**4. General Construction Feature:**

- a. All material used shall be of best quality and of the class most suitable for working under the conditions specified and shall withstand the variations of temperature and atmospheric conditions without distortion or deterioration or the setting up of undue stresses which may impair suitability of the various parts for the work which they have to perform.
- b. Similar parts particularly removable ones shall be interchangeable.
- c. Pipes and pipe fittings, screws, studs, nuts and bolts used for external connections shall be as per the relevant standards. Steel bolts and nuts exposed to atmosphere shall be galvanized.
- d. Nuts, bolts and pins used inside the transformers and tap changer compartments shall be provided with lock washer or locknuts.
- e. Exposed parts shall not have pockets where water ingress is possible.
- f. Internal design of transformer shall ensure that air is not trapped in any

location.

- g. Material in contact with oil shall be such that the same shall as not to contribute to the formation of acid in oil. Surface in contact with oil shall not be galvanized or cadmium plated.
- h. Labels, indelibly marked, shall be provided for all identifiable accessories like Relays, switches current transformers etc. All label plates shall be of in corrodible material.
- i. All internal connections and fastenings shall be capable of operating under overloads, over-excitation & faults allowed as per specified stands without injury.
- j. Transformer and accessories shall be designed to facilitate proper operation, inspection, maintenance and repairs.
- k. No patching, plugging, shimming or other such means of overcoming defects, discrepancies or errors will be accepted.

**4.1 Tank:**

- a) The Transformer tank and cover shall be fabricated from high grade low carbon plate steel of tested quality. The tank and the cover shall be of welded construction.
- b) Tank shall be designed to permit lifting by crane or jacks of the complete transformer assembly filled with oil. Suitable lugs and bossed shall be provided for this purpose.
- c) All breams, flanges, lifting lugs, braces and permanent parts attached to the tank shall be welded and where practicable, they shall be double welded.
- d) The main tank body of the transformer, excluding tap changing compartments and radiators, shall be capable of withstanding maximum pressure developed during any fault inside the transformer.
- e) Inspection hole(s) with welded flange(s) and bolted cover(s) shall be provided on the tank cover. The inspection hole(s) shall be of sufficient size to afford easy access to the lower ends of the bushings, terminals etc.
- f) Gaskets of nitrile rubber or equivalent shall be used to ensure perfect oil tightness. All gaskets shall be closed design (without open ends) and shall be of one piece only. Rubber gaskets used for flange type connections of the various oil compartments shall be laid in grooves or in groove-equivalent sections on bolt sides of the gasket, throughout their total length. Care shall be taken to secure uniformly distributed mechanical strength over the gaskets and retains throughout the total length. Gaskets of neoprene and / or any kind of impregnated / bonded core or cork only which can easily be damaged by over-

pressing are not acceptable. Use of hemp as gasket material is also not acceptable.

g) Suitable guides shall be provided for positioning the various parts during assemble or dismantling. Adequate space shall be provided between the cores and windings and the bottom of the tank for collection of any sediment.

#### **4.2 Tank Cover:**

The transformer top shall be provided with a detachable tank cover with bolted flanged gasket joint. Lifting lugs shall be provided for removing the cover. The surface of the cover shall be suitable sloped so that it does not retain rainwater.

#### **4.3 Core:**

- a) The core shall be constructed from high grade, non-aging Cold Rolled Grain Oriented (CRGO) silicon steel laminations conforming to M-4 grade with lamination.
- b) Laminations of different grade(s) and different thickness(s) are not allowed to be used in any manner or under any circumstances. The core shall have magnate coating as insulation. The assembled core shall be securely clamped on the limbs and yoke with uniform pressure to minimize noise emission. The insulation structure for the core to bolts and core to clamp plates shall be such as to withstand a voltage of 200V at 50Hz for 1min. Each lamination shall be insulated such that it will not deteriorate due to mechanical pressure and the action of hot transformer oil.
- c) The laminations shall be free of all burrs and sharp projections. Each sheet shall have an insulating coating resistant to the action of hot oil.
- d) All steel sections used for supporting the core shall be thoroughly shot or sand blasted, after cutting, drilling and welding.
- e) The finally assembled core with all the clamping structures shall be free from deformation and shall not vibrate during operation.
- f) The core clamping structure shall be designed to minimize eddy current loss.
- g) The framework and clamping arrangements shall be securely earthed.
- h) The core shall be carefully assembled and rigidly clamped to ensure adequate mechanical strength.
- i) The design of magnetic circuit shall be such as to avoid static discharges, development of short circuit paths within itself or to the earth clamping structure or any undesired phenomenon which may cause local heating. The supporting

framework of the cores shall be so designed as to avoid the presence of pockets, which would prevent complete emptying of the tank through the drain valve or cause trapping of air during filling.

j) The core shall be provided with lugs suitable for lifting the complete core and coil assembly. The core and coil assembly shall be so fixed in the tank that shifting will not occur during transport or short circuits.

k) The temperature gradient between core & surrounding oil shall be maintained less than 20 deg. Centigrade. The manufacturer shall demonstrate this either through test (procedure to be mutually agreed) or by calculation.

#### **4.4 Winding:**

a) Winding shall be subjected to a shrinking and seasoning process, so that no further shrinkage occurs during service. Adjustable devices shall be provided for taking up possible shrinkage in service.

b) All low voltage windings for use in the circular coil concentric winding shall be wound on a performed insulating cylinder for mechanical protection of the winding in handling and placing around the core.

c) Winding shall not contain sharp bends which might damage the insulation or produce high dielectric stresses. No strip conductor wound on edge shall have width exceeding six times the thickness.

d) Materials used in the insulation and assembly of the windings shall be insoluble, non-catalytic and chemically inactive in the hot transformer oil and shall not soften or be otherwise affected under the operating conditions. Class-A type insulation shall be used.

e) Varnish application on coil windings may be given only for mechanical protection and not for improvement in dielectric properties. In no case varnish or other adhesive, be used which will seal the coil and prevent evacuation of air and moisture and impregnation by oil.

f) Winding and connections shall be braced to withstand shocks during transport or short circuit.

g) Permanent current carrying joints in the windings and leads shall be welded or brazed. Clamping bolts for current carrying parts inside oil shall be made of oil resistant material which shall not be affected by acidity in the oil steel bolts, if used, shall be suitably treated.

h) Terminals of all windings shall be brought out of the tank through bushings for external connections.

i) The completed core and coil assembly shall be dried in vacuum and shall be immediately impregnated with oil after the drying process to ensure the elimination of air and moisture within the insulation. Vacuum may be applied in either vacuum over or in the transformer tank.

j) The winding shall be so designed that all coil assemblies of identical voltage ratings shall be interchangeable and field repairs to the winding can be done readily without special equipment. The coils shall have high dielectric strength.

k) Coils shall be made of continuous smooth high-grade electrolytic copper conductor, shaped and braced to provide for expansion and contraction due to temperature changes.

l) Adequate barriers shall be provided between coils and core and between high and low voltage coil. End turn shall have additional protection against abnormal line disturbances.

m) The insulation of winding shall be designed to withstand voltage stress arising from surge in transmission lines due to atmospheric or transient conditions caused by switching etc.

n) Tapping shall not be brought out from inside the coil or from intermediate turns and shall be so arranged as to preserve as far as possible magnetic balance of transformer at all voltage ratios.

o) Magnitude of impulse surges transferred from HV to LV windings by electromagnetic induction and capacitance coupling shall be limited to BIL.

#### **4.5 Insulating Oil:**

a) The insulating oil for the transformer shall generally conforming to IS:335. No inhibitors shall be used in the oil.

b) The quantity of oil required for the first filling of the transformer and its full specification shall be submitted along with the drawing for approval. Supply of transformer shall be completed with all fittings, accessories and new transformer oil required for first filling plus 20% extra oil. The extra quantity of oil shall be supplied in non-returnable drums along with the oil required for the radiator banks.

c) The design and materials used in the construction of the transformer shall be such as to reduce the risk of the development of acidity in the oil.

**4.6 Valves:**

- a) Valves shall be of forged carbon steel up to 50mm size and of gun metal or of cast iron bodies with gun metal fittings for sizes above 50mm. They shall be of full way type with screwed ends and shall be opened by turning counter clockwise when facing the hand wheel. There shall be no oil leakage when the valves are in closed position.
- b) Each valve shall be provided with an indicator to show the open and closed positions.
- c) All valves except screwed valves shall be provided with flanges having machined faced drilled to suit the applicable requirements, Oil tight blanking plates shall be provided for each connection for use when any radiator is detached and for all valves opening to atmosphere. If any special radiator valve tools are required, the contractor shall supply the same.
- d) Each transformer shall be provided with following valves on the tank:
  - 1) Drain valve so located as to completely drain the tank
  - 2) Two filter valves on diagonally opposite corners of 50mm size
  - 3) Oil sampling valves not less than 8mm at top and bottom of main tank.
  - 4) One air release plug.
  - 5) Valves between radiators and tank. Drain and filter valves shall be suitable for applying vacuum as specified in the specifications.

**4.7 Tapchanger: off-load tap-changers**

- a) 5MVA transformers shall be provided with OFF- load Tap changer on HV side.
- b) The Transformer with off-load tap changer shall have taps ranging from +5 % to -5% inequal steps of 2.5% on HV winding for voltage variation.

**4.8 Painting:**

- a) All paints shall be applied in accordance with the paint manufacturer's recommendations.
- b) Application of paints and the recommended limit on time intervals between coats shall be followed.
- c) All paints, when applied in normal full coat, shall be free from runs, sags, wrinkles, patchiness, brush marks or other defects.
- d) All primers shall be well marked into the surface, particularly in areas where painting is evident, and the first priming coat shall be applied as soon as possible after cleaning. The paint shall be applied by airless spray according to

the manufacturer's recommendations. However, wherever airless spray is not possible, conventional spray be used with prior approval of Employer.

e) The supplier shall, prior to painting, protect nameplates, lettering gauges, sight glasses, lightfittings and similar such items.

f) Cleaning and Surface Preparation:

i. After all machining, forming and welding has been completed, all steel work surfaces shall be thoroughly cleaned of rust, scale, welding slag or spatter and other contamination prior to any painting.

ii. Steel surfaces shall be prepared by Sand/Shot blast cleaning or Chemical cleaning by Seven tank process including phosphating to the appropriate quality.

iii. Chipping, scraping and steel wire brushing using manual or power-driven tools cannot remove firmly adherent mill-scale and shall only be used where blast cleaning is impractical.

g) Paint Material: Followings are the type of paints that may be suitably used for the items to be painted at shop and supply of matching paint to site:

i. Heat resistant paint (Hot oil proof) for inside surface.

ii. For external surfaces one coat of Thermo Setting Paint or 2 coats of Zinc chromate followed by 2 coats of POLYURETHANE.

The colour of the finishing coats shall be dark admiral grey conforming to No.632 of IS 5:1961.

#### **4.8.1 Painting Procedure:**

a) All painting shall be carried out in conformity with both specifications and with the paint manufacture's recommendations. All paints used or to be used in shop or site, shall originate from one paint manufacturer.

b) Particular attention shall be paid to the manufacturer's instructions on storage, mixing, thinning and pot life. The paint shall only be applied in the manner detailed by the manufacturer

e.g. brush, roller, conventional or airless spray and shall be applied under the manufacturer's recommended conditions. Minimum and maximum time intervals between coats shall be closely followed.

c) Where the quality of film is impaired by excess film thickness, (wrinkling, mud cracking or general softness) the supplier shall remove the unsatisfactory paint coatings and apply another. In all instances, where two or more coats of the same paints are specified, such coatings may or may not be of contrasting colors.

d) Paint applied to items that are not to be painted, shall be removed at supplier's expense, leaving the surface clean, un-stained and undamaged.

**4.8.2 Damages to Paints Work:**

- a) Any damage occurring to any part of the painting scheme shall be made good to the same standard of corrosion protection and appearance as that originally employed.
- b) The repainted surface shall present a smooth surface. This shall be obtained by carefully chamfering the paint edges before & after priming.

**4.8.3 Dry Film Thickness:**

- a) To the maximum extent practicable, the coats shall be applied as a continuous film of uniform thickness and free of pores. Over-spray, skips, runs, sags and drips should be avoided. The different coats may or may not be same color.
- b) Each coat of paint shall allow to hardened before the next is applied as per manufacturer's recommendations.
- c) Particular attention must be paid to full film thickness at edges.

**5. Losses:**

The losses shall not exceed the value given below:

MVA Rating: 5 MVA

No Load loss (Fixed Loss) (KW): 6.5KW (Tolerance as per IS-2026)

Load Losses at 75 degrees Celsius (kW): 36KW (Tolerance as per IS-2026)

The above-mentioned losses are maximum permissible and there shall not be any plus tolerance above this limit.

The bidder shall submit No load and Load losses along with complete technical details and factors assumed along with the GTP in tender documents. In case during testing, the actual losses are found within guaranteed figure, the transformers shall be accepted without any advantage to the bidder for lower losses. Measurement of losses shall form part of type test/routine test during inspection. The purchaser reserves the right to reject the transformers if on testing, the losses exceed the declared losses or the temperature rise in oil and/or winding exceeds the value guaranteed in technical particular or impedance value differ from the guaranteed value and if any test results do not match with the values given in the guaranteed technical particulars and as per technical specification.

**6. Performance:**

- a) Transformer shall be capable of overloading without any damage as per IS-2026
- b) Transformers shall be capable of withstanding voltage variation as per IS-2026

**7. Tolerance:**

The tolerance of guaranteed performance figures shall be as specified in the latest issue of IS 2026 or relevant International Standard except wherever specified otherwise in this specification.

**8. Fittings and Accessories:**

The following fittings and accessories shall be provided on the transformers:

- a) Conservator with isolating valves, oil filling hole with cap and drain valve. The conservator vessel shall be filled with constant oil pressure diaphragm oil sealing system.
- b) Magnetic type oil level gauge (150 mm dia) with low & High oil level alarm contacts.
- c) Prismatic/ toughened glass oil level gauge.
- d) Silica gel breather with oil seal and connecting pipe complete with first fill of activated silica gel mounted at a workable height. Silica gel breather position should be such that it is at the farthest point from live naked parts of the transformer.
- e) A double float type Buchholz relay with isolating valve. The relay shall be provided with shut off valve on the conservator side as well as on the tank side. These contacts shall be wired up to transformer marshalling box.
- f) Pressure relief devices (including pressure relief valve) and necessary air equalizer connection shall be provided along with necessary alarm and trip contacts.
- g) Air release plugs in the top cover.
- h) Inspection cover, access holes with bolted covers for access to inner ends of bushing etc.
- i) Winding temperature (hot spot) indicating device for local mounting complete in all respects. Winding temperature indicator shall have two set of contacts to operate at different settings:
  - i. To provide winding temperature high alarm
  - ii. To provide temperature too high trip.
- j) Dial thermometer with pocket for oil temperature indicator with one set of alarm and one set of trip contacts and maximum reading pointer.
- k) Lifting eyes or lugs for the top cover, core and coils and for the complete transformer.
- l) Jacking pads.
- m) Haulage lugs.
- n) Protected type mercury / alcohol in glass thermometer and a pocket to house the same.
- o) Top and bottom filter valves on diagonally opposite ends with pad locking arrangement on both valves.
- p) Top and bottom sampling valves.
- q) Drain valve
- r) Rating and connection diagram plate.

- s) Two numbers tank earthing terminals with associated nuts and bolts for connections to Employer's grounding strip. Bi-directional flagged rollers with locking and bolting device.
- t) Shut off valve on both sides of flexible pipe connections between radiator bank and transformer tank.
- u) Cooling Accessories:
  - i. Requisite number of radiators provided with: -
    - a) One shut off valve on top
    - b) One shut off valve at bottom
    - c) Air release device on top
    - d) Drain and sampling device at bottom.
    - e) Lifting lugs.
  - ii. Air release device and oil drain plug on oil pipe connectors.
  - iii. Terminal marking plates for Current Transformer and Main Transformer.
  - iv. Oil Preservation Equipment
  - v. Oil Temperature indicator
- v) Transformer shall be supplied with all control cable, SCADA compatible WTI & OTI, sensing cable, glands, lugs etc (complete control).
- w) The extended neutral flat should be insulated with 11KV grade tap.

**Note:**

- a. The fittings listed above are indicative and any other fittings which are generally required for satisfactory operation of the transformer are deemed to be included along with the supply of the transformers.
- b. The contacts of various devices required for alarm and trip shall be potential free and shall be adequately rated for continuous, making and breaking current duties as specified.

**9. Bushing:**

- a) All porcelain used in bushings shall be homogeneous, non-porous, uniformly glazed to brown colour and free from blisters, burns and other defects.
- b) Stress due to expansion and contraction in any part of the bushing shall not lead to deterioration.
- c) Bushing shall be designed and tested to comply with the applicable standards Bushing shall have non-ferrous flanges and hardware.
- d) Fittings made of steel or malleable iron shall be galvanized.
- e) Bushing shall be so located on the transformers that full flashover strength will be utilized. Minimum clearances as required for the BIL shall be realized between live parts and live parts to earthed structures. Arc horns shall be provided across the 33 kV bushings for protection against overvoltage in the system.
- f) All applicable routine and type tests certificates of the bushings shall be furnished for approval.
- g) Bushing shall be supplied with bi-metallic terminal connector/ clamp/ washers suitable for fixing to bushing terminal and the Employers specified conductors.

The connector/clamp shall be rated to carry the bushing rated current without exceeding a temperature rise of 55°C over an ambient of 50°C. The connector/clamp shall be designed to be corona free at the maximum rated line to ground voltage.

h) Bushing of identical voltage rating shall be interchangeable.

i) The insulation class of high voltage neutral bushing shall be properly coordinated with the insulation class of the neutral of the high voltage winding.

j) Each bushing shall be so coordinated with the transformer insulation that all flashover will occur outside the tank.

k) **Bushing on 33 kV Side:** 33 kV Bushings will be outdoor type which can be connected to hollow aluminium pipe of ID of 5 cm & OD of 6 cm.

l) **Bushing on 11 kV Side:**

1) 11 kV bushings will be inside a cable termination box.

2) Sufficient clearance between bushing to bushing and bushing to earth should be maintained as per standard.

3) Bushings position should be at height to have sufficient space for cable termination.

m) **Neutral Bushing:** Neutral bushing shall be made available at 11 kV side. Bushing will be outdoor type. Neutral bushing shall be designed to withstand the over-voltage during any earth fault in the system.

## **10. Protection & Measuring Devices:**

### **10.1 Oil Conservator Tank**

a) The Conservator tank shall have adequate capacity between highest and lowest visible levels to meet the requirement of expansion of the total cold oil volume in the transformer and cooling equipment.

b) The conservator tank shall be bolted into position so that it can be removed for cleaning purposes.

c) The conservator shall be fitted with magnetic oil level gauge with low level electrically insulated alarm contact.

### **10.2 Pressure Relief Device**

The pressure relief device provided shall be of sufficient size for rapid release of any pressure that may be generated in the tank and which may result in damage of the equipment. The device shall operate at a static pressure of less than the hydraulic test pressure of transformer tank. It shall be mounted direct on the tank. A pair of electrically insulated contact shall be provided for alarm and tripping.

### **10.3 Buchholz Relay**

A double float type Buchholz relay shall be provided, Any gas evolved in the transformer shall collect in this relay. The relay shall be provided with a test cock suitable for a flexible pipe connection for checking its operation. The device shall be provided with two electrically independent potential free contacts, one

for alarm on gas accumulation and the other for tripping on sudden rise of pressure.

**10.4 Temperature Indicator**

- a) OTI and WTI shall be a compact system.
- b) Both the OTI and WTI should have the facility for remote reading capability compatible to be connected to SCADA system. It should have no change in overall dimension of OTI and WTI and no additional Thermometer pockets are required.
- c) OTI/ WTI shall have embedded PT-100 sensors in the sensing bulb. The output from which can be connected to remote indicator for SCADA to provide a standard single or dual 4-20mA DC current output corresponding to measured temperature.
- d) Remote indicator for both OTI and WTI shall be digital type with minimum 4 digits LED display. Remote indicators should have with RS485.
- e) Oil temperature indicator and winding temperature indicator with two electrical contacts for alarm and trip purposes and repeater for remote indication shall be provided with anti-vibration mounting. All switch contacts are potential free micro switches. The oil temperature indicator shall be housed in the existing marshalling box.
- f) The scale on the dial of the thermometer should be 0-150°C. The angular displacement of thermometer should be 270°.
- g) The indicators shall have three pointers to indicate the following:
  1. Tripping temperature
  2. Trip/alarm setting
  3. Actual temperature of oil/Winding

**11. Marshalling Box:**

- a) Sheet steel, weather, vermin and dust proof marshalling box fitted with required glands, locks, glass door, terminal Board, heater with switch, illumination lamp with switch, water- tight hinged and padlocked door of a suitable construction shall be provided with transformer to accommodate temperature indicators, terminal blocks etc. The box shall have slopping roof and the interior and exterior painting shall be in accordance with the specification. Padlock along with duplicate keys shall be supplied for marshalling box. The degree of protection shall be IP-55 or better.
- b) The schematic diagram of the circuitry inside the marshalling box be prepared and fixed inside the door.
- c) The marshalling box shall accommodate the following equipment:
  - i. Temperature indicators.
  - ii. Terminal blocks and gland plates for incoming and outgoing cables.

d) All the above equipment shall be mounted on panels and back of panel wiring shall be used for inter-connection. Marshalling box shall be provided with glazed window of adequate size.

e) To prevent internal condensation, a metal clad heater with thermostat shall be provided. The heater shall be controlled by an MCB of suitable rating mounted in the box. The ventilation louvers suitably padded shall also be provided. The louvers shall be provided with suitable pads to prevent ingress of dust.

f) All incoming cables shall enter the kiosk from the bottom. The gland plate and associated compartment shall be sealed in suitable manner to prevent the ingress of moisture from the cable trench.

**12. Name Plate:**

Transformer rating plate shall contain the information as given in clause 15 of IS-2026 (part- I). The details on rating plate shall be finalized during the detailed engineering. Further, each transformer shall have inscription of Customer's name. The name plate shall also include

- a) Indian Standard followed
- b) The short circuit rating ,
- c) Measured no load current and no load losses at rated voltage and rated frequency,
- d) Measured load losses at 75° C ( normal tap only )
- e) D.C resistance of each winding at 75° C.
- f) OIL's PO no
- g) Core Weight
- h) Oil Quantity
- i) Total weight
- j) Customer Name (Oil India Limited)

**13. Instruction Manual:**

Three sets of the instruction manuals (two hard copy and 2 soft copies) shall be supplied before the actual dispatch of equipment. The manuals shall be in bound volumes and shall contain all the drawings and information required for erection, operation and maintenance of the transformer. The manuals shall include amongst other, the following particular:

- a) Marked erection prints identifying the components, parts of the transformer as dispatched with assembly drawings.
- b) Detailed dimensions, assembly and description of all auxiliaries.
- c) Detailed views of the core and winding assembly, winding connections and tapings tap changer construction etc. These drawings are required for carrying out overhauling operation at site.
- d) Salient technical particulars of the transformer.
- e) Copies of all final approved drawings.

f) Detailed O&M instructions with periodical check lists and Performa etc.

**14. Completeness of equipment:**

All fittings and accessories, which may not be specifically mentioned in the specification but which are necessary for the satisfactory operation of the transformer, shall be deemed to be included in the specification and shall be furnished by the supplier without extra charges. The equipment shall be complete in all details whether such details are mentioned in the specification or not, without any financial liability to the Employer under any circumstances.

**15. Inspection and Testing:**

**15.1 Inspection:**

- a. Supplier/OEM will intimate OIL for inspection prior to 30 days of schedule date. Transformer and all testing facilities should be kept ready before intimation for inspection.
- b. Transformers will be cleared for dispatch from OEM's workshop only after clearance from OIL's Engineer-In-Charge.

**16. Factory test:**

All standard routine tests in accordance IS: 2026 with dielectric tests corresponding to latest amendments of IS: 2026 shall be carried out in NABL accredited lab of OEM.

All auxiliary equipment shall be tested as per the relevant IS. Test certificates shall be submitted for bought out items.

High voltage withstand test shall be performed on auxiliary equipment and wiring after complete assembly.

Following additional routine tests shall also be carried out on transformer:

- i. Magnetic Circuit Test on each core shall be tested for 1 minute at 2000 Volt DC.
- ii. Oil leakage test on transformer.

**16.1 Type Test & Special Test**

The measurements and tests should be carried out in accordance with the standard specified as indicated in the following for the offered design without any cost implication to customer.

Tests/IS Standard

Temperature Rise test /IS 76/IS 2026/IS 6600

Impulse voltage withstand test, including full wave and chopped waves/IEC 76/IS 2026

Tan delta/ IS 2026 at NABL accredited Lab of OEM.

The offered transformer must be manufactured as per type tested design. A copy of type test certificate of similar or higher rating must be submitted by manufacturer to OIL during drawing approval. Transformers offered without type tested design shall not be accepted. For type testing of transformers, the above-mentioned testing shall be conducted on manufacturer's cost in a NABL/CPRI accredited lab only for a single unit of the transformer and shall be witnessed by OIL representative(s). No claim shall be acceptable towards type testing. The transformers shall be accepted only on acceptance of type testing results by OIL. The supplier shall furnish calculations in accordance with IS: 2026 to demonstrate the Thermal ability of the transformers to withstand Short Circuit forces.

### **16.2 ROUTINE TESTS**

Transformer routine tests shall include tests stated in latest issue of IS: 2026 (Part -1). These tests shall also include but shall not be limited to the following:

- a) Measurement of winding DC resistance.
- b) Voltage ratio on each tapping and check of voltage vector relationship.
- c) Impedance voltage at all tappings.
- d) Magnetic Balance Test.
- e) Measurement of Load losses.
- f) No load losses and no load current at rated voltage and rated frequency.
- g) Absorption index i.e. Insulation resistance for 15 seconds and 60 seconds (R 60/ R 15) and polarization index i.e Insulation Resistance for 10 minutes and 1 minute (R 10 mt / R 1 mt).
- h) Induced over voltage withstand test.
- i) Separate source voltage withstand test.
- j) Tan delta measurement and capacitance of each winding to earth (with all other windings earthed) & between all windings connected together to earth.
- k) Measurement of zero sequence impedance.
- l) Tests on off- load tap changer (fully assembled on transformer) as per IEC: 214/ 1976 and BS: 4571/ 1970.
- m) Auxiliary circuit tests.
- n) Oil BDV tests.
- o) Measurement of neutral unbalance current which shall not exceed 2% of the full rated current of the transformer.
- p) Leakage test.

Soft copy and hardcopy of certified test reports and oscillographs shall be submitted for evaluation prior to dispatch of the equipment.

### **17. Pre-shipment check at manufacturers works**

- a) Supplier shall check for proper packing and preservation of accessories like radiators, bushings, explosions vent, dehydrating breather, rollers, buchholz relay, control cubicle connecting pipes and conservator etc.
- b) Check for proper provision of bracing to arrest the movement of core and winding assembly inside the tank.

- c) Gas tightness test to conform tightness.

**18. Receipt and Storage Checks:**

- a) Check and record conditions of each package visible parts of the transformers etc for any damage.
- b) Check and record the gas pressure in the transformer tank as well as in the gas cylinder.
- c) Visual check of core and coils before filling up with oil and also check condition of core and winding in general.

**19. During Drawing Approval:**

Any approval given to the detailed drawings by the OIL shall not relieve the vendor/supplier of the responsibility for correctness of the drawing and in the manufacture of the equipment. The approval given by OIL shall be general with overall responsibility with vendor/supplier.

1) Detailed overall general arrangement drawing showing front and side elevations and plan of the transformer and all accessories including radiators and external features with details of dimensions, spacing of wheels in either direction of motion, net weights and shipping weights, crane lift for un-tanking, size of lugs and eyes, bushing lifting dimensions, clearances between HV and L.V terminals and ground, quantity of insulating oil etc. Assembly drawings of core and winging and weights of main components / parts.

2) Foundation plan showing loading land jacking points with respect to centre line of transformer.

3) GA drawings details of bushing and terminal connectors.

4) Name plate drawing with terminal marking and connection diagrams.

5) Wheel locking arrangement drawing.

6) Transformer dimensions drawings.

7) Details of C.T particulars of Neutral & WTI CT and Magnetization characteristic curves of PS class neutral and phase side current transformers.

8) Interconnection diagrams.

9) Over fluxing withstand time characteristic of transformer.

10) GA drawing of marshalling box.

11) Control scheme/wiring diagram of marshalling box.

12) Technical leaflets of major components and fittings.

13) As built drawings of schematics, wiring diagram etc.

14) Setting of oil temperature indicator, winding temperature indicator.

15) Completed technical data sheets.

16) Details including write-up of tap changing gear.

17) HV conductor bushing.

18) Bushing Assembly.

- 19) Bi-metallic connector
- 20) GA of LV cable Box.
- 21) Radiator type assembly.
- 22) All drawings, documents, technical data sheets and test certificates, results calculations shall be furnished.

**19.1 Along with material Supply:**

- 1) Guarantee/Warranty Certificate
- 2) Pre-installation check sheet
- 3) Installation manual if any
- 4) Pre-commissioning check sheet

**20. Delivery:**

The full quantity of the equipment shall be delivered as per the delivery schedule appended to this specification.

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**Annexure II**

**TECHNICAL SPECIFICATIONS OF 800KVA 11KV/0.415KV TRANSFORMER.**

Supply, installation testing and commissioning of distribution transformer, capacity **800 KVA** step down, indoor floor mounting double copper wound core type 3 phase 50 Hz AC, oil immersed with "ONAN" type cooling with external cooling radiators having no load voltage ratio 11/0.415 KV, 3 phase 4 wire (corresponding to principal tapping) delta connected on primary side (HV incoming) and star connected on secondary side (secondary outgoing) in accordance with vector group symbol (DYN-11) conforming to IS 1180 (Part-1) 2014 **Level 1** and having off load tap changer in the steps of 2.5% on HT side to take care of voltage from (+) 5% to (-) 5% to give out put on 415 V secondary side and including indoor control panel and control cable complete of capacity **800 KVA** complete all as specified and as directed.

**Accessories -**

- (i) Oil conservator with oil fitting hole cap and drain plug.
- (ii) 01 No of prismatic oil level gauge mounted on conservator wall with first fill of charge upto maximum level.
- (iii) Silica gel dehydration breather with oil seal and with first of charge.
- (iv) Pressure release valve with automatic resetting arrangement after release pressure- 01 set
- (v) Adequate no of thermometer pocket including one thermometer
- (vi) Top oil filter valve
- (vii) Bottom oil filter cum drain valve
- (viii) Rating diagram and terminal marking plate
- (ix) Earthing terminal – 02 Nos (body earthing and neutral earthing shall be separate.)
- (x) Lifting lugs- 01 Set
- (xi) Jacking pads- 01 Set
- (xii) Under carriage with 04 Nos of plain rollers.
- (xiii) Air release plug on main transformer tank
- (xiv) Adequate Nos of cooling radiators
- (xv) 150 mm dial type winding temperature indicator with maximum read pointer and resetting device.
- (xvi) 150mm dial type oil temperature indicator with maximum read pointer and resetting device.
- (xvii) Double Buchholz with alarm and trip contracts and with 01 No of shut off device
- (xix) Cable boxes on HV and LV side
- (xx) Necessary wiring from trip terminals of Buchholz relay to control panel of HT switch gear.
- (xxi) Terminal box for alarm and trip contacts.
- (xxii) All transformer shall be separate neutral bushing shall be brought out for earthing. The extended neutral flat should be insulated with 11KV grade tap.

**DISTRIBUTION TRANSFORMER**

**1.0 SCOPE**

This specification covers the requirements of design, engineering, manufacture, and testing of oil filled distribution transformers.

**2.0 CODES AND STANDARDS**

The transformer shall comply with the requirements of latest edition of following standards unless specified otherwise:

IS: 335 Insulating Oil

IS 1271: Thermal Evaluation and Classification of Electrical Insulation

IS: 2026: Power Transformers

IS/IEC:60137: Insulated Bushings for Alternative voltages above 1000 V

IS: 2705: Current Transformers

IS: 3347: Dimension for Porcelain Transformer Bushings

IS: 3637: Gas Operated Relays

IS: 3639: Fitting & Accessories for Power Transformer

IS: 4201 Application Guide for CTs.

IS: 2026-7: Guide for Loading of Oil Immersed Transformers

OISD-RP-147 Inspection & Safe Practice During Electrical Installation

OISD-RP-149 Design Aspect for Safety in Electrical System

OISD-GDN-180 Lighting Protection

The transformer shall also conform to the provisions of Indian Electricity Rules and other statutory regulations currently in force in the country as regards safety, earthing and other essential provisions.

In case, Indian Standards are not available for any components, standards issued by IEC / BS / IEEE/ NFPA / NEMA or any other equivalent agency shall be acceptable.

**3.0 SITE CONDITIONS:**

Altitude: 121m

Minimum Temperature: 10-degree C

Maximum Temperature: 50Degree C

Relative Humidity: 40-95%

**4.0 GENERAL REQUIREMENTS**

The transformer shall be new with state-of-the-art technology and shall have proven field track record. No prototype equipment shall be acceptable. The transformer and its accessories required for completeness of the transformer, whether specifically mentioned or not, but considered essential for satisfactory performance shall be deemed to be included as a part of the offered transformer.

**5.0 DESIGN**

The transformers shall be designed for a lifetime of at least 25 years, while delivering rated output under the stated site conditions. It will be designed for

indoor applications. Manufacturer shall note that it is not the intent to specify all the details of the design and construction of the transformer herein. However, the transformer shall conform in all respect to high standards of engineering, design and workmanship and shall be capable of performing in continuous required functions, in a manner acceptable to OIL.

The transformer and accessories shall be designed to facilitate effective & trouble-free operation, inspection, maintenance and repairs. The design shall incorporate every precaution and provision for the safety of the transformer as well as staff engaged in operation and maintenance of equipment.

OIL's representative will interpret the meaning of drawings and specifications and shall have power to reject any work or materials which, in their judgement is not in accordance applicable standards.

All outdoor apparatus with their mountings, shall be designed so as to avoid any accumulation of water.

## **6.0 FABRICATION REQUIREMENTS**

The transformer tank shall be of welded sheet steel construction and provided with gasketed steel cover plates. Base shall be suitably reinforced to prevent any distortion during lifting. Base channels shall be provided with skids and pulling eyes to facilitate handling. Transformer tank shall be tested.

## **7.0 WINDING**

- a) The transformer shall have conventional type uniformly insulated windings. The coils used for transformer winding shall be made of paper insulated, continuous and smooth, electrolytic copper conductors of high conductivity and of 99.9% purity. Similar coils shall be connected by accessible joints brazed or welded and finished smooth. No corona discharge shall result on the winding during induced voltage test as specified in applicable standard.
- b) The insulating materials shall be of class-A type. Insulating material shall be of proven nature and shall be suitable for the limits indicated in applicable standards as well as the maximum possible winding temperature and shall not deteriorate when the transformer is operated continuously at its specified rating at the specified ambient temperature.
- c) The inter-turn and inter-coil insulation shall be so designed that the dielectric stress is uniformly distributed throughout the winding under all operating conditions.
- d) Windings shall be designed to withstand the applicable thermal and dynamic short circuit stresses and basic impulse insulation level shall not be lower than those specified in IS 2026 (Part-3)/ IS 11171.
- e) Full power tapping's shall be provided in the high voltage windings. The winding arrangement shall be Dyn11, unless otherwise stated.

## **8.0 TERMINAL AND MARSHALLING BOX**

- a) The Winding leads shall be brought out and terminated on cable boxes on both HV and LV sides.
- b) Cable boxes shall be supplied with cable lugs and glands.

- c) For XLPE power cable and control cables double compression cable glands and crimped type tinned copper or aluminium lugs shall be supplied. Gland plate shall be removable type. For single core cables, gland plate shall be of non-magnetic material. HV and LV cable box shall be suitable for termination of specified size of XLPE insulated cables. The head-room available between cable gland plate and terminals shall not be less than 600mm for cable up to 11 kV, and 900 mm for 33 kV cables.
- d) Cable box shall be weatherproof to IP-55 or higher. For the cable boxes, inspection cover shall be provided with lifting handle.
- e) Primary cable box shall be able to withstand specified primary system fault level for 0.20 secs.
- f) Marshalling box shall be from CRCA sheet steel of min 2.0mm thickness with toughened glass window in front of gauges. It shall be provided with hinged door and pad locking arrangement. Marshalling box shall be weatherproof to IP-55. All protective devices and neutral CTs shall be wired by means of PVC insulated copper conductor armoured FRLS outer sheath cables up to the marshalling box. Terminals shall be clamp type. Removable gland plate with double compression type glands shall be provided. A lamp along thermostatically controlled space heater with switch & socket shall be provided in the marshalling box. Preferably, marshalling box shall be located on the front side of transformer.
- g) A separate neutral bushing shall be provided for neutral earthing of transformers. The neutral CT shall be mounted before bifurcation of the neutral.
- h) Supporting arrangement for GI strip/cable as applicable shall be provided for connection of neutral bushing to earth/NGR.

#### **9.0 CORE AND FRAME EARTHING**

- a) All metal parts of the core, frame and tank shall be earthed.
- b) The transformer shall be provided with two earth terminals on the outside of the transformer mainframe or tank wall to an external grid. Each earth connection shall consist of a stainless-steel M-10 bolt with nuts and washers. Connections shall be located on opposite sides of the transformer preferably near the main cable boxes.
- c) All metallic components such as cable boxes and their internal earthing bars or studs shall be bonded to the transformer mainframe or tank.

#### **10.0 COOLING**

All cover and seals shall be oil and airtight and shall not be affected by mineral or synthetic oil action.

Detachable radiators (tank mounted) equipped with air vent, drain plug and lifting lugs shall be provided with Type of cooling shall be oil natural air natural (ONAN).

#### **11.0 OIL**

Transformer shall be supplied with first filling of oil and 20% extra oil in non-returnable drums. Oil shall conform to IS-335. The oil shall be filled under vacuum. It will be filtered and tested for break down voltage (BDV) and moisture

content before filling. The design and all materials and processes used in the manufacture of the transformer, shall be such as to reduce to a minimum the risk of the development of acidity in the oil.

## **12.0 ACCESSORIES**

The following accessories shall be provided as a minimum:

- a) Rating plate
- b) Terminal Marking plate
- c) Two earthing terminals
- d) De-hydrating breather
- e) Conservator
- f) Air release Device (for transformers with conservator)
- g) Oil filling hole with cover
- h) Oil Level indicator with minimum marking
- i) Thermometer pocket
- j) Dial type thermo meter with contacts for OTI & WTI
- k) Oil temperature indicator
- l) Winding temperature indicator
- m) Pressure relief valve
- n) Sampling valve
- o) Conservator drain valve, if applicable
- p) Top oil filter valve
- q) Drain cum bottom filter valve
- r) Buchholz relay
- s) Separate neutral bushing outside terminal box with connector assembly
- t) Inspection cover
- u) Terminal box( both HV and LV Side)
- v) Marshalling box (IP-55)
- w) Lifting lugs
- x) Jacking lugs
- y) Cross channels with towing lugs

Conservator shall be complete with oil filling plug and cap, oil drain valve, oil level gauge in addition to magnetic oil level gauge. A flexible oil resistance air bag shall be provided for conservator. Air bag shall be designed to withstand repeated expansion and contraction due to changes in oil level. Pressure relief valve (PRV) shall be provided with alarm contact. Thermometer pocket for thermometer shall be provided. Oil temperature indicator shall be 150 mm diameter dial type with two normally open contacts for tripping and alarm. It shall be provided with maximum reading pointer. Winding temperature indicator shall have normally open contacts one each for tripping and alarm. It shall be provided with maximum reading pointer. Contact rating of all auxiliary devices shall be 0.5A, 110V/220V DC. Size of valves for drain and filter valve shall be 25 mm and the size of sampling valve shall be 15 mm.

**13.0 Tapping**

These shall be provided on high voltage side and connected to off circuit tap changing gear. Under conditions of external short circuit, the tap changing equipment shall be capable of carrying the same current as the windings. Off circuit tap changing gear shall have an external operating handle mounted on the transformer and shall meet the following requirements:

- a) Positive snap-action contact changing in the range of +/-5% in steps of 2.5%
- b) The mechanism shall be such that it is impossible for the contacts to be set in a position whereby the windings remain open-circuited or partly short-circuited.
- c) Mechanical stops at the ends shall be provided to prevent overrun.
- d) The driving rod through cover or tank wall shall be properly sealed against oil leakage under all service conditions.
- e) The handle shall be metallic and the adequately sized in order to allow operation without the need of tools and be located in a conveniently accessible position.
- f) The handle shall be provided with padlock facilities to lock the tap changer in the desired position.
- g) Tap positions shall be clearly marked in line with the data given on the rating plate.

**14.0 NOISE**

Audible Noise level shall not exceed the limits indicated in CBIP manual.

**15.0 INSPECTION, TESTING AND ACCEPTANCE**

OIL's representative shall visit to manufacturer's works for pre-dispatch inspection to witness the routine test as per IS: 2026 and approved QAP other tests as agreed upon. These tests shall be performed on the complete assembly at manufacturer's works. Test certificates duly signed by owner's representative shall be issued as part of final document.

Dispatch clearance shall be provided upon satisfactory inspection of the transformers by Oil engineer-In-Charge or authorized representatives.

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**TECHNICAL SPECIFICATION OF 500KVA 11KV/0.415KV TRANSFORMER**

Supply, installation testing and commissioning of distribution transformer, capacity **500 KVA** step down, indoor floor mounting double copper wound core type 3 phase 50 Hz AC, oil immersed with “ONAN” type cooling with external cooling radiators having no load voltage ratio 11/0.415 KV, 3 phase 4 wire (corresponding to principal tapping) delta connected on primary side (HV incoming) and star connected on secondary side (secondary outgoing) in accordance with vector group symbol (DYN-11) conforming to IS 1180 (Part-1) 2014 **Level 1** and having off load tap changer in the steps of 2.5% on HT side to take care of voltage from (+) 5% to (-) 5% to give out put on 415 V secondary side and including indoor control panel and control cable complete of capacity **500 KVA** complete all as specified and as directed.

**Accessories –**

- (i) Oil conservator with oil fitting hole cap and drain plug.
- (ii) 01 No of prismatic oil level gauge mounted on conservator wall with first fill of charge upto maximum level.
- (iii) Silica gel dehydration breather with oil seal and with first of charge.
- (iv) Pressure release valve with automatic resetting arrangement after release pressure- 01 set
- (v) Adequate no of thermometer pocket including one thermometer
- (vi) Top oil filter valve
- (vii) Bottom oil filter cum drain valve
- (viii) Rating diagram and terminal marking plate
- (ix) Earthing terminal – 02 Nos (body earthing and neutral earthing shall be separate.)
- (x) Lifting lugs- 01 Set
- (xi) Jacking pads- 01 Set
- (xii) Under carriage with 04 Nos of plain rollers.
- (xiii) Air release plug on main transformer tank
- (xiv) Adequate Nos of cooling radiators
- (xv) 150 mm dial type winding temperature indicator with maximum read pointer and resetting device.
- (xvi) 150mm dial type oil temperature indicator with maximum read pointer and resetting device.
- (xvii) Double bucholz with alarm and trip contracts and
- (xix) Cable boxes on HV and LV side
- (xx) Necessary wiring from trip terminals of bucholz relay to control panel of HT switch gear.
- (xxi) Terminal box for alarm and trip contacts.
- (xxii) All transformer shall be separate neutral bushing shall be brought out for earthing. The extended neutral flat should be insulated with 11KV grade tap

**DISTRIBUTION TRANSFORMER:**

**1.0 SCOPE**

This specification covers the requirements of design, engineering, manufacture, and testing of oil filled distribution transformers.

**2.0 CODES AND STANDARDS**

The transformer shall comply with the requirements of latest edition of following standards unless specified otherwise:

IS: 335 Insulating Oil

IS 1271: Thermal Evaluation and Classification of Electrical Insulation

IS: 2026: Power Transformers

IS/IEC:60137 : Insulated Bushings for Alternative voltages above 1000 V

IS: 2705: Current Transformers

IS: 3347: Dimension for Porcelain Transformer Bushings

IS: 3637: Gas Operated Relays

IS: 3639: Fitting & Accessories for Power Transformer

IS: 4201 Application Guide for CTs.

IS: 2026-7: Guide for Loading of Oil Immersed Transformers

OISD-RP-147 Inspection & Safe Practice During Electrical Installation

OISD-RP-149 Design Aspect for Safety in Electrical System

OISD-GDN-180 Lighting Protection

The transformer shall also conform to the provisions of Indian Electricity Rules and other statutory regulations

currently in force in the country as regards safety, earthing and other essential provisions.

In case, Indian Standards are not available for any components, standards issued by IEC / BS / IEEE/ NFPA / NEMA or any other equivalent agency shall be acceptable.

**3.0 SITE CONDITIONS:**

Altitude: 121m

Minimum Temperature: 10-degree C

Maximum Temperature: 50 Degree C

Relative Humidity: 40-95%

**4.0 GENERAL REQUIREMENTS**

The transformer shall be new with state-of-the-art technology and shall have proven field track record. No prototype equipment shall be acceptable. The transformer and its accessories required for completeness of the transformer, whether specifically mentioned or not, but considered essential for satisfactory performance shall be deemed to be included as a part of the offered transformer.

**5.0 DESIGN**

The transformers shall be designed for a lifetime of at least 25 years, while delivering rated output under the site conditions. It will be designed for indoor applications. Manufacturer shall note that it is not the intent to specify all the details of the design and construction of the transformer herein. However, the

transformer shall conform in all respect to high standards of engineering, design and workmanship and shall be capable of performing in continuous required functions, in a manner acceptable to OIL.

The transformer and accessories shall be designed to facilitate effective & trouble-free operation, inspection, maintenance and repairs. The design shall incorporate every precaution and provision for the safety of the transformer as well as staff engaged in operation and maintenance of equipment.

OIL's representative will interpret the meaning of drawings and specifications and shall have power to reject any work or materials which, in his judgement is not in accordance applicable standards.

All outdoor apparatus with their mountings, shall be designed so as to avoid any accumulation of water.

#### **6.0 FABRICATION REQUIREMENTS**

The transformer tank shall be of welded sheet steel construction and provided with gasketed steel cover plates. Base shall be suitably reinforced to prevent any distortion during lifting. Base channels shall be provided with skids and pulling eyes to facilitate handling. Transformer tank shall be tested.

#### **7.0 WINDING**

- a) The transformer shall have conventional type uniformly insulated windings. The coils used for transformer winding shall be made of paper insulated, continuous and smooth, electrolytic copper conductors of high conductivity and of 99.9% purity. Similar coils shall be connected by accessible joints brazed or welded and finished smooth. No corona discharge shall result on the winding during induced voltage test as specified in applicable standard.
- b) The insulating materials shall be of class-A type. Insulating material shall be of proven nature and shall be suitable for the limits indicated in applicable standards as well as the maximum possible winding temperature and shall not deteriorate when the transformer is operated continuously at its specified rating at the specified ambient temperature.
- c) The inter-turn and inter-coil insulation shall be so designed that the dielectric stress is uniformly distributed throughout the winding under all operating conditions.
- d) Windings shall be designed to withstand the applicable thermal and dynamic short circuit stresses and basic impulse insulation level shall not be lower than those specified in IS 2026 (Part-3)/ IS 11171.
- e) Full power tapping's shall be provided in the high voltage windings. The winding arrangement shall be Dyn11.

#### **8.0 TERMINAL AND MARSHALLING BOX**

- a) The Winding leads shall be brought out and terminated on cable boxes on both HV and LV sides.
- b) Cable boxes shall be supplied with cable lugs and glands.
- c) For XLPE power cable and control cables double compression cable glands and crimped type tinned copper or aluminum lugs shall be supplied. Gland plate shall be removable type. For single core cables, gland plate shall be of non-magnetic material. HV and LV cable boxes shall be suitable for termination of

specified size of XLPE insulated cables. The head-room available between cable gland plate and terminals shall not be less than 600mm for cable up to 11 kV, and 900 mm for 33 kV cables.

- d) Cable boxes shall be weatherproof to IP-55. For the cable box, inspection cover shall be provided with lifting handle.
- e) Primary cable box (where applicable) shall be able to withstand specified primary system fault level for 0.20 secs.
- f) Marshalling box shall be from CRCA sheet steel of min 2.0mm thickness with toughened glass window in front of gauges. It shall be provided with hinged door and pad locking arrangement. Marshalling box shall be weatherproof to IP-55. All protective devices and neutral CTs shall be wired by means of PVC insulated copper conductor armoured FRLS outer sheath cables up to the marshalling box. Terminals shall be clamp type. Removable gland plate with double compression type glands shall be provided. A lamp along thermostatically controlled space heater with switch & socket shall be provided in the marshalling box. Preferably, marshalling box shall be located on the front side of transformer.
- g) A separate neutral bushing shall be provided for neutral earthing of transformers. The neutral CT shall be mounted before bifurcation of the neutral.
- h) Supporting arrangement for GI strip/cable as applicable shall be provided for connection of neutral bushing to earth/NGR.

#### **9.0 CORE AND FRAME EARTHING**

- a) All metal parts of the core, frame and tank shall be earthed.
- b) The transformer shall be provided with two earth terminals on the outside of the transformer mainframe or tank wall to an external grid. Each earth connection shall consist of a stainless-steel M-10 bolt with nuts and washers. Connections shall be located on opposite sides of the transformer preferably near the main cable boxes.
- c) All metallic components such as cable boxes and their internal earthing bars or studs shall be bonded to the transformer mainframe or tank.

#### **10.0 COOLING**

- a) All cover and seals shall be oil and airtight and shall not be affected by mineral or synthetic oil action.
- b) Detachable radiators (tank mounted) equipped with air vent, drain plug and lifting lugs shall be provided with Type of cooling shall be oil natural air natural (ONAN).

#### **11.0 OIL**

Transformer shall be supplied with first filling of oil and 20% extra oil in non-returnable drums. Oil shall conform to IS-335. The oil shall be filled under vacuum. It will be filtered and tested for break down voltage (BDV) and moisture content before filling. The design and all materials and processes used in the manufacture of the transformer, shall be such as to reduce to a minimum the risk of the development of acidity in the oil.

## **12.0 ACCESSORIES**

The following accessories shall be provided as a minimum:

- a) Rating plate
- b) Terminal Marking plate
- c) Two earthing terminals
- d) De-hydrating breather
- e) Conservator
- f) Air release Device (for transformers with conservator)
- g) Oil filling hole with cover
- h) Oil Level indicator with minimum marking
- i) Thermometer pocket
- j) Dial type thermo meter with contacts for OTI & WTI
- k) Oil temperature indicator
- l) Winding temperature indicator
- m) Pressure relief valve
- n) Sampling valve
- o) Conservator drain valve, if applicable
- p) Top oil filter valve
- q) Drain cum bottom filter valve
- r) Buchholz relay, if applicable
- s) Separate neutral bushing outside terminal box with connector assembly
- t) Inspection cover
- u) Terminal box.
- v) Marshalling box (IP-55)
- w) Lifting lugs
- x) Jacking lugs
- y) Cross channels with towing lugs

Conservator shall be complete with oil filling plug and cap, oil drain valve, oil level gauge in addition to magnetic oil level gauge. A flexible oil resistance air bag shall be provided for conservator. Air bag shall be designed to withstand repeated expansion and contraction due to changes in oil level. Pressure relief valve (PRV) shall be provided with alarm contact. Thermometer pocket for thermometer shall be provided. Oil temperature indicator shall be 150 mm diameter dial type with two normally open contacts for tripping and alarm. It shall be provided with maximum reading pointer. Winding temperature indicator shall have normally open contacts one each for tripping, alarm and starting/stopping of cooling fan motors. It shall be provided with maximum reading pointer. Contact rating of all auxiliary devices shall be 0.5A, 110V/220V DC. Size of valves for drain and filter valve shall be 25 mm and the size of sampling valve shall be 15 mm.

## **13.0 TAPPING**

These shall be provided on high voltage side and connected to off circuit tap changing gear. Under conditions of external short circuit, the tap changing equipment shall be capable of carrying the same current as the windings. Off

circuit tap changing gear shall have an external operating handle mounted on the transformer and shall meet the following requirements:

- a) Positive snap-action contact changing in the range of +/-5% in steps of 2.5%
- b) The mechanism shall be such that it is impossible for the contacts to be set in a position whereby the windings remain open-circuited or partly short-circuited.
- c) Mechanical stops at the ends shall be provided to prevent overrun.
- d) The driving rod through cover or tank wall shall be properly sealed against oil leakage under all service conditions.
- e) The handle shall be metallic and the adequately sized in order to allow operation without the need of tools and be located in a conveniently accessible position.
- f) The handle shall be provided with padlock facilities to lock the tap changer in the desired position.
- g) Tap positions shall be clearly marked in line with the data given on the rating plate.

**14.0 NOISE**

Audible Noise level shall not exceed the limits indicated in CBIP manual.

**15.0 INSPECTION, TESTING AND ACCEPTANCE**

OIL's representative shall visit to manufacturer's works for pre-dispatch inspection to witness the routine test as per IS: 2026 and approved QAP other tests as agreed upon. These tests shall be performed on the complete assembly at manufacturer's works. Test certificates duly signed by owner's representative shall be issued as part of final document.

Dispatch clearance shall be provided upon satisfactory inspection of the transformers by Oil engineer-In-Charge or authorized representatives.

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**Technical Specification – Air Insulated Switchgear - 11kV.**

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**1.0 Scope:**

This specification covers the design, manufacturing, testing, packing and supply of Medium Voltage Indoor Air Insulated drawout type switchgear panels upto 12kV, with Vacuum Circuit Breaker.

The switchboard shall be totally enclosed, indoor, metal clad, single front, single busbar of fully compartmentalized construction comprising of a row of free standing, floor mounted panels. Each circuit shall have a separate vertical panel with distinct compartments for circuit breaker, main bus bars, cable compartment and low voltage compartment. Each compartment of the individual cubicles shall be segregated by metal partitions. Cubicles should be type tested for internal arc in all three HT compartments for 40kA for 1sec A-FLR (All sides, Front, Lateral and Rear) - as per IEC 62271-200

The Switchgear Panels, breaker and vacuum interrupter and numerical relay shall be of same make only.

Please note that switchgear panels must be procured exclusively from the OEM and not from any independent service providers (ISP)/ Channel partners/ authorized manufacturer.

**2.0 Codes and Standards:**

The switchgear shall be manufactured and tested in line with the latest revisions of the following International Standards:

- 2.1 IEC 62271-100 :- High voltage alternating current Circuit Breakers.
- 2.2 IEC 62271-200 :- AC Metal enclosed Switchgear and Controlgear for rated voltages above 1kV and upto & including 52kV.
- 2.3 IEC 62271-1 :- International Standard :- Common specification for High Voltage Switchgear and Control gear standards.
- 2.4 IEC 60071-1 :- Insulation coordination for equipment in three phase systems above 1kV.
- 2.5 IEC 60529 : Degrees of protection provided by enclosures (IP Code)
- 2.6 IEC 61869 - 2 : Current Transformers.
- 2.7 IEC 61869 – 3 : Voltage Transformers.
- 2.8 IEC 62052 : Electrical indicating instruments.
- 2.9 IEC 60255-1 : Electrical Relays for power system protection.
- 2.10 IEC 60721-3 : Classification of environmental conditions.
- 2.11 IEC 61243-5 : Voltage detecting systems
- 2.12 IEC 62271-210 : Seismic Qualification
- 2.13 IEC 60099-6 : Surge Arrestors

**3.0 Site Conditions :**

The switchgear and control gear shall be suitable for continuous operation under the basic service conditions as indicated below :

Ambient Temperature : +10 to + 50 Deg C

Altitude of installation : 121 m

Relative Humidity : 40-95%

Design Ambient Temperature : 40 Deg C

**4.0 Enclosure and Mechanical Construction:**

- 4.1 The switchgear shall be metal clad and shall be made of standard pre-fabricated cold rolled sheet steel units assembled (bolted) to form a rigid, free standing structure. The material used for sheet metal shall be CRCA – Grade D as per IS 513(From reputed manufacturers like Tata Steel, JSW, Essar Steel etc) with robust surface finish, having lower strain hardening coefficient and improved planar anisotropy (improved drawability). The

switchgear structure having CRCA sheets shall be powder coated (inside and outside) providing optimal surface protection with long life properties enabling easy maintenance and cleaning. The sheet metal shall be pre-treated using 7-Tank process and then epoxy powder coated with paint shade of RAL 7035. Thickness of paint shall be at least 80 micron average. The minimum sheet metal thickness for different parts of the panel shall be as follows :

Frame - 2mm  
High Voltage Door - 2.5mm  
Low Voltage Door - 2mm  
Pressure release flaps - 1mm  
Partitions between compartments - 2mm  
Partitions wall between panels - 2mm  
Ground Plate - 2mm MS  
Rear Side cover plates - 2mm  
End wall - 2mm

In case of Internal Arc, gases shall always pass from the top of the panel.

Hence, the explosion flap located at the top of the switchgear should be designed using steel sheets of suitable thickness. This acts as a pressure relief system to allow safe and controlled passage of hot gases in the event of an internal arc in any chamber. Therefore, top sheets should preferably be 1 mm to allow the passage of gases easily.

Wherever single core cables are used, the detachable gland plates shall be made of Aluminium sheet.

- 4.2 Partitioning – The Switchgear shall be fully compartmentalized by metal partitions. Metal shutters and partitions between live parts and open compartment (Metal-enclosed condition maintained) shall comply to partition class PM.
- 4.3 Service continuity – Whenever an accessible compartment of the switchgear is opened, the incoming cable, the busbar and the adjacent switchgear panels shall remain in operation. The Switchgear shall comply to loss of service continuity category LSC-2B.
- 4.4 Degree of protection - The switchgear shall be totally enclosed and vermin proof. The switchgear panel shall have minimum degree of protection IP4X for complete enclosure. If necessary, openings for natural ventilation such as louvers and ventilation box shall be provided with a wire mesh(less than 1mm) on the inside.
- 4.5 Mimic - Mechanical Mimic shall be provided on the front of the circuit breaker door. Mimic shall be able to indicate the mechanical(Test/Service) position of the VCB by means of direct mechanical linkage of the true position with the inside mechanism. There should not be any use of electrical limit switches to achieve the same. Vertical position on the Mimic

shall indicate VCB in service position and Horizontal position on the Mimic shall indicate VCB in test position. If Earth Switch is provided, Mimic shall be able to indicate Earth Switch ON/OFF position mechanically.

- 4.6 The switchgear shall be designed for single busbar system and fully inter-compartmentalized by means of metal sheets to sub-divide each panel as per below :
- Busbar Compartment
  - Low Voltage compartment
  - Circuit Breaker compartment
  - Potential Transformer Compartment (Withdrawable)
  - Cable Compartment
  - Pressure Relief Compartment (Only in case of Internal Arc 1 Sec)
  - Absorber assembly on selected panels (Only in case of Internal Arc 1 Sec)

All these compartments shall be segregated from each other by means of earthed metallic sheet without any perforations.

Rear covers, side covers shall be bolted to the frame and the front doors shall be hinged.

- 4.7 The complete switchgear shall be designed with full consideration for the safety of the operating person in the event of an internal arc. The panels shall be fully type tested for Internal Arc 40kA for 1 Sec IAC (Internal Arc Classification) AFLR for all High Voltage compartments. In case of internal arc, the gases and pressure shall be released to the atmosphere through an arc absorber via pressure relief chamber. The design of the absorber shall be such that the gases are directed over and above the switchgear thus ensuring the safety of operators and equipment in the near vicinity of the switchgear. Switchgear design shall also ensure that there shall be minimal penetration of hot gases between the compartments within a panel to limit the damage and restoration time. Panels shall be suitable to withstand IAC of rating equal to full short circuit level of switchboard.
- 4.8 It shall be possible to extend the switchgear in either direction in the future date.
- 4.9 All hardware shall be of zinc passivated with EHS (Environmental, Health & safety) compliance (Cr-VI free), high quality, high tensile steel (Grade 8.8).
- 4.10 Accessibility of Compartments:

Busbar Compartment – Busbar compartment shall always be accessible from Top whenever maintenance is required. Access to busbar compartment shall always be tool based when busbars are dead.

Breaker Compartment – Access to the breaker compartment shall be controlled by integral design of the switchgear. Same shall be accessible only if all mechanical interlocks are complied.

Cable Compartment – Access to Cable compartment shall always be tool based. Solenoid based interlocking shall be provided which shall allow opening of rear cover only when main cables are dead and/or VCB is in test position. Alternatively, electrical interlock can be provided to ensure that breaker is tripped if the rear cover is opened when VCB is in Service position.

- 4.11 Viewing Inspection window shall be provided on front High voltage door to view the ON-OFF Indicator, Closing Spring charge Indicator, Operation counter. Also viewing inspection window shall be provided on rear cable compartment cover. Panel shall be fully type tested for IAC with Inspection window.
- 4.12 Lifting handle shall be inbuilt on rear cable compartment cover.
- 4.13 The panel shall be suitable for mounting directly on the finished/levelled floor.
- 4.14 High voltage door shall be provided with sliding handle arrangement for ease of opening of the door.

**5.0 Main Busbar compartment, connections, supports and busbar design :**

- 5.1 The switchgear shall comprise of 3 phase busbars, which shall extend through all the units of the switchgear line up. All phases of busbars shall be of uniform cross section throughout the switchgear and shall be sized to carry continuously a current of 1250 A.
- 5.2 Busbar shall be of flat profile. Shape of busbars shall be same for all ratings. Busbars shall not have any sharp edges. The Sharp edges of busbars shall be rounded. The busbars shall be joined between panels using bolted joint. High tensile M12 bolts and nuts of property class 8.8 to be used with Belleville(conical) washers.
- 5.3 The bus-bars shall be located in a separate metal clad chamber and shall be completely air insulated. Panels shall be completely type tested for full Basic Insulation level and rated current(Temperature Rise test) primarily with air insulation only. No other insulation like sleeving to be considered for type testing of panels.
- 5.4 Busbar shall be made of electrolytic Copper. For Copper, it should be of ETP grade, with full hard properties. The conductivity of the copper busbars at 20 DegC shall be 97-99%.
- 5.5 For easy identification and handling of Busbars at site, loose busbars shall be dispatched mounted on side of the breaker compartment of individual panel. Separate box of loose busbars shall not be acceptable.
- 5.6 Phase identification in busbar compartment shall be done with polyester stickers pasted at suitable locations. Phase sequence shall be R-Y-B from left to right looking from front of the panel.

- 5.7 Ventilation boxes for cooling busbar system shall be provided, if required. Panels shall be completely type tested for required degree of protection IP4X even with ventilation boxes.
- 5.8 The clearance between the live busbar and the nearest earth partition/ member shall be suitably arranged so as to withstand the 1-minute power frequency withstand voltage and impulse withstand voltage as specified in IEC-62271-1. However, switchgear shall be type tested for dielectric of 1 2kV/28kV/75kVp without any insulation on busbars.
- 5.8 Busbars shall not require any additional bus supporting insulators/bushings while passing between the panels.

**6.0 Breaker Compartment, Vacuum Circuit Breakers:**

- 6.1 The offered switchgear panel shall be with horizontal isolation and horizontal drawout vacuum circuit breaker. The circuit breaker shall be of cassette type design. Minimum 2 no. circuit breaker transport trolleys per width (for interchangeability) required for movement of cassette breaker outside the compartment shall be provided for each switchboard. All the operations of the switching device shall be with front door closed only.
- 6.2 The breaker terminals shall be fitted with contact arms and movement between test/service position shall be behind closed doors using a hand crank. No open door operation shall be allowed. Breakers shall be provided with Tulip contacts which shall ensure solid engagement and less contact resistance.
- 6.3 The breaker shall have three distinct positions :
- a. Service Position : Where both auxiliary and power circuit are connected.
  - b. Test Position : Where Auxiliary circuit is connected and Power circuit is disconnected.
  - c. Isolated Position : Where both auxiliary and power circuit are disconnected.
- 6.4 In test/disconnected position of the breaker, it shall be easy to isolate circuit breaker compartment from other compartments. The other compartments can remain live while maintenance or other kind of work can be carried out in circuit breaker compartment. The opening for isolating contacts shall be closed by means of positively driven metallic safety shutters. The movement of these shutters shall be interlocked mechanically with the movement of the withdrawable unit so that these will open only when the movement of the withdrawable unit is from test to service and shall close the respective opening when the movement of the withdrawable unit is from service to test position. These positively driven safety shutters shall be individual for cable and busbar openings. Both shutters shall be operable independently as well as shall be padlock able separately. It should not be possible to operate these shutters manually. Shutters shall be operable by breaker movement or with the help of dedicated tool.

Suitable identification/caution labels shall be provided on these safety shutters.

- 6.5 Ventilation boxes for cooling breaker contact system shall be provided, if required. Also compartment door shall be provided with louvers. Panels shall be completely type tested for required degree of protection IP4X even with ventilation boxes and louvers.
- 6.6 Space heater shall be mounted as per design standards. Minimum rating of Space heaters shall be 100 watts. Protection cover shall be provided on space heater to avoid any accidental touch.
- 6.7 Each circuit breaker shall be provided with following accessories :
  - a) Shunt trip coil suitable for operation between 70% - 110% of rated voltage. Approximate power consumption of trip coil shall vary between 140 Watts – 300 Watts. Tripping time shall be less than 75ms.
  - b) Closing coil suitable for operation between 85% - 110% of rated voltage. Approximate power consumption of closing coil shall vary between 140 Watts – 370 Watts. Closing time shall be less than 60 ms.
  - c) Spring charging motor suitable for operation between 90% - 110% of rated control voltage. Motor shall be a universal motor. Spring charging time shall be less than 15 Sec. Provision for manual Spring charging shall also be provided in test as well as service position. During manual spring charging operation, if electrical supply is restored, then spring charging handle shall be decoupled automatically ensuring operators safety.
  - d) Inbuilt Anti pumping device.
  - e) Mechanical ON/OFF Indicators for indicating status of breaker.
  - f) Mechanical ON/OFF push buttons with pad locking facility for manual operation of breaker.
  - g) Operation counter for counting the operations of the breaker.
  - h) Breaker status auxiliary Switch having 11 NO + 11 NC contacts.
  - i) Breaker position limit switch with 4NO at test position and 4NO at service position.
  - j) Mechanical Test/Service indicator on withdrawable unit for indicating position of breaker. Same shall be indicated through mechanical mimic provided on high voltage door.
- 6.8 Circuit breaker shall comply to Electrical Endurance – E2 class, Mechanical Operations - M2 class, Capacitive Switching duty - C2 class in conformance to IEC 62271-100.
- 6.9 Circuit breaker operating duty shall be 0 – 0.3Sec – CO – 3 min – CO.
- 6.10 DC component at rated short circuit breaking current for circuit breaker offered shall be 50% upto STC of 31.5kA and 36% for STC of 40kA.
- 6.11 Following minimum safety interlocks shall be provided so as to achieve maximum operating personnel safety :

- It shall not be possible to rack out the withdrawable Vacuum Circuit Breaker from Service to Test position when the breaker is in 'ON' condition. Similarly, it shall not be possible to rack in the breaker from Test to Service position, if the Vacuum Circuit Breaker is in 'ON' condition.
- Any attempt to rack out Circuit Breaker from Service to Test position will not result in switching OFF of the Circuit Breaker instead the breaker Service position will be locked till VCB is 'ON'.
- It will not be possible to rack in or rack out/operate Vacuum Circuit Breaker when the front high voltage door is open.
- High voltage door opening shall only be possible when breaker is locked in test position.
- Breaker can be switched ON or OFF only when the breaker is locked in either test or service position.
- Double bit key shall be removed only when breaker is locked in test or service position.
- High voltage door shall not be able to close unless low voltage control plug is connected.
- It will not be possible to rack in the Vacuum Circuit Breaker from test to service position when the low voltage control plug is not connected.
- When earthing trucks are provided for cable and bus earthing, same shall have necessary electrical interlocks during insertion inside panel. For eg, while inserting cable earthing truck inside incomer feeder, upstream breaker shall always be in 'Test' position. While inserting Bus earthing truck in BusPT panel, all incoming sources on that bus shall be in 'Test' position.

**7.0 Cable compartment, connections:**

7.1 The Cable compartment shall accommodate following equipments :

- a) Bushings with mating contacts for lower contact arms of withdrawable part.
- b) Current Transformers
- c) Cable Termination bars
- d) Inter-panel Main earth busbar
- e) Space heater
- f) Cable supports

7.2 The current transformers shall be mounted in compartment in the upside-down position using CT mounting fixture.

- 7.3 Phase identification labels shall be placed on cable termination bars for easy identification.
- 7.4 Space heater shall be mounted as per design standards. Minimum rating of Space heaters shall be 100 watts. Protection cover shall be provided on space heater to avoid any accidental touch.
- 7.5 Ample space / termination height shall be provided in the cable chamber so as to terminate 3 core 240 sqmm. XLPE Aluminium armoured cable. Cable termination height from gland plate to cable terminations shall be minimum 580mm suitable for mounting 11kV(UE) cables comfortably without any cable pan.
- 7.6 Earth busbar extension shall be provided for direct continuous earth throughout the switchboard.
- 7.7 Wherever applicable, cable compartment shall be suitable for mounting the Surge arrestors, Core balance current transformers, Capacitive Voltage detection.
- 7.8 The incomer as well as outgoing power connections shall be through XLPE cables and shall be accessible from rear bottom. The power as well as control cable shall enter the switchgear panel from the bottom.
- 7.9 Split type detachable undrilled gland plates of minimum 2mm Mild steel shall be provided for cables at bottom of the panel. In case of single core cables, the gland plate shall be of non magnetic material.
- 7.10 There shall be an inspection window at the rear back cover enabling operator to have visual inspection of power cable connections without opening rear cover in live condition. Viewing window at the rear side shall have internal arc withstand capability.
- 7.11 Maximum 3 runs x 3 core x 400sqmm cable arrangement shall be possible in standard panel depth.

**8.0 Instrument Transformers:**

The Instrument transformers shall be used for measurement of electrical quantities like voltage, current, power, used with protection relays for protection of power system. Instrument transformer shall be of two types :

1. Current Transformer
2. Potential Transformer

**8.1 Current Transformer –**

- a) Current transformer shall be epoxy cast resin insulated.
- b) Current transformer shall conform to IEC 61869-2
- c) Insulation class for current transformer shall be class E or better.
- d) Current transformer shall be multi core used for metering and protection respectively.

- e) Current transformer shall have minimum burden of 5VA for both the cores.
- f) Current transformer secondary current shall be 1A/5A.
- g) Primary rating of current transformer shall be 400-200 A.
- h) Accuracy class for metering core shall be class 1.0 and for protection core shall be 5P10.
- i) Current transformer shall be rated for full short circuit current for 3 Sec.

#### 8.2 Potential Transformer –

- a) Potential transformer shall be epoxy cast resin insulated.
- b) Potential transformer shall conform to IEC 61869-3
- c) Insulation class for potential transformer shall be class E or better.
- d) Potential transformer shall be dual core. Core 1 for metering and protection, Core 2 for Open Delta connection which damps the ferro resonance effect.
- e) Potential transformer shall have minimum burden of 50VA for both the cores.
- f) Potential transformer secondary voltage shall be  $110V/\sqrt{3}$  for Core 1 and shall be  $110V/3$  for Core 2.
- g) Primary rating of potential transformer shall be 11000 V.
- h) Minimum accuracy class for core 1 shall be 1.0/3P and core 2 shall be 3P(Open Delta).
- i) The bus as well as line voltage transformer shall be in single pole version. 3 nos. single phase PT shall be used along with suitable primary fuse.
- j) Both Line PT and Bus PT shall be drawout type.
- k) Line Potential transformer : Line PT shall be provided in separate compartment below breaker compartment. Same shall be drawout from front. Withdrawable PTs shall be provided with shutters and bushing to cables. PT movement shall be completely independent of breaker movement to ensure PT maintenance without disturbing the breaker. Top mounted PTs shall not be acceptable.
- l) Bus potential transformer : Bus PT shall be provided in separate BusPT panel or adaptor panel(If buscoupler is considered). Same shall be drawout from front.
- m) Rated voltage factor for potential transformer shall be 1.2 continuous & 1.9 for 30 seconds.

### **9.0 Low Voltage Compartment**

9.1 The Low voltage compartment shall house following equipments :

- a) Flush Mounted Equipments on Low voltage door - Numerical relays, Metering devices, Switches, Indication lamps, Push buttons.
- b) Equipment mounted inside Low voltage compartment – Auxiliary contactor, MCBs, Fuses, terminal blocks, Metrosils, Damping resistors.

c) Control and auxiliary wiring

9.2 The low voltage compartment height shall vary depending upon the number of equipment to be mounted and wired. Height of the low voltage compartment shall be uniform for complete switchgear.

9.3 Wiring - Inside the cubicles, the wiring for control, signalling, protection and instrument circuits shall be done with flexible PVC insulated conductors of insulation grade 1100V. Minimum wire sizes with colour indication shall be as follows :

Current Transformer – 2.5sqmm , Respective phase colour

Potential Transformer – 1.5sqmm, Respective phase colour

Control and Protection – 1.5sqmm, Grey

Control Plug – 1sqmm, Grey

Bus Wires - DC – 2.5sqmm, Grey

AC Circuit – 2.5sqmm, Red and Black

Earth – 2.5sqmm, Green-Yellow or Green

Rs 485 Looping – 1.5sqmm, 3 core insulated shielded cable

9.4 Tubular type white coloured printed ferrules with black lettering as per local dependent end marking shall be provided on both end of the wiring.

9.5 More than two wires shall not be terminated onto a single terminal.

9.6 All wires travelling from High Voltage compartment devices to Low Voltage compartments shall be enclosed in an earthed metal enclosed flexible conduit or earthed metal duct.

9.7 Wiring to Low Voltage compartments of neighboring panels shall be tied in a common loop utilizing cable ties and shall run at upper part of Low Voltage compartment, travelling between compartments in purpose built cut-outs in sidewalls, fitted with edge protection as they pass through sidewalls.

9.8 All inter-panel control wiring including wiring within the same shipping section shall be done by the manufacturer. For different shipping sections, wires in rolls of the required length shall be provided.

9.9 Terminals – Following type of terminals shall be provided for connection of different circuits. Terminals shall be polyamide type

Current Transformer – Disconnecting Shorting type – Screw/Stud type – with Ring lug

Potential Transformer, Control and protection, Control Plug, AC circuit – Through type – Screw/Push type – With Pin lug

Buswires, Earth – Through type – Screw/Push type – With Pin/Ring lug

9.10 External Labels to identify equipment or devices shall be manufactured from two ply laminate with black letters engraved on white background. They shall be fitted to door using rivets.

- 9.12 Devices mounted inside LV compartment shall be identified by their function number with self adhesive yellow labels with black lettering affixed to fixed part of enclosure.
- 9.13 Devices mounted on LV compartment door shall be identified from inside by their function number with self adhesive yellow labels with black lettering fixed to door immediately near device. Function number marking shall be done on equipment as well.
- 9.14 Connection of Low Voltage compartment to earth shall be made by frame of the panel. No separate wire shall be installed to make this connection. A terminal strip shall be installed within LV compartment to make a common connection of earth to frame. Where devices are mounted on door and electrical connections are made to these devices then door shall be bonded to frame using a 6 sqmm wire conductor. Earth connections to individual earth points on relays and meters etc shall be made from this point via 2.5sqmm green/yellow cables.
- 9.15 Panel rating nameplate shall be provided inside Low voltage compartment.
- 9.16 Indicating Instruments -
- a) All indicating meters shall be digital, flush mounted on panel front. The instruments shall be of at least 96 mm square size, and shall have an accuracy class of 1.0 or better. The covers and cases of instruments and meters shall provide a dust and vermin proof construction.
  - b) Multifunction meter shall be Microprocessor based communicable composite meters with RS485 port & Modbus protocol for downloading on serial communication to PC/HMI (Currents, Voltages, frequency, power factor, kWh, kVARH, kVAH) and conform to accuracy class. Meters shall be suitable for PT secondary of 110V (line) and CT secondary of 1/5A.
- 9.17 Control switches :
- a) Breaker Control Switch – TNC Switch – Switch shall be 4 ways, Spring return type, with pistol grip handle, having three position with inscription TRIP-NORMAL-CLOSE in clockwise sequence. Switch shall have 2 NO contacts in close and 2 NO contacts in trip. Switch shall be non-lockable and flush mounted.
  - b) Local/Remote Switch – Switch shall be rotary type, open execution flush back of panel, having two positions Local and Remote. Switch shall have 2 poles. Switch shall be lockable and flush mounted.
- 9.18 Push Buttons :
- Push-buttons shall be of spring return, push to actuate type. All push-buttons shall have one normally open and one normally closed contact, unless specified otherwise.

9.19 Indicating Lamps :

Indicating lamps shall be of the panel mounting LED type. Lamps shall have translucent lamp-covers. Lamps shall be easily replaceable from the front of the cubicle. Indicating lamps shall have colour coding as per below :

Breaker ON – Red  
Breaker OFF – Green  
Master Trip Operated – Amber  
Trip Circuit Healthy – White  
Spring Charged - Blue

9.20 Illumination Lamp :

240V AC LED Lamp with minimum 3W rating shall be provided with mounting provision.

9.21 Plug and Socket:

6/16A plug and socket suitable for 240V AC, 4 in 1 with inbuilt MCB shall be provided.

**10.0 Relays and Protection:**

10.1 Numerical Relay:

Following features shall be included in numerical relay:

- **Construction:** The relay shall be draw out type and shall ensure that CT circuits remain short circuited when relay is withdrawn. The rear terminal blocks shall comprise M4 female terminals for ring crimp wire connections, to provide a secure and reliable termination. Relay shall have SLD based graphical LCD Display.
- **LEDs:** Relay shall have 15 user programmable TRI color self / hand reset LEDs allowing for clear indication of associated functions state and shall have label insert for user defined text labelling.
- **Auxiliary Power Supply:** Relay shall be suitable for universal aux supply from 24 VDC to 250 VDC / 100-230 VAC.
- **Current Inputs:** relay shall have site selectable 1A/5A current inputs. Relay shall have optional Sensitive current input for sensitive E/F protection. i.e 4CT configured as 3PF + EF or 3PF + SEF/REF.
- **Voltage Inputs:** Relay shall have 4 nos of PT inputs for voltage measurement. Shall have phase to phase & Phase to neutral voltage measurement.(Applicable for Incomer & Buscoupler feeder only)
- **Binary Inputs:** Relay shall have up to 18 binary inputs with individual pick up and drop out times. It shall be possible to invert BI for user specific application.
- **Binary Outputs:** relay shall have up to 8 binary outputs which shall be configured as self-reset / pulsed output or latched output.

- **Communication Interfaces:** The relay shall offer a USB serial port as standard on the front of all units. All of the relays functions can be set on a PC using suitable software via the USB port. The connection is made with a USB cable and operates with a 'plug and play' connection, so no pre-setting of the relay is required. The relay shall support user selectable communications protocols DNP3.0, MODBUS-RTU, IEC60870-5-103 with RS485 connection possibility and shall also support IEC61850 protocol with either electrical or optical redundant ports. Relay with IEC61850 ports shall support site selectable HSR / PRP (parallel Redundancy Protocol).
- A compatible laptop with licensed software for the relay operation along with USB serial cable for communication to be provided.
- Operating and evaluation software: it shall be possible to do settings, interrogate settings, retrieve events and disturbance waveforms, view measurements using windows-based software tool. The parameterization tool shall provide functions for simple and fast commissioning, e.g. for the testing of binary inputs and outputs or of the communication interface. Furthermore, it shall be possible to initiate test fault records for commissioning purposes.
- Password Protection: Relay shall have 2 level Password Protection: One for setting and other for control.

**Monitoring Functions:**

- Sequence of event records: Up to 2000 events shall be stored and time tagged to 1ms resolution.
- Fault Records: The last 100 fault records shall be displayed on the relay fascia and shall also available through the communication interface, with time and date of trip, measured quantities and type of fault.
- Waveform recorder: The waveform recorder shall store analogue data for all poles and the states of protection functions, binary inputs, LEDs and binary outputs with user settable pre & post trigger data. A record can be triggered from protection function, binary input or via data communications. 20 records of 5 second duration shall be stored.
- Demand Metering: A rolling record of demand over the last 24h shall be stored. The demand shall be averaged over a user selectable period of time. A rolling record of such demand averages is stored and provides the demand history. A typical application is to record 15min averages for the last 7 days.
- **Programmable Logic:** It shall be possible to map binary inputs, protection elements, LEDs and binary outputs together in a logical scheme using standard logic functions e.g. Timers, AND/OR gates, Inverters and Counters to provide the user required functionality. Each logic output can be used for alarm & indication and/or tripping.

**Protection features for Outgoing Feeder :**

- 37 Undercurrent Protection
- 50 / 51 Overcurrent protection
- 50N / 51N / Non Directional Earth Fault protection
- 50SEF / 51SEF / Non Directional Earth Fault protection
- 51C Cold Load Current Protection
- 46BC Phase Unbalance/Broken Conductor
- 46NPS Negative Phase Sequence Overcurrent
- 49 Thermal Overload
- 50BF Circuit Breaker
- 64H High Impedance Restricted Earth Fault
- 81HBL2 Inrush Restraint
- 50AFD Arc flash detection (1 Sensor per compartment, loop sensor for entire Busbar compartment)
- 50 SOTF

**Protection features for Incomer & Buscoupler Feeder:**

In addition to outgoing feeder protection, incomer & Buscoupler feeder should have following protection functions.

- 67 Directional Overcurrent protection
- 51V Voltage controlled Overcurrent protection
- 67N Directional Earth Fault protection
- 67SEF Directional Earth Fault protection
- 27/59 Under/Over Voltage protection
- 47 Negative Phase Sequence Voltage
- 25 Check Sync
- 81 Under / Over Frequency protection
- 32 Directional Power Protection
- 32S Directional Sensitive Power Protection
- 55 Power Factor

10.2 Master Trip Relay:

Single pole high speed tripping relay, flush mounted, Non Drawout shall be provided suitable for 110V DC. Burden of the relay shall be high. Contact combination for trip relay shall be 3NO + 1NC with hand reset provision. Relay shall be provided with flag.

**11.0 Auxiliary Supply:**

- 11.1 110V DC auxiliary supply shall be considered for operation of closing and tripping coil of breaker. DC supply shall be arranged at site through external battery source.

11.2 240V AC auxiliary supply shall be considered for operation of spring charging motor, space heaters, illumination lamp, Plug and socket. AC supply shall be arranged at site.

**12.0 Earthing and earthing trucks:**

12.1 All cubicles shall be connected to an earth busbar running throughout the length of the switchboard. Earth busbar shall run through cable chamber.

12.2 Size of the earth busbar shall be suitable for rated short circuit current.

12.3 All non-current carrying metallic parts shall be earthed to the earth busbar effectively through structure.

12.4 Provision for connecting earth busbar to earthing grid shall be provided in cable chamber of every 5<sup>th</sup> panel of switchgear.

12.5 Cable earthing truck and Bus earthing truck shall be provided for cable earthing and bus earthing respectively. Earthing trucks shall be provided with necessary safety interlocking fitted with solenoids.

**13.0 Name plates:**

13.1 All panels shall be provided with prominent identification plates for board and feeders at front and rear of panels. Feeder Nameplate shall include feeder number, feeder rating, feeder type and feeder description.

13.2 All name plates shall be two ply laminate with black letters engraved on white background.

13.3 Specific Danger symbols shall be applied to explosion ventilation points, removable covers providing access to live parts. These shall be with black symbols on yellow background and shall be stickers.

13.4 Sticker type Name plate shall be provided on top of explosion vents with label "DO NOT STEP".

**14.0 Painting:**

14.1 All Panels sheet-metal shall be powder coated (inside and outside) providing optimal surface protection with long life properties enabling easy maintenance and cleaning.

14.2 Following Specification of Powder Coating required :

- a) Colour – RAL 7035
- b) Powder type – Epoxy – Polyester Resin based
- c) Thickness – Minimum 80 Micron average

**15.0 Packing:**

- 15.1 Packing of panels shall be done using Tri wall packing. Same shall be Sea worthy packing.
- 15.2 Packing shall be suitable for indoor conditions and shall ensure protection against moisture, rain, dust, prevention from rusting/corrosion of components. Packing shall be rigid enough to withstand the anticipated transportation strains, stacking pressures, acceleration strains and vibrations.
- 15.3 Packing shall be recyclable type.
- 15.4 All sharp edges shall be covered properly to avoid tearing off of the inside polyethylene bag.
- 15.5 Proper dunnage shall be provided on the front of the Low voltage chamber to avoid any damage to equipment mounted on the door as well as the sides of the panel to avoid any transit damage.

**16.0 Dimensions:**

- 16.1 Standard Depth of the panel shall be limited to 1500mm for Short Time Current of 40kA.
- 16.2 In case a rear extension box is required for mounting additional current transformer, accommodating more no of cables, the same shall be of equivalent height of the HV compartment of the panel.

**17.0 ROUTINE TESTS:**

Routine tests shall be carried out in accordance with IEC 62271-200, IEC 62271-100 standards.

These tests shall ensure the reliability of cubicle.

Below listed test shall be performed as final acceptance tests at manufacturer's works before the delivery of switchgear:

- i) Power Frequency voltage test on the Main Circuit (HV Test)
- ii) Circuit Breaker Test: Measurement of breaker Operation times at minimum and maximum control voltage, Measurement of Contact Resistance.
- iii) Functional test: Mechanical Operation Test, operation of functional locks, electrical and mechanical interlocks, signalling devices and auxiliary devices
- iv) Suitability and correct operation of protections, control instruments and electrical connections of the circuit breaker operating mechanism
- v) Verification of wiring
- vi) Visual inspection
- vii) CT/PT routine tests to be carried out and necessary test certificates shall be submitted. Current Injection test shall be performed at manufacturer's end.

**18.0 TYPE TESTS**

The manufacturer shall submit following Type test reports to prove the capability and suitability of his offered switchgear. The design of circuit breaker shall be proven through all the type tests in accordance with IEC 62271-200, IEC 62271-100 and any amendment thereof. Type test report earlier than 10 years from the date of tender opening shall not be acceptable. The switchgear should have been subjected to all type tests at an internationally recognized testing station, like PEHLA, KEMA or NABL/STL accredited laboratory like ERDA/CPRI.

Type tests certificates / reports shall be considered acceptable if they are in compliance with the latest applicable relevant IEC Standards

The following tests shall be carried out as a minimum requirement :

- i) Short Time Current Test (Rated for 3 Sec)
- ii) Short Circuit Test duties on Circuit Breaker (Rated for 3 Sec)
- iii) Impulse voltage withstand Test. (Without Insulation)
- iv) Power Frequency voltage withstand test (Without Insulation)
- v) Temperature rise test, measurement of resistance of main circuit.
- vi) Internal Arc Test – AFLR – 40kA for 1 Sec – For all HT Compartment
- vii) Mechanical Endurance test on Circuit Breaker – M2 Class
- viii) Test to prove Degree of Protection of enclosure – IP4X
- ix) Electrical Endurance test – E2 Class
- x) Capacitive Current Switching test – C2 Class

**19.0 Technical Particulars**

1	Nominal System voltage	11 kV
2	Highest System voltage	12 kV
3	Rated Frequency	50 Hz
4	Number of phases/ poles	Three
5	System neutral earthing	Solidly grounded
6	Power frequency withstand voltage	28kV
7	Impulse withstand voltage	75kVp
8	Short time rating	40 kA for 3 sec
9	Dynamic withstand rating	62.5 kA (peak)
10	IAC A FLR Rating	40 kA for 1 sec
11	Control supply voltage:	
a)	Aux control voltage – DC	110V DC
b)	Aux control voltage – AC	240V AC
12	Design ambient temperature	40 deg. C
13	Degree of Protection for Enclosure	IP4X
14	Paint Shade	RAL 7035

**20.0 PANEL CONFIGURATION:**

11-unit panel should consist of - (2 Nos. I/C 800A) + (1 No. B/C 800A) + (6 Nos. O/G 630A) + (2 Nos. BPT) + 2 Nos. of Spare VCB (800A & 630A) + 2 Nos. of Spare Numerical Relays.

**21.0 Automatic Dehumidifier and Temperature Controller for all the feeders:**

Automatic Dehumidifier and Temperature Controller shall be provided with following features:

- a) It should maintain the humidity and temperature of the panel to the set point by removing moisture from air within panel.
- b) It should be energy efficient by Automatic ON/OFF when humidity and temperature reaches pre-set level.
- c) It should be portable and light weight.
- d) Protection: Output short circuit, over current, over-voltage, over-temperature protection.
- e) Display: Set and actual value of humidity and temperature is displayed on controller screen.
- f) RS 485 communication is provided for remote display at control room through HMI.
- g) Humidity range: 40 to 95% RH (adjustable)
- h) Temperature range: 10 to 50 degrees (adjustable)
- i) Water outlet for taking out extraction water outside panel.

**22.0 IR Window shall be provided for online thermography for all incoming and outgoing feeders:**

- a) IR Window: IR Window shall be provided for online thermography of Incomer and outgoing feeders cable/lugs.
- b) It shall be suitable for viewing the connections of electrical equipment's inside cable compartment. Infra-red window shall have following characteristics:
  - i. Use from 0,3  $\mu\text{m}$  to 13  $\mu\text{m}$
  - ii. UV sensitivity: none
  - iii. Optical component quality: Parallelism: < 3  $\mu\text{m}$ , flatness: 5(2)
  - iv. Surface condition: P4 (S/D: 20/40)
  - v. Operating temperature 10°C to + 70°C
  - vi. Electric insulation of the frame: Resistivity  $4 \times 10^{15}$  ohms  $\text{cm}^2/\text{m}$  at 20°C,  $8 \times 10^{15}$  ohms  $\text{cm}^2/\text{m}$  at 100°C

**23.0 Pre-qualification criteria for Air Insulated Switchgear manufacturer:**

23.1 Manufacturer shall have established manufacturing facility of 11KV, Single Bus switchboards with Vacuum circuit breakers and shall have proven track record of at least 15 years within India.

23.2 Manufacturer shall have facilities for design, research and development, engineering, manufacturing for switchgear panel, circuit breaker, vacuum

interrupter. Same make panel, breaker, vacuum interrupter and relay shall be used in the project.

- 23.3 Manufacturer shall have necessary infrastructure/ established AIS facility/ works in India with respect to availability of spares, personnel, equipment etc. to provide support for installation, testing & commissioning, post order support services including supply of spares and for repair & maintenance of upto 11KV Air Insulated Indoor switchgears.
- 23.4 Manufacturer shall have carried out site service activity from its Indian establishment for at least five sets of 11kV Air Insulated Indoor switchgears installed in India comprising of 10 panels each. Necessary purchase order copy to be submitted.

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**SPECIFICATION FOR LT PANEL FOR STATION LOAD**

The detail specification of the items is given below.

**1. The LT panel shall be** 415 V AC, 50Hz indoor type panel with MCCBs as incomer and MCCBs as outgoing feeders, skid mounted ready for operation on being installed in a fixed position.

**2. Standards:**

All components used in the manufacture of the Panels shall conform to the relevant IEC/BIS standard specification. Few of the standards are mentioned as follows:

- i. IS:13947-1993/IEC:60947 General arrangements for switchgear and control gear for voltage not exceeding 1000 V
- ii. IS: 12063-1987/IEC:60529 Degrees of Protection provided by enclosures of electrical Equipment
- iii. IS: 5/2004 Colour for ready mixed paints and enamel
- iv. IS: 732/1989 Code of Practice for Electrical Wiring Installations
- v. IS: 5039/1983 Distribution pillars for voltage not exceeding 1000 V
- vi. IS/IEC: 127-1994 Miniature Fuses- Fuse Holders for Miniature Cartridge Fuse Links - Specification
- vii. IS:2551-1982 Danger Notice Plates
- viii. IEC:60664 Insulation co-ordination within low voltage system including clearance creepage distances for equipment.

**3. The panel shall have**

- i. Incoming Feeders
- ii. Outgoing Feeders
- iii. Busbar

**i. Incoming Feeders**

Incomer shall have 630 A, 4 pole, 50 kA moulded case circuit Breaker, 415V AC, 50Hz with microprocessor-based O/C, S/C, E/F release: 2(Two) Nos.

Each Incomer shall have following features:

- a. Digital multifunction meter with accuracy class 0.5 and with RS-485 port with MODBUS protocol for data logging/downloading. The meter shall preferably be of size 96mm x 96mm and shall measure the following electrical parameters: Voltage, Current, Frequency, KVA, KVA<sub>r</sub>, PF, KWH, and KVA<sub>r</sub>h.
- b. Suitably rated digital ammeter and voltmeter to be provided in the incomer feeders.
- c. Cast resin Current Transformer as per IS 2705 & IS 4201 and shall be sized adequately: 03 nos.
- d. LED Indication lights for 'Feeder ON', 'Feeder OFF' & 'TRIP': 03 nos.
- e. LED Indication lights for 'R-Phase', 'Y-Phase' & 'B-Phase': 03 nos.
- f. Moulded HRC Fuse Holders with HRC Fuses/MCBs for control circuit protection

- g. Extended rotary Handle for operating the MCCBs
  - h. Protection type LSIgN  
Ics = 100% Icu as per IEC 60947-2
  - i. Electrical and mechanical interlockings to be provided for both the incomers so that only one incomer can be made 'ON' at a time.
- ii. Outgoing Feeder :
- Outgoing shall have MCCB of following ratings:
- a. 400 A, 4 pole, 36kA Moulded case circuit Breaker, 50Hz, 415V AC with microprocessor-based O/C, S/C, E/F release: 4(four) nos.
  - b. 250 A, 4 pole, 36kA Moulded case circuit Breaker, 50Hz, 415V AC with microprocessor-based O/C, S/C, E/F release: 4(four) nos.
  - c. 160 A, 4 pole, 25kA Moulded Case Circuit Breaker, 50Hz, 415V AC with microprocessor-based O/C, S/C, E/F release: 2(two) nos.
  - d. 100 A, 4 pole, 25kA Moulded Case Circuit Breaker, 50Hz, 415V AC with microprocessor-based O/C, S/C, E/F release: 2(two) nos.

Each Outgoing feeder shall have

- a. LED Indication lights for 'Feeder ON', 'Feeder OFF' & 'TRIP': 03 nos.
- b. Moulded HRC Fuse Holders with HRC Fuses/MCBs for control circuit protection
- c. Extended rotary handle for operating the MCCBs.
- d. Protection type LSIgN  
Ics = 100% Icu as per IEC 60947-2

#### **4. Bus-Bar:**

The bus chamber shall be sheet steel clad having front and rear bolted covers and shall consist of 1 set TP & N electrolytic grade, high conductivity Aluminium bus-bars, conforming to BIS. Current rating of bus bar sections 1000 A, suitable for 415 V AC, 50 Hz system. Neutral bar shall be of same size as phase bus. The bus-bar shall be insulated with heat shrinkable PVC sleeves, make Raychem RPG, equivalent reputed make and shall be supported at required intervals with non-hygroscopic, non-deteriorating, and non-inflammable SMC / FRP Supports having adequate mechanical strength and a high tracking resistance, to withstand short circuit fault levels up to 50 kA for 1 sec.

All risers and connections from bus bar shall be carried out with same material as the main bus bars of current rating as per rating of individual cubicle switch. To suit the stringent site conditions, the bus bar system shall be designed with generous clearance between phases than specified in the standards. Adequate non-hygroscopic insulating sheet barriers between the bus chambers and feeders shall be provided. All necessary interconnection shall be duly tested as per IS: 8623

**5. General Requirements and Constructional Details:**

- i. Panel shall be self-supporting, Indoor Type, dust, vermin/rodent proof, suitable for placing on a suitable RCC foundation. Any left holes/cable entries shall be blocked by using detachable metallic sheets to prevent entry of rodent/reptiles.
- ii. The structure of Panel shall be made with 2mm thick CRCA sheet and (75x40x6) mm base channel as required.
- iii. Heavy duty Lifting hooks (4 No's heavy duty lifting hooks) shall be provided for lifting of Panel.
- iv. The door shall be in parts and shall have locking arrangement with special type Knob type key. Danger Plate fitted on both sides.
- v. For cooling of the component louver arrangement shall be made in the Panel
- vi. Panel shall have a heavy duty base framework. The frame design shall be such that the height between cable entry plate and the connection hole of brought out link of incoming, outgoing MCCBs shall be minimum 450mm.
- vii. The entire sheet-work shall be given minimum nine tank anti-rust treatment as per IS and then powder coated in light grey shade no 631 as per IS:631.
- viii. The design should be as per IS-8623, 13947, 13703, 4237 and IEC-61439 and suitable for ambient 50°C (Max)/10°C (Min), humidity-40-95% (Max). All components used must be suitable for the environment as mentioned.
- ix. All hardware should be of high tensile steel & Zinc passivated. Size of spring washers & flat washers should be as per relevant IS for individual bolt.
- x. All the components shall be mounted on separate steel plate with necessary stiffeners or suitable channels so that all the components can be checked and replaced from front side after opening the door.
- xi. All items will be labelled using riveted engraved metallic or mica labels.
- xii. All incoming and outgoing cables shall enter the enclosure from bottom side. Cable entry plate shall have individual detachable gland plates for all cables. These detachable plates shall be accessible and removable from inside. All cable entry plates shall have knockouts.

**6. General Technical Requirements:**

- i. Panel should be designed for indoor application.
- ii. All connection links between busbar and MCCBs & brought out links shall be made with rectangular sections of Aluminium conforming to IS 5082. Current rating of links shall be minimum 1.5 times (rating for unassembled sections) the device rating. Spreader bars supplied by MCCB manufacturer shall be used for all incoming and outgoing terminations for all MCCBs.
- iii. All control wiring shall be done with single core 2.5sqmm, FRLS PVC insulated, 1100v grade, IS approved stranded copper cable.
- iv. All control cable ends shall have crimped copper lugs for proper termination and ferrules for identification of wiring. All the control circuit wiring shall be connected with terminals blocks, ferrules for easy identification.
- v. All panel doors shall be earthed as per IS 3043.
- vi. No bimetallic joints shall be permitted in the links of connections.

- vii. Special non-deteriorating Neoprene rubber gaskets shall be provided at panel doors.
- viii. Sufficient space should be provided for proper glanding, dressing, connecting and maintenance of all cables. Sufficient nos. of cable entry holes shall be provided in the cable entry plate.
- ix. Protective shrouds of 4 mm thick Hylam sheets shall be provided as insulation barriers between the bus chamber and feeders. Transparent fibreglass barriers shall also be provided on both incoming and outgoing side of all MCCBs.
- x. A printed drawing of complete circuits shall be pasted on the outside of the inside of door of each feeder pillar.
- xi. All items shall be duly fixed with zinc passivated high tension hard-wares. DIN channel shall be used for components having facility to mount on DIN channel.
- xii. All items of the Panel must be approved by ISI or IEC (with latest amendments) for performance and safety. 3 nos. MCB or fuse carrier and base with suitable fuse and fuse link shall be provided for power supply of multifunction meter. The auxiliary power supply of multifunction meter shall be 230 VAC.
- xiii. Current transformer shall be cast resin type, with suitable specification.
- xiv. 2 No's passivated heavy duty type nuts and bolts shall be provided for connection of earthing on two opposite side.
- xv. For all incoming and outgoing cable connection, brought out terminals shall be provided. Suitable size of single compression M.S cable gland of size mentioned in the point no.
- xvi. For all incoming and outgoing cables along with Panel suitable size of holes shall be made into detachable gland plate for incoming and outgoing feeders. The cable gland is to be supplied and fitted in the Panel by bidder as per requirement of incoming and outgoing feeders.
- xvii. The Panel shall have provision for incoming and outgoing cable entries using cable alleys.

**7. Name Plate and Marking:**

Panel shall be provided with Aluminium /Stainless steel / Brass nameplate showing the following information indelibly marked in English:

- i. Manufacturer's Name
- ii. OIL's Purchase Order No. & date
- iii. Manufacturer's Serial Number
- iv. Year of Manufacture
- v. Rated Voltage Rating
- vi. No. of circuits (incoming & outgoing)
- vii. Rated Current of incoming circuit.
- viii. Rated Current of outgoing circuit.
- ix. Degree of protection

All feeders shall have engraved designated nameplates.

**8. Danger Notice Plates:**

Danger/Warning Notice plate as per IS 2551 shall be provided on the front and rear side of the feeder pillar using steel rivets. The language of the notice will be in English, Hindi and Assamese.

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**Annexure VI**

**SPECIFICATION FOR LT PANEL FOR 'C' SUBSTATION**

The detail specification of the items is given below.

**1. The LT panel shall be** 415 V AC, 50Hz indoor type panel with MCCBs as incomer and MCCBs as outgoing feeders, skid mounted ready for operation on being installed in a fixed position.

**2. Standards:**

All components used in the manufacture of the Panels shall conform to the relevant IEC/BIS standard specification. Few of the standards are mentioned as follows:

- i. IS:13947-1993/IEC:60947 General arrangements for switchgear and control gear for voltage not exceeding 1000 V
- ii. IS: 12063-1987/IEC:60529 Degrees of Protection provided by enclosures of electrical Equipment
- iii. IS: 5/2004 Colour for ready mixed paints and enamel
- iv. IS: 732/1989 Code of Practice for Electrical Wiring Installations
- v. IS: 5039/1983 Distribution pillars for voltage not exceeding 1000 V
- vi. IS/IEC: 127-1994 Miniature Fuses- Fuse Holders for Miniature Cartridge Fuse Links - Specification
- vii. IS:2551-1982 Danger Notice Plates
- viii. IEC:60664 Insulation co-ordination within low voltage system including clearance creepage distances for equipment.

**3. The panel shall have**

- i. Incoming Feeders
- ii. Outgoing Feeders
- iii. Busbar

**i. Incoming Feeders**

Incomer shall have 400 A, 4 pole, 36 kA moulded case circuit Breaker, 415V AC, 50Hz with microprocessor-based O/C, S/C, E/F release: 2(Two) Nos.

Each Incomer shall have following features:

- a. Digital multifunction meter with accuracy class 0.5 and with RS-485 port with MODBUS protocol for data logging/downloading. The meter shall preferably be of size 96mm x 96mm and shall measure the following electrical parameters: Voltage, Current, Frequency, KVA, KVA<sub>r</sub>, PF, KWH, and KVA<sub>r</sub>h.
- b. Suitably rated digital ammeter and voltmeter to be provided in the incomer feeders.
- c. Cast resin Current Transformer as per IS 2705 & IS 4201 and shall be sized adequately: 03 nos.
- d. LED Indication lights for 'Feeder ON', 'Feeder OFF' & 'TRIP': 03 nos.
- e. LED Indication lights for 'R-Phase', 'Y-Phase' & 'B-Phase': 03 nos.
- f. Moulded HRC Fuse Holders with HRC Fuses/MCBs for control circuit protection

- g. Extended rotary Handle for operating the MCCBs
  - h. Protection type LSIgN  
Ics = 100% Icu as per IEC 60947-2
  - i. Electrical and mechanical interlockings to be provided for both the incomers so that only one incomer can be made 'ON' at a time.
- ii. Outgoing Feeder :
- Outgoing shall have MCCB of following ratings:
- a. 250 A, 4 pole, 25kA Moulded case circuit Breaker, 50Hz, 415V AC with microprocessor-based O/C, S/C, E/F release: 4(four) nos.
  - b. 160 A, 4 pole, 25kA Moulded Case Circuit Breaker, 50Hz, 415V AC with microprocessor-based O/C, S/C, E/F release: 2(two) nos.
  - c. 100 A, 4 pole, 25kA Moulded Case Circuit Breaker, 50Hz, 415V AC with microprocessor-based O/C, S/C, E/F release: 2(two) nos.

Each Outgoing feeder shall have

- a. LED Indication lights for 'Feeder ON', 'Feeder OFF' & 'TRIP': 03 nos.
- b. Moulded HRC Fuse Holders with HRC Fuses/MCBs for control circuit protection
- c. Extended rotary handle for operating the MCCBs.
- d. Protection type LSIgN  
Ics = 100% Icu as per IEC 60947-2

#### **4. Bus-Bar:**

The bus chamber shall be sheet steel clad having front and rear bolted covers and shall consist of 1 set TP & N electrolytic grade, high conductivity Aluminium bus-bars, conforming to BIS. Current rating of bus bar sections 600 A, suitable for 415 V AC, 50 Hz system. Neutral bar shall be of same size as phase bus. The bus-bar shall be insulated with heat shrinkable PVC sleeves, make Raychem RPG, equivalent reputed make and shall be supported at required intervals with non-hygroscopic, non-deteriorating, and non-inflammable SMC / FRP Supports having adequate mechanical strength and a high tracking resistance, to withstand short circuit fault levels up to 50 kA for 1 sec.

All risers and connections from bus bar shall be carried out with same material as the main bus bars of current rating as per rating of individual cubicle switch. To suit the stringent site conditions, the bus bar system shall be designed with generous clearance between phases than specified in the standards. Adequate non-hygroscopic insulating sheet barriers between the bus chambers and feeders shall be provided. All necessary interconnection shall be duly tested as per IS: 8623.

#### **5. General Requirements and Constructional Details:**

- i. Panel shall be self-supporting, Indoor Type, dust, vermin/rodent proof, suitable for placing on a suitable RCC foundation. Any left holes/cable entries

- shall be blocked by using detachable metallic sheets to prevent entry of rodent/reptiles.
- ii. The structure of Panel shall be made with 2mm thick CRCA sheet and (75x40x6) mm base channel as required.
  - iii. Heavy duty Lifting hooks (4 No's heavy duty lifting hooks) shall be provided for lifting of Panel.
  - iv. The door shall be in parts and shall have locking arrangement with special type Knob type key. Danger Plate fitted on both sides.
  - v. For cooling of the component louver arrangement shall be made in the Panel
  - vi. Panel shall have a heavy duty base framework. The frame design shall be such that the height between cable entry plate and the connection hole of brought out link of incoming, outgoing MCCBs shall be minimum 450mm.
  - vii. The entire sheet-work shall be given minimum nine tank anti-rust treatment as per IS and then powder coated in light grey shade no 631 as per IS:631.
  - viii. The design should be as per IS-8623, 13947, 13703, 4237 and IEC-61439 and suitable for ambient 50°C (Max)/10°C (Min), humidity-40-95% (Max). All components used must be suitable for the environment as mentioned.
  - ix. All hardware should be of high tensile steel & Zinc passivated. Size of spring washers & flat washers should be as per relevant IS for individual bolt.
  - x. All the components shall be mounted on separate steel plate with necessary stiffeners or suitable channels so that all the components can be checked and replaced from front side after opening the door.
  - xi. All items will be labelled using riveted engraved metallic or mica labels.
  - xii. All incoming and outgoing cables shall enter the enclosure from bottom side. Cable entry plate shall have individual detachable gland plates for all cables. These detachable plates shall be accessible and removable from inside. All cable entry plates shall have knockouts.

**6. General Technical Requirements:**

- i. Panel should be designed for indoor application.
- ii. All connection links between busbar and MCCBs & brought out links shall be made with rectangular sections of Aluminium conforming to IS 5082. Current rating of links shall be minimum 1.5 times (rating for unassembled sections) the device rating. Spreader bars supplied by MCCB manufacturer shall be used for all incoming and outgoing terminations for all MCCBs.
- iii. All control wiring shall be done with single core 2.5sqmm, FRLS PVC insulated, 1100v grade, IS approved stranded copper cable.
- iv. All control cable ends shall have crimped copper lugs for proper termination and ferrules for identification of wiring. All the control circuit wiring shall be connected with terminals blocks, ferrules for easy identification.
- v. All panel doors shall be earthed as per IS 3043.
- vi. No bimetallic joints shall be permitted in the links of connections.
- vii. Special non-deteriorating Neoprene rubber gaskets shall be provided at panel doors.

- viii. Sufficient space should be provided for proper glanding, dressing, connecting and maintenance of all cables. Sufficient nos. of cable entry holes shall be provided in the cable entry plate.
- ix. Protective shrouds of 4 mm thick Hylam sheets shall be provided as insulation barriers between the bus chamber and feeders. Transparent fibreglass barriers shall also be provided on both incoming and outgoing side of all MCCBs.
- x. A printed drawing of complete circuits shall be pasted on the outside of the inside of door of each feeder pillar.
- xi. All items shall be duly fixed with zinc passivated high tension hard-wares. DIN channel shall be used for components having facility to mount on DIN channel.
- xii. All items of the Panel must be approved by ISI or IEC (with latest amendments) for performance and safety. 3 nos. MCB or fuse carrier and base with suitable fuse and fuse link shall be provided for power supply of multifunction meter. The auxiliary power supply of multifunction meter shall be 230 VAC.
- xiii. Current transformer shall be cast resin type, with suitable specification.
- xiv. 2 No's passivated heavy duty type nuts and bolts shall be provided for connection of earthing on two opposite side.
- xv. For all incoming and outgoing cable connection, brought out terminals shall be provided. Suitable size of single compression M.S cable gland of size mentioned in the point no.
- xvi. For all incoming and outgoing cables along with Panel suitable size of holes shall be made into detachable gland plate for incoming and outgoing feeders. The cable gland is to be supplied and fitted in the Panel by bidder as per requirement of incoming and outgoing feeders.
- xvii. The Panel shall have provision for incoming and outgoing cable entries using cable alleys.

**7. Name Plate and Marking:**

Panel shall be provided with Aluminium /Stainless steel / Brass nameplate showing the following information indelibly marked in English:

- i. Manufacturer's Name
- ii. OIL's Purchase Order No. & date
- iii. Manufacturer's Serial Number
- iv. Year of Manufacture
- v. Rated Voltage Rating
- vi. No. of circuits (incoming & outgoing)
- vii. Rated Current of incoming circuit.
- viii. Rated Current of outgoing circuit.
- ix. Degree of protection

All feeders shall have engraved designated nameplates.

**8. Danger Notice Plates:**

Danger/Warning Notice plate as per IS 2551 shall be provided on the front and rear side of the feeder pillar using steel rivets. The language of the notice will be in English, Hindi and Assamese.

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**TECHNICAL SPECIFICATION OF BATTERY BANK WITH CHARGER: -**

**1. Scope of Supply: -**

Supply, Installation, Testing & Commissioning of Sealed Maintenance free Lead Acid Battery with float-cum-boost Charger required for Supply of 110V DC Output to closing, tripping and indication circuit of 11kV VCB panel and emergency DC light.

Battery with Charger consists of at least 09 nos. of 12 Volt cells in modular design of 150-AH capacity each to achieve 110 V DC output. The maximum Capacity of battery charger should be of 30 amps.

Technical datasheet of battery and charger, GA and dimensional drawing of battery and charger to be submitted for approval prior to supply of the same.

**2. Battery Charger Specification: -**

- i. Minimum Current rating output: - 30 Amps DC.
- ii. Input Voltage 230V/AC 50 Hz.
- iii. Suitable rated Double Pole MCB/MCCB with overload Short Circuit Protection along with Digital Amp meter/Voltmeter with both AC and DC.
- iv. Charger to be floor standing single float cum boost charger.
- v. Charger warranty should be minimum 12 months.
- vi. List of O&M spares along with part number to be submitted along with supply to carry out operation for at least 02 years.

**3. Battery Specification: -**

- i. 150 AH Sealed Maintenance free Lead Acid Battery Minimum Qty required 9 nos.
- ii. Battery Voltage 12 Volt.
- iii. Battery to be provided with suitable rack in connector.
- iv. Incomer to the Battery Charger will be 3 core 16sqmm PVC insulated PVC Sheathed 1.1kV Grade Cable.

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**Scope of Installation, Testing and Commissioning**

**1. 5 MVA 33/11 KV transformers oil cooled transformer**

(A) Installation and Commissioning of Transformer to be carried out at OCS-3 Switchyard

- I. The transformer shall be installed in accordance with IS 10028 (with latest amendment)-Code of practice for Installation and maintenance of transformer. Necessary support channels shall be grouted in the flooring.
- II. Wiring of devices shall be carried out as per drawings; Earthing of neutral and body of the transformer shall be done in accordance with the specifications as mentioned in SoQ and relevant IS.
- III. All auxiliaries/devices shall be checked for satisfactory operations.
- IV. All necessary pre-commissioning tests specified in IS 2026 shall be carried out by the contractor in the presence OEM and OIL representative. The cost of the same shall be included in the bid itself. No additional payment shall be made to the contractor for carrying out the pre-commissioning tests.
- V. The scope of installation of the transformers shall include disconnection and removal of the existing 3 MVA transformers from the existing foundation and shifting it to a suitable location and then construction of another PCC platform at that place for the new 5 MVA transformers.
- VI. Transformer platform/pedestal to be constructed as per approved drawing and shall include the provision of grouting. The transformer platform/pedestal should be of atleast one foot above ground level. Approval for the structural drawing and general arrangement of the platform to be obtained before construction of the platform.
- VII. Installation and commissioning shall include transport, storage, fixing and fitting, loading, unloading, placing etc. for both the transformers. Logistical and infrastructural services required for proper installation and commissioning shall be in the scope of the contractor.
- VIII. Any defect during transportation from OEM to the site shall be corrected at the site at no additional cost implication to the satisfaction of the Engineer-In-Charge. The Transformers shall be moved to its location and shall be correctly positioned.
- IX. Power Supply to marshalling box, operation and interconnection of Buchholz relay, oil gauge, vent pipe, and all control wirings and termination required for proper operation of the transformer shall be included in the scope of commissioning.
- X. Fixing of wheels at site and subsequent sealing of the wheels to the foundation shall be included in the scope of I&C.
- XI. All the primary and secondary aluminium duct/ cable terminations shall be in scope of contractor. Supply of the necessary accessories like glands, aluminium hollow pipes, end clamps, end termination kits etc. also shall be in the scope of the contractor.

**2. 800 KVA 11/0.415V Transformers**

(A) Installation and Commissioning of Transformer to be carried out at C-BUS installation

- I. The transformer shall be installed in accordance with IS 10028 (with latest amendment)-Code of practice for Installation and maintenance of transformer. Necessary support channels shall be grouted in the flooring.
- II. Wiring of devices shall be carried out as per drawings; Earthing of neutral and body of the transformer shall be done in accordance with the specifications as mentioned in SoQ and relevant IS.
- III. All auxiliaries/devices shall be checked for satisfactory operations.
- IV. All necessary pre-commissioning tests specified in IS 2026 shall be carried out by the contractor in the presence OEM and customer representative. The cost of the same shall be included in the bid itself. No additional payment shall be made to the contractor for carrying out the pre-commissioning tests.
- V. The scope of installation of the transformers shall include disconnection and removal of the existing 500 kVA transformers and shifting the 500 kVA transformers to a suitable location and then placing the 800 kVA transformers in its place.
- VI. Installation and commissioning shall include transport, storage, fixing and fitting, loading, unloading, placing etc for all the transformers. Logistical and infrastructural services required for proper installation and commissioning shall be in the scope of the contractor.
- VII. Any defect during transportation from OEM to the site shall be corrected at the site at no additional cost implication to the satisfaction of the Engineer-In-Charge.
- VIII. Power Supply to marshalling box, operation and interconnection of Buchholz relay, oil gauge, vent pipe, and all control wirings and termination required for proper operation of the transformer shall be included in the scope of commissioning.
- IX. Fixing of wheels at site and subsequent sealing of the wheels to the foundation shall be included in the scope of I&C.
- X. Termination of primary and secondary cable of the transformer using suitable lugs, gland, end termination kits etc shall be in scope of contractor. Supply of the necessary accessories like lugs, gland, end termination kits etc also shall be in the scope of the contractor.

**3. 500 KVA 11/0.415V Transformer**

(A) Installation and Commissioning of Transformer at new substation building

- I. The transformer shall be installed in accordance with IS 10028 (with latest amendment)-Code of practice for Installation and maintenance of transformer. Necessary support channels shall be grouted in the flooring and transformer to be grouted to the floor using this support channels.
- II. Wiring of devices shall be carried out as per drawings; Earthing of neutral and body of the transformer shall be done in accordance with the specifications as mentioned in SoQ and relevant IS.
- III. All auxiliaries/devices shall be checked for satisfactory operations.

- IV. All necessary pre-commissioning tests specified in IS 2026 shall be carried out by the contractor in the presence OEM and customer representative. The cost of the same shall be included in the bid itself. No additional payment shall be made to the contractor for carrying out the pre-commissioning tests.
- V. The Transformer shall be moved to its location and shall be correctly positioned. Installation and commissioning shall include transport, storage, fixing and fitting, loading, unloading, placing etc for all the transformers. Logistical and infrastructural services required for proper installation and commissioning shall be in the scope of the contractor.
- VI. Any defect during transportation from OEM to the site shall be corrected at the site at no additional cost implication to the satisfaction of the Engineer-In-Charge.
- VII. Power Supply to marshalling box, operation and interconnection of Buchholz relay, oil gauge, vent pipe, and all control wirings and termination required for proper operation of the transformer shall be included in the scope of commissioning.
- VIII. Fixing of wheels at site and subsequent sealing of the wheels to the foundation shall be included in the scope of I&C.
- IX. Termination of primary and secondary cable of the transformer using suitable lugs, gland, end termination kits etc shall be in scope of contractor. Supply of the necessary accessories like lugs, gland, end termination kits etc also shall be in the scope of the contractor.

#### **4. HT Panel**

##### **(A) Installation of VCB Panel at new substation building**

- I. Installation of VCB panels to be carried out as per relevant IS/IEC standards.
- II. The installation work shall cover assembly of panels lining up, grouting the units etc. In the case of multi panels switch boards, after connecting up the bus- bar all joint shall be insulated with HV insulation tape or with approved insulation compound.
- III. A common earth bar shall run preferably at the back of the switch board connecting all the sections for connecting the earth system. All protection, indications & metering connections and wirings shall be completed.
- IV. All relay instruments and meters shall be mounted and connected with appropriate wiring. Calibration checks of units as necessary and required by the licensee like CTs, VTs Energy Meters etc. shall be completed before pre-commission checks are undertaken.

##### **(B) Testing and Commissioning of VCB Panel**

- I. Procedure for testing and commissioning of panels shall be in accordance with good practice and as per relevant IS/IEC standards.
- II. Relay configuration and settings at site to be carried out by the OEM or it's authorised representative only. In case of authorized representative, OEM has to intimate OIL about their representative prior to carrying out the testing and calibration work.
- III. Commissioning checks and tests shall include, in addition to checking of all small wiring connections, relays calibration and setting tests by secondary injection method and primary injection method. Primary injection test will be preferred for operation of relay through CTs. Before panel board is

commissioned, provision of the safety namely fire extinguishers, rubber mats and danger board shall be ensured. In addition, all routine insulation tests shall be performed as mentioned in the technical specification of the VCB panel (Annexure IV). Checks and test shall include following.

- a. Operation checks and lubrication of all moving parts.
- b. Interlock function checks.
- c. Continuity checks of wiring, fuses etc. as required.
- d. Insulation tests.
- e. Trip test and protection gear tests.
- f. The complete panel shall be tested with 5000V insulation tester for Insulation between poles and poles to earth. Insulation test of Secondary of CTs and VT to earth shall be conducted using 500V insulation tester.
- g. Any other tests as may be required by the Licensee / Inspector shall be conducted.
- h. Where specified, the entire switch board shall withstand high voltage test after installation.
- i. Any other test deemed necessary by the OIL Engineer-In-Charge.

The tests shall be performed in the presence of representative from OEM.

#### **5. LT Panel for the new sub-station and 'C' substation**

##### **(A) Installation of LT Panels**

- I. Installation of LT panels to be carried out as per relevant IS/IEC standards.
- II. The installation work shall cover assembly of various sections of the panels lining up, grouting the units etc. In the case of multiple panel switch boards after connecting up the bus bars etc., all links shall be insulated with necessary insulation tape or approved insulation compound. A common earth bar as per specifications shall be run inside at the back of switch panel connecting all the sections for connection to frame earth system.
- III. All protection and other small wirings for indication etc. shall be completed before calibration and commissioning checks are commenced. All relays, meters etc. shall be mounted and connected with appropriate wiring.

##### **(B) Testing and Commissioning of LT panels**

Procedure for testing and commissioning of panels shall be in accordance with good practice and as per relevant IS/IEC standards. Commissioning checks and tests shall include all wiring checks and checking up of connections. Relay adjustment/setting shall be done before commissioning in addition to routine Insulation tests. Checks and tests shall include the following: -

- a) Operation checks and lubrication of all moving parts.
- b) Interlock function checks.
- c) Continuity checks of wiring, fuses etc. as required.
- d) Insulation test
- e) Functionality Test

#### **6. Battery Charger with batteries**

Installation and commissioning of the battery charger shall include the following:

- I. Placing of the batteries and the charger at suitable location using platform or frames.
- II. Testing of battery charger as per relevant standard.
- III. Charging and discharging of batteries to be done as per OEM's guideline.  
Necessary load banks to be arranged by the contractor.
- IV. Functionality check of the charger and the batteries.
- V. Input and output connections, as required.

Note: All the tools, tackles. Testing and measuring equipment, load bank, PPEs etc, required for carrying testing, installation and commissioning of the above equipment shall be in the scope of the contractor.

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**Annexure IX**

**SPECIFICATION FOR 11KV 3CX240MM<sup>2</sup> (UE) XLPE ALU ARMoured CABLE**

**Cable, 3C x 240 mm<sup>2</sup>, 11kV (UE), XLPE Alu armoured cable**

- i. Size: 3Cx240 mm<sup>2</sup>
- ii. Voltage Grade: 11 KV, suitable for unearthed system (11KV/ 11KV).
- iii. Colour: Black
- iv. Shape: Complete round on outer side
- v. Conductor Material: Stranded compact circular/shaped Aluminium (complying with Class 2 of IS : 8130-1984)
- vi. Conductor Screening : non-metallic semi-conducting tape or by extrusion of semiconducting compound or a combination of the two.
- vii. Insulation: Cross linked polyethylene (XLPE) applied by extrusion.
- viii. Insulation Screening (metallic and non-metallic): Non-metallic part: It shall be applied directly over the insulation of each core & shall consist of either a semi-conducting tape or extruded semi-conducting compound or a combination of the two or either material with a semi-conducting coating. Metallic part: either tape, or braid, or concentric serving of wires or a sheath; shall be non-magnetic and shall be applied over the non-metallic part.
- ix. Core identification : Red, Yellow & Blue polyester tape in individual cores.
- x. Filler & Inner Sheath: Vulcanized or unvulcanized rubber; or Thermoplastic materials.
- xi. Armour: Galvanized round steel wire or galvanized steel strip.
- xii. Outer Sheath: PVC (type ST2 compound).
- xiii. Min Length: 500Mtr per drum (tolerance as per applicable standard)
- xiv. Applicable Standard: IS 7098 (Part-2)/1985 (with latest amendments if any)
- xv. Marking:
  - a. Manufacture's name, voltage grade, length (in metres), size of cable and year of manufacture shall be printed, indented or embossed on the sheath of the cable throughout the length. The distance between any two consecutive printings, indentations or embossings shall be not more than 1 m.
  - b. Cable drum shall be marked with manufacture's name, voltage grade, size of cable, cable code, year of manufacturing, length of cable, Number of lengths on the drum (if more than one); gross weight, ISI mark & OIL's purchase order number with suitable paint in permanent manner.
- xvi. Submittals:
  - a. GTP, TDS and type test certificates to be submitted for approval prior to supply of the item.
  - b. With the supply: Routine test certificate, warranty certificate.
- xvii. Inspection, Testing and Acceptance:
  - a. OIL's representative shall visit the manufacturer's factory for pre-dispatch inspection to witness routine test to be carried out as per applicable IS and

approved QAP. Dispatch clearance shall be issued by OIL engineer-in-charge or his representative only after satisfactory test results.

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**1.1 KV CABLE LAYING AND TERMINATION****1.0 Scope of work:**

The following shall be under the scope of laying and termination of 1.1 kV cable:

<b>Item No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>
<b>10</b>	Laying of one number PVC insulated and PVC sheathed/XLPE Sheathed power cable of 1.1 kV grade of following size direct in ground including excavation, sand cushioning, protective covering and refiling of trench etc as required (Above 185 sqmm and up to 400 sqmm)	<b>meter</b>	500
<b>20</b>	Laying of one number additional PVC insulated and PVC sheathed/XLPE Sheathed power cable of 1.1 kV grade of following size direct in ground in the same trench in one tier horizontal formation as required (Above 185 sqmm and upto 400 sqmm)	<b>meter</b>	500
<b>30</b>	Laying of one number additional PVC insulated and PVC sheathed/XLPE Sheathed power cable of 1.1 kV grade of following size direct in ground in the same trench in one tier horizontal formation as required (Above 95 sqmm and upto 185 sqmm)	<b>meter</b>	3000
<b>40</b>	Supply and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed/XLPE aluminium conductor cable of 1.1 kV grade as required. (DSR 2022, 9.1.29)	<b>each</b>	30

- i. The scope of work includes laying, termination, testing and commissioning of 1.1 kV, 3.5Cx240Sqmm, PVC insulated, PVC sheathed, Al armoured cables and 1x120 sqmm PVC Aluminium cable.
- ii. The scope also includes excavation of soil/strata/concrete of size 0.75mx.0.45 m for laying cables of size 3.5C×240sqmm and 1x120 sqmm cable including sand cushioning, placing of bricks, backfilling and covering the surface to original finish all as per standards and as directed by OIL's Engineer-In-Charge.
- iii. The scope also covers termination and crimping of cables with suitable sized socket, glands with accessories like GI pipe/ clamp (wherever required) as per standard practice with end termination and through joint kits supplied by the bidder and approved by OIL. The cost of the items shall be included in the offer.
- iv. The cable shall be laid through 6-inch GI pipes at road crossings, across trenches, drainages and wherever necessary and the cost of the same shall be included in the bid.

- v. Cable route markers and cable identification tags shall be provided along the route and length of the cable at a spacing of 10 mtrs and cost of markers and tags shall be included in the bid. The details of cable markers are as per item no. 240 of SoQ.
- vi. Any other items that are not included but are part of the execution shall be deemed to be included in the scope of and shall be included the cost of such items in their bid.
- vii. Earth continuity wire of 1x 120sqmm PVC Cable shall be laid throughout the length of the 240 sqmm cables.

## **2.0 Installation, testing and commissioning of cable:**

### 2.1 General:

- i. Cables with unwanted twist or bend or any other apparent defects like defective armouring etc. shall not be accepted.
- ii. Cables shall not be bent sharp to a small radius either while handling or in installation. The minimum safe bending radius for cables shall as per IS 1255 (1983) with latest amendments.

### 2.2 Methods of laying:

#### Laying direct in ground:

- i. The trenches shall be excavated in reasonably straight lines, wherever there is a change in the direction, a suitable curvature shall be adopted complying with the requirements of above.
- ii. Where gradients and changes in depth are unavoidable, these shall be gradual.
- iii. The excavation should be done by suitable means, i.e., manual or mechanical. The excavated soil shall be stacked firmly by the side of the trench such that it may not fall back into the trench.
- iv. Adequate precautions should be taken not to damage any existing cable(s), pipes or any other such things in the route during excavation. Wherever brick or any other protective covers or bare cables are encountered, further excavation shall not be carried out without the approval of the Engineer-in-Charge.
- v. Existing property, if any, exposed during trenching shall be temporarily supported adequately as directed by the Engineer-in-Charge. The trenching in such cases shall be done in short lengths, necessary pipes laid for passing cables therein and the trench refilled.
- vi. The normal size of the trench will be 450 mm wide and depth shall be 750 mm and suitable sized pit for maintaining at least 2 coils (10-12 m) of spare cable at through jointing area and termination area with same or more depth that of the trench. The bottom of the trench must be levelled and properly dressed. Any change in the above-mentioned size shall be instructed by the Engineer-in-Charge.
- vii. 75mm thick sand bed shall be spread at the bottom of the trench pit. Then unrolling and laying of cable shall be done and again shall be covered with another 75mm of sand over the cable. Sand bed should cover entire width of trench and pits. Supply of sand is in the scope of the bidder.

- viii. Bricks shall be placed crosswise (irrespective of one or more cables laid in the trench pit) over the cable /cables as well as the entire pit. The bricks should be placed close to each other without any gap. Broken bricks shall not be allowed to use. Supply of bricks is in the scope of the bidder.
- ix. The trenches shall be then back-filled with excavated earth, free from stones or other sharp ended debris and shall be rammed and watered, if necessary in successive layers not exceeding 30cm depth.
- x. Where road beams or lawns have been cut out of necessity, or kerb stones displaced, the same shall be repaired and made good, except for turfing /asphalting, to the satisfaction of the Engineer-in-Charge and all the surplus earth or rock shall be removed to places as specified.
- xi. There shall be nos. of road crossings in cable routes. During road crossing, 6 inch dia GI pipes shall be used for routing the cables. Spare pipes shall be provided for future extension. Spare pipes shall be sealed off at both ends. Pipes shall be up to the edge of the road to permit smooth entry of cable without bending.
- xii. 6-inch dia. PVC pipes shall be provided for individual cable entries to the sub-station buildings at both the ends of cables, wherever necessary. The pipe for this purpose shall slope downwards from the building. The pipes at the building end shall be suitably sealed using white cement or similar item to avoid entry of water, after the cables are laid.

### **3.0 Testing of cable:**

Before laying of the cables shall be tested for continuity and insulation resistance.

#### Testing before sand cushioning:

The cables shall be tested for continuity of cores and insulation resistance before backfilling of the trench.

In case of through jointing of cables, cables shall be tested for continuity and IR.

### **4.0 Cable identification tags:**

Whenever cable is laid, GI tags inscribed with cable identification details as directed by Engineer-in-charge shall be permanently attached to all the cables at a distance of 10 mtrs. In case of cables laid directly in grounds the tags shall be attached before trenches are backfilled.

### **5.0 Transportation, Storage and Handling of cable:**

#### 5.1 Transportation of cable:

The cable drums shall be supplied directly to the site. Proper care shall be taken during transportation so that cable drums do not get damaged during transportation. If cable or drum gets damaged during transportation, it is sole responsibility of the contractor to take care of such damages. In case, if it requires

replacement of damaged cable, the contractor has to replace the damaged cable with new cable at free of cost.

5.2 Storage of cable:

- i. The drums shall always be stored on their flanges, and not on their flat sides.
- ii. Protection from rain and sun is preferable for long term storage of cables. There should also be space between two or more cable drums.
- iii. The space for storage of cable shall be provided by OIL. Watch and Ward of the cable will be in the scope of bidder.

5.3 Handling of cable:

- i. When the cable drums have to be moved over short distances, they should be rolled in the direction of the arrow marked on the drum.
- ii. For manual transportation over a distance, the drum should be mounted on cable drum wheels, strong enough to carry the weight of the drum and pulled by means of ropes. Alternatively, they may be mounted on a trailer or on a suitable mechanical transport.
- iii. For loading and unloading from vehicles, a crane or a suitable lifting means should be used. Small sized cable drums can also be rolled down carefully on a suitable ramp or rails, for unloading, provided no damage is likely to be caused to the cable or to the drum. Loading, unloading, shifting and laying of cable drum shall be in the scope of the contractor. Contractor has to arrange for necessary logistical and associated infrastructures/facilities for the aforementioned works on their own.

**6.0 General conditions for supply, laying, termination and commissioning of cable:**

- i. The cable laying works shall be carried out as per cable laying procedures mentioned above.
- ii. Crimping and end termination of the cables shall be carried out by Technician with valid workman permit.
- iii. Through jointing of the cables shall be carried out by Technician with valid cable jointer license.
- iv. All the cable laying works shall be supervised by experienced supervisor having valid certificate of competency for carrying out 1.1KV works.
- v. All tools, tackles and testing and measuring equipment required for laying and termination of cable shall be in the scope of the contractor.

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**Annexure XI****11 KV CABLE LAYING AND TERMINATION****1.0 Scope of work for HT cable**

- i. The following shall be under the scope of laying and termination of 11 kV cable:

<b>Item No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>
<b>10</b>	Laying of one number PVC insulated and PVC sheathed/XLPE Sheathed power cable of 11 kV grade of following size direct in ground including excavation, sand cushioning, protective covering and refiling of trench etc as required (Above 120 sqmm and upto 400 sqmm)	<b>meter</b>	1000
<b>20</b>	Laying of one number additional PVC insulated and PVC sheathed/XLPE Sheathed power cable of 11 kV grade of following size direct in ground in the same trench in one tier horizontal formation as required ( Above 120 sqmm and upto 400 sqmm)	<b>meter</b>	1000
<b>30</b>	Supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable 11 kV grade as required (DSR 22, 10.4.3)	<b>each</b>	8
<b>40</b>	Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable 11 kV grade as required (DSR 22, 10.5.3)	<b>each</b>	4

- ii. The scope of work also includes laying of above cables in pucca and kuccha cable trenches.
- iii. The scope also includes excavation of soil/strata/concrete of size 0.9 m x 0.65 m for laying, jointing, installation and commissioning of 3x240 Sq.mm. XLPE aluminium cable and 1x120 sqmm PVC aluminium cable including sand cushioning, placing of bricks, backfilling and covering the surface to original finish all as per standards and as directed by OIL's Engineer.
- iv. The cable shall be laid through 6" GI pipes at road crossings, across trenches, drainages and wherever necessary and the cost of the same shall be included in the bid.
- v. Cable route markers and cable identification tags shall be provided along the route and length of the cable at a distance of 10mtrs and cost of markers and

tags shall be included in the bid. The details of cable markers is as per item no. 240 of SoQ.

- vi. Any other items that are not included but part of the execution shall be deemed to be included in the scope and shall be included the cost of such items shall be included in their bid.
- vii. Earth continuity wire of 1x 120sqmm PVC Cable shall be laid throughout the length of the 240 sqmm cables.

## **2.0 Installation, testing and commissioning of cable:**

### 2.1 General:

- i. Cables with unwanted twist or bend or any other apparent defects like defective armouring etc. shall not be accepted.
- ii. Cables shall not be bent sharp to a small radius either while handling or in installation. The minimum safe bending radius for cables shall as per IS 1255 (1983) with latest amendments.

### 2.2 Methods of laying:

#### Laying direct in ground:

- i. The trenches shall be excavated in reasonably straight lines, wherever there is a change in the direction, a suitable curvature shall be adopted complying with the requirements of above.
- ii. Where gradients and changes in depth are unavoidable, these shall be gradual.
- iii. The excavation should be done by suitable means-manual or mechanical. The excavated soil shall be stacked firmly by the side of the trench such that it may not fall back into the trench.
- iv. Adequate precautions should be taken not to damage any existing cable(s), pipes or any other such installations in the route during excavation. Wherever brick or any other protective covers or bare cables are encountered, further excavation shall not be carried out without the approval of the Engineer-in-Charge.
- v. Existing property, if any, exposed during trenching shall be temporarily supported adequately as directed by the Engineer-in-Charge. The trenching in such cases shall be done in short lengths, necessary pipes laid for passing cables therein and the trench refilled.
- vi. The normal size of the trench will be 650 mm wide and depth shall be 900 mm and suitable sized pit for maintaining at least 2 coils (10-12 m) of spare cable at through jointing area and termination area with same or more depth that of the trench. The bottom of the trench must be levelled and properly dressed. Any change in the above-mentioned size shall be instructed by the Engineer-in - Charge.
- vii. 75mm thick sand bed shall be spread at the bottom of the trench pit. Then unrolling and laying of cable shall be done as per instruction and again shall be

covered with another 75mm of sand over the cable. Sand bed should cover entire width of trench and pits. Supply of sand is in the scope of the contractor.

- viii. Bricks shall be placed crosswise (irrespective of one or more cables laid in the trench pit) over the cable /cables as well as the entire pit as per instructions. The bricks should be placed close to each other without any gap. Broken bricks shall not be allowed to use. Supply of bricks is in the scope of the contractor.
- ix. The trenches shall be then back-filled with excavated earth, free from stones or other sharp ended debris and shall be rammed and watered, if necessary in successive layers not exceeding 30cm depth.
- x. Where road beams or lawns have been cut out of necessity, or kerb stones displaced, the same shall be repaired and made good, except for turfing /asphalting, to the satisfaction of the Engineer-in-Charge and all the surplus earth or rock shall be removed to places as specified.
- xi. There shall be nos. of road crossings in cable routes. During road crossing, 6 inch dia GI pipes shall be used for routing the cables. Spare pipes shall be provided for future extension. Spare pipes shall be sealed off at both ends. Pipes shall be up to the edge of the road to permit smooth entry of cable without bending.
- xii. At least 6-inch dia. PVC pipes shall be provided for individual cable entries to the sub-station buildings at both the ends of cables, wherever required. The pipe for this purpose shall slope downwards from the building. The pipes at the building end shall be suitably sealed with white cement or similar items to avoid ingress of water, after the cables are laid.

### 2.3 Testing of cable :

- i. Before laying of the cables shall be tested for continuity and insulation resistance.
- ii. Testing before sand cushioning:
  - The cables shall be tested for continuity of cores and insulation resistance with 5 kV IR tester before backfilling the trench.
- iii. In case of through jointing of cables, cables shall be tested for continuity and IR.

### 2.4 Cable identification tags:

Whenever cable is laid, GI tags inscribed with cable identification details as directed by Engineer-in-charge shall be permanently attached to all the cables at a distance of 10 mtrs. In case of cables laid directly in grounds the tags shall be attached before trenches are backfilled.

## **3.0 Transportation, Storage and Handling of cable:**

### 3.1 Transportation of cable:

The cable drums shall be supplied directly to the site. Proper care shall be taken during transportation so that cable drums do not get damaged during transportation. If cable or drum gets damaged during transportation, it is sole responsibility of the

contractor to take care of such damages. In case, if it requires replacement of damaged cable, the contractor has to replace the damaged cable with new cable at free of cost.

3.2 Storage of cable:

- i. The drums shall always be stored on their flanges, and not on their flat sides.
- ii. Protection from rain and sun is preferable for long term storage of cables. There should also space between two or more cable drums.
- iii. The space for storage of cable shall be provided by OIL. Watch and ward of the cable will be in the scope of contractor.

3.3 Handling of cable:

- i. When the cable drums have to be moved over short distances, they should be rolled in the direction of the arrow marked on the drum.
- ii. For manual transportation over a distance, the drum should be mounted on cable drum wheels, strong enough to carry the weight of the drum and pulled by means of ropes. Alternatively, they may be mounted on a trailer or on a suitable mechanical transport.
- iii. For loading and unloading from vehicles, a crane or a suitable lifting tackle should be used. Small sized cable drums can also be rolled down carefully on a suitable ramp or rails, for unloading, provided no damage is likely to be caused to the cable or to the drum. Loading, unloading, shifting and laying of cable drum shall be in the scope of the contractor. Contractor has to arrange for necessary logistical and associated infrastructures/facilities for the aforementioned works on their own.

**4.0 General conditions for supply, laying, termination and commissioning of cable:**

- i. The cable laying works shall be carried out as per cable laying procedures mentioned above.
- ii. Crimping and end termination of the cables shall be carried out by Technician with valid workman permit.
- iii. Through jointing of the cables shall be carried out by Technician with valid cable jointer license.
- iv. All the cable laying works shall be supervised by experienced supervisor having valid certificate of competency for carrying out 11KV works or above.
- v. All tools, tackles and testing and measuring equipment required for laying and termination of cable shall be in the scope of the contractor.

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**Annexure XII****TECHNICAL SPECIFICATIONS OF EARTHING SYSTEM****1.0 Scope:**

This section covers the general requirements of the earthing system for electrical Sub-station. Chemical earthing with G.I. strip and single core insulated cable shall be used for sub-station earthing purpose. The scope shall cover the following:

<b>Item No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>
<b>i</b>	Supply with installation & commissioning of readymade maintenance free CPRI approved chemical earthing system with 50 mm dia 3.00 Metres length corrosion free G.I. pipe Electrode complete with backfill compound Minerals 50 Kg including excavation of earth pit and construction of brick earth chamber including plastering both inner & outer surface of brick wall as specified and directed by Engineer in charge. Size of brick chamber shall be 2 feet x 2 feet on the inner side and shall have RCC cover plate having 2nos. metallic hooks for lifting cover and funnel type arrangement for watering pipe etc. complete as required. The height of chamber shall be at least 15 cm above the electrode top.	<b>each</b>	14
<b>ii</b>	Supply of 50 mm x 6 mm GI strap for earthing Strap, Galvanized Iron. Size : Length : 5000 mm, Width : 50 mm, Thickness : 6 mm, Thickness of : 85 Micron (Min.) zinc coating	<b>meter</b>	420
<b>iii</b>	Laying and fixing of 50 mm x 6 mm GI strap for earthing Laying and fixing of GI strap including connection/terminating with G.I nut, bolt, spring washer etc. as required. All connection of GI strap with electrode, other GI strip equipment etc shall be done with 2 sets of G.I nut bolt & spring washer in each connecting point or as advised by OIL's Engineer.	<b>meter</b>	420

Note:

- a. For each 5 MVA transformer: 04 nos. of electrodes (02 for body earthing, 02 for neutral earthing)
- b. For 500 kVA, 11/0.415 kV transformer: 04 nos. of electrodes (02 for body earthing, 02 for neutral earthing)
- c. For 11 kV VCB Panel: 02 nos. of electrodes for body earthing
- d. For 415V station LT panel: 02 nos. of electrodes for body earthing
- e. For 415V LT panel for 'C'SS: 02 nos. of electrodes for body earthing

Note: i) The no. of earth electrodes may be more depending upon soil resistivity. The value of individual earth shall be less than 5 ohm and combined value shall be less than 01 ohm. If the individual and combined earth value is found to be more than the aforementioned values, contractor has to carry out necessary treatment/ installation of additional earthing system to achieve the prescribed values. No additional payment shall be made to the contractor for this purpose.

ii) Contractor has to provide earthing layout drawing based on their soil report prior to earthing work and to approve this drawing from OIL Engineer-In-charge.

## **2.0 Systems:**

Earthing system shall comprise of chemical earth electrode of 50mm diameter of G.I pipe of 3mtrs length shall be used as an individual electrode. For each transformer 2 separate and distinct earth electrodes shall be provided for neutral earthing. The body earthing for transformers, HT & LT panels shall be done to a common earth bus and this earth bus shall be connected to all the earth electrodes meant for body earthing of these equipment.

## **3.0 Location of Earth Electrodes:**

Normally an earth electrode shall not be situated less than 1.5 m from any building. Care shall be taken that the excavation of earth electrode may not affect the column footings or foundation of the building. In such cases electrodes may be farther away from the building. The distance between two earth electrodes shall be as per IS 3043: 1987 (with latest amendments) and CEA Regulations 2023.

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**Annexure XIII****Technical Specification for Internal and External Electrification work of the substation and Surrounding Area**

This section covers the Supply, installation, testing and commissioning of electrical items for Internal and external Electrification work of the substation and surrounding area as mentioned in the following table:

<b>Item No.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>
<b>10</b>	<b><i>Point wiring</i></b> Wiring for light point/ fan point/ exhaust fan point/ call bell point with 3 nos Single core 1.5 sq.mm size FRLS PVC insulated multi-stranded copper cable on surface using medium grade ISI approved 25 mm size PVC casing capping & accessories, suitable PVC junction box as required. (Colour codes – Phase –R/Y/B; Neutral –Black & Earth-Green). Point wiring includes fixing of PVC casing in the roof/Wall/floor also.	each	18
<b>20</b>	<b><i>Single-Phase Power Point Wiring</i></b> Wiring for circuit/ Power wiring from MCB DB to desired power point with 3 nos. Single core 4 sq.mm size FRLS PVC insulated multi-stranded copper cable on surface using medium grade ISI approved 25 mm size PVC casing capping & accessories, (Colour codes : Phase –R/Y/B; Neutral –Black & Earth- Green). power Point wiring includes fixing of PVCcasing in the roof/Wall/floor also.	meter	48
<b>30</b>	<b><i>Three-Phase Power Point Wiring</i></b> Wiring for circuit/ Power wiring from MCB DB to desired power point with 6 nos. Single core 4 sq.mm size FRLS PVC insulated multi-stranded copper cable on surgace using medium grade ISI approved 25 mm size PVC casing capping & accessories, (Colour codes : Phase –Red, yellow, Blue Neutral –Black & Earth- Green). power Point wiring includes fixing of PVCcasing in the roof/Wall/floor also.	meter	30
<b>40</b>	Wiring for drawing sub main line Wiring for circuit/ sub main wiring from VTPN DB to SPN DB/MCB DB with 3 nos Single core 10 sq.mm size FRLS PVC insulated multi-stranded copper cable on surface using medium grade ISI approved 32 mm size PVC casing capping & accessories, (Colour codes: Phases - R/Y/B; Neutral – Black & 1 Nos Earth- Green). Sub main wiring includes fixing of PVC casing capping in the roof/Wall also.	each	15

<b>50</b>	<b>3-phase 20 A Industrial Switch Socket</b> 20A three phase metallic plug/socket DB complete with 20A Plug and Socket and 20 A TPN MCB	each	2
<b>60</b>	<b>8-Module Switch Board</b> S/F of of 8 Module PVC box with base and cover plate Supply and Fixing of 8 Module PVC type Switch Board. Complete with Modular type Frame Plate with matching Cover Plate suitable for above Switch Board Box suitable to accommodate specified number of electrical accessories. Frame Plate shall be made out of polycarbonate. The configurations for the relevant plate are defined as under: A- Number of Rows: 1 B- Number of openings: 8 C- Size of opening.1M Internal connection of wire is included in the item.	each	2
<b>70</b>	<b>20A Single-Phase Industrial Switch Socket</b> 20A metallic plug/socket DB complete with 20A Plug and Socket and 20 A DP RCBO,30mA sensitivity.	each	4
<b>80</b>	<b>S/F of 6 amps switch</b> Supply and fixing of 6 A Modular switch in the existing modular boxes. Modular type switch shall be ISI marked modular, unenclosed, push / piano type suitable for flush mounting with screw type terminals suitable for 250V, 50Hz. supply and conforming to IS: 3854/1997 Reaffirmed 2007.	each	11
<b>90</b>	<b>S/F Modular blank plate</b> Supply and fixing of modular Blank Plate matching with modular switch boxes.	each	5
<b>100</b>	<b>S/F Ceiling rose with mounting PVC box</b> Supplying and fixing 3 pin, 5 amp ceiling rose with suitable sized PVC Box for mounting.	each	50
<b>110</b>	<b>Supply and Fixing Exhaust fan,300 mm</b> Supply, Installation, testing and commissioning of Exhaust Fan, 300 mm sweep, 900±10% RPM heavy duty metallic exhaust fan in the existing pening, including making the hole to suit the size of the above fan, making good the damage, connection, testing, commissioning etc. as required. Fan shall have pre-lubricated double ball bearing for maintenance free running and conforming to IS 2312-1967 with latest amendment.	each	3

<b>120</b>	<b>Supply and fixing of 36/40 W 4ft LED batten fitting</b> Supply, Installation, testing and commissioning of surface mounting powder coated, Aluminum extrusion/ polycarbonate housing, IP20 acrylic diffuser fitted 4 ft (1200 mm) LED batten, complete with all mounting accessories. The product should have an even light distribution with max.20 +/-10% w system wattage, system lumen greater than 1800 Lumen, system efficacy >100 lm/W, CCT 6500k, CRI >80. THD shall be <10% and PF >0.9. Life time shall not be less than 40,000 hours.The product should have an electronic constant current driver with open & short circuit protection, reverse polarity protection and surge protection.	each	15
<b>130</b>	<b>S/F of non modular PVC board for MCB DB (8"x10")</b> Supplying and fixing non modular PVC board of 8"x10" on surface	each	2
<b>140</b>	<b>S/F of non modular PVC Board for MCB DB (4"x7")</b> Supplying and fixing non modular PVC board of 4"x7" on surface	each	1
<b>150</b>	<b>S/F of Single phase 63 A MCB DB, 16 way-double door</b> Supply, Installation,Testing & commissioning of 16 WAY SPN MCB DB with double door, single pole and neutral, sheet steel, MCB distribution board, 240 volt, on surface, complete with 100 A tinned 12 way copper busbar, 12 way neutral busbar, 12 way earth bar, DIN channel, detachable gland plate, interconnections, phosphatized and powder painted including earthing etc. as required.DB shall have following as incomer: 63 A RCBO, sensitivity 30mA -1 no. Outgoings: 20 A MCB,C curve- 6 nos. and 10 A MCB,C curve- 6 nos. RCBO, MCBs and box shall be of same make. All accessories like Lugs/Thimble etc .required for installation shall be supplied by Contractor. In case RCBO is 2 M width, blank plates shall be fitted in the space.	each	1

<p><b>160</b></p>	<p><b>S/F of 8- Way VTPN DB</b>  Supply,Installation,Testing &amp; commissioning 160 A, 8 W, VTPN MCCB DB  Supply of 3 Phase, 8 WAY, vertical TPN MCCB DB, as per the following specifications:  A. Incoming:  a. 160 A Thermal adjustable MCCB: 1 no  b. Rating: 4 pole, 160 A, 25kA, 50Hz, 415VAC  c. Protection: Thermal and Magnetic Protection  B. Outgoing Feeders:  a. 63 A TP C curve MCB: 4nos  b. 63 A SP C curve MCB: 12 nos  c. All outgoing MCBs shall be 'C' curve, 240v AC, 10kA breaking capacity, with DMC housing, suitable for class-II tropicalisation (as per IEC) &amp; approved by ISI or IEC. MCBs shall have integrated label holder, biconnect upper &amp; lower terminals &amp; air channels for low temperature rise.  C. Bus bar: 250 A, Tinned Copper  D. Constructional details of DB:  DB shall be as per IS-8623 with latest amendment. DB shall have external earth terminal &amp; mounting holes. Cable ties &amp; wire leads for wiring incomer MCCB to respective phase &amp; neutral buses shall be connected with suitably rated spreader links. Enclosure shall be IP-43&amp; IK-09 with double door. DB shall have detachable cable entry gland plate on top and bottom side for keeping spare length of cables. All wires inside DB shall have ferrules for identification of circuit number. All unused openings shall be fitted with Blanking Plates. The DB shall be provided with 250 amp tinned copper bus bar for phase &amp; neutral. Neutral &amp; Earth bar shall be 8 way each &amp; suitable for termination of wires with pin type cable lugs.  All accessories like Gland/Lugs/Thimble etc .required for installation shall be supplied by Contractor.</p>	<p>each</p>	<p>1</p>
<p><b>170</b></p>	<p><b>Supply of 70 sq. mm cable</b>  Supply of 3.5C x70 mm sq PVCA 1100v grade, Heavy duty, PVC insulated, PVC sheathed, galvanised steel wire armoured cable with stranded, Aluminium conductor. Cable should be fixed with proper size of saddles at suitable interval. All core insulations shall be colour coded with red, yellow, blue and black colour. All insulated cores laid up together, covered with inner sheath of extruded black PVC compound, galvanised steel wire armour and black PVC outer sheath. Sufficient filler shall be used to give overall circular shape to the cable. The cable shall be approved by</p>	<p>meter</p>	<p>50</p>

	IS: 1554 with latest amendments. PVC insulation should be as per IS-5831. Armour should be as per IS-3975. Conductor should be as per IS-8130.		
<b>180</b>	<b>Supply of 25 sq. mm cable</b> 1C x25 sqmm PVC 1100v grade, Heavy duty, PVC insulated, Black PVC sheathed cable with stranded, Aluminium conductor. The cable shall be approved by IS: 1554 with latest amendments. PVC insulation should be as per IS-5831.	meter	50
<b>190</b>	<b>Supply, I&amp;C of electrical light poles inclusive of 90W LED luminaire and 9 M pole along with accessories</b>	each	6
<b>200</b>	<b>Power supply cable for area lighting on wall</b> Supply of Cable, 3Core x 2.5sqmm, 1100V, PVCA Copper Size: 3Cx2.5sqmm Voltage Grade: 1100V Color: Black Conductor Material: Stranded, untinned copper conductor Shape: Complete round on outer side Insulation: PVC, Type A Filler & Inner Sheath: Unvulcanized rubber/ Thermoplastic materials/ Proofed tape (for inner sheath only). Outer Sheath: PVC, Armour: Galvanized Steel strip/Wire Applicable Standard: IS-1554 (part-1)-1988 (with latest amendments if any)	meter	60
<b>210</b>	<b>Laying and fixing of cable on wall surface (upto 35 sq mm)</b> Laying and fixing of one number PVC insulated and PVC Sheathed/XLPE Power cable of 1.1 kV grade of size upto 35 sqmm (Clamped with 1 mm thick saddle)	meter	110
<b>220</b>	<b>Laying and fixing of cable on wall surface (35 sq mm to 95 sq mm)</b> Laying and fixing of one number PVC insulated and PVC Sheathed/XLPE Power cable of 1.1 kV grade of size above 35 sqq and upto 95 sqmm (Clamped with 25x3 mm MS flat clamp)	meter	50
<b>230</b>	<b>Laying and fixing of cable on ground (upto 35 sq mm)</b> Laying of one number PVC insulated and PVC sheathed/XLPE Sheathed power cable of 1.1 kV grade of size upto 35 sq mm direct in ground including excavation, sand cushioning, protective covering and refiling of trench etc as required	meter	120

**I. JOINTS IN WIRING:**

No bare conductor in phase and / or neutral or twisted joints in phase, neutral, and / or protective conductors in wiring shall be permitted. There shall be no joints in the through-runs of wires. There shall be no looping of earth wires and neutral wires between points. All light points, plug points etc. shall have their individual neutral and earth wires laid up to the switchboard or distribution board as the case may be.

**II. RATINGS OF OUTLETS:**

MCBs / switches / controllers for devices like light fittings, ceiling fans, exhaust fan etc. shall be rated according to the corresponding device capacity. RCCBs for household circuits and similar installations should be rated for 30 mA tripping current.

Socket Outlets shall be rated according to their intended use only.

**III. CAPACITY OF CIRCUITS:**

'Lighting' circuit shall not have more than a total of 10 points of light, fan and socket outlets, or a total connected load of 800W per circuit, whichever is less.

'Power' circuit shall have only one outlet per circuit.

**IV. CONFORMITY TO CEA REGULATIONS, 2023 AND STANDARDS:**

- i. All electrical works shall be carried out in accordance with the provisions of CEA (Measures relating to safety and electric supply) Regulations 2023, National Electric code and National Building Code. The works shall also conform to relevant Indian Standards.
- ii. In all electrical installation works, relevant safety codes of practice shall be followed.

**V. TESTING OF WIRING / INSTALLATION:**

All works to be carried out as per drawings approved by OIL Engineer-In-Charge.

After completion of internal electrification work, contractor has to submit following documents prior to energization:

- i) Insulation resistance test
- ii) SLD and electrical layout

All necessary test instruments shall be arranged by the contractor.

**VI. GENERAL REQUIREMENTS OF COMPONENTS:**

- a. Quality of materials:  
All materials shall be of such design, size, material and make as to satisfactorily function under the rated conditions of operation and satisfy SoQ requirement.
- b. Ratings of components:

All components in a wiring installation, conductors, switches and accessories shall be of appropriate ratings of voltage, current, and frequency, as indicated in SOQ.

c. Conformity to Standards:

All components shall conform to relevant Indian Standard Specification, including amendments or revisions there of up to the date of tender acceptance.

d. General Notes:

- i. Items shall be procured from the manufacturer or their authorized dealers only.
- ii. All the items shall be brand new and shall bear BIS monogram, wherever specified.
- iii. Item shall be guaranteed for a period of one year from the date of installation of materials against any manufacturing defect or workmanship.
- iv. PVC casing and capping shall be BIS marked.
- v. Providing and fixing of PVC casing and capping include bends, elbows, tees, inside and outside corners, round blocks and painting.
- vi. PVC casing and capping should be strong and properly fitted so as to hold wires laid in it up to 70% to its full capacity for all areas. It should be rigidly screwed at 150mm interval crosswise with suitable woodscrews of 25mm length turned in PVC sleeve inserted in neatly drilled holes of proper size and depth with cup washer to give proper grip over more surface area. It can be run whether in horizontal or vertical position as required.
- vii. Providing earth continuity wires:

The earth continuity wire shall be provided in the casing throughout the length of wiring. The size of earth continuity wire shall be same size with the main wire for circuits. All metallic parts, switchboards, light fittings and power sockets shall be connected to the earth wires and the connection shall be electrically and mechanically sound.

**VII. SWITCH BOARD LOCATIONS:**

Switch boards shall be located as indicated on the drawings or as instructed by OIL's engineer-in-charge. Switchboards should not be installed in places likely to be exposed to the weather. However exact location will be as per suitable available spaces.

Unless otherwise specified, a switch board shall be installed so that its bottom is 1.30 m from the floor level. Switchboards shall be well clear of door openings and with an open (unimpeded) space in front of the switchboard for easy access.

Where it is required to terminate a number of casing capping or conduits on a board, it may be convenient to provide a suitable PVC adapter box for the purpose. Such boxes shall be provided with the prior approval of the Engineer-in-charge (Electrical) and this will not be paid for separately. No apparatus shall project beyond any edge of the panel.

**VIII. AREA LIGHTING**

Six no. of area lights to be provided inclusive of flood lights, 9 meter poles and all the other accessories.

a) 90 W LED Street Light

Technical Specifications:

- (i) CCT :5800-6500 K
- (ii) Lumen Efficacy(lm/W)  $\geq$  110 lumens/watt
- (iii) Environment Protection: IP 66
- (iv) Nominal Voltage: 170 V AC to 270 V AC at 50 Hz
- (v) Power Factor  $\geq$ 0.90
- (vi) LED Life with 70% Lumen maintenance:  $>$  50,000 hours
- (vii) Inbuilt Protection for Surge Protection  $\geq$  10 KV
- (viii) CRI of the luminaries shall be more than 70%.
- (ix) Drivers of the luminaire must be plug in/ plug out type.
- (x) Accessories to be supplied along with the LED Luminaire:
  - a) All LED luminaries must be single driver operated.

b) 9 meter GI pole

A) TYPE OF POLE:

Galvanized Steel Tubular Pole 410-SP-30 as per IS: 2713 / 1980 with Base plate and following specifications and accessories:

" Pole Overall Length:9000 mm

" Base Plate size: (300 x 300 )mm-1 no. (Galvanized) for each pole

i) The poles shall be hot dip galvanized as per IS 2629 / IS 2633 / IS 4759 standards with average

coating thickness of 85 micron. The galvanizing shall be done in single dipping.

ii) There shall be suitable GI nut / stud arrangement on the on the pole at a height of 2M from the base plate for the purpose of earthing

iii) HDPE pipe:

1.5 M length 63mm dia HDPE pipe for cable entry to the distribution box/Junction Box.

c) 3.5" GI Bracket

Galvanized Cross Arm Bracket (75 x 75 x 6mm) to be supplied along with suitable clamps of

6mm thickness & nut bolts for clamping the cross-arm bracket on the top 2000 mm of the SP30

pole. Anticorrosive and final coat of weatherproof paint (of colour matching that of the pole)

shall be applied.

d) Bend Pipe

Galvanized Iron bend pipe shall be made with Heavy Duty GI Pipes of required dimensions to suit the luminaries offered. Boom angle shall be 5 deg. Bend pipe should have a cap to fit on the top end of SP-30 pole. All accessories if any for fixing of the pipe to the pole shall be supplied by the bidder

e) Poly carbonate junction box,

Technical Specifications:

- i) Polycarbonate junction box with three glands with caps suitable for 3C X 2.5 sq mm PVC/XLPE Cu cable.
- ii) The box shall be conforming to IP 65
- iii) Enclosure housing must be fitted to the pole(s) or other appropriate structures with suitable clamps or bolts. The box shall be suitable for the prevailing climatic conditions and shall be provided with water-proof sealing mechanism to avoid any ingress of water inside the box.

Specifications for the box:

" Cable entry: Bottom: Three incoming/outgoing cables of 3C x 2.5 Sq mm PVC cables, with two glands and one blocking plug.

Top: One outgoing cable of 3C X 2.5 Sq mm cable with suitable gland.

" Wiring accessories: Lugs, Sleeves, Ferrules, etc.

Suitably sized DIN rail and three nos. of 6 A SP MCB and neutral bar to be provided inside the junction box

- f) Polycarbonate area light control DB

Technical Specifications:

- i) Polycarbonate Distribution box with three glands suitable for 3x2.5 sq. mm PVC cable.

- ii)The boxes shall be conforming to IP 65

- iii)Enclosure housing fitted to the pole(s) or other appropriate structures with suitable clamps or bolts.

Specifications for the box

- a) Cable entry: knockouts to be kept at both top and bottom side.

The DB should be completed with the following:

- i) Timer: Time Switch-Manual Setting: Voltage-230V +-10%, 50 Hz, 16A contact rating(resistive),

- ii) Contactor : 2 pole 20 A

- iii) 20 A DP MCB

- iv) DIN rail for fixing of contactors, timers, MCB etc.

- v) suitable rated TB, if required.

**Installation and commissioning**

Installation and commissioning of the area lighting system shall include the following:

- i) Erection of poles: One-sixth of the pole length shall be buried. Necessary excavation and refilling to be carried out. Grouting using PCC from a depth of 300 mm below ground to 300 mm above ground to be carried out.

- ii) Individual poles to be earthed using 8 SWG GI wire.

- iii) Installation, testing and commissioning of lighting fixtures: all lighting fixtures to be fixed using proper sized brackets, and other hardware fittings as required. Cable laying and termination at junction box and lighting fixtures to be carried out properly using 2.5 sqmm PVC cable.

- iv) Fitting, fixing , internal wiring connections of JB's and control junction box

to be carried out as instructed by Engineer-In-Charge.

**IX. WORKMANSHIP:**

Good workmanship is an essential requirement to be complied with. The entire work of manufacture/fabrication, assembly and installation shall conform to sound Engineering practice.

**X. COMMISSIONING ON COMPLETION:**

After the entire wiring is completed, a joint inspection shall be carried out. The contractor shall rectify the defects pointed out by OIL during inspection. The works shall be tested by the contractor and contractor shall submit the test certificates duly signed by the competent persons.

- Note: i) All electrical fittings, fixtures, cables, wires, poles or any other hardware items, to be approved from OIL-Engineer-In-Charge prior to supply and Installation works.  
ii) Electrical layout and SLD for internal and external electrification work to be submitted prior to installations works.

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**CIVIL SCOPE OF WORK AND SPECIFICATIONS**

- **Construction of substation**
  - **Area Development**

**A) SCOPE OF WORK:**

The scope of work includes detail planning, structural analysis, designing and site preparation, construction of substation building, foundation for equipment & panels, trenches including trench covers for cables, approach road, site development including procurement & supply of all materials, fabrication along with all associated works necessary for completion of the work pertaining to Sub Station in all respect.

**1.1 Substation building**

I. Detail planning and modelling/preparation of the layout plan and preparation of drawings of the substations. In this regard, please note that preliminary substation building drawing is attached herewith for reference.

II. Detail structural analysis and design of Substation conforming to relevant BIS codes (Latest revision) using STAAD PRO software or equivalent software. All related analysis (both hard & soft copies) are to be submitted.

III. Preparation of working drawings showing detail of structural components in AutoCAD Software. Three sets of hard copies are to be submitted and copies of working drawings as required during execution of the work.

IV. Construction, including supply of all materials, equipment, system and services to complete & commissioning of the work in all respect, as per the approved detail working drawings including preliminary site development works.

V. Quality control and quality assurances. This includes furnishing all statutory certificates/documents related to quality/specification of the various components installed/commissioned in the project. Acquiring the statutory certificates/documents from the regulatory bodies/suppliers is the responsibility of the contractor.

VI. Undertake full responsibility for the engineering design prepared by them with respect to adequacy and technical soundness for the structure. They shall be responsible for the structural and/or any defects due to faulty design.

**1.2 Area development surrounding Substations**

Construction of boundary wall of the substations building (shall be constructed at a suitable distance from the substation building exterior wall subjected to availability of area) for prevention of trespassing to substation premises. The details scope of works includes,

- I. The Boundary wall around the substation consists of brick wall (1.5-meter-high from MGL) and XPM Fencing (1.5 meter high). Foundation for wall shall be as per design requirement.

- II. Erection & fixing of double leaf steel plated gate of suitable size with locking facility.
- III. All the area between the fencing and substation building shall be made of Cement concrete work (75 mm thick & prop 1:3:6) over properly compacted/prepared sub grade. Earth filling if required is to be done at the proposed site by the contractor.
- IV. Boundary wall has to be constructed around the substation building. 1.5 m high brick wall (230 mm, full brick wall) provided with 1.5 m high XPM (40 mm) properly welded all around to MS Tubes/Angles. RCC Posts have to be erected at the corners of the fenced area.
- V. Walkway with one layer of brick soling, 100 Thick PCC (1:3:6) and neat cement plastered to be laid all around the building adjoining the walls with minimum width of walkway: 1000 mm.
- VI. Painting of the wall shall be done by approved distemper shade & fencing shall be done with red oxide and aluminium paint.

### **1.3 Brief Minimum Specification of Structural works**

To be adopted while planning, structural analysis, designing and preparation of working drawing and execution.

- I. **Foundation:** Cement Concrete (1:2:4) for brick wall and 75thk flat brick soling, 100 mm thick PCC (1:3: 6) below RCC column footings and tie beams.
- II. **DPC:** 40mm thick DPC (1:2:4) cement concrete mixed with 3% CICO or equivalent.
- III. **Skirting:** 18mm thick X 150 mm high skirting (1:3) to all inside walls.
- IV. **Flooring:** 100 thick granolithic flooring-50 mm thick granolithic topping (1:1:1.5) over 100 mm thick cc (1:2:4).
- V. **Brick Work:** All brick work in (1:4) cement mortar with 1st class local bricks. (150mm thick beyond plinth and 250 mm thick up to plinth)
- VI. **RCC Work:** All RCC works (1:1.5:3/M20) in accordance with IS 456-2000.
- VII. **Reinforcements:** All Reinforcement Steel (TOR/HYSD/TMT) Grade Fe500 Conforming to IS: 1786.
- VIII. **Steel Works:**
  - (i) All structural steel works shall conform to IS 800
  - (ii) Flat steel conforming to IS: 1731.
- IX. **Plastering:**
  - (i) 6mm thick plaster (1:3) to all exposed RCC works.
  - (ii) 12mm thick plaster (1:5) to all inside and outside faces of brick walls. But outside faces of brick wall plaster shall be with SBR based water proofing compound.
  - (iii) 12 mm thick cement plaster (1:3) in all exposed front plinth walls (from FGL to FFL).

**X. Rendering:**

(i) 3 coats of Acrylic Distemper on all inside plastered surfaces of brick walls over two coats of wall putty/POP and 2 coats cement primer.

(ii) 2 coats of exterior emulsion paint to all outside plastered surfaces over two coats of wall putty/POP and 2 coats cement primer.

(iii) 2 coats of High Gloss Synthetic Enamel Paints to be provided to all steel structures over two coats of Zinc rich red oxide primer.

XI. **Grill Work:** XPM sheet/ welded IRC mech conforming to IS 412, to be provided to all ventilators.

XII. **Cable Trench Cover:** MS chequered plate/MS serrated flooring

XIII. **RCC Roof:** Average 50mm thick SBR modified grading concrete (1:2:4) and 2/3 coats of elastomeric waterproofing with 'SRC' Value as specified in CPWD Specifications over R.C.C Roof slab terrace with proper sloping.

XIV. **Drain:** Standard surface drain to be provided all around the substation.

XV. **Drain Side Apron:** 50mm thick drain side gap - 37 mm thick cc (1:4:8) and 13mm thick cement plaster (1:3) on top.

XVI. RCC Cable Trench of width 1200 mm has to be laid as shown in the attached drawings.

**1.4 General Note**

I. The contractor shall fully familiarize himself with the site conditions and general arrangements and scheme etc. before preparing conceptual lay out plan of the substation building including the locations of equipment. The contractors are advised to visit the substation site and acquaint themselves with the topography, infrastructure and also the design philosophy.

II. The contractor based on conceptual layout plan shall do the complete work of design and detailed engineering.

III. Substations shall be designed to the required service conditions/loads as specified elsewhere in this Specification or implied as per National/International Standards. All civil works shall be carried out as per applicable Indian Laws, Standards and Codes. All materials shall be of best quality conforming to relevant Indian Standards and Codes.

IV. The Contractor shall furnish/provide all temporary works, transportation and all other incidental items not shown or specified but as may be required for complete performance of the Works in accordance with approved drawings, specifications.

**1.5 Design Loading**

I. All structural will be designed for most critical combinations of dead loads, imposed loads, equipment loads, wind loads, seismic loads and temperature loads. In addition, loads and forces developed due to differential settlements will also be considered as per Indian Codal provisions.

- a) Dead loads will consist of self-weight of the structure complete with finishes, fixtures, wall, partitions etc. Dead loads will be determined using unit weights from IS: 875 Part - 1. While calculating dead load of structure, total thickness of floor finish will be considered as 50mm.
- b) For consideration of imposed loads on structures, IS: 875-"Code of practice for structural safety of buildings" will be followed
- c) Equipment loads are self-weight of permanent or semi-permanent equipment acting on the structure. Such loads will be as per supplier of equipment manufacturer.
- d) Structure will be designed for seismic forces in accordance with IS: 1893 - 2002, "Criteria for Earthquake Resistant Design Structure". Since the structure is in Zone-V, a high seismic zone, ductile detailing as per IS: 13920 and 15: 4326 shall be followed.
- e) The total temperature variation will be considered 2/3 of the average maximum annual variation in temperature. The structure will be designed to withstand stresses due to 50% of the total temperature variation.

II. In addition to the general requirements & civil design criteria stipulated for building, following clauses are applicable and shall strictly complied with for any structure as a whole or in part for safety and serviceability.

- a) All structures as a whole or any part/component of it shall be designed for a life of 30 years.
  - b) All RCC design shall be either limit state method or working stress method following the recommendations of IS-456 (latest).
  - c) All foundations shall be founded at a level at least 1.50 metre below virgin soil. No foundation shall be placed on filled-up soil.
  - d) All slabs have two layers of reinforcement for sections having 120mm & above.
- III. All structural steel work shall be designed either by allowable stress method following recommendations by IS: 800.

#### **IV. Miscellaneous Requirements**

- a) In general, FGL of the site shall be 300 mm above the nearest road level.
- b) The FFL of the substation building shall be 600mm above made up ground level.
- c) The ramps for building entrance shall be cast in situ RCC slab designed as a slab spanning over supports or rigid pavement resting on sub-grade provided that the thickness of slab and the property of sub-grade shall be such to ensure of its being treated as rigid pavement. Minimum thickness of slab shall be 150mm. Shuttering shall be provided at the ramp area.

#### **1.6 Document Submission**

- I. Design and Construction documents including architectural drawings & finish schedule pertaining to all Architectural work shall be required to be submitted to Company (OIL) for approval within 60 days from the date of

receipt of LOA along with all related calculations (both hard & soft copies) are to be the date free sets of approved drawings shall be required to submitted to Company (OIL). Approval of these by the Company (OIL) shall not relieve the contractor of his responsibility for any error and fulfilment of Contract requirements. All drawings shall be prepared in AutoCAD of latest version.

- II. As-built drawings shall be prepared by the Contractor after completion of construction/erection, incorporating all the changes, if any, done on Engineer's instruction/approval. A2/A1 size Prints of As-built drawings - 3 Set, Tracing of As-built drawings and CD containing all As-built drawings, design analysis, construction document shall be submitted.

**(B) GENERAL CONDITIONS**

The contractor shall perform all service in accordance with BIS standards and codes and good engineering practices.

(1) The contractor shall provide all labours, supervisions, transport and all other specified materials, required for executing the including tools and plants as necessary for the work and shall be responsible for all royalties and other levies The work executed and materials supplied shall be to the satisfaction of the Company's Engineer and Contractor's rates shall include for all incidental and contingent work which although not specifically mentioned in this contract are necessary for its satisfactory completion

(2) Contractor shall have to produce necessary cash memo towards forest produce used against the contract to–Engineer in Charge from the authorities prior to processing of payment.

(3) The Company's Engineer shall have the power to:

(i) Reduce payments if the quality of work is not up to the required standard set forth in the contract Specifications/approved drawings.

(ii) Order the Contractor to remove any inferior material from the site and to demolish or rectify any work of inferior workmanship, falling which the Company's Engineer may arrange for any such work to be demolished or rectified by any other means at the Contractor's expenses.

(iii) Order the Contractor to remove or replace any workman who The Engineer in Charge considers incompetent or unsuitable; the Engineer's in charge opinion as to the competence and suitability of any workman engaged by the Contractor shall be final and binding on the Contractor.

(iv) Order the contractor for any additional drawings necessary for the purpose of proper and adequate execution of the contract during the construction stage and the contractor shall carry out and be bound by the same.

v) Order deviations of this Contract arising due to non-availability, change in specification of materials/works. These deviations shall be in writing and financial effect, if any, of such deviation shall be worked out on the basis of the rates appearing in Company's Schedule of Rate in force on the date of issue of such Deviation Order.

(vi) The contractor shall have no claim against the Company in respect of any work which may be withdrawn and shall have claim only for the work actually completed

under this contract. The valuation shall be worked out on the basis of the rates appearing in Company's Schedule of Rate in force.

(4) The Contractor hereby undertakes to indemnify the Company against all claims which may arise under the noted Acts as applicable

- I. The Minimum Wages Act, 1948.
- II. The Workman Compensation Act, 1923.
- III. The Payment of Wages Act. 1963.
- IV. The Payment of Bonus Act, 1965.
- V. The Contract Labour (Regulation & Abolition) Act, 1970 and the rules framed there under.
- VI. Employees Pension Scheme, 1995.
- VII. Inter-State Migrant (Regulation of Employment and Condition of Service) Act, 1979.
- VIII. The Employees Provident Fund and Miscellaneous Provisions Act, 1952.
- IX. VAT
- X. Service Tax Act.
- XI. Forest royalty.

or any other Acts or Status not here in above specifically mentioned having bearing over engagement of workers directly or indirectly for execution of work. The Contractor shall not make the Company liable to reimburse the Contractor for the statutory increase in the wage rates of the Contract Labour appointed by the Contractor. Such statutory increase in the wage rates of Contract Labour shall be borne by the Contractor.

(5) The Contractor shall clear away all rubbish and surplus material from the site on completion of work and shall leave the site clean and tidy.

(6) In order to promote, safeguard and facilitate the general operational economic in the interest of the Company during the continuance of this contract the Contractor hereby agrees and undertakes not to take any direct or indirect interest and or support, assist, maintain or help any person or persons engaged in antisocial activities, demonstration, riots, or in any agitation prejudicial to the Company's interest and any such event taking shape or form at any place of the Company's work or and its neighbourhood.

(7) The Contractor will arrange at his own cost cleaning and grass removing of area allotted, construction of temporary office/stores, cement godown, fabrication yards etc and also the watch & ward of all the above. However, contractor shall not be allowed to construct any permanent structure (for storage/housing purpose).

(8) The Contractor shall ensure that all men engaged by him/her are provided with appropriate PPEs in accordance with regulation 89(a) and 89(b) in the OIL mines Regulations 1984.

(9) All Statutory taxes levied by the Central and State Government or any other competent authority from time to time will be borne by Contractor.

(10) The Contractor shall not engage minor labour below 18 (eighteen) years of age under any circumstances.

**(C) SPECIAL CONDITIONS:**

- (1) The Contractor will be required to allow OIL Officials to inspect the work site and documents in respect of the workers' payment.
- (2) All safety precautions to be maintained by the Contractor at his own cost as per safety rules and regulations.
- (3) The Contractor shall use pump if needed for dewatering of pit while excavation for which no extra payment will be made.
- (4) The Contractor shall have to work during rainy seasons also.
- (5) Watch and ward, loss or damage to Company property, theft and other incidental charges shall be Contractor's responsibility.
- (6) Efficient workmen to be engaged by the Contractor.
- (7) Materials if rejected should be removed from site within 48 (forty-eight) hours of rejection, failing which the Company reserves the right to get the rejected materials removed at the risk and cost of the Contractor.
- (8) Water that may accumulate on the site during progress of the works or in trenches and excavations from other than accepted risks shall be removed from the site to the satisfaction of the Engineer-in-Charge and at the Contractor's expense.
- (9) The Contractor shall be in a position to execute more than 1(One) locations simultaneously.
- (10) If required, the Contractor shall have to work in two shifts for which no extra payment will be admissible to him/them.
- (11) If needed water and electricity will have to be arranged by the Contractor at his own cost.
- (12) The Contractor and his workmen shall strictly observe the safety precautionary rules as per approved SOP of OIL while executing the work.
- (13) The Contractor shall have to provide temporary latrine facilities in the entire work site for use of their workmen during progress of work.
- (14) In case of any doubt or dispute as to the interpretation of any clause herein contained, the decision of the Engineer in Charge shall be final and binding on the contractor.
- (15) Near to the construction site a high voltage electrical switch yard is there, therefore the contractor has to arrange for barricading of the construction site with jingled wire/CGI Sheets/asbestos at a distance of minimum 2 meters from the switch yard. All metallic structures to be earthed at at-least two distinct locations.

**(D) PARTICULAR SPECIFICATIONS & INSTRUCTIONS**

**1.00 GENERAL:**

All materials used in the work shall conform to the latest revision of the relevant Indian Standard Specifications to the extent practicable. Where no such specifications available they shall be of the best quality available in the market.

Wherever ISI certified materials and products are available these alone shall be used. All materials shall be stored at site in accordance with IS-4082-1996.

The tendered rates shall include the cost of carriage, transport, loading, unloading and stacking for all materials required for the execution of the work.

**2.00 SITE CLEARANCE:**

Before the earthwork is started, the work site shall be cleared of shrubs, vegetation, grass, uprooting of tree stumps and such others, and such rubbish to be removed and disposed off outside the periphery of the of the area under clearance. The rate of such site clearance is included in the rate of earthwork.

**3.00 STORAGE:**

Materials shall be transported, handled and stored at site at contractor's own risk and cost to the approval of Engineer in Charge.

Cement shall be stored in a weather proof shed, the floor of which shall be raised 300 mm clear from the ground and 600 mm away from the wall all round in order to protect from rain and moisture.

**4.00 EARTHWORK:**

Earthwork shall be done manually/mechanical means including getting out the excavated soil, dewatering and providing and then returning the soil, as required, in layers not exceeding 20cm in depth including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed.

**5.00 SAND FILLING:**

Sand filling shall be done manually and shall include dry ramming, dressing, compacting, carriage etc.

**6.00 CEMENT CONCRETE/REINFORCED CEMENT CONCRETE WORK:**

**All C.C. work**, unless otherwise specified or directed by Engineer In-charge, shall be done with 18 mm graded down broken stone. Broken stone shall be properly screened before use. All reinforced cement concrete work to be done in prop. 1:1.5:3 unless otherwise specified 18mm down to 12mm graded down broken stone as per related drawings and instructions of site Engineer to be followed in case of any discrepancies. Proper vibration to be done as per IS recommendation. Floor panelling to be done in the line of expansion joint or as directed by Engineer In-charge.

**Fine Aggregate** - Fine aggregate shall be hard, durable, clean and free from adherent coating and organic matter. It shall not contain harmful impurities such as pyrites, coal, lignite, mica, shale or similar laminated material, clay, alkali, soft fragments, sea shells and organic impurities in such quality as to affect the strength or durability of the concrete. Fine aggregate to be used for reinforced concrete shall not contain any material liable to attack the steel reinforcement. Fine aggregate which is chemically reactive with alkalis of cement is harmful as cracking of concrete may take place.

**Coarse Aggregate** - Coarse aggregate shall be obtained from natural sources such as stone, gravel, etc crushed or un-crushed or a continuation thereof from approved quarries. This shall consist of coarse material most of which is retained on 4.75mm

sieve. Aggregate shall be hard, strong, dense, durable, clean and free from veins and adherent coatings. It shall be free from soft, feeble, thin, elongated or laminated pieces and shall be roughly cubical in shape. It shall be clear and free from dirt and any other deleterious matter.

**Reinforcement bars** - The following types of steel for reinforcement shall be used in reinforced concrete construction and these shall conform to Indian Standards or as revised from time to time mentioned against each

- 1) Mild steel and medium tensile steel bars and hard drawn steel wire - IS: 432.
- 2) HYSD bars - IS: 1786.

<b>REINFORCEMENT</b>	<b>SIZE</b>
FOOTING	T12 @ 150 mm C/C
COLUMNS	T8 @ 150 mm c/c and ,T16, T12
GRADE BEAM	T20 ,T16, T8
ROOF BEAM	T16,T12,T8
SLAB	T10 @ 150 C/C

Bending & Placing steel reinforcement in position-Bending shall be carried out as per relevant IS specification and direction of the Engineer-in-charge. All reinforcement bars shall be accurately placed in position with spacing and cover as shown in the drawing or as specified and firmly held so during the placing and vibrating and setting of concrete. Bars shall be thoroughly cleared of rust, seals, grease, oil and any other foreign matter before placing them in position. The overlap jointing shall be staggered. The bars shall be fixed with 22G binding wire. Precast cover blocks 1:2 (1 cement: 2sand) cement mortar 40 mm square and necessary thickness shall be used to keep the reinforcement bars in proper position (no extra payment shall be made for preparation of blocks). Wire required for binding shall not be measured separately. Tack welding shall also be permitted in lieu of building with steel wire.

**Proportioning of mix** - Proportioning shall be done by volume. Boxes of suitable size shall be used for measuring sand and aggregates. The size of the boxes (internal) shall be 35 x 25cm and 40cm deep. The unit of measurement for cement shall be a bag of cement weighting 50 Kg and this shall be taken as 0.035 cubic metre. While measuring the aggregate and sand the boxes shall be filled without shaking, ramming or hammering. The proportioning of sand shall be on the basis of its dry volume and in case of damp sand allowances for bulkage shall be made.

**Mixing** - Mixing of reinforced cement concrete shall, as a rule be done in a mechanical mixer. However, the Engineer-in-charge may permit hand mixing in specific cases where in his opinion it is not practicable to resort to mechanical mixing, either on account of the quality of cement concrete required is small or for any other reason. In such cases, it should be ensured that the inferior quality of concrete produced by hand mixing will not adversely affect the structure.

**Consistency** - In general the quantity of water to be used for each batch containing 50 Kg of cement, to give the required consistency shall not be more than 34 litres for 1:3:6, mix 32 litres for 1:2:4 mix, 30 litres for 1:1.5:3 mix and 27 litres for 1:1:2 mix. The quantity of water shall be regulated by carrying out regular Slump Test. In case

of design concrete quantity of water to be guided as per design mix and relevant IS codes.

**Placing of concrete** -Before placing the concrete the sub-base/form work shall be cleared of all injurious or foreign matter, watered and well consolidated. Formwork shall be clean and free from all foreign material. It is necessary that the time between mixing and placing of concrete does not exceed the initial setting process. Mixed concrete that has been left standing shall not be used after the initial set has commenced the addition of water (or cement) to make such a mixture more workable shall not be allowed. In foundation trenches or such other situations, the entire concrete used in the work shall be laid gently (not thrown) in layers not exceeding 15cm. The concrete so deposited shall be thoroughly vibrated by means of mechanical vibrators till dense concrete is obtained.

**Curing** - Concrete shall be carefully protected during first stage of hardening from harmful effects or excessive heat, drying winds, rain or running water and shock. After the concrete has begun to harden i.e. about 1 to 2 hours after its laying it shall be protected from quick drying with moist gunny bags or any other material approved by the Engineer-in-charge. After 24 hours of laying of concrete the surface shall be cured by flooding water upto 25mm depth or by covering with wet adsorbent materials. The curing shall be done for a minimum period of 7 days from the date of pouring of concrete, unless otherwise specified.

**Finishing** - In case of roof slabs the top surface shall be finished even and smooth with wooden trowel, before the concrete beings to set. The surface of RCC slab on which the cement concrete or mosaic floor is to be laid shall be roughened with brushes while the concrete is green. This shall be done carefully without disturbing the concrete. Before laying the floor, the laitance shall be removed, the surface of slab hacked and a coat of cement slurry at 2.75 Kg of cement per square metre shall be applied, so as to get a good bond between RCC and concrete floor. The exposed surface which is to receive plaster or where it is to be joined with brick masonry wall, shall be properly roughened immediately after the removal of form work, taking care to remove the laitance completely without disturbing the concrete. Before the surface is plastered, it shall be cleaned and wetted so as to give good bond between concrete and plaster.

#### **7.00 FORM WORK:**

The formwork shall be rigid and so corrected as to retain the shape and dimensions of the member being cast. Form work for concrete shall be seasoned timber or other approved materials as per directions of the Engineer. It shall be sufficiently tightened to prevent loss of cement slurry and all holes and joints shall be caulked with putty. It shall have sufficient strength and rigidity to withstand the load of concrete, and vibrations, movement of men, materials and plants and any other incidental loads without excessive deflection beyond permissible limits. The formwork shall be so constructed as to be removable in sections by inscribing or otherwise loosing - them without hammering or levering with force. Only wedges, clamps bolts or screws etc shall be used in preference to nails or spikes. All side pieces shall be easily removable without disturbing the bottom pieces. Where however, use of nails and spikes become unavoidable, these shall be left projecting so that they can easily be withdrawn.

Surface treatment for shuttering - Forms shall be cleaned of all dust, wood shavings, dirt and other matter by washing with water. This process is facilitated by providing draining holes in the shuttering. The surface shall then be coated with form release agent of approved manufacturer before concreting is done. Care shall be taken that such approved composition is kept out of contact with the reinforcement.

In normal circumstances and where ordinary Portland cement is used form may generally be removed after the expiry of the following periods.

a) Walls, columns and vertical face of all structural members as may be decided by the Site Engineer: 24 to 48 hours.

b) Slabs side (props left under): 3 days

c) Beam soffits (props. left under):14 days

d) Removal of props under slabs

i) Spanning up to 4.5 m: 14 days

ii) Spanning over 4.5 m: 21 days

e) Removal of props under beams:

i) Spanning up to 6 m: 21 days

ii) Spanning above 6 m: 28 days

In no circumstances shall forms be struck until the concrete reaches a strength of at least twice the stress to which concrete may be subjected at the time of removal of form work. All form works shall be removed without such shock or vibration as would damage the concrete. Form work for long span deep beams to be supported by MS props or Bhaluka Bamboo props as required based on the design for the formwork to take care the massive load of the green concrete.

### **8.00 DAMP PROOFING COURSE:**

It shall consist of 1:1.5:3 plain cement concrete with approved water proofing materials such as cico, impermo etc. of specified thickness. Edges of DPC shall be straight, even and vertical side shuttering shall consist of wooden or steel forms and shall be strong and properly fixed so that it is not disturbed during compaction and mortar or cement slurry does not leak through. When forms are struck, the surface should be smooth without any honeycombing. The surface shall be kept wet for seven days. Before commencing the superstructure work, the top of concrete course shall be dried and cleaned of all materials. Blown type bitumen shall then be applied uniformly on the surface and the side of the concrete coming in contact with flooring on the inside shall also be painted with bitumen.

### **9.00 BRICKWORK:**

a) All bricks shall be of 75 class designation quality locally available as approved by the Site Engineer.

b) Bricks shall be of size as specified in the item of work or of nominal size where no particular size is mentioned.

c) Bricks shall be well burnt, sound, hard with sharp edges of uniform size and shape free from cracks, stones or particles of lime and other defects, shall be kiln burnt and satisfy the following requirement:

i) They shall give a clear metallic sound when struck

ii) They shall be of uniform colour and size

iii) They shall not be cracked, stratified or under or over burnt

iv) The tolerance in dimensions shall be +/- 12mm in length, 6mm in width and 3mm in height.

v) Keys or frogs shall be formed on one of the larger size, except in the case of machine extruded bricks where no frogs are required

vi) The increase in weight when soaked in water for 24 hours shall not be more than 20% of the dry weight of the bricks.

d) If required by the Site Engineer, necessary test shall be conducted at the contractor's expense to ensure quality. In general, the bricks shall be the best quality locally available.

Bricks used for masonry in cement mortar or composite mortar shall be thoroughly soaked in clean water for at least an hour immediately before use (The absence of bubbling when the soaked brick is immersed in water is the test for thorough soaking). The soaked bricks shall be kept on a platform free from dirt, mud or any foreign element. Bricks shall be laid in English bond unless otherwise specified. Care must be taken that the bricks are perfectly clean and free from lime, moss or dirt of any kind. If necessary they must be scrubbed before use. Half or cut bricks shall be not used except for closures which may be required to complete the bond. It shall be ensured that all horizontal and vertical joints are completely filled with mortars without any void in brickwork. Brickwork shall be raised truly plum (or true to required better where so specified). All courses shall be laid truly horizontal. Vertical joints shall be truly vertical and those in alternate courses shall be in the same vertical line. The thickness of brick courses shall be uniform. Great care must be taken to masonry in progress of construction damp. When work is left off for the day troughs shall be formed, by means of fillets of mortar 51mm high all round the unfinished work and shall be kept filled with water. Vertical or inclined surfaces must be frequently watered from a rose headed can. Water should not be dashed with violence against new work as this washes out the mortar. Should the work be delayed owing to holidays or for other reason, the contractor must make adequate arrangements for keeping the work wetted, and shall continue to do so for at least ten days or such longer time as directed, after the brickwork has been completed.

a) Brick work in cement mortar with 75 designation brick including racking out joints and curing complete as directed, in sub structure and superstructure in mortar of specified proportion.

b) 115mm thick 75 designation brick nogged wall in cement mortar embedded with protruding M.S. rod 6mm dia in column including racking out joint and curing complete as directed in super structure above plinth in proportion as specified.

**10.00 CEMENT MORTAR:**

- i) Must be freshly mixed: Cement mortar will only be mixed in such quantities as can be used up on the work within half an hour of mixing. Mortar which has been mixed longer or which has taken its initial set will on no account be used on the work or remixed with fresh mortar. It must be immediately removed from the site or work.
- ii) Method of mixing: The cement and sand will be mixed dry in the specified proportions, by turning over at least three times on the mixing platform. Only sufficient water will then be added, thorough a rose of a watering can, to produce a workable mixture. The wet mortar will be thoroughly worked or mixed by repeatedly turning over, not less than three times on the mixing board.
- iii) Size of mixing platform and precaution against list: All mixing of mortar must be done on platforms of angle size and workman bringing the material to and from the platform must not be permitted to walk about on it, thereby bringing mud or dirt to the place, where the mortar is being mixed. The platform must be clean and level and all joints closed or filled so that the cement is not washed out.
- iv) Proportion of cement and sand: Where not otherwise specified, cement mortar for plaster will consist of one part of cement to two parts of sand. For mortar for brick or stone masonry work the proportion unless otherwise specified, will be one part of cement to three parts sand.

**11.00 PLASTER WORK**

- i) Preparation of surface: All putlog holes in brick work and junction between concrete and brick work shall be properly filled in advance. Joints in brick work shall be raked about 10mm and concrete surface hacked to provide grip to the plaster. Projecting burrs of mortar formed due to gaps at joints in shuttering shall be removed. The surface shall be scrubbed clean with wire brush/coil brush to remove dirt, dust etc. and the surface thoroughly washed with clean water to remove efflorescence, grease and oil etc. and shall be kept wet for a minimum of six hours before application of plaster.
- ii) Proportion: The cement plaster shall be in specified proportion of cement and sand.
- iii) Mixing: The cement and sand should be thoroughly mixed in dry condition. After dry mixing, the materials shall be wetted with just sufficient water to bring the mortar to proper consistency of thick paste. Mortar should be used immediately after mixing and arrangements shall be made so that not more than 30 minutes elapse between the cement first coming in contact with the moisture and laying. In all exterior plaster works waterproofing compound to be added to the mortar as per the specification of the manufacturer, if not indicated in the item rate quoted should be inclusive of the same.
- iv) Placing: Plaster shall be laid over the prepared surface in one coat to the specified thickness and rubbed with "PATAS" and trowel and shall be smooth, free from waviness and trowel marks.
- v) Sequence of operations: For external plaster, the plastering operations shall be started from the top floor and carried downwards. For internal plaster, the plastering operations may be started wherever the building frame and cladding work are ready

and the temporary supports of the ceiling resting on the wall or the floor have been removed.

vi) Curing: Each coat shall be kept damp continuously till the next coat is applied or for a minimum period of 7 days. Moistening shall commence as soon as plaster is hardened sufficiently. Soaking of walls shall be avoided and only as much water as can be readily absorbed shall be used.

**12.00 STEEL DOORS, WINDOWS AND VENTILATORS:**

The type, over all sizes, side opening position of steel doors, windows and ventilators shall be specified as per details given in IS: 1038, specification for steel doors, windows & ventilators and as per drawings. Both the fixed and opening frames shall be constructed of sections, which have been cut to length and mitred. The corners of fixed and opening frames shall be electrically flash butt welded to form a solid and true right angle and all frames shall be square and flat.

Side-hung shutter windows - Window shutters shall be hung on projecting type hinges (not less than 65mm and not more than 75mm wide). One leaf of the hinge shall be welded into a slot in the outer frame and the other leaf of the hinge riveted to the opening shutters. Friction hinges may be provided for side-hung shutter windows in which case peg-stay may not be required. In cases where non-friction type hinges are provided, the windows shall be fitted with peg-stays, which shall be either of hot-pressed brass, cast brass, aluminium or steel protected against rusting and shall be 300mm long with steel peg and locking bracket. The peg stay shall have three holes to open the side hung casements in three different angles.

Top Hung Ventilators - The steel butt hinges for top hung ventilators shall be riveted to the fixed frame or welded to it after cutting a slot in it. Hinges to the opening frame shall be riveted or welded and cleaned off. Top hung casements shall be provided with a peg stay three holes which when closed shall be held tightly by the locking bracket. The locking bracket shall either be fitted to the fixed frames or to the window.

Glazing of metal doors, windows and ventilators - Doors and windows shall normally be glazed with glazing clip & putty on unless otherwise specified. Putty shall be applied between glass panes and glazing bars. Putty shall be applied over the glass panes, which shall stop 2 to 3mm from the

sight line of the back rebate to enable the painting to be done upto the sight line, to seal the edge of the putty to the glass. The oozed out back putty shall be cleaned and cut to straight line.

**13.00 PLINTH PROTECTION AND STORM WATER DRAIN:**

Plinth protection and storm water drain shall, unless otherwise specified or as directed by Engineer In-charge, shall be provided along the outer periphery of the building as per drawing and with PCC (1:3:6) over bricks flat laid in CM 1:4 and finished with 15mm thick cement plaster in prop. 1:2 with floating coat of neat cement finish.

**14.00 SYNTHETIC ENAMEL PAINT:**

Preparation of surface: The surfaces before painting shall be cleaned of all rust, scale, dirt and other foreign matter sticking to it with wire brushes, steel wool in case of steel surfaces and sand papering in case of wooden surfaces. Thereafter, one coat approved primer paint will be applied on the surface. Synthetic enamel paint (Superior quality as approved) shall be applied - two or more coats to give an even shade.

**15.00 ANTI-TERMITE TREATMENT (IS 6313):**

Injecting chemical emulsion of Chlorpyrifos ZOEC (IS-8944) emulsifiable concentrates 20% with 1% concentration for pre-construction anti-termite treatment and creating a continuous chemical barrier under and all round the column pits, trenches, top surface of plinth filling, junction of walls and floor along the external perimeter of building expansion joints, surroundings of pipes and conduits etc complete as per specification (plinth area of the building at ground floor only shall be measured for payment) and to be executed by reputed party.

**16.00 SIGN BOARDS AND MARKINGS**

Proper signboards and markings shall be provided as directed and to the satisfaction of OIL engineer in charge.

**16.00 MANDATORY TESTS:**

The various mandatory tests shall be carried out by the contractor and no separate payment shall be made unless otherwise specified in the schedule of rates for suitability of the materials for the work. Following tests/test certificate to be produced by the contractor at his own cost from Govt recognised institutions.

- i) Water for construction and curing to be tested before use ('PH' value should not be less than 6).
- ii) Bricks as per IS: 1077
- iii) Coarse and fine aggregates as per IS:383
- iv) Cube test for Compressive strength test of RCC to be done as per relevant code of practice IS 456-2000.
- v) Manufacturer Test certificate and site test report for Steel materials, Reinforcements shall be as per relevant IS Codes (latest edition).
- vi) Any other tests as per the direction of Engineer-in-charge.
- vii) Necessary test certificate to be submitted against the cement supplied by the vendor for the job. The type of cement to be used in the job to be approved by the engineer in charge.

**17.00 MEASUREMENT & PAYMENT:**

For all extra work done on the advice of the OIL Engineer in Charge and which is not included in the scope of work, deviation order for the same shall be made per decision & power of the OIL Engineer in Charge.

**18.00 SAFETY MEASURE:**

Safety measure as per OIL regulations shall be strictly adhered to by the Contractor. Safety belts and other measure taken by the Contractors shall be borne by the Contractor. If any loss or damage caused to life during the erection and execution, the contractor shall be fully responsible for the loss.

**19.00 RECORD KEEPING:**

(i) A site order book will be maintained at site which will be in the custody of the Engineer-in-charge or his representative and all instructions given to the Contractor will be recorded in the site order book and the same has to be signed by the contractor to comply with the instruction given therein.

(ii) During construction, the contractor shall submit photographic evidence (at least 4 copies) fortnightly as a measure of work progress.

(iii) A hindrance register to be maintained at site and all stop/loss of work to be recorded in that register.

**(E) MATERIAL, TOOLS AND PLANTS**

(i) High Strength Deformed Steel Bars conforming to IS: 1786

(ii) Steel Sections, Plates & Sheets conforming to latest edition of IS codes

(ii) Table mentioned below is the Tentative list of T&P to be deployed at site on as and when required basis by the contractor for successful and timely completion of work. It may be noted that the list is not exhaustive and is only for general guidance.

DESCRIPTION	NUMBER	MOBILISATION
Concrete mixing machine	03	As per requirement
Concrete Vibrator with needle	06	As per requirement
Reinforcement bending machine	02	As per requirement
Reinforcement cutting machine	02	As per requirement
Curing/dewatering pump-1.5/2 HP (Pump for curing at heights)	02	As per requirement
Air compressor	01	As per requirement
Power driven earth rammer	02	As per requirement
Concrete cube moulds	54	As per requirement
Dumper/Truck	03	As per requirement
Excavator	01	As per requirement
Drinking water tank	03	As per requirement
Safety Gadgets for Individual Location	-----	As per requirement

Note: The attached civil drawing for substation building are for reference purpose only.

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**TECHNICAL SPECIFICATION OF THE SAFETY ITEMS**

The following safety items are to be supplied by the contractor:

<b>Sl No.</b>	<b>Safety Items</b>	<b>Unit</b>	<b>Quantity</b>
1	33 kV Danger Boards	each	10
2	11 kV Danger Board	each	10
3	LT Danger Board	each	10
4	Chequered Sheet of 8 mm thickness for covering cable trenches in substation	kg	200
5	2.5 mm Insulating mat	sqm	30
6	2 mm Insulating mat	sqm	20
7	DCP fire extinguisher	each	4
8	Sand bucket with sand and stand	each	1
9	First Aid box	each	2
10	Shock treatment Chart	each	2
11	Safety Instruction Chart	each	2
12	SLD and Earthing layout	each	2

**1. 33 kV Danger Boards:**

Caution Board, 33000 volts, with white skull and cross bones and per IS 2551:1982 with its latest amendments.

**2. 11 kV Danger Board:**

Caution Board, 11000 volts, with white skull and cross bones and per IS 2551:1982 with its latest amendments.

**3. LT Danger Board**

Caution Board, 415 volts, with white skull and cross bones and per IS 2551:1982 with its latest amendments.

**4. Chequered Sheet of 8 mm thickness for covering cable trenches in substation**

MS chequered sheet of 8 mm thickness with the following specifications:

- (A) The chequered sheet shall adhere to IS 2062: 2011 with latest amendments,
- (B) Serrated flooring should be made of mild steel.
- (C) Steel Serrated Flooring Slip Proof of 100 mm pitch of twisted cross bars of size 8 mm and 40 mm pitch of load bearing bars of size 25 mm x 5mm.
- (D) Grating manufactured with ARC Welding process with no slag & should have homogenous appearance on weld joints.

(E) All Grating to be painted with a coat of red oxide and additional coat of black synthetic enamel paint.

(F) Iron strap shall be cut with perfect die.

**5. 2.5 mm Insulating mat**

The detailed technical specification of the item shall be as per following:

(A) APPLICATION:

The Insulating mat shall be suitable for use in Electrical substations, switch rooms, transformer rooms, electrical control rooms, LT & HT labs etc. up to 11 KV voltage level.

(B) FEATURES OF THE INSULATING MAT:

The Insulating mat shall have the following features:

- I. It shall be manufactured as per IS: 15652-2006 with latest amendments, by manufacturers having valid BIS license for this item and shall be ISI marked.
- II. It shall be Moisture proof, fire retardant, resistant to mineral oil, salty water, transformer oil, alkalis, acids, diesel, petrol, kerosene, crude oil.
- III. It shall be long lasting, permanently fixable/pastable type for easy installation.

(C) COMPOSITION & CONSTRUCTION OF THE INSULATING MAT:

The Insulating mat shall be made from highly electrical resistant elastomeric material free from any insertions. Upper surface of the insulating mats shall have anti-skid small aberrations to avoid slipperiness while the lower surface shall be plain and finished slip resistant without affecting the dielectric properties of the mat.

(D) SIZE & COLOUR OF THE INSULATING MAT:

The Insulating mat shall be supplied in roll and each roll of the Insulating mat shall be 2.5 mm thick ( $\pm 10\%$  tolerance) and 1000 mm width. The available colour of the mats shall be specified by the contractor. No metallic derivative colour shall be acceptable.

(E) MARKING: Each roll shall be marked with the following:

- a. Class of mat
- b. 'ISI' mark
- c. Manufacturer's identification mark/Trademark

(F) TESTS AND TEST CERTIFICATE:

- I. The contractor shall submit test certificate prior to supply for approval from OIL.

**6. 2 mm Insulating mat**

The detailed technical specification of the item shall be as per following:

(A) APPLICATION:

The Insulating mat shall be suitable for use in Electrical substations, switch rooms, transformer rooms, electrical control rooms, LT & HT labs etc. up to 3.3 KV voltage level.

**(B) FEATURES OF THE INSULATING MAT:**

The Insulating mat shall have the following features:

- I. It shall be manufactured as per IS: 15652-2006 with latest amendments, by manufacturers having valid BIS license for this item and shall be ISI marked.
- II. It shall be moisture proof, fire retardant, resistant to mineral oil, salty water, transformer oil, alkalis, acids, diesel, petrol, kerosene, crude oil.
- III. It shall be long lasting, permanently fixable/pastable for easy installation.

**(C) COMPOSITION & CONSTRUCTION OF THE INSULATING MAT:**

The Insulating mat shall be made from highly electrical resistant elastomeric material free from any insertions. Upper surface of the insulating mats shall have anti-skid small aberrations to avoid slipperiness while the lower surface shall be plain and finished slip resistant without affecting the dielectric properties of the mat.

**(D) SIZE & COLOUR OF THE INSULATING MAT:**

The Insulating mat shall be supplied in rolls. Each roll of the Insulating mat shall be 2.0 mm thick ( $\pm 10\%$  tolerance) and 1000 mm width. The available colour of the mats shall be specified by the contractor. No metallic derivative colour shall be acceptable.

**(E) MARKING:** Each roll shall be marked with the following:

- a. Class of mat
- b. 'ISI' mark
- c. Manufacturer's identification mark/Trademark

**(F) TESTS AND TEST CERTIFICATE:**

- I. The contractor shall submit test certificate prior to supply for approval from OIL.

**7. DCP fire extinguisher**

Specification for 9Kg DCP Fire Extinguisher (Stored Pressure)

**(A) Technical Specification:**

*a. General:*

- I. Standard code conforming to IS-15683 (with latest amendments)
- II. Type: Wall Mounted
- III. Capacity: 9Kg (Portable Stored Pressure Type)
- IV. Fire Rating: 233B
- V. Temperature Range: -10# to +60# (Degree Celsius)
- VI. Operating Pressure: 14-15 Bar
- VII. Classification: Suitable for Class-A, Class-B, Class-C and Electrical Fires.
- VIII. Burst Pressure: Minimum 55 bar (As per Clause No. 6.2 of IS-15683)

- IX. The extinguisher shall be fitted with safety valve which shall release at a pressure of 17 Kg/cm<sup>2</sup>.
- X. The extinguisher shall be fitted with pressure gauge with NRV.

b. Extinguishing Media:

I. Dry Chemical Powder "Mono Ammonium Phosphate" (min 90 % of total composition of the chemicals) based ISI marked Dry Chemical Powder confirming to IS: 4308 (latest revision).

II. DCP shall be compatible with all types of fire-fighting foam compounds.

c. Painting:

Extinguisher shall be painted with "Fire Red" colour conforming to shade No. 536 of IS-5 (latest).

d. Test Requirements: (As per IS-15683: 2018 or latest):

All relevant test certificates as per applicable IS to be submitted along with fire extinguishers.

**8. Sand bucket with sand and sand**

Providing of set of 4 Nos. 9.5 Litre capacity GI bucket painted in post office red colour with prior coat of red oxide paint and written with white paint 'FIRE' and mounted on MS angle iron frame with bracket of appropriate size & capacity I/c filling sand etc.

**9. First Aid Box**

Items/Medicines to be included in the First Aid Box:

Sl No.	Item Name	Min Qty	Usage
1	BETADINE/WOKADINE SOLUTION/EQUIVALENT	200ML	EXTERNAL APPLICATION ON WOUNDS AND CUTS
2	EMFOGEN/MILFLOX/CIPLOX EYE DROP/EQUIVALENT	10ML	FOR EYES
3	FUSIWA OINTMENT/EQUIVALENT	1 TUBE	EXTERNAL APPLICATION ON WOUNDS AND CUTS
4	TAB CALPOL/PYRIGESIC/P-500/EQUIVALENT	STRIP OF 30	FOR FEVER/HEADACHE/PAIN
5	SILVEREX/SOFRAMYCIN OINTMENT/EQUIVALENT	1 TUBE	EXTERNAL APPLICATION ON WOUNDS AND BURNS
6	GAUZE	Q.S(2)	FOR DRESSING PURPOSE
7	COTTON	Q.S(6)	DO
8	ROLLER BANDAGE	1 ROLL	DO
9	BLADE	10 NOS.	DO
10	SAFETY PIN	1 BUNCH	DO
11	ADHESIVE PLASTER	BIG SIZE 1 ROLL	DO
12	TRIANGULAR BANDAGE	1 PACKETS	DO

13	TORNIQUET TUBE	2 NOS.	DO
14	SCISSOR (SMALL SIZE)	1 NO.	DO
15	CREP BANDAGE	1 NO.	PHYSICAL INJURY
16	BANDAID	12 NOS.	EXTERNAL APPLICATION ON WOUNDS AND BURNS

**10. Shock treatment Chart**

Supply & fixing shock treatment chart both in Hindi and English and with local language for treating person suffering due to electric shock. Mounted on wall. It should be in a wooden frame with 5mm thick glass, complete as reqd. (approximate front area 1.20sq. metre)

**11. Safety Instruction Chart**

Supply of safety instruction chart in word duly framed with 5mm thick glass complete as reqd.(approx. Front area 1.20 sq. mt.)

**12. SLD and Earthing layout**

Supply & fixing SLD and Earthing layout in two separate frames. Mounted on wall. It should be in a wooden frame with 5mm thick glass, complete as reqd. (approximate front area 1.20sq. metre each).

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**Annexure XVI****TECHNICAL SPECIFICATIONS OF TESTING AND MEASURING INSTRUMENT AND OTHERS**

The following testing and measuring instruments are to be supplied by the contractor:

<b>Sl. No.</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>
1	5 kV Insulation Tester	each	1
2	Digital multi-meter	each	3
3	Clamp-on meter	each	3
4	Stand Fan	each	3

The specifications are as follows:

**1. Supply of 5 kV Insulation Tester**

Supply of portable, rugged, lightweight and easy to carry 5kV electrical insulation tester suitable for use in field jobs. The specification of the instrument shall be as per the followings:

**(A) FEATURES OF THE INSULATION TESTER:**

- I. Operating Source: Both AC mains and internal rechargeable battery.
- II. Test Parameters: The instruments shall have the testing facility for testing Insulation Resistance, Polarization Index, Dielectric Absorption Ratio, Step Voltage, and Dielectric Discharge Test.
- III. The test instrument shall have the capacitance measurement facility.
- IV. The instrument shall have standard selectable test voltage in the combination of 500V, 1kV, 2.5kV & 5kV.
- V. Display: Digital backlit LCD display. The display shall also have graphical display of test voltage rise decay during PI, DAR, DD testing. The minimum display information shall be resistance, voltage, leakage current, capacitance, battery status, time constant, and elapsed time of the test.
- VI. The instrument shall have terminal voltage display with high voltage alarm and testing inhibition in presence of external voltage.
- VII. The instrument shall have guard terminal for accuracy enhancement.
- VIII. Automatic energy discharge at the end of the test.
- IX. Memory for the data storage of the voltage, test time, leakage current, resistance, PI, DAR, DD, capacitance and time constant.
- X. Communication interface: RS 232 and USB.

**(B) TECHNICAL SPECIFICATIONS:**

- I. Power Supply: Both mains and battery powered. At least 6 hours testing with a fully charged battery. The Battery voltage shall be constantly monitored and displayed.
- II. Test Voltage: Testing voltages with broad range from 500V to 5kV. The instrument shall have standard Test voltage preset at 500V, 1kV, 2.5kV or 5kV.

- III. Insulation measuring range: 0 to 10 Tera Ohm. Insulation resistance auto range in all ranges of display. Accuracy shall be +5% up to 1 T-ohm and +10% up to 10 T-ohm.
- IV. Display range: 3 digits Digital display up to 10 T-ohm.
- V. IP protection: IP 65
- VI. Applicable standards: The instrument shall comply with CATIV 600, IEC 61001-1, and IEC 61326-1.
- VII. Weight must be less than 10 kgs.
- VIII. Accessories: The test instrument shall be supplied with the following minimum accessories:
  - i. 02 nos. test leads of 3 meters length (min) each with suitable crocodile clips.
  - ii. RS 232 cable.
  - iii. USB cable.
  - iv. Line cord.
  - v. Carrying Bag.
  - vi. User's manual both in CD version and Hard Copy.
  - vii. Calibration Certificate.
  - viii. Rechargeable batteries and charger.
  - ix. Guard test lead.

## **2. Supply of Digital Multi-meter**

Supply of Digital Multimeter

(A) Features required:

- I. Display: Minimum 4000 counts LCD display with function indication
- II. Autoranging/manual range selection
- III. DATA HOLD function, for holding measured values
- IV. Continuity test with acoustic signalling (beeper)
- V. AUTO-OFF function
- VI. Diode Test
- VII. Over range Indication
- VIII. Ergonomic case with integrated protective holster

(B) Technical Specification:

The DMM should be able to measure the following:

- I. DC Voltage Range: 0-1000V, Minimum Resolution: 0.1 mV
- II. AC Voltage Range: 0-1000V, Minimum Resolution: 0.1 mV
- III. DC Current Range: 0-10A, Minimum Resolution: 0.1 mA
- IV. AC Current Range: 0-10A, Minimum Resolution: 0.1 mA
- V. Resistance measurement Range: 0-40 Mohm, Minimum Resolution: 0.1 ohm
- VI. Capacitance measurement Range: 0-1000 $\mu$ F, Minimum Resolution: 0.01nF

(C) Special terms and Condition

a. Safety and Quality Requirement:

- I. Type of insulation: Double, in accordance to EN 61010-1 and IEC 61557
- II. Measurement category: CAT III 1000V or CAT IV 600V conforming to EN 61010-1:2004

- III. Protection class acc. to EN 60529: IP43 minimum
- IV. Fuses: fast acting
- b. Accessories to be included:
  - I. Test leads
  - II. Battery
  - III. Temperature probe, K type thermocouple for use in air, non-caustic gas and surface application
  - IV. Operating manual
  - V. Zippered carrying case with padding and inside pocket
  - VI. Snap-on meter holster which absorbs shocks and protects meter from rough handling
  - VII. Test and calibration certificates

**3. Supply of digital Clamp-on meter**

Digital True-RMS Clamp Meter with Features & Technical Specification mentioned as under:

- (A) Functions: AC/ DC Current measurement, AC/DC Voltage Measurement, Resistance Measurement, Continuity checking, frequency measurement.
- (B) AC & DC Current Measurement (True RMS)
  - I. Range: upto 1000A with jaw and upto 2500A with flexible probe.
  - II. Resolution: 0.1A
  - III. Accuracy: 3% +/- 5 digits
  - IV. Flexible current probe shall be provided for increased display flexibility, ability to measure around awkward sized conductors & improved wire access.
  - V. The meter shall be capable of measurement of inrush current at the time of start-up phase of electrical device.
- (C) AC & DC voltage measurement (True RMS)
  - I. Range: upto 1000V
  - II. Resolution: 0.1V for voltage upto 500V. For voltages above 500V, resolution may decrease upto 1V.
  - III. Accuracy: 1.5% +/- 5 digits
- (D) Resistance measurement and continuity test
  - I. Range: upto 10 kilo ohms
  - II. Resolution: 0.1 ohms for resistance value below 500 ohms and for resistance value above 500 ohms the resolution may decrease upto 1 ohms.
  - III. Accuracy: 1 % +/- digits
  - IV. continuity test with acoustic signalling (beeper) for resistance below 30 ohm
- (E) Frequency Measurement:
  - I. Range: 10Hz to 100Hz
  - II. Resolution: 0.1 Hz
  - III. Accuracy: 0.5% +/- 5 digits

- (F) Display: Digital backlit LCD/LED display
- (G) HOLD function for holding measured values
- (H) DC ZERO mode of measurement for DC current
- (I) MAX / MIN functions
- (J) Over range indication
- (K) AUTO-OFF function
- (L) Low battery indication
- (M) Measurement category: CAT III 1000V or CAT IV 600V conforming to EN 61010-1:2004
- (N) Accessories:
  - I. Test leads with probes and crocodile clips.
  - II. Carrying case
  - III. Batteries.s
  - IV. Flexible current probe
  - V. Operating Manual
  - VI. Magnetic Hanging straps
- (O) Items shall be properly packed to avoid transit damage.

**4. Supply of Industrial Pedestal Fan**

- (A) INDUSTRIAL PEDESTAL FAN, 450mm (Air Circulator).
- (B) Pedestal Fan (Air circulator) sweep 450mm, suitable for 230/240 V, 50HZ AC with following specification:
  - I. Aerodynamically designed and dynamically balanced metallic blades to ensure Powerful blast of air. Minimum Air delivery should be 110 cmm.
  - II. Height should be adjustable.
  - III. The fan should be fitted with speed regulator.

**5. General Points**

- (A) Contractor has to submit TDS of all the aforementioned items and to get it approved by Engineer-in-Charge prior to supply.
- (B) O&M manual of all the items to be submitted along with supply.
- (C) Demonstration of Testing and measuring instruments to be imparted by OEM or OEM authorized person.
- (D) Items shall be properly packed to avoid any transit damage.

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**PREFERRED MAKE OF MATERIALS**

<b>SL. NO. :</b>	<b>DESCRIPTION OF ITEM</b>		<b>APPROVED MAKES</b>
1	SINGLE CORE BIS MARKED, COPPER, FRLSH PVC INSULATED MULTISTRANDED 1100V GRADE CABLE/WIRE		FINOLEX/HAVELLS/POLYCAB/RR KABEL/KEI
2	ALL MULTI CORE PVC ALUMINIUM CABLE		FINOLEX/HAVELLS/POLYCAB/RR KABEL/KEI
3	EARTH WIRE		FINOLEX/HAVELLS/POLYCAB/RR KABEL/KEI
4	LUGS		DOWELL/3D-BILLET/JAINEX/SCHNEIDER
5	PVC CASING CAPPING		PRESTO PLAST/AKG/PLAZA/ WELKM /PRESTO TEAK
6	PVC CASING BOX		ANCHOR/LEGRAND/ WELKM /PRESTOPLAST
7	PVC CONDUIT		RICHA/ ANCHOR /PLAZA/AKG/ PRESTOPLAST/ WELKM
8	PVC BOARD		PRESTO PLAST/AKG/PLAZA/WELKM/PRESTO TEAK
9	20 A METAL CLAD SWITCH-SOCKET UNIT		LEGRAND/SCHNEIDER/SIEMENS/HAVELLS/ABB/L&T
10	EXHAUSTFAN, PEDESTAL FAN ETC.		HAVELLS/BAJAJ/ORIENT/USHA/CROMPTON GREAVES
11	LIGHT FITTINGS (INCLUDING DRIVER)	LED BATTEN, 4 FEET	PHILIPS/CROMPTON/BAJAJ/HAVELLS/WIPRO
12	MCCB		LEGRAND/SCHNEIDER/SIEMENS/HAVELLS/ABB/L&T
13	MCB		LEGRAND/SCHNEIDER/SIEMENS/HAVELLS/ABB/L&T
14	RCBO		LEGRAND/SCHNEIDER/SIEMENS/HAVELLS/ABB/L&T NOTE: RCBO, MCBS AND BOX SHALL BE OF SAME MAKE
15	MCB DB		LEGRAND/SCHNEIDER/SIEMENS/HAVELLS/ABB/L&T NOTE: MCB DB AND MCBS/RCBO FITTED THEREIN HAVE TO BE OF SAME MAKE
16	VTPN DB		LEGRAND/SCHNEIDER/SIEMENS/HAVELLS/ABB/L&T NOTE: VTPN DB AND ALL COMPONENTS FITTED THEREIN HAVE TO BE OF SAME MAKE

17	TPN DB	LEGRAND/SCHNEIDER/SIEMENS/HAVELLS/ABB/A&B/L&T NOTE: TPN DB AND ALL COMPONENTS FITTED THEREIN HAVE TO BE OF SAME MAKE
18	MODULAR SWITCHES/SOCKETS/BOX	LEGRAND/SCHNEIDER/CRABTREE/INDOASIAN ELVIRA/HAVELLS
19	METAL ENCLOSURE FOR MCB/MCCB	LEGRAND/SCHNEIDER/SIEMENS/HAVELLS/ABB/L&T
20	DIGITAL MULTIFUNCTION METER	SCHNEIDER/ HPL/ SOCOMEC/ SIEMENS/ SECURE
21	DIGITAL AMMETER WITH INBUILT SELECTOR SWITCH	SCHNEIDER ELECTRIC/HPL/LT/SIEMENS/INDOASIAN
22	LED INDICATION LAMP	BINAY/TECNIC/SIEMENS
23	HRC FUSES	GE/SIEMENS/L&T/SCHNEIDER/COOPER BUSSMAN/INDOASIAN
24	TRIP-NEUTRAL-CLOSE SELECTOR SWITCH	KAYCEE/ SALZAR/ SCHNEIDER/ L&T/ SIEMENS/INDOASIAN
25	AUXILIARY CONTACTOR	SIEMENS/ ABB/ SCHNEIDER ELECTRIC/ LEGRAND/ L&T
26	CABLE GLAND	DOWELL/ GLAND MAKE/JAINSON/BALIGA/3D
27	CURRENT TRANSFORMER	KAPPA/ PRECISE ELECTRICALS/ INTRANS ELECTRO COMPONENTS PVT LTD/ PRAGATI ELECTRICALS/ECS/AE
28	VOLTAGE TRANSFORMER	KAPPA/ PRECISE ELECTRICALS/ INTRANS ELECTRO COMPONENTS PVT LTD/ PRAGATI ELECTRICALS/AE
29	BATTERY	EXIDE/AMCO/AMARARAJA/ TATA GREEN
30	BATTERY CHARGER	EXIDE/RUTTONSHA/ HBL/EMERSON/AMARARAJA
31	CABLE TERMINATION KIT	RAYCHEM RPG/ XICON/ 3M/ MULTI SHRINK
32	11 KV SWITCHGEAR PANEL AND VCB	SEIMENS/ SCHNEIDER/ABB/L&T/ CROMPTON
33	TRANSFORMERS	VOLTAMP/ SEIMENS/ ABB/ RAYCHEM/SCHNEIDER/ KIRLOSKAR
34	NUMERICAL RELAY	SEIMENS/ SCHNEIDER/ABB/L&T
35	AUXILIARY RELAY	GE/ALSTOM/ABB/ASHIDA

36	TESTING AND MEASURING INSTRUMENTS	MEGGER/FLUKE/YOKOGOWA/AVO/MOTWANE/ AEMC/ KYORITSU OR EQUIVALENT
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NOTE 1: CONTRACTOR SHOULD STRICTLY ADHERE TO THE APPROVED MAKE LIST. IN CASE OF URGENCY, OPERATIONAL EXIGENCIES, DIFFICULTY IN PROCURING OR OBSOLESCENCE, OTHER EQUIVALENT MAKES MAY BE APPROVED. SUCH EQUIVALENTS HOWEVER, MAY BE USED ONLY WITH THE PRIOR APPROVAL OF CONCERNED ENGINEER -IN-CHARGE OF OIL.

NOTE 2: CERTAIN ITEMS SHALL BE INSTALLED AS ONE INTEGRAL UNIT, AS PER SPECIFICATION IN SOQ (LIKE MCB, RCBO AND MCB DB; OR MCB AND METAL BOX, OR VTPN). IN SUCH CASES, THE MAKE SHALL BE THE SAME FOR ALL ITEMS WITHIN THAT INTEGRAL UNIT.

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**BID FORM**

**To  
M/s Oil India Limited,  
P.O. Duliajan, Assam, India**

**Sub: "Hiring the services for carrying out augmentation of existing power distribution network in greater Tipling area to cater power supply to the ongoing 8 MGD Water Treatment Plant and Water Intake Plant in Oil India Limited."**

*Gentlemen,*

Having examined the General and Special Conditions of Contract and the Terms of Reference including all attachments thereto, the receipt of which is hereby duly acknowledged, we the undersigned offer to perform the work/services in conformity with the said conditions of Contract and Terms of Reference for the sum quoted in the Price Bid Format or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this Bid.

We undertake, if our Bid is accepted, to commence the work as per the terms & conditions set out in the subject tender.

If our Bid is accepted, we will submit the Performance Security Deposit as specified in the tender document for the due performance of the Contract.

We agree to abide by this Bid for a period of 120 days from the date of bid opening and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof in your notification of award shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest or any Bid you may receive.

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 2024.

**Authorised Person's Signature:** \_\_\_\_\_

**Name:** \_\_\_\_\_

**Designation:** \_\_\_\_\_

**Seal of the Bidder:**

**PROFORMA-II**

**STATEMENT OF NON-COMPLIANCE (IF ANY)**

**(Only exceptions/deviations to be rendered)**

**1.0** The Bidder shall furnish detailed statement of **exceptions/deviations**, if any, to the IFB stipulations, terms, and conditions in respect of each Section of Bid Document in the following format:

<b>Section No.</b>	<b>Clause No. (Page No.)</b>	<b>Non-Compliance</b>	<b>Remarks</b>

**Signature of Bidder:** \_\_\_\_\_

**Name:** \_\_\_\_\_

**NOTE:** OIL INDIA LIMITED expects the bidders to fully accept the terms and conditions of the bid document. However, should the bidders still envisage some exceptions/deviations to the terms and conditions of the bid document, the same should be indicated as per above format and submit along with their bids. If the “**Statement of Non-Compliance**” in the above Proforma is left blank (or not submitted along with the Bid), then it would be constructed that the bidder has not taken any exception/deviation to the IFB requirements.

PROFORMA-III

PROFORMA LETTER OF AUTHORISATION FOR ATTENDING BID OPENING

**TO**  
**CGM-CONTRACTS (HoD)**  
**OIL INDIA LIMITED**  
**P.O. DULIAJAN-786602**  
**Assam, India**

Sir,

**SUB: "Hiring service for construction of electrical infrastructure for power supply to Dikom OCS, GCS & DBUS from the Dikom WIS."**

I/We \_\_\_\_\_ confirm that Mr. \_\_\_\_\_ (Name and address) as authorised to represent us during bid opening on our behalf with you against IFB for "**Hiring the services for carrying out augmentation of existing power distribution network in greater Tipling area to cater power supply to the ongoing 8 MGD Water Treatment Plant and Water Intake Plant in Oil India Limited.**"

Yours Faithfully,

**Authorised Person's Signature:** \_\_\_\_\_

**Name:** \_\_\_\_\_

**Signature of Bidder:** \_\_\_\_\_

**Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**PROFORMA-IV**

**PROFORMA LETTER OF AUTHORITY**

**TO  
CGM-CONTRACTS (HoD)  
Contracts Department  
P.O. DULIAJAN PIN-786602  
Dist. Dibrugarh, Assam  
India**

Dear Sir,

**SUB: "Hiring the services for carrying out augmentation of existing power distribution network in greater Tipling area to cater power supply to the ongoing 8 MGD Water Treatment Plant and Water Intake Plant in Oil India Limited."**

We \_\_\_\_\_ of \_\_\_\_\_  
Confirm that Mr. \_\_\_\_\_  
\_\_\_\_\_ (Name and Address) is authorised to represent us to Bid, negotiate and conclude the agreement on our behalf with you against IFB for **"Hiring the services for carrying out augmentation of existing power distribution network in greater Tipling area to cater power supply to the ongoing 8 MGD Water Treatment Plant and Water Intake Plant in Oil India Limited."** for any commercial/ legal purpose etc.

We confirm that we shall be bound by all and whatsoever our said representative shall commit.

**Authorised Person's Signature:** \_\_\_\_\_

**Name:** \_\_\_\_\_

Yours faithfully,

Signature: \_\_\_\_\_

Name & Designation \_\_\_\_\_

For & on behalf of \_\_\_\_\_

**NOTE:** This letter of authority shall be on printed letter head of the bidder and shall be signed by a person competent and having the power of attorney (Power of attorney shall be annexed) to bind such Bidder.

**FORM OF BID SECURITY (BANK GUARANTEE FORMAT)**

**To**  
**M/s OIL INDIA LIMITED,**  
**CONTRACTS DEPARTMENT,**  
**DULIAJAN, ASSAM, INDIA, PIN-786602**

WHEREAS, (Name of Bidder) \_\_\_\_\_ (hereinafter called "the Bidder") has submitted their offer Dated \_\_\_\_\_ for the provision of certain services (hereinafter called "the Bid") against OIL INDIA LIMITED, Duliajan, Assam, India (hereinafter called the Company's) Tender No. \_\_\_\_\_ KNOW ALL MEN BY these presents that we (Name of Bank) \_\_\_\_\_ of (Name of Country) \_\_\_\_\_ having our registered office at \_\_\_\_\_ (hereinafter called "Bank") are bound unto the Company in the sum of (\*\_\_\_\_\_ ) for which payment well and truly to be made to Company, the Bank binds itself, its successors and assignees by these presents.

SEALED with the said Bank this \_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_

THE CONDITIONS of these obligations are:

1. If the Bidder withdraws their Bid within its original/extended validity; or
2. The Bidder modifies/revises their bid suomoto; or
3. The Bidder does not accept the contract; or
4. The Bidder does not furnish Performance Security Deposit within the stipulated time as per tender/contract; or
5. If it is established that the Bidder has submitted fraudulent documents or has indulged into corrupt and fraudulent practice.

We undertake to pay to Company up to the above amount upon receipt of its first written demand (by way of letter/fax/cable), without Company having to substantiate its demand provided that in its demand Company will note that the amount claimed by it is due to it owing to the occurrence of any of the conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including the date (\*\*--/--/--) and any demand in respect thereof should reach the Bank not later than the above date.

The details of the Issuing Bank and Controlling Bank are as under:

A. Issuing Bank:

BANK FAX NO:

BANK EMAIL ID:

BANK TELEPHONE NO.:

IFSC CODE OF THE BANK:

B. Controlling Office:

Address of the Controlling Office of the BG issuing Bank:

Name of the Contact Person at the Controlling Office with Mobile No. and e-mail address:

SIGNATURE AND SEAL OF THE GUARANTORS \_\_\_\_\_

Name of Bank & Address \_\_\_\_\_

**Contd.... P/2**

Witness \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_  
(Signature, Name and Address)

Date: \_\_\_\_\_

Place: \_\_\_\_\_

- \* The Bidder should insert the amount of the guarantee in words and figures.
- \*\* Date of expiry of Bank Guarantee should be minimum 30 days after the end of the validity period of the Bid/as specified in the Tender.

**Note:**

The Bank Guarantee issuing bank branch shall ensure the following:

- a. The Bank Guarantee issued by the Bank must be routed through SFMS platform as per following details:
  - (i) MT 760 / MT 760 COV for issuance of Bank Guarantee
  - (ii) MT 760 / MT 767 COV for amendment of Bank Guarantee

The above message / intimation shall be sent through SFMS (indicating the Contract Number) by the BG issuing bank branch to ICICI BANK LTD., Duliajan Branch; IFS Code – ICIC0000213; SWIFT Code – ICICINBBXXX; Branch Address: Kunja Bhavan, Daily Bazaar, Duliajan, Dibrugarh, Assam – 786602.

- b. Bank Guarantee issued by a Scheduled Bank in India at the request of some other Non-Scheduled Bank of India shall not be acceptable.

**[TO BE FILLED-UP/SUBMITTED BY THE VENDOR ON ITS LETTER HEAD FOR  
E-REMITTANCE]**

Name:

FULL Address:

Phone Number:

Mobile Number:

E-mail address:

Fax Number:

Bank Account Number (in which the Bidder wants remittance against invoices):

Bank Name:

Branch:

Address of the Bank:

Bank Code:

IFSC/RTGS Code of the Bank:

NEFT Code of the Bank:

PAN Number:

GST Registration Number:

\_\_\_\_\_  
Signature of Bidder with Official Seal

**FORM OF PERFORMANCE BANK GUARANTEE**

To:

M/s. Oil India Limited  
Contracts Department  
Duliajan, Assam - 786602

WHEREAS \_\_\_\_\_ (Name and address of Contractor) (hereinafter called "Contractor") had undertaken, in pursuance of Contact No. \_\_\_\_\_ to execute (Name of Contract and Brief Description of the Work) \_\_\_\_\_ (hereinafter called "the Contract").

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee as security for compliance with Contractor's obligations in accordance with the Contract.

AND WHEREAS we (May incorporate the Bank Name) have agreed to give the Contractor such a Bank Guarantee; NOW THEREFORE we hereby affirm that we are Guarantors on behalf of the Contractor, up to a total of (Amount of Guarantee in figures) \_\_\_\_\_ (in words \_\_\_\_\_), such amount being payable in the types and proportions of currencies in which the Contract price is payable, and we undertake to pay you, upon your first written demand and without cavil or arguments, any sum or sums within the limits of guarantee sum as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein. We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or the work to be performed thereunder or of any of the Contract documents which may be made between you and the Contractor shall in any way cease us from any liability under this guarantee, and we hereby waive notice of such change, addition or modification.

This guarantee is valid until the \_\_\_\_\_ day of \_\_\_\_\_

The details of the Issuing Bank and Controlling Bank are as under:

A. Issuing Bank:  
BANK FAX NO:  
BANK EMAIL ID:  
BANK TELEPHONE NO:  
IFSC CODE OF THE BANK:

B. Controlling Office:

Address of the Controlling Office of the BG issuing Bank:

Name of the Contract Person at the Controlling Office with Mobile No. and e-mail address:

Notwithstanding anything contained herein:

- a) Our liability under this Bank Guarantee shall is restricted up to Rs.\_\_\_\_\_
- b) This guarantee shall be valid till .....
- c) We are liable to pay the guarantee amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before .....(Date of Expiry of BG PLUS one year claim period).
- d) At the end of the claim period that is on or after ..... (Date of expiry of the Bank Guarantee Plus Minimum of 1 year claim period shall be stipulated) all your rights under this Guarantee shall stand extinguished and we shall be discharged from all our liabilities under this Guarantee irrespective of receipt of original Bank Guarantee duly discharged, by Bank.

Name of the Contact Person at the Controlling Office with Mobile No. and e-mail address:

SIGNATURE AND SEAL OF THE GUARANTORS \_\_\_\_\_  
Designation \_\_\_\_\_  
Name of the Bank \_\_\_\_\_  
Address \_\_\_\_\_

**Note:**

The Bank Guarantee issuing bank branch shall ensure the following:

- a. The Bank Guarantee issued by the Bank must be routed through SFMS platform as per following details:
  - (i) MT 760 / MT 760 COV for issuance of Bank Guarantee
  - (ii) MT 760 / MT 767 COV for amendment of Bank Guarantee

The above message / intimation shall be sent through SFMS (indicating the Contract Number) by the BG issuing bank branch to ICICI BANK LTD., Duliajan Branch; IFS Code – ICIC0000213; SWIFT Code – ICICINBBXXX; Branch Address: Kunja Bhavan, Daily Bazaar, Duliajan, Dibrugarh, Assam – 786602.

- b. Bank Guarantee issued by a Scheduled Bank in India at the request of some other Non-Scheduled Bank of India shall not be acceptable.

**AGREEMENT FORM**

This Agreement is made on \_\_\_\_ day of \_\_\_\_\_ between Oil India Limited, a Government of India Enterprise, incorporated under the Companies Act 1956, having its registered office at Duliajan in the State of Assam, hereinafter called the "Company" which expression unless repugnant to the context shall include executors, administrators and assignees on the one part, and M/s. \_\_\_\_\_ (Name and address of Contractor) hereinafter called the "Contractor" which expression unless repugnant to the context shall include executors, administrators and assignees on the other part,

WHEREAS the Company desires that Services \_\_\_\_\_ (brief description of services) should be provided by the Contractor as detailed hereinafter or as Company may requires;

WHEREAS, Contractor engaged themselves in the business of offering such services represents that they have adequate resources and equipment, material etc. in good working order and fully trained personnel capable of efficiently undertaking the operations and is ready, willing and able to carry out the said services for the Company as per Section-II attached herewith for this purpose and

WHEREAS, Company had issued a firm Letter of Award No. \_\_\_\_\_ dated \_\_\_\_\_ based on Offer No. \_\_\_\_\_ dated \_\_\_\_\_ submitted by the Contractor against Company's IFB No. \_\_\_\_\_ and the Contractor accepted the same vide Letter No. \_\_\_\_\_ dated \_\_\_\_\_.

WHEREAS, the Contractor has furnished to Company the performance security in the form of DD/BC/BG for Rs. \_\_\_\_\_ (being 3% of Annualized Contract value) with validity of 90 (Ninety) days beyond the contract period.

All these aforesaid documents shall be deemed to form and be read and construed as part of this agreement/contract. However, should there be any dispute arising out of interpretation of this contract in regard to the terms and conditions with those mentioned in Company's tender document and subsequent letters including the Letter of Intent and Contractor's offer and their subsequent letters, the terms and conditions attached hereto shall prevail. Changes, additions or deletions to the terms of the contract shall be authorized solely by an amendment to the contract executed in the same manner as this contract.

NOW WHEREAS, in consideration of the mutual covenants and agreements hereinafter contained, it is hereby agreed as follows –

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.

2. In addition to documents herein above, the following Sections and Annexures attached herewith shall be deemed to form and be read and construed as part of this agreement viz.:

- (a) PART-I indicating the General Conditions of this Contract;
- (b) PART-II indicating the Schedule of work, unit, quantities & rates;
- (c) PART-III indicating the Special Conditions of Contract;
- (d) PART-V indicating the Safety Measures.

3. In consideration of the payments to be made by the Company to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Company to provide the Services and to remedy defects therein in conformity in all respect with the provisions of this Contract.

4. The Company hereby covenants to pay the Contractor in consideration of the provision of the Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of this Contract at the times and in the manner prescribed by this Contract.

IN WITNESS thereof, each party has executed this contract at Duliajan, Assam as of the date shown above.

Signed, Sealed and Delivered,

For and on behalf of  
Company (Oil India Limited)

for and on behalf of Contractor  
(M/s. \_\_\_\_\_)

Name:

Name:

Status:

Status:

In presence of

In presence of

1.

1.

2.

2.

**Format of undertaking by Bidders towards submission of authentic information/documents (To be typed on the letter head of the bidder)**

Ref. No \_\_\_\_\_

Date \_\_\_\_\_

**Sub: Undertaking of authenticity of information/documents submitted**

**To,  
The CGM-Contracts (HoD)  
Contracts Department,  
OIL, Duliajan**

**Sir,**

With reference to our quotation against your above-referred tender, we hereby undertake that no fraudulent information/documents have been submitted by us.

We take full responsibility for the submission of authentic information/documents against the above cited bid.

We also agree that, during any stage of the tender/contract agreement, in case any of the information/documents submitted by us are found to be false/forged/fraudulent, OIL has right to reject our bid at any stage including forfeiture of our PBG and/or cancel the award of contract and/or carry out any other penal action on us, as deemed fit.

Yours faithfully,

For (type name of the firm here)

Signature of Authorized Signatory

Name:

Designation:

Phone No.

Place:

Date:

(Affix Seal of the Organization here, if applicable)

**(TO BE EXECUTED BY THE AUTHORIZED SIGNATORY OF THE BIDDER ON  
THE OFFICIAL LETTER HEAD OF THE BIDDER)**

**CERTIFICATE OF COMPLIANCE TO FINANCIAL CRITERIA**

**Ref: Note 'b' under Clause 3.0 Financial Criteria of BEC/BRC**

I \_\_\_\_\_ the authorized signatory(s) of  
\_\_\_\_\_ (Company or Firm name with address) do  
hereby solemnly affirm and declare/ undertake as under:

**The balance sheet/Financial Statements for the financial year \_\_\_\_\_  
have actually not been audited as on the Original Bid Closing Date.**

Yours faithfully,

For (type name of the firm here)

Signature of Authorized Signatory

Name:

Designation:

Phone No.

Place:

Date:

(Affix Seal of the Organization here, if applicable)

Note: This certificate is to be issued only considering the time required for preparation of Financial Statements i.e. if the last date of preceding financial/accounting year falls within the preceding six months within the due date for furnishing of audit report as per Section 139(1) of IT Act, 1961 (read along with latest circulars/notifications issued by CBDT from time to time) reckoned from the Original Bid Closing Date.

**COMMERCIAL CHECK LIST****Bidder's Name:** \_\_\_\_\_

This Questionnaire duly filled in should be returned along with each copy of Un-priced Bid. Clauses confirmed hereunder should not be repeated in the Bid.

<b>Sl. No.</b>	<b>Description</b>	<b>Bidder's Confirmation</b>
1.	Type of Bidding Entity	
2.	Bidder's name and address:	
3.	It is noted that deviations to Terms & Conditions shall lead to rejection of offer, as specified in the Tender.	
4.	Ensure and confirm that prices quoted in 'Schedule of Rates', are for complete scope of work as defined in the tender	
5.	Indicate SAC Code Indicate rate of GST applicable.	SAC Code: GST .....%
6.	EMD Details: Whether Bid Security of requisite value submitted	
7.	Confirm to Submit PBG as per Tender requirement	
8.	Confirm that the offer shall remain valid for acceptance up to 120 (One Hundred Twenty) days from Date of bid opening.	
9.	Whether Mobilization and Completion period of contract is complied?	
10.	Whether Integrity Pact Submitted (if applicable)?	
11.	Confirm that quoted prices shall remain firm and fixed until completion of the contract, except as otherwise mentioned in the bid document.	
12.	Confirm that percentage of Local Content along with Certificate of	

	Incorporation/registration and other relevant documents required under BEC Clause No. 1.0 has been submitted.	
13.	Confirm whether you want to avail/claim Purchase Preference. If yes, specify under which category: <b>PP-LC or MSE?</b>	
14.	Confirm that you have submitted all documents as mentioned in the Tender/Annexures.	
15.	Confirm acceptance to all terms & conditions of the Tender.	
16.	Confirm that all correspondence must be in English Language only.	
17.	Indicate Name & Contact No. (Telephone/Fax/E-mail) of person signing the bid.	Name: Contact No.: Fax: Email:
18.	Confirm that all Bank charges associated with Bidder's Bank shall be borne by Bidder.	
19.	Please indicate the following: (i) PAN No. (ii) GST Regn. No.	
20	Confirm that you have duly filled up and submitted the Technical Evaluation Sheet for BEC BRC	

Bidder confirms that in case of conflicting version of various terms & conditions at different places, the confirmation furnished as above shall be considered over-riding and final and any other deviation indicated elsewhere shall be treated as redundant.

Signature \_\_\_\_\_

Name \_\_\_\_\_

Designation \_\_\_\_\_

Office Stamp \_\_\_\_\_

**UNDERTAKING TOWARDS SUBMISSION OF BANK GUARANTEE**

To,  
Oil India Limited  
Contracts Department  
Duliajan, Assam - 786602

We, M/s..... are submitting the Performance Security in favour of Oil India Limited, Duliajan in the form of bank guarantee bearing Reference No. ....for an amount of INR..... valid up to ..... as per terms and conditions of Tender/Contract No. ....

**BG issuing bank details:-**

Bank Branch IFS Code	
<b>Contact Details</b> E-mail Addresses	Mobile Telephone Fax
<b>Correspondence Address</b> H No/Street/City	State Country Pin Code

Declaration:

We have arranged to send the confirmation of issuance of the bank guarantee via SFMS portal through our bank using the details mentioned in the tender and hereby confirming the correctness of the details mentioned.

Authorized Signature: \_\_\_\_\_  
Name: \_\_\_\_\_  
Vendor Code: \_\_\_\_\_  
Email ID: \_\_\_\_\_  
Mobile No: \_\_\_\_\_

Encl: Original bank guarantee

**To,  
CGM-CONTRACTS (HoD)  
OIL INDIA LIMITED  
DULIAJAN-786602**

**SUB: SAFETY MEASURES**

**Description of service: "Hiring the services for carrying out augmentation of existing power distribution network in greater Tipling area to cater power supply to the ongoing 8 MGD Water Treatment Plant and Water Intake Plant in Oil India Limited."**

Sir,

We hereby confirm that we have fully understood the safety measures to be adopted during execution of the above contract and that the same have been explained to us by the concerned authorities. We also give the following assurances.

a) Only experienced and competent persons shall be engaged by us for carrying out work under the said contract.

b) The names of the authorized persons who would be supervising the jobs on day to day basis from our end are the following:

i) \_\_\_\_\_

ii) \_\_\_\_\_

iii) \_\_\_\_\_

The above personnel are fully familiar with the nature of jobs assigned and safety precautions required.

c) Due notice would be given for any change of personnel under item (b) above.

d) We hereby accept the responsibility for the safety of all the personnel engaged by us and for the safety of the Company's personnel and property involved during the course of our working under this contract. We would ensure that all the provisions under the Oil Mines Regulations, 1984 and other safety rules related to execution of our work would be strictly followed by our personnel. Any violation pointed out by the Company's Engineers would be rectified forthwith or the work suspended till such time the rectification is completed by us and all expenditure towards this would be on our account.

e) We confirm that all persons engaged by us would be provided with the necessary Safety Gears at our cost.

f) All losses caused due to inadequate safety measures or lack of supervision on our part would be fully compensated by us and the Company will not be responsible for any lapses on our part in this regard.

g) We shall abide by the HSE (Health, Safety & Environmental) POINTS as stipulated in SOW of the contract.

(Seal)

Yours Faithfully

Date \_\_\_\_\_

M/s \_\_\_\_\_

FOR & ON BEHALF OF CONTRACTOR

**CERTIFICATE OF ANNUAL TURNOVER & NET WORTH**

TO BE ISSUED BY PRACTISING **CHARTERED ACCOUNTANTS' FIRM** ON THEIR LETTER HEAD

**TO WHOM IT MAY CONCERN**

This is to certify that the following financial positions extracted from the audited financial statements of M/s..... (Name of the Bidder) for the last 03 (Three) completed accounting years upto..... **(as the case may be)** are correct.

<b>YEAR</b>	<b>TURN OVER</b> In INR	<b>NET WORTH</b> In INR

Place:

Date:

Seal:

Membership Number:

Signature

Registration No.:

UDIN:

**UNDERTAKING FOR LOCAL CONTENT**  
**(To be submitted in the letter head of the bidder)**

We, \_\_\_\_\_ (Name of the bidder) have submitted Bid No. \_\_\_\_\_ against Tender No. \_\_\_\_\_ dated \_\_\_\_\_ for **“Hiring the services for carrying out augmentation of existing power distribution network in greater Tipling area to cater power supply to the ongoing 8 MGD Water Treatment Plant and Water Intake Plant in Oil India Limited.”**

We hereby undertake that we meet the mandatory minimum local content requirement as mandated by Public Procurement (Preference to Make in India) Order, 2017 of Department for Promotion of Industry and Internal Trade (DPIIT), Govt. of India as revised vide Order No. P-45021/2/2017-PP (BE-II) dated 16th September 2020 (and as amended time to time) with modifications as notified vide MoPNG Order No. FP-20013/2/2017-FP-PNG-Part (4) (E-41432) dated 26th April 2022 (including subsequent amendments thereof, if any). The percentage of Local Content is \_\_\_\_ %.

For and on behalf of \_\_\_\_\_

Authorized signatory \_\_\_\_\_

Name \_\_\_\_\_

Designation \_\_\_\_\_

Contact No. \_\_\_\_\_

**PROFORMA-XVIII**

**INTEGRITY PACT**

Between

Oil India Limited (OIL) hereinafter referred to as "The Principal"

And

(Name of the bidder)..... hereinafter referred to as "The Bidder/ Contractor"

**Preamble:**

The Principal intends to award, under laid down organizational procedures, contract/s for **“Hiring the services for carrying out augmentation of existing power distribution network in greater Tipling area to cater power supply to the ongoing 8 MGD Water Treatment Plant and Water Intake Plant in Oil India Limited.”** The Principal values full compliance with all relevant laws and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder/s and Contractor/s.

In order to achieve these goals, the Principal cooperates with the renowned international Non-Governmental Organization "Transparency International" (TI). Following TI's national and international experience, the Principal will appoint an external independent Monitor who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

**Section: 1 -Commitments of the Principal**

**(1)** The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:

1. No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for him/herself or third person, any material or immaterial benefit which he/she is not legally entitled to.

2. The Principal will, during the tender process treat all Bidders with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidders the same information and will not provide to any Bidder confidential/additional information through which the Bidder could obtain an advantage in relation to the tender process or the contract execution.

3. The Principal will exclude from the process all known prejudiced persons.

**(2)** If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the relevant Anti-Corruption Laws of India, or if there be a Page 2 of 6 substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

**Section: 2 -Commitments of the Bidder/Contractor**

**(1)** The Bidder/Contractor commits itself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

i. The Bidder/Contractor will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or immaterial benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

ii. The Bidder/Contractor will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, Subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

iii. The Bidder/Contractor will not commit any offence under the relevant Anticorruption Laws of India; further the Bidder/Contractor will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

iv. The Bidder/Contractor will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

v. Bidders to disclose any transgressions with any other company that may impinge on the anti-corruption principle.

vi. The Bidder (s)/ Contractor (s) of foreign origin shall disclose the name and address of the Agents/ representatives in India, if any. Similarly, the Bidder (s)/ Contractor (s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further, all the payments made to the Indian agent/ representative have to be in India Rupees only.

vii. Bidders not to pass any information provided by Principal as part of business relationship to others and not to commit any offence under PC/ IPC Act;

**(2)** The Bidder/Contractor will not instigate third persons to commit offences outlined above or be an accessory to such offences.

**(3)** The Bidder/Contractor signing Integrity Pact shall not approach the Courts while representing the matters to IEMs and he/she will await their decision in the matter.

**Section 3 -Disqualification from tender process and exclusion from future Contracts**

If the Bidder, before contract award has committed a transgression through a violation of Section 2 or in any other form such as to put his reliability or risibility as Bidder into question, the Principal is entitled to disqualify the Bidder from the tender process or to terminate the contract, if already signed, for such reason.

**1.** If the Bidder/Contractor has committed a transgression through a violation of Section 2 such as to put his reliability or credibility into question, the Principal is entitled also to exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, in particular the number of transgressions, the position of the transgressions within the company hierarchy of the Bidder and the amount of the damage. The exclusion will be imposed for a minimum of 6 months and maximum of 3 years.

**2.** The Bidder accepts and undertakes to respect and uphold the Principal's Absolute right to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the lack of any hearing before the decision to resort to such exclusion is taken. This undertaking is given freely and after obtaining independent legal advice.

**3.** If the Bidder/Contractor can prove that he has restored/recouped the Damage caused by him and has installed a suitable corruption prevention system, the Principal may revoke the exclusion prematurely.

**4.** A transgression is considered to have occurred if in light of available evidence no reasonable doubt is possible.

**5.** Integrity Pact, in respect of a particular contract, shall be operative from the date Integrity Pact is signed by both the parties till the final completion of the contract **or as mentioned in Section 9- Pact Duration whichever is later**. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings. Any issue relating to execution of contract, if specifically raised before the IEMs shall be looked into by IEMs.

**Section 4 -Compensation for Damages**

1. If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover from the Bidder liquidated damages equivalent to Earnest Money Deposit / Bid Security.

(2) If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the principal

shall be entitled to demand and recover from the Contractor liquidated damages equivalent to Security Deposit / Performance Bank Guarantee.

3. The bidder agrees and undertakes to pay the said amounts without protest or demur subject only to condition that if the Bidder/Contractor can prove and establish that the exclusion of the Bidder from the tender process or the termination of the contract after the contract award has caused no damage or less damage than the amount or the liquidated damages, the Bidder/Contractor shall compensate the Principal only to the extent of the damage in the amount proved.

**Section 5 -Previous transgression**

1. The Bidder declares that no previous transgression occurred in the last 3 years with any other Company in any country conforming to the TI approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.

2. If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

**Section: 6 -Equal treatment of all Bidders/Contractor/Subcontractors**

1. The Principal will enter into Pacts on identical terms with all bidders and contractors.

2. The Bidder / Contractor undertake(s) to procure from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the provisions laid down in this agreement/Pact by any of its sub-contractors/sub-vendors.

3. The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

**Section: 7 -Criminal charges against violating Bidders/Contractors/ Subcontractors**

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor, which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

**Section: 8 -External Independent Monitor/Monitors**

1. The Principal appoints competent and credible external independent Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

2. The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Chairperson of the Board of the Principal.
3. The Contractor accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder/Contractor/Subcontractor with confidentiality. However, the documents/records/information having National Security implications and those documents which have been classified as Secret/Top Secret are not to be disclosed.
4. The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
5. As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or heal the violation, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action. However, the Independent External Monitor shall give an opportunity to the bidder / contractor to present its case before making its recommendations to the Principal.
6. The Monitor will submit a written report to the Chairperson of the Board of the Principal within 8 to 10 weeks from the date of reference or intimation to him by the 'Principal' and, should the occasion arise, submit proposals for correcting problematic situations.
7. If the Monitor has reported to the Chairperson of the Board a Substantiated suspicion of an offence under relevant Anti-Corruption Laws of India, and the Chairperson has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
8. The word 'Monitor' would include both singular and plural.
9. In case of any complaints referred under IP Program, the role of IEMs is advisory and would not be legally binding and it is restricted to resolving the issues raised by an intending bidder regarding any aspect of the tender which allegedly restricts competition or bias towards some bidder.

**Section:9 -Pact Duration**

This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the respective contract, and for all other Bidders 6 months after the contract has been awarded.

If any claim is made/ lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/determined by Chairperson of the Principal.

**Section:10 -Other provisions**

1. This agreement is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the Principal, i.e. New Delhi. The Arbitration clause provided in the main tender document / contract shall not be applicable for any issue / dispute arising under Integrity Pact.

2. Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

3. If the Contractor / Bidder is a Joint Venture or a partnership concern or a consortium, this agreement must be signed by all partners or consortium members. In case of sub-contracting, the Principal contractor shall take the responsibility of the adoption of IP by the sub-contractor and all sub-contractors shall also sign the IP.

4. Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

5. Issues like warranty / guarantee, etc. shall be outside the purview of IEMs.

.....  
**For the Principal**

.....  
**For the Bidder/Contractor**

Witness 1: .....

Witness 2: .....

Place:  
Date:

**DECLARATION ABOUT BIDDER'S FINANCIAL STANDING**

**To,  
CGM-CONTRACTS  
OIL INDIA LIMITED  
DULIAJAN - 786602**

**Sub:** Undertaking/Declaration regarding financial standing

**Ref:** Tender No. \_\_\_\_\_

We, \_\_\_\_\_ (name of bidder), hereby confirm that:

(1) We are neither bankrupt nor undergoing any insolvency resolution process or liquidation or bankruptcy proceeding under any law.

**(OR)**

(2) No insolvency resolution process or liquidation or bankruptcy proceeding is initiated under any law against us.

Place: \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_  
(Name & Signature of the  
authorised signatory of the bidder)

**DECLARATION THAT BIDDER IS NOT UNDER HOLIDAY  
LIST/DELISTED/BLACKLISTED/DEBARRED IN OIL**

**To,  
CGM-CONTRACTS  
OIL INDIA LIMITED  
DULIAJAN - 786602**

**Sub:** Undertaking/Declaration regarding Holiday List, debarment etc.

**Ref:** Tender No. \_\_\_\_\_

We, \_\_\_\_\_ (Name of the bidder) hereby declare that neither our company nor any of its allied concerns, partners or associates or directors or proprietors involved in any capacity, are currently put on holiday list/banning list by OIL debarring us/them from carrying on business dealings with OIL.

Place: \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_  
(Name & Signature of the  
authorised signatory of the bidder)

## TECHNICAL EVALUATION SHEET FOR BEC/BRC

Bidder's Name: \_\_\_\_\_ **PROFORMA-XX**

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder must indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
1.	1.0	The bid shall conform to the specifications and terms and conditions given in the Bidding Documents. Bids shall be rejected in case material and services offered do not conform to the required parameters stipulated in the technical specifications. Notwithstanding the general conformity of the bid to the stipulated specifications, the following requirements will have to be particularly met by the Bidders without which the same will be considered as non-responsive and will not be considered for evaluation. All the documents related to BEC shall be submitted along with the Technical Bid			
2.	1.1	<p><b><u>ELIGIBILITY CRITERIA:</u></b></p> <p><b>The bidder must be incorporated in India and must maintain more than 20% local content (LC) for the offered services to be eligible to bid against this tender.</b></p> <p>Regarding calculation of local content and submission of documents during</p>			

## TECHNICAL EVALUATION SHEET FOR BEC/BRC

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder must indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
		<p>bidding &amp; execution of contracts, provision of Purchase preference policy linked with Local Content (PP-LC) notified vide Letter No. FP-20013/2/2017-FP-PNG dated 17.11.2020 by-MoPNG (including subsequent amendments thereof, if any) shall be applicable.</p> <p>If such local content is not maintained during execution of contract, OIL reserves the right to invoke the Performance Securities submitted by the bidding and supporting companies, in addition to resorting to other options as may be deemed appropriate.</p> <p>Whether or not the bidders want to avail PP-LC benefit against this tender, it is mandatory for them to meet the following at the bidding stage:</p> <p>(a) Without specifying the unit rates and bid amount in the technical bid, the bidder must provide the percentage (%) of local content in their bid, without which the bid shall be summarily rejected being non-compliant.</p> <p>(b) The Bidder shall submit an undertaking from the authorised signatory of bidder having the Power of Attorney alongwith the bid, specifying the LC</p>			

## TECHNICAL EVALUATION SHEET FOR BEC/BRC

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder must indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
		Percentage and such undertaking shall become a part of the contract, if awarded. [Format enclosed as Proforma-XVI].  (c) Bidder to submit a copy of their Certificate of Incorporation/registration in India.			
<b>1.2 TECHNICAL CRITERIA</b>					
3.	1.2.1	<p><b>1.2.1 A. Electrical Experience:</b> Bidder must have experience of successfully completing at least one <b>SIMILAR work</b> over last 07 (seven) years reckoned from the original bid closing date with PSUs / Central Government / State Government Organization / Nationalised Banks/Public Limited Company/ Municipal corporation/Municipality in India as under:</p> <p>One similar completed work costing not less than the amount equal to <b>Rs. 5,48,53,300.00.</b></p> <p style="text-align: center;"><b><u>OR</u></b></p> <p>Two similar completed works each costing not less than the amount equal to <b>Rs. 3,42,83,300.00.</b></p>			

## TECHNICAL EVALUATION SHEET FOR BEC/BRC

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder must indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
		<p style="text-align: center;"><b><u>OR</u></b></p> <p>Three similar completed works each costing not less than the amount equal to <b>Rs. 2,74,26,650.00.</b></p> <p><b>B. Civil Experience:</b> Successful Construction of any RCC building. Documentary evidence as per Notes to BEC Clause No. 1.2.1 must be submitted along with the bid.</p> <p><b>C.</b> The Electrical experience [BEC Clause 1.2.1(A)] and Civil experience [BEC Clause No 1.2.2 (B)] may be from a single order/contract or may be separately from different order/contracts. In case, both the experiences are from a single order/contract, the electrical experience alone must fulfil Clause <b>1.2.1 (A).</b></p>			
4.	<b>1.2.2</b>	The bidders not having required Civil construction work experience as clause 1.2.1(B), may form a consortium with any other contractor having experience as clause 1.2.1(B). Please refer Clause <b>1.2.4</b> for further details.			
5.	<b>1.2.3</b>	The Bidder shall have Valid Electrical Contractor's License issued by any State Govt. Electrical Licensing Board. The Electrical Contractor's license shall be valid as on original bid closing date. The copy of the valid Electrical Contractors' License shall be submitted along with the bid.			

## TECHNICAL EVALUATION SHEET FOR BEC/BRC

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder must indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
		<p><b><u>Notes to BEC Clause No. 1.2.1:</u></b></p> <p><b>A. "SIMILAR work"</b> mentioned above means – Experience in successfully completing the following:</p> <p>Supply, erection, installation and commissioning of 11 kV or of a higher voltage substation work involving supply, erection &amp; commissioning of following minimum equipment:</p> <p>(i) Transformer of voltage grade 11 kV and above.</p> <p>(ii) VCB Panels of voltage grade 11 kV and above.</p> <p>(iii) PCC/PMCC/LT Switchboards comprising of Air Circuit Breakers/MCCBs</p> <p><b>B.</b> For proof of requisite Experience (refer Clause No. 1.1.1), the following documents / photocopy (self-attested / attested) must be submitted along with the bid:</p> <p><b>(i)</b> Contract document / LoA / WO showing details of work,</p>			

**TECHNICAL EVALUATION SHEET FOR BEC/BRC**

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder must indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
		<p style="text-align: center;"><b>AND</b></p> <p><b>(ii)</b> Job Completion Certificate showing:</p> <ul style="list-style-type: none"> <li>(i) Gross value of job done</li> <li>(ii) Nature of job done and Work order no. / Contract no.</li> <li>(iii) Contract period and date of completion</li> </ul> <p style="text-align: center;"><b>OR</b></p> <p>SES (Service Entry Sheet) / Certificate of Payment (COP) issued by the company indicating the following:</p> <ul style="list-style-type: none"> <li>(i) Work order no. / Contract no.</li> <li>(ii) Gross value of jobs done</li> <li>(iii) Period of Service</li> <li>(iv) Nature of Service</li> </ul>			

## TECHNICAL EVALUATION SHEET FOR BEC/BRC

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder must indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
6.	1.2.4	<p><b>BID FROM CONSORTIUM OF COMPANIES:</b> In case the bidder is a Consortium of Companies provided the Leader of the Consortium complies to '<b>Clause No. 1.1 - Eligibility Criteria</b>' above w.r.t. being incorporated/constituted in India and maintaining more than or equal to 20% local content for the offered services and complies to the following requirement by the consortium:</p> <p>(a) Acceptable Memorandum of Understanding (MOU) has to be made between the consortium partners, which should be duly signed by the authorized executives of the consortium members clearly defining the role/scope of work of each partner/member, binding the members jointly and severally to any &amp; all responsibilities and obligations under the contract, if awarded, and identifying the Leader of the Consortium.</p> <p>(b) MOU/Agreement concluded amongst consortium partners, should be addressed to the Company, clearly stating that the MOU/ Agreement is applicable to this Tender and shall be binding on them for the entire contract period, including extension, if any. The MOU must unconditionally and unequivocally declare that the MOU shall remain valid during the validity of the Contract. The MOU/Agreement should be submitted along with the Technical bid.</p> <p>(c) The leader or any member of the consortium shall satisfy the minimum</p>			

## TECHNICAL EVALUATION SHEET FOR BEC/BRC

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder must indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
		<p>experience requirement as per <b>Clause No. 1.2.1 (A)</b> above.</p> <p>(d) The leader of the consortium must confirm unconditional acceptance of full responsibility of executing the “Scope of Work” of this tender. This confirmation must be submitted along with the technical bid.</p> <p>(e) Only the leader of the consortium shall register against the tender in GeM portal and submit bid on behalf of the consortium. The other members of the consortium shall ratify all the acts and decisions of the leader of consortium, which are taken in connection with and/or during the evaluation of the tender and execution of the contract.</p> <p>(f) The <b>Bid Security</b> shall be in the name of the Leader of the consortium on behalf of consortium with specific reference to consortium bid and with name(s) &amp; address(es) of Consortium members. Similarly, the <b>Performance Security</b> shall be in the name of the Leader on behalf of the Consortium.</p> <p>(g) The leader of the consortium on behalf of the consortium shall coordinate with OIL during the period the bid is under evaluation as well as during the execution of works in the event contract is awarded and he shall also be responsible for resolving dispute/misunderstanding/undefined activities, if any, amongst all the consortium members.</p>			

## TECHNICAL EVALUATION SHEET FOR BEC/BRC

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder must indicate Relevant Page No. of their Bid to support the remarks/compliance
			Yes	No	
		<p>(h) Any correspondence exchanged with the leader of consortium shall be binding on all the consortium/joint venture members.</p> <p>(i) Payment shall be made by OIL only to the leader of the consortium towards fulfilment of contract obligations.</p> <p>(j) In case of consortium bids, the bid shall be signed by the leader of consortium. The power of attorney from each member authorizing the leader for signing and submission of Bid on behalf of individual member must accompany the bid.</p> <p>(k) Documents/details submitted with the bid pertaining to qualification must be furnished by each partner/member of consortium and should be complete in all respects clearly bringing up their experience especially in the form of work in their scope.</p> <p>(l) <b>Constitution of Consortium:</b> The members of the consortium should not be more than 03 (Three). If during evaluation of bid, a consortium leader proposes any alterations/changes in the constitution or replacement or inclusion or</p>			

## TECHNICAL EVALUATION SHEET FOR BEC/BRC

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder must indicate Relevant Page No. of their Bid to support the remarks/compliance
			Yes	No	
		<p>expulsion of any partner(s)/member(s) of the consortium which had originally submitted the bid, the bid of such a consortium shall be liable for rejection.</p> <p>m) <b>Signing of Contract:</b> In the event of award of contract to the consortium, the contract to be signed by the members of the consortium and the liability of each one of them shall be jointly and severally.</p> <p>n) Members of the consortium are not allowed to quote separately/independently against this tender. All the bids received in such case shall be summarily rejected. Further, all bids from parties with technical support from the same Principal shall be rejected.</p> <p>o) Certified copies (attested by Director/Company Secretary) of Board resolutions passed by respective Board of Directors of the companies (Consortium leader and members) agreeing to entering into such consortium with each other for submission of bid for the NIT and authorizing designated executives of each company to sign in the MOU to be provided along with the technical bid.</p> <p>p) The MOU/Agreement should be legally valid i.e. it should be on a non-judicial stamp paper and notarized. In case of involvement of overseas</p>			

## TECHNICAL EVALUATION SHEET FOR BEC/BRC

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder must indicate Relevant Page No. of their Bid to support the remarks/compliance									
			Yes	No										
		bidder/consortium partner, the MOU/Agreement need not be on a non-judicial stamp paper, however it should be notarized.												
7.	1.2.5	<p><b>THIRD PARTY INSPECTION: 1.2.5.1</b> Oil India Limited (OIL) has engaged the following 17 (Seventeen) Independent Inspection Agencies to verify and certify various documents required against BEC/BRC of the tender:</p> <table border="1"> <thead> <tr> <th>Sl. No.</th> <th>Name of Independent Inspection Agency</th> <th>Contact E-Mail ID</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>M/s. Dr. Amin Controllers Private Limited</td> <td><a href="mailto:rkjain@rcaindia.net">rkjain@rcaindia.net</a>; <a href="mailto:pradeep.mathur@rcaindia.net">pradeep.mathur@rcaindia.net</a> <a href="mailto:info@rcaindia.net">info@rcaindia.net</a></td> </tr> <tr> <td>2.</td> <td>M/s. TUV India Private Limited</td> <td><a href="mailto:noida@tuv-nord.com">noida@tuv-nord.com</a>; <a href="mailto:mumbai@tuv-nord.com">mumbai@tuv-nord.com</a></td> </tr> </tbody> </table>	Sl. No.	Name of Independent Inspection Agency	Contact E-Mail ID	1.	M/s. Dr. Amin Controllers Private Limited	<a href="mailto:rkjain@rcaindia.net">rkjain@rcaindia.net</a> ; <a href="mailto:pradeep.mathur@rcaindia.net">pradeep.mathur@rcaindia.net</a> <a href="mailto:info@rcaindia.net">info@rcaindia.net</a>	2.	M/s. TUV India Private Limited	<a href="mailto:noida@tuv-nord.com">noida@tuv-nord.com</a> ; <a href="mailto:mumbai@tuv-nord.com">mumbai@tuv-nord.com</a>			
Sl. No.	Name of Independent Inspection Agency	Contact E-Mail ID												
1.	M/s. Dr. Amin Controllers Private Limited	<a href="mailto:rkjain@rcaindia.net">rkjain@rcaindia.net</a> ; <a href="mailto:pradeep.mathur@rcaindia.net">pradeep.mathur@rcaindia.net</a> <a href="mailto:info@rcaindia.net">info@rcaindia.net</a>												
2.	M/s. TUV India Private Limited	<a href="mailto:noida@tuv-nord.com">noida@tuv-nord.com</a> ; <a href="mailto:mumbai@tuv-nord.com">mumbai@tuv-nord.com</a>												

## TECHNICAL EVALUATION SHEET FOR BEC/BRC

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder must indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
			salim@tuv-nord.com		
		3. M/s. Conformity India International Private Limited	mktg@ciindia.in		
		4. M/s. Ravi Energie Private Limited	<a href="mailto:baroda@ravienergie.com">baroda@ravienergie.com</a> tpia@ravienergie.com		
		5. M/s. SGS India Private Limited	<a href="mailto:dhaval.vora@sgs.com">dhaval.vora@sgs.com</a> sgs.india@sgs.com		
		6. M/s. Assure Quality Management Certification Services Private Limited	aqmcs@aqmcs.com		
		7. M/s. IRCLASS Systems and Solutions Private Limited	<a href="mailto:industrial_services@irclass.org">industrial_services@irclass.org</a> <a href="mailto:Bhavesh.satam@irclass.org">Bhavesh.satam@irclass.org</a>		

## TECHNICAL EVALUATION SHEET FOR BEC/BRC

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder must indicate Relevant Page No. of their Bid to support the remarks/ compliance	
			Yes	No		
		8. M/s. TUV Rheinland (India) Pvt. Ltd.	<a href="mailto:Shailesh.deotale@ind.tuv.com">Shailesh.deotale@ind.tuv.com</a> <a href="mailto:Kaushal.gohil@ind.tuv.com">Kaushal.gohil@ind.tuv.com</a> <a href="mailto:info@ind.tuv.com">info@ind.tuv.com</a> ravi.kumar@ind.tuv.com			
		9. M/s. Gulf Lloyd Industrial Services(I) Pvt. Ltd.	<a href="mailto:contact@gulflloyds.com">contact@gulflloyds.com</a> inspection@gulflloyds.com			
		10. M/s. Baltic Testing India Pvt Ltd.	<a href="mailto:office@balticcontrolindia.com">office@balticcontrolindia.com</a>			
		11. M/s. Sanmarg Engineering Validation & Assessment Pvt. Ltd.	<a href="mailto:Amrita@sanmargeva.com">Amrita@sanmargeva.com</a>			
		12. M/s. Meenar Global Consultants LLP	<a href="mailto:sales@mgcllp.in">sales@mgcllp.in</a>			

## TECHNICAL EVALUATION SHEET FOR BEC/BRC

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder must indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
		13. M/s. Rites Limited	<a href="mailto:nrinspn@rites.com">nrinspn@rites.com</a> <a href="mailto:info@rites.com">info@rites.com</a> sbu.ninsp@rites.com		
		14. M/s. Bureau Veritas (India) Private Limited	<a href="mailto:bvindia.corporate@bureauveritas.com">bvindia.corporate@bureauveritas.com</a>		
		15. M/s. TUV SUD South Asia Private Limited	<a href="mailto:Hemant.chavan@tuvsud.com">Hemant.chavan@tuvsud.com</a> Jayashree.rane@tuvsud.com		
		16. M/s. Adornment Engineers India Private Limited	<a href="mailto:jks@adornmentengineers.com">jks@adornmentengineers.com</a>		

## TECHNICAL EVALUATION SHEET FOR BEC/BRC

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder must indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
	17	<p>M/s. TCRC Inspections Pvt. Ltd.</p> <p><a href="mailto:admin@tcrcinspections.com">admin@tcrcinspections.com</a></p> <p><a href="mailto:ashismallick@tcrcgroup.com">ashismallick@tcrcgroup.com</a></p> <p>tenders@tcrcgroup.com</p>			
		<p><b>1.2.5.2</b> The Bidders have to get verified and certified the various documents required against BEC/BRC of the tender by any one of the above Independent Inspection Agencies and submit the duly certified Inspection Certificate as per <b>Proforma XIV</b> (attached herewith) by the Inspection Agencies along with the Technical Bid of the Tender. All Charges of the Third-Party Independent Inspection Agencies towards verification of bidder's documents and certification thereof shall be borne by the respective bidders and payments on account of above inspection, verification and certification shall be made directly by the Bidder to the Inspection Agency(s). OIL will not be responsible for any payment dispute between Bidders and Third-Party Inspection Agencies.</p> <p><b>1.2.5.3</b> As mentioned above, Bidder(s) have to submit the verified documents along</p>			

## TECHNICAL EVALUATION SHEET FOR BEC/BRC

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder must indicate Relevant Page No. of their Bid to support the remarks/compliance
			Yes	No	
		<p>with the Technical Bids. Bid submitted with un-verified supporting documents shall not be considered. <b>However, in case a bidder submits its bid alongwith all relevant supporting documents as per BEC/BRC without getting all/some of them verified by the designated Independent Inspection agency, such bid can be provisionally considered provided it is accompanied by an Undertaking by the Bidder on their official letterhead to submit the duly verified copies/verification certificate within 07 (Seven) days of bid opening.</b> Company will neither send any reminder nor seek any clarification in this regard from such bidders, and the bid will be rejected outright if the bidder fails to submit the verified copies/verification certificate within 07 (Seven) days of bid opening at its own risk and responsibility.</p> <p><b>1.2.5.4</b> The methodology of inspection/verification of documents is broadly as under but not limited to:</p> <p>(a) It is obligatory on the part of the interested Bidders, who choose to participate against the tender, to understand the tender requirements in entirety and the requisite documents sought for in support of the Bid Evaluation Criteria/Bid Rejection Criteria (BEC/BRC) mentioned in the tender in particular. The Bidder must produce all the appropriate documents before any of the OIL's empaneled third-party certifying agencies for verification/certification. Neither OIL nor the third-party certifying agency shall be</p>			

## TECHNICAL EVALUATION SHEET FOR BEC/BRC

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder must indicate Relevant Page No. of their Bid to support the remarks/compliance
			Yes	No	
		<p>held accountable in any manner regarding the choice of documents by the bidder for verification. Therefore, getting the appropriate documents inspected/verified by the agency in support of BEC/BRC clauses is the sole responsibility of the Bidder.</p> <p>(b) The prospective bidder shall contact any of the empaneled inspection agencies. The agency shall go through the Tender Document, especially the requirements of BEC/BRC and list the documents to be verified. They shall depute their qualified/competent inspector to the Bidder's premises to check the original documents and certify the copies which the bidder shall submit along with their bids. OIL will reserve the right to ask the inspection agencies to verify the documents with source, if required at no extra cost to OIL. Verification of documents by OIL's empaneled third party agency shall not automatically make the bidder eligible for award of contract.</p> <p>(c) Verification of documents (but not limited to) are normally categorized as under:</p> <p>➤ <b>General Requirement (as applicable):</b></p> <ul style="list-style-type: none"> <li>• Check Bidder's PAN Card</li> <li>• Check Bidder's GST Certificate</li> </ul>			

## TECHNICAL EVALUATION SHEET FOR BEC/BRC

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			Yes	No	
		<ul style="list-style-type: none"> <li>• Check ITR of company</li> <li>• Check Bidder's Certificate of Incorporation – Domestic Bidder.</li> <li>➤ <b>Additional Documents : (If applicable against the tender)</b></li> <li>• Joint Ventures Agreements – To cross-check with JV Partners</li> <li>• Consortium Agreements – To cross-check with Consortium Partners</li> <li>• Holding/Parent/Subsidiary/Sister Subsidiary/Co-Subsidiary Company – To check the Share Holding pattern.</li> <li>➤ <b>Technical Criteria</b></li> <li>• To check Experience Proof- Completion Certificates, Reference contact verification, Original Work Order/Contract Copy and any other document(s), if called for vide BEC/BRC of the Tender.</li> </ul>			

## TECHNICAL EVALUATION SHEET FOR BEC/BRC

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder must indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
		<p>➤ <b>Financial Criteria</b></p> <ul style="list-style-type: none"> <li>• Check and verify Audited Balance Sheet/CA certificate.</li> <li>• To check the Line of Credit, if incorporated in the tender.</li> </ul> <p><b>Note: If any documents LOI/LOA/Contracts, etc. are submitted towards BEC/BRC experience criteria issued by Oil India Limited, such documents need not be verified by TPI agency. Further TPI Verification and certification is not required for financial documents having Unique Document Identification Number (UDIN). Self-Undertaking furnished by the bidder in support of their bid may not be TPI verified.</b></p>			
<b>1.3 FINANCIAL CRITERIA</b>					
8.	1.3	<p>(i) Annual Financial Turnover of the bidder in any of preceding 03 (three) financial / accounting years, reckoned from the original bid closing date should be at least <b>Rs. 2,93,85,690.00 (Rupees Two Crore Ninety-Three Lakh Eighty-Five Thousand Six Hundred Ninety)</b> only.</p> <p>(ii) <b>Net worth</b> of bidder must be positive for preceding financial / accounting year.</p>			

## TECHNICAL EVALUATION SHEET FOR BEC/BRC

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder must indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
		<p><b>(iii)</b> In case of bid from Consortium of Companies as per Clause 1.2.4, any one of the consortium members shall have an annual financial turnover from operation of minimum <b>Rs. 2,93,85,690.00 (Rupees Two Crore Ninety-Three Lakh Eighty-Five Thousand Six Hundred Ninety)</b> and other members of the consortium shall have an annual financial turnover from operation of minimum <b>Rs. 1,46,92,845.00</b>, during any of the preceding 03 (Three) financial/accounting years reckoned from the original bid closing date. Net worth of all the members must be Positive for the financial/accounting year preceding the original bid closing date.</p> <p><b>(iv)</b> All the consortium members shall meet the financial criteria as indicated above on their own and shall not rely on the strength of their parent/ultimate parent/holding company to meet the financial criteria. Otherwise, their bid shall be categorically rejected.</p>			

## TECHNICAL EVALUATION SHEET FOR BEC/BRC

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder must indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
9.	2.0	<p><b>2.1</b> Bids are to be submitted under Single-Stage Two-Bid System i.e., Un-priced Techno-Commercial Bid and Price Bid in their respective fields in e-tender portal. Only the Price Bid should contain the quoted price.</p> <p>2.2 The price quoted by the successful bidder must be firm during the performance of the contract and not subject to variation on any account except as mentioned in the bid document. Any bid submitted with adjustable price quotation other than the above will be treated as non- responsive and rejected.</p> <p><b>Note: The breakup of the quoted/offered price i.e., the duly filled Price Bid Format MUST NOT be uploaded with the technical bid; otherwise, the bid shall be rejected straightway.</b></p> <p>2.3 Bid Security in Original shall be furnished as a part of the Technical Bid and shall reach the office of CGM- Contracts, OIL at Duliajan on or before 12.45 Hrs (IST) on the bid closing date. A scanned copy of the bid security shall however be uploaded in OIL's E-Procurement portal along with the Technical Bid. The amount of Bid Security shall be <b>₹ 13,71,340.00</b>. Bid without proper &amp; valid Bid Security will be rejected.</p> <p>2.4 Bid Documents / User Id &amp; Password for OIL's E-Tender portal are not transferable.</p>			

## TECHNICAL EVALUATION SHEET FOR BEC/BRC

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder must indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
		<p>2.5 Any bid received in the form of Physical document/ Telex/ Cable/ Fax/ E-mail will not be accepted.</p> <p>2.6 Bids shall be typed or written in indelible ink. The bidder or his authorized representative shall sign the bid digitally, failing which the bid will be rejected.</p> <p>2.7 Bids shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by bidder, in which case such corrections shall be initiated by the persons(s) signing (digitally) the bid. However, white fluid should not be used for making corrections. Any bid not meeting this requirement shall be rejected.</p> <p>2.8 Any bid containing false statement will be rejected and action will be taken by Company as per Bid Document.</p> <p>2.9 Bidder must accept and comply with the following provisions as given in the Tender Document in toto, failing which offer will be rejected:</p> <ul style="list-style-type: none"> <li>(i) Firm price</li> <li>(ii) Bid Security</li> <li>(iii) Period of validity of Bid</li> <li>(iv) Price Schedule</li> </ul>			

## TECHNICAL EVALUATION SHEET FOR BEC/BRC

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder must indicate Relevant Page No. of their Bid to support the remarks/ compliance
			Yes	No	
		(v) Performance Bank Guarantee / Security deposit (vi) Delivery / Completion Schedule (vii) Scope of work (viii) Guarantee of material / work (ix) Liquidated Damages clause (x) Tax liabilities (xi) Arbitration / Resolution of Dispute Clause (xii) Force Majeure (xiii) Applicable Laws (xiv) Specifications (xv) Integrity Pact 2.10 There should not be any indication of price in the Un-priced Techno-Commercial Bid. A bid will be straightway rejected if this is given in the Un-priced Techno-Commercial Bid. 2.11 Bid received with validity of offer less than <b>One Hundred and Twenty (120) Days</b>			

## TECHNICAL EVALUATION SHEET FOR BEC/BRC

Sl. No.	Clause No. of BEC/BRC	Description	Compliance		Bidder must indicate Relevant Page No. of their Bid to support the remarks/compliance
			Yes	No	
		<p>from Bid Closing Date will be rejected.</p> <p>2.12 The Integrity Pact is applicable against this tender. OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide <b>PROFORMA-XIII</b> of the tender document. This Integrity Pact proforma has been duly signed by OIL's competent signatory. The proforma must be returned by the bidder (along with the Un-priced Techno-Commercial Bid) duly signed (digitally) by the same signatory who signed the bid, i.e., who is duly authorized to sign the bid. Uploading the Integrity Pact with digital signature will be construed that all pages of the Integrity Pact have been signed by the bidder's authorized signatory who sign the Bid.</p>			

## Annexure A

## Schedule of Quantity

Item No.	Item Description	Unit	Quantity
10	<b>Supply of 5 MVA 33/11 KV transformer</b> <i>Details are attached as Annexure I</i>	No	2
20	<b>Supply of 800 KVA 11/0.415V Transformer</b> <i>Details are attached as Annexure II</i>	No	2
30	<b>Supply of 500 KVA 11/0.415V Transformer</b> <i>Details are attached as Annexure III</i>	No	1
40	<b>Supply of 11KV 11 panel VCB board</b> <i>Details are attached as Annexure IV</i>	No	1
50	<b>Supply of 415V station LT panel</b> <i>Details are attached as Annexure V</i>	set	1
60	<b>Supply of 415V LT panel for 'CSS</b> <i>Details are attached as Annexure VI</i>	set	1
70	<b>Supply of Battery charger with battery</b> <i>Details are attached as Annexure VII</i>	set	1
80	<b>I&amp;C of item No.10 to 70</b> <i>Details are attached as Annexure VIII</i>	AU	1
90	<b>Supply of 11KV 3Cx240mm2 (UE) XLPE Alu cable</b> <i>Details are attached as Annexure IX</i>	M	2000
100	<p><b>Supply of 1100V 3.5Cx240 PVC armoured cable</b>  Cable, 3.5C x 240 sqmm, 1100V, PVCA Alu armoured cable.  Voltage Grade: 1100V  Color: Black  Conductor Material: Stranded compact circular/ shaped Aluminum  Shape: Complete round on outer side  Insulation: PVC, Type A  Filler &amp; Inner Sheath: Unvulcanized rubber/ Thermoplastic materials/ Proofed tape (for inner sheath only).  Outer Sheath: PVC, Type ST 1  Armour: Galvanized Steel strip/Wire  Min Length in one drum: 500Mtr  Applicable Standard: IS-1554 (part-1)-1988 (with latest amendments if any)  Marking: a) Manufacture's name, voltage grade, sequential length (in meters), size of cable, year of manufacture and the letters 'ELECTRIC' shall be printed, indented or embossed on the sheath of the cable throughout the length. The distance between any two consecutive printings, indentations or embossing shall be not more than 1 m.  b) Cable drum shall be marked with manufacture's name, voltage grade, size of cable, cable code, year of manufacturing, length of cable, Number of lengths on the drum (if more than one); gross weight, ISI mark &amp; OIL's purchase order number with suitable paint in permanent manner.</p> <p>xvi. Submittals:  a. GTP, TDS and type test certificates to be submitted for approval prior to supply of the item.  b. With the supply: Routine test certificate, warranty certificate.</p> <p>xvii. Inspection, Testing and Acceptance:  a. OIL's representative shall visit the manufacturer's factory for pre-dispatch inspection to witness routine test to be carried out as per applicable IS and approved QAP. Dispatch clearance shall be issued by OIL engineer-in-charge or his representative only after satisfactory test results.</p>	M	1000

110	<p><b>Supply of 1100V 1Cx120 PVC cable</b>  Cable, 1C x 120 sqmm, 1100V, PVC Alu. (Earthing)  Size: 1Cx120sqmm  Voltage Grade: 1100V  Colour: Black  Conductor Material: Stranded compact circular Aluminium  Shape: Complete round on outer side  Insulation: PVC  Sheath: PVC  Min Length in one drum: 500Mtr  Applicable Standard: IS-1554 (part-1)-1988 (with latest amendments if any)  Marking: a) Manufacture's name, voltage grade, sequential length (in meters), size of cable, year of manufacture and the letters 'Earthing' and 'ELECTRIC' shall be printed, indented or embossed on the sheath of the cable throughout the length. The distance between any two consecutive printings, indentations or embossing shall be not more than 1 m.  b) Cable drum shall be marked with manufacture's name, voltage grade, size of cable, cable code, year of manufacturing, length of cable, Number of lengths on the drum (if more than one); gross weight, ISI mark &amp; OIL's purchase order number with suitable paint in permanent manner.  xvi. Submittals:  a. GTP, TDS and type test certificates to be submitted for approval prior to supply of the item.  b. With the supply: Routine test certificate, warranty certificate.  xvii. Inspection, Testing and Acceptance:  a. OIL's representative shall visit the manufacturer's factory for pre-dispatch inspection to witness routine test to be carried out as per applicable IS and approved QAP. Dispatch clearance shall be issued by OIL engineer-in-charge or his representative only after satisfactory test results.</p>	M	3000
120	<p><b>Construction of Pucca Cable trench:</b>  Construction of RCC switchyard cable Trenches size (1250x775)mm including trays of MS/ GI for cable including supply of all materials and installation of 75 mm RCC slab for cover as per specification and approved drawing</p>	RM	100
130	<p><b>Kuccha cable trenching work in soil:</b>  Excavation for cable trenches in soft soil, depth upto 1.2 m including dressing of sides lift upto 1.5 m, including getting out the excavated soil, refilling with sand and or good soil after laying of cable/pipe etc in layers of 20 cm, ramming, watering and disposal of surplus excavated soil as directed, within a lead of 50 meters.</p>	M3	843.75
140	<p><b>Kuccha cable trenching work in hard rock:</b>  Excavation of the cable trenches in hard rock not exceeding 1.5 meters in width, and lift upto 1.5 meters, including getting out the excavated soil and refilling with sand and or good soil after laying of cable/pipe etc in layers of 20 cm in depth, consolidating each deposited layer by ramming and watering, lead upto 50 meters.</p>	M3	168.75
150	<p><b>Laying &amp; termination of 1100V cable</b>  Details are attached as Annexure X</p>	AU	1
160	<p><b>Laying &amp; termination of 11KV grade cable</b>  Details are attached as Annexure XI</p>	AU	1
170	<p><b>Supply &amp; making through joining kit 1.1KV</b>  Supplying and making straight through joint with heat shrinkable kit including ferrules and other jointing materials for size of 3.5x 240 sqmm PVC insulated and PVC sheathed aluminium armoured conductor cable of 1.1 kV grade as required</p>	No	10
180	<p><b>Supply &amp; making through joining kit 11KV</b>  Supplying and making straight through cable jointing with heat shrinkable jointing kit complete with all accessories including ferrules suitable for size of 3x 240 sq mm, XLPE aluminium armoured conductor cable of 11 kV grade as required</p>	No	10
190	<p><b>SITC of complete earthing works</b>  Details are attached as Annexure XII</p>	No.	14
200	<p><b>Internal and external Electrification work of the substation and surrounding area</b>  Details are attached as Annexure XIII</p>	LSM	1
210	<p><b>Area Development</b>  Details are attached as Annexure XIV</p>	LSM	1
220	<p><b>Construction of sub-station building</b>  Details are attached as Annexure XIV</p>	AU	1
230	<p><b>Safety Items</b>  Details are attached as Annexure XV</p>	AU	1
240	<p><b>S/F of Cable Marker</b>  Supplying and fixing cable route marker with 10 cm x 10 cm x 5 mm thick GI plate with inscription 'ELECT U/ G CABLE', bolted/welded to 35 mmx35 mm x6 mm angle iron, 60 cm long and fixing the same in ground as required.</p>	No	50
250	<p><b>Testing and Measuring Instrument and others</b>  Details are attached as Annexure XVI</p>	set	1
260	<p><b>Sundry Items</b>  Miscellaneous items required for completion of installation and commissioning jobs against the contract.  Please note that the payment against the sundry items shall be made on actual basis and will be based on the invoices submitted by the contractor.</p>	lsm	1

PRICE BIDDING FORMAT					
<p>[Bidders must fill the 'PRICE BIDDING FORMAT/FINANCIAL DOCUMENT' and compute all-inclusive (including GST) bid value. This all-inclusive (including GST) bid value is to be entered against the 'OFFER PRICE' field in the GeM portal. The duly filled 'PRICE BID / FINANCIAL DOCUMENT' in electronic form must be submitted by the bidders through GeM Portal only along with the Financial Bid. Any Financial Bid without the duly filled Price Bid may be liable for rejection.]</p> <p><b>Note: The breakup of the quoted/offered price i.e. the duly filled Price Bid Format MUST NOT be uploaded with the technical bid; otherwise the bid shall be rejected straightway.</b></p>					
DESCRIPTION OF WORK/SERVICE: "Hiring the services for carrying out upgradation of existing power distribution network in greater Tipling area to cater power supply to the ongoing 8 MGD Water Treatment Plant and Water intake Plant in Oil India Limited."					
NAME OF BIDDER					
Bidder's GSTIN No.					
SAC Code					
Item No.	Description of Services	UOM	Estimated Quantity	Rate (Rs.) to be quoted Excluding GST	Amount (Rs.) Excluding GST
			A	B	D = A * B
10	Supply of 5MVA 33/11 KV transformer	NO	2		
20	Supply of 11KV 9 panel VCB board	NO	1		
30	Supply of 750 KVA 11/.415V Transformer	NO	2		
40	Supply of 500 KVA 11/.415V Transformer	NO	1		
50	Supply of 415V station LT panel	NO	1		
60	Supply of 415V LT panel for 'C'SS	NO	1		
70	Supply of 11KV 3Xx240 XLPE cable	M	2000		
80	Supply of 1100V 4Cx240 PVC cable	M	500		
90	Supply of Battery charger with battery	SET	1		
100	Construction of Pucca Cable trench	M3	500		
110	Kuccha cable trenching work	M3	100		
120	Laying & termination of 1100V cable	M	500		
130	Laying & termination of 11KV grade cable	M	1500		
140	SITC of complete earthing works	LSM	1		
150	Area Development	LSM	1		
160	Construction of sub-station building	AU	1		
170	Internal and external electrification	LSM	1		
180	I&C of item No.10 to 90	LSM	1		
190	Supply & making through joining kit 11KV	NO	8		
<b>Total (Rs.) (exclusive of GST)</b>					#REF!
<b>Applicable GST Rate in %</b>		<b>Applicable GST#</b>		<b>Total (Rs.) (inclusive of GST)</b>	<b>#REF!</b>
<p>#Please select from the following list: CGST + SGST / CGST + UTGST / IGST / None</p> <p>Please Refer Part-II, SOR, for details of Cost against all the Line Items.</p>					
1.0	Quoted unit rates against each Line Item of the price bidding format shall be considered only upto 2 decimal places without rounding off for evaluation.				
2.0	The price/rate(s) quoted by the Bidders will be inclusive of all taxes except GST (i.e. IGST or CGST and SGST/UTGST as applicable in case of interstate supply or intra state supply respectively and Cess on GST, if applicable) on the final services. However, GST rate (including cess) to be provided in the respective places in the Price Bid.				
3.0	Price Bids shall be evaluated on overall lowest cost to OIL (L-1 offer) basis i.e. considering total quoted price for all services including applicable GST (CGST & SGST/UTGST or IGST)				
4.0	OIL will prefer to deal with registered bidder under GST. Therefore, bidders are requested to get themselves registered under GST, if not registered yet. However, in case any unregistered bidder is submitting their bid, their prices will be loaded with applicable GST while evaluation of bid.				
5.0	Price Bid uploaded without giving any of the details of the taxes (Including rates and amounts) will be considered as inclusive of all taxes including GST. When a bidder mentions taxes as extra without specifying the rates & amount, the offer will be loaded with maximum value towards taxes received against the tender for comparison purposes. If the bidder emerges as lowest bidder after such loading, in the event of order on that bidder, taxes mentioned by OIL on the Purchase Order/ Contracts will be binding on the bidder.				
6.0	Input Tax Credit on GST (Goods & Service Tax) for this service is <b>NOT</b> available to OIL & The bids will be evaluated based on total price including GST.				
7.0	Refer to STC, Section-I, GCC & Section-II, SCC for detail of GST.				
8.0	Refer to SOQ & SOR for Item detail Description.				
9.0	Bidders are required to quote for all the items in the BOQ. In case the bidder does not quote against any of the line items, the total bid value shall be considered as inclusive of the cost of the service/item.				

This cost is to be maintained under the "Total Bid Value" in the e-tender portal. Refer Clause 10.0 of Forwarding Letter for details.