आईआरईएल (इंडिया) लिमिटेड

IREL (India) Limited

(पूर्वमेंइंडियनरेअरअर्थ्सलिमिटेड Formerly Indian Rare Earths Ltd.)

रेअरअर्थ्सप्रभाग Rare Earths Division,

उद्योगमंडल Udyogamandal, कोची Kochi-683501

CIN: U15100MH1950GOI008187

ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 COMPANY

GST ID No. 32AAACI2799F2ZM

TECHNOLOGIES FOR NEW INDIA @75
आज़ादी का अमृत महोत्सव

Tender No.	IREL/Udyogamandal/26-27/Work 26
CPP Tender No.	2026_IREL_288546_2
Date of publishing of Tender document in IREL and CPP portal	16-09-2026 Interested agencies may view and download the Tender document containing the detailed terms & conditions, free of cost from the website https://www.etenders.gov.in/eprocure/app and https://www.irel.co.in. The bids are to be submitted as per procedure given in this Tender document.
Name of Work	Construction of New Calciner Building Working Platform and electrical works
Type of Tender	Open Tender, Single Stage Two Bid System Two cover System
Tendering Mode: CPP Portal	Public tender (Two cover System) □ Pre-Qualification & Technical Bid □ Financial Bid
Estimated Cost	Rs.4,50,59,497/- (inclusive of all)
Earnest Money Deposit (EMD)	Rs.7,63,720/- (This being a work contract. EMD amount to be remitted including MSE bidders).
~~**Pre-Bid meeting**~~	~~02-09-2026, 11.00 Hrs, at IREL, RED, Udyogamandal~~
Date & time of Starting of bid	16-09-2026, 16.00 Hrs
Bid Submission start date	16-09-2026, 16.00 Hrs
Date of closing of bid for submission of Bids	28-09-2026, 10:30 Hrs
Date & time of opening of Cover 1	29-09-2026, 11:00 Hrs
Date & time of opening of Financial Bid	Shall be informed separately to the eligible bidders
Declaration of Successful Bidder	To be decided
Issuance of Letter of Intent (LoI)/Work order	To be decided
Validity of tender	90 days from bid due date
SD/PBG	5% of the contract value excluding GST.
Contact details of tender inviting authority	HoD (Purchase) IREL (India) Limited, R E Division, Udyogamandal – 683 501, KERALA E-mail: purchase-red@irel.co.in Ph. No. 0484-2545199

DISCLAIMER

The information contained in this tender document (the **"TENDER"**) or subsequently provided to Bidder(s), whether verbally or in documentary or any other form, by or on behalf of IREL or any of its employees, is provided to Bidder(s) on the terms and conditions set out in this TENDER and such other terms and conditions subject to which such information is provided. The information provided is only for the information and reference of the Bidders.

This TENDER is not an agreement and is neither an offer by IREL to the prospective Bidder(s) or any other person. The purpose of this TENDER is to provide interested parties with information that may be useful to them in the formulation of their bid for participation in this TENDER. This TENDER includes statements, which reflect various assumptions and assessments arrived at by IREL in relation to the tender work. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. This TENDER may not be appropriate for all persons, and it is not possible for IREL, or its employees to consider the investment objectives, financial situation and particular needs of each party who reads or uses this TENDER. The assumptions, assessments, statements and information contained in this TENDER may not be complete, accurate, adequate or correct. Each Bidder should therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this TENDER and obtain independent advice from appropriate sources.

Information provided in this TENDER to the Bidder(s) is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. IREL accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

IREL, its employees and consultant make no representation or warranty and shall have no liability to any person, including any Bidder, under any law, statute, rules or regulations, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this TENDER or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the TENDER and any assessment, assumption, statement or information contained therein or deemed to form part of this TENDER or arising in any way with qualification of Bidders for participation in the Bidding Process. IREL also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this TENDER. IREL may, in its absolute discretion but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this TENDER.

The issue of this TENDER does not imply that IREL is bound to select and short-list qualified Bids for Price Bid stage or to appoint the Selected Bidder for the intended work, and IREL reserves the right to reject all or any of the Bids without assigning any reasons whatsoever.

The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by IREL or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will remain with the Bidder and IREL shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation or submission of the Bid, regardless of the conduct or outcome of the Bidding Process.

Signature and seal of the contractor

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GENERAL INSTRUCTIONS TO BIDDERS

I. GENERAL

1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.

II. PREPARATION AND SUBMISSION OF BIDS

1) The tender bids duly filled in all aspects and uploaded at GEM Portal on or before the scheduled time and date as mentioned in the tender enquiry will be considered for evaluation.

2) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e., on or before the bid submission time. Bidder will be responsible for any delay due to other issues.

3) The Bids shall be prepared in two parts viz. PQ cum Technical Bid (Part-I) and Price Bid (Part-II). The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.

4) Technical Bid will be opened at the first instance and evaluated by IREL's concerned authority. In the second stage, financial bids of only the technically eligible offers will be opened for further evaluation and ranking before awarding the contract.

   PQ cum Techno-commercial bid (Part -I)

   It contains documents in support of eligibility criteria, self-attested tender document and any other document specifically specified in this tender document.

   Part -II shall contain Price Bid (to be submitted electronically).

   This part shall contain only Schedule of prices duly filled in as per the Bid Proposal Schedules. No physical submission of hard copy is permitted.

5) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.

III. METHOD OF SELECTION:

Part-I of the bid will be evaluated and bidders meeting the PQ criteria and other tender conditions will be qualified as eligible bidders for opening of the price bids. The price bids opened subsequently will be scrutinized for responsiveness and IREL shall consider placement of order on the qualified bidder, whose offer shall be overall lowest. However, IREL reserves the right to accept or reject all or any tender without assigning any reasons and does not bind itself to accept the lowest offer.

Note: To assist in the examination of documents submitted by the bidder in support of eligibility criteria (PQ), IREL may, at its discretion, ask the Bidder for clarification of its bid. The request for clarification and the response shall be in writing and no change in the price or substance of the bid shall be sought, offered or permitted.

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IV. SPECIAL TERMS AND CONDITIONS

1.0 SITE VISIT:

Prior to quoting rates, the bidders are advised to visit the site on any working days at our specified visiting hours with the permission of Engineer concerned /Purchase Dept. The bidders are also advised to study the labour supply/availability, trade union practices and labour rates prevailing at Udyogamandal.

2.0 EFFECT AND VALIDITY OF BID:

(i) The submission of any bid connected with these documents and specifications shall constitute an agreement that the bidder shall have no cause of action or claim against IREL for rejection of his bid.

(ii) The bid shall be valid for a period of 90 days from bid due date.

3.0 RIGHT TO REJECT THE TENDER:

3.1 IREL reserves the right to reject any tenders whatsoever without assigning any reason thereof.

3.2 IREL reserves the right to modify/ add/ reduce the scope, either in whole or in part any of the clauses mentioned herein without assigning any reason thereof.

3.3 Further IREL, in its sole discretion and without incurring any obligation or liability, reserves the right, at any time to;

a. Suspend and/ or cancel the Bidding Process and/ or amend and/ or supplement the Bidding Process or modify the dates or other terms and conditions relating thereto;

b. Consult with any Bidder in order to receive clarification or further information;

c. Pre-qualify or not to pre-qualify any Bidder and/ or to consult with any Bidder in order to receive clarification or further information;

d. Retain any information and/ or evidence submitted to IREL by, on behalf of, and/ or in relation to any Bidder; and/ or

e. Independently verify, disqualify, reject and/ or accept any and all submissions or other information and/ or evidence submitted by or on behalf of any Bidder.

It shall be deemed that by submitting the Bid, the Bidder agrees and releases IREL, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/ or performance of any obligations hereunder and the Bidding Documents, pursuant hereto, and/ or in connection with the Bidding Process, to the fullest extent permitted by applicable law, and waives any and all rights and/ or claims it may have in this respect, whether actual or contingent, whether present or in future.

4.0 PRICES:

Tenders offering firm prices are only acceptable to us. Firm Price shall be quoted as per the price schedule for delivery at designated works. GST as applicable is to be considered as per the Price Schedule of the tender document.

5.0 TENDER RATES:

a) The rates quoted in the price schedule shall be in Indian rupees only. The quoted rates shall be firm throughout the period of Contract including extension of time, if any.

b) If the bidder submits abnormally low bid in combination with other elements of the bid which raises material concern as to the capability of the bidder to perform the contract at the offered price, the bidder shall be asked to provide detailed price analysis of the bid in relation to the scope, schedule allocation of risk and responsibilities and any other requirements of the bid documents. If the bidder fails to demonstrate its capability to deliver the contract at the offered price the price bid shall be considered un-responsive.

c. Vendor should be responsible for clearing the waste materials generated during installation work.

d. The Bidder must quote all the products as per the Tender. Partial Bids will be rejected.

e. Organization is the final authority to judge the tender called items and has every power - to accept or reject the same without assigning any reasons

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6.0 GUIDELINES FOR PROCUREMENT FROM MSEs

1. Procurement from Micro, Small and Medium Enterprises (MSEs):
The Procurement Policy for Micro and Small Enterprises, 2012 [as amended time to time] has been notified by the Government in exercise of the powers conferred in Section 11 of the Micro, Small and Medium Enterprises Development (MSMED) Act, 2006. In line with Government Policy, the prevailing guidelines in this regard as issued from time to time is to be strictly adhered to.
2. As per the Government notified Public Procurement Policy for Micro & Small Enterprises (MSE), it is mandated that 25% of procurement of annual requirement of goods and services will be sourced from the Micro and Small Enterprises.
3. In tender, participating Micro and Small Enterprises (MSE) quoting price within price band of L1+15 (fifteen) per cent shall also be allowed to supply a portion of requirement by bringing down their price to L1 price in a situation where L1 price is from someone other than a MSE and such MSE shall be allowed to supply up to 25(twenty-five) per cent of total tendered value. The 25(twenty - five) per cent quantity is to be distributed proportionately among these bidders, in case there are more than one MSEs within such price band.
4. Within this 25% (Twenty Five Percent) quantity, a purchase preference of four (4) per cent s reserved for MSEs owned by Scheduled Caste (SC)/ Scheduled Tribe (ST) entrepreneurs and three (3) percent is reserved for MSEs owned by women entrepreneur (if they participate in the tender process and match the L1 price).However, in event of failure of such MSEs to participate in tender process or meet tender requirements and L1 price, four percent sub-target for procurement earmarked for MSEs owned by SC/ST entrepreneurs and three (3) percent earmarked to women entrepreneur will be met from other MSEs.
5. **MSEs would be treated as owned by SC/ ST entrepreneurs**:
a) In case of proprietary MSE, proprietor(s) shall be SC /ST;
b) In case of partnership MSE, the SC/ ST partners shall be holding at least 51% (fifty-one percent) shares in the unit;
c) In case of Private Limited Companies, at least 51% (fifty-one percent) share shall be held by SC/ ST promoters.
6. If subcontract is given to MSEs, it will be considered as procurement from MSEs.
7. In case of tender item cannot be split or divided, etc. the MSE quoting a price within the band L1+15% may be awarded for full/ complete supply of total tendered value to MSE, considering the spirit of the Policy for enhancing Govt. Procurement from MSEs.
8. Where any Aggregator has been appointed by the Ministry of MSME, themselves quote on behalf of some MSE units, such offers will be considered as offers from MSE units and all such facilities would be extended to these also.
9. **Traders/ distributors/ sole agent/ Works Contract are excluded from the purview of the policy.**
10. To reduce transaction cost of doing business, Micro and Small Enterprises is to be facilitated by providing them tender sets free of cost, exempting Micro and Small Enterprises from payment of Earnest Money (EMD), adopting e-procurement to bring in transparency in tendering process. However, exemption from paying Performance Security / Performance Bank Guarantee is not covered under the Public Procurement policy.
11. MSEs may also be given relaxation in prior turnover and prior experience criteria during the tender process, subject to meeting of quality and technical specifications. However, there may be circumstances (like procurement of items related to public safety, health, critical security operations and equipment, etc.) where the vendor having prior experience may be preferred rather than giving orders to new entities.
12. Payment to the MSME vendors is to be made within 30 days from the date of receipt and acceptance of goods/ services.
13. In case Bidder is a Micro or Small Enterprise under the Micro, Small and Medium Enterprises Development Act, 2006, the Bidder is to be asked for submitting the following along with tender:
Ministry of MSME has notified criteria for classifying the enterprises as Micro, Small and Medium Enterprises as combination of investment in Plant & machinery or Equipment and Turnover. Mandatory registration in Udyam Registration Portal for all new and existing MSME has been prescribed.
14. To enhance MSME competitiveness, the Government of India envisioned the Zero Defect Zero Effect (ZED) initiative to make MSME sustainable and transform them as National and

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International Champions. MSME Sustainable (ZED) Certification is an extensive drive to create awareness amongst MSMEs about Zero Defect Zero Effect (ZED) practices and motivate & incentivise them for ZED Certification while also encouraging them to become MSME Champions.

The ZED (Zero Defect Zero Effect) Certification, a scheme by the Indian government for Micro, Small, and Medium Enterprises (MSMEs), offers numerous benefits, including financial incentives, improved quality and productivity, enhanced market access, and increased global competitiveness. For registration please visit https://zed.msme.gov.in

7.0 RXIL (TReDS) PLATFORM

IREL is registered with RXIL (TReDS) platform. MSE bidders are requested to get registered with RXIL (TReDS) platform to avail the facility as per the GOI guidelines.

IREL (India) Limited is onboard with TReDS platform of M/s RXIL for facilitating Bill Discounting for MSME's.
As per DPE/7(4)/2007-Fin dt 21/08/2020, it is mandatory to get all the MSME vendors registered on the platform.
Vendors can get themselves registered at: *https://onboarding.rxil.in/customerapp/home.*
The registration fees of MSMEs on TReDS Platform is Free of Cost as per the new guidelines provided by SIDBI.

For any registration queries, vendors may please contact,
RXIL Relationship manager Mr. Satyajeet Jathar: +91 99201 00784 / +91 9004100784 ***email:*** satyajeet.jathar@rxil.in
RXIL Relationship manager Mr Kirti musale : +91 90048 17501 ***email:*** kirti.musale@rxil.in
DTX - KreDX Platform Private Limited (the 5th TReDX Platform) – Registration Number- COL75X754M2W
Prathamesh Varose: +91 -8600273564 email: prathamesh.varose@kredx.com
Jason Chongtham: +91 -9600063327 email: jason@kredx.com

M1xchange
a. Registration Number –BUYER00047728
b. Contact Person: Mr. Ankit K. Singh, 9800250394, email: ankit.singh@m1xchnage.com

Invoicemart
a. Entity ID/Registration Number- 1000036436
b. Contact Person: Mr. Amith Dutta, 8600179668, email: Amit1.Dutta@invoicemart.com

C2treds (C2FO)
a. Registration Number: B0320250094
b. Contact Person: Ms. Monalisa, 9220407665, email: monalisa.das@c2treds.com

IREL (India) Limited Unit Administrator Mr. V A Anil Kumar : +91 9443482644 ***email : purchase-red@irel.co.in***
IREL (India) Limited Nodal Officer Mr. K.V.Ramakrishna: +918104997177 ***email:*** *kvramakrishna@irel.co.in*

8.0 RESTRICTION ON PROCUREMENT FROM A BIDDER OF A COUNTRY WHICH SHARES A LAND BORDER WITH INDIA (AS PER GOI GUIDELINES AMENDED FROM TIME TO TIME)

The bidder to provide needful certificate attached.

9.0 IREL reserves the right to increase or decrease the quantity to be ordered up to 25 percent of bid quantity at the time of placement of contract. IREL also reserves the right to increase the ordered quantity by up to 25% of the contracted quantity during the currency of the contract at contracted rates. Bidders are bound to accept the orders accordingly.

10.0 EARNEST MONEY DEPOSIT (EMD)/ BID SECURITY

10.1 Earnest Money Deposit (EMD) is a deposit received from the tenderers in token of their earnestness in submitting their offer to undertake the supplies/works/services/consultancy contracts and conclude a contract if entrusted to them on the basis of their tender.

10.2 EMD is to be remitted by way of 'Insurance Surety Bonds' or 'account payee demand draft' or 'fixed deposit receipt' or 'bankers cheque' or 'Bank Guarantee from any scheduled commercial

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Banks' or"online payment' in favour of IREL. In case of online payment, bidders should submit the UTR no. enabling verification of receipt of the amount.

10.3 Government Body/Public Sector Undertakings may be exempted from payment of EMD with the approval of Competent Authority.

10.4 EMD amount in rupee value is to be mentioned as a fixed amount in the tender and not as a percentage of the estimated cost and no interest is payable on the EMD.

10.5 EMD is liable to be forfeited if:

a. The tenderer changes the terms and conditions or prices or withdraw his quotation subsequent to the date of opening/ The tenderer impairs or derogates from the tender in any respect within the period of validity of the tender

b. The tenderer fails to accept the order when placed or fails to commence supplies/works/services after accepting the order.

c. In case bidder submits false/fabricated documents. d) In case bidder fails to submit SD as stipulated in the tender.

10.6 The offers received from tenderers without EMD and/or tender cost shall be summarily rejected except where an exemption is provided in the tender.

10.7 EMD may be adjusted against security deposit / performance security of the successful bidder. EMD of the unsuccessful bidders should be returned to them at the earliest after expiry of the final bid validity period and latest by the 30th day after the award of the contract. Bid security should be refunded to the successful bidder on receipt of performance security. However, in case of two stage bidding/ 2or 3 envelope bidding, EMD of unsuccessful bidders during first stage i.e. technical evaluation etc. should be returned within 30 days of declaration of result of first stage i.e. technical evaluation etc.

10.8 In case where the EMD is provided in form of BG in the prescribed format to be attached with the tender, the BG shall be obtained from a scheduled commercial Bank with validity of 45 days beyond final bid validity period.

11.0 SECURITY DEPOSIT (PERFORMANCE SECURITY) OR PERFORMANCE BANK GUARANTEE:

11.1 Security deposit (SD) shall be uniformly levied @ 5% of contract value (excluding Taxes) towards satisfactory completion of the order as under:

a) For supply & service contract valued more than Rs.5 lakhs.

Performance Security is to be furnished by a specified date (generally 14 (fourteen) days after notification of the award) and it should remain valid for a period of 60 (sixty) days beyond the date of completion of all contractual obligations of the supplier/ contractor, including warranty obligations/ defect liability period (DLP).

In exceptional cases waiver of SD shall be approved by Competent Authority after recording the reasons for such waiver.

11.2 Submission of SD/PBG, if called for in the tender can also be paid through Insurance Surety Bonds" or „account payee demand draft" or „fixed deposit receipt from a Scheduled Commercial bank" or "Bank Guarantee issued/ confirmed from any Scheduled Commercial Banks in India" or online payment to be confirmed sharing Unique Transaction Reference (UTR) to the tender inviting authority as called for in tender. In case of GTE tenders, the performance security should be in the same currency as the contract and must conform to Uniform Rules for Demand Guarantees (URDG 758) – an international convention regulating international securities. In case of JV, the BG towards performance security shall be provided by all the partners in proportion to their participation in the project. Bank Guarantees towards Bid Security/ Security Deposit/ PBG issued by Nationalized Banks/ Scheduled Commercial Banks (other than Cooperative Banks) only acceptable.

11.3 EMD/ Bid Security may be adjusted towards SD. However, if EMD is submitted in the form of Bank Guarantee, fresh Bank Guarantee in the prescribed formator demand draft/ bankers cheque is to be submitted towards SD.

11.4 BG format for security deposit is attached in Annexure-XIV.

11.5 The SD shall not bear any interest and is liable to be forfeited forunsatisfactory completion or on abandonment of the supply/ work order.

11.6 Additional amount of SD due to enhancement in scope of work is also to be obtained.

12.0 RETENTION MONEY

12.1 Where in a contract, payment is made on progressive billing of work executed, 5% of the

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bill value shall be retained at the time of making payment towards rectification/defective work made a s retention money.

12.2 The total SD and retention money together towards performance guarantee shall not exceed 10% of the contract value.

13.0 REFUND OF SD AND RETENTION MONEY

13.1 Before releasing SD in respect of supplies/works,a "No Due Certificate" shall be issued by EIC/OIC duly countersigned by head of the department after ensuring that no amounts are recoverable from the supplier/contractor.

13.2 EIC/OIC shall recommend release of SD after compliance by the contractor towards guarantee/warranty/performance guarantee & other related clauses as stipulated in the purchase/work order and on submission of formal claim by contractor.

13.3 On receipt of "no dues certificate" from EIC/OIC, SD retained in the form of B.G and / or any form shall be refunded at the earliest, if the contractor is not liable to pay any money to IREL (India) Limited under any other contract.

14.0 FORFEITURE OF SD& RETENTION MONEY

The SD shall stand forfeited in favor of IREL (India) Limited, without any further notice to the contractor in the following circumstances:

In case of any failure whatsoever on the part of the contractor at any time during performance of his part of the contract including the extended periods of contract, where notice is given and time for rectification allowed.

If the contractor indulges at any time in any subletting/sub -contracting of any portion of the work without approval of IREL (India) Limited.

15.0 REQUIRED DOCUMENTS TO BE SUBMITTED ALONGWITH TECHNO-COMMERCIAL BID.

Sl. No.	Description	Up-loaded Yes /No
1	DOCUMENTS AS PER PRE-QUALIFICATION CRITERIA (Annexure – I).	
2	DULY FILLED, SIGNED AND SEAL AFFIXED IREL TENDER DOCUMENTS (Annexure – II to XIV).	
3	COPY OF GST & PAN CERTIFICATES.	
4	ANY OTHER DOCUMENTS AS PER TENDER CONDITIONS.	
5	PRE-CONTRACT INTEGRITY PACT- ANNEXURE – XI.	

16.0 CONTACT PERSON OF TENDERING AUTHORITY IREL (INDIA) LIMITED, R E DIVISION, UDYOGAMANDAL, KERALA.

Purpose	Name	E-mail ID	Contact No.
For Technical Specification / Scope of work related query	Shri. K Sankaralingam Senior Manager- Technical (Civil): Civil related	civil-red@irel.co.in	9847051201 -Civil
	Shri K. A Joshy SM-Technical (Electrical): Electrical related.	electrical-red@irel.co.in	07593880813-Elect
	Shri Anurag Pandey DM – Technical (mechanical) Mechanical related.	mechanical-red@irel.co.in	07376933780-Mech
For Bid/tender related query	Shri. V A Anil Kumar DGM-Technical (Purchase)	Purchase-red@irel.co.in	9443482644
	Shri. P Mohan Deputy Officer (Purchase)		0484-2545199
For Consignment / Goods Transportation related query	Shri. . Girish D Babu CM-Technical	stores-red@irel.co.in	9447912190
For Payment/refund related query	Shri. Gautam Samui, DGM-Finance	finance-red@irel.co.in	0484-2546909

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Annexure – I

PRE-QUALIFICATION (PQ) CRITERIA

Bidder should meet the PQ criteria as mentioned under for further consideration of their bid. Bidder shall upload their PQ details and other details mentioned in the bid. Bidder shall fulfill the following to pre-qualification for the bid.

Sl. No.	PQ requirement	Documents required (As applicable)
1	**1.1 Technical Criteria:** Bidder Should be experienced in having successfully executed similar works as detailed below in CPSUs / Central Govt. Dept./ State Govt./ Semi- Govt./ Autonomous bodies or private organizations during last seven (7) years ending July 2026 and meeting the value requirement as below. (i) Execution of at least one work order for "similar work for a value of not less than Rs. 3.78 Cr " OR (ii) Execution of two work orders for "similar works for a value each not less than of Rs. 2.37 Cr " OR (iii) Execution of three work orders for "similar works for a value each not less than of Rs.1.89 Cr " **Definition of similar work(s):** Civil work or combined civil and electrical work. Civil work related to only construction of road and drain will not be considered	Copies of Work order along with completion/performance certificate from the client OR The bidder along with copies of the Order(s) may submit certificate(s) from practicing Chartered Accountants stating the payments received and supplies completed, as the case may be, along with declaration on the letter head and UDIN no.
	1.2 The tenderer or the firm or its authorized person should have a valid Class 'A' (HT) contract license issued by the Kerala State Electrical Licensing Board (KSELB) or should have agreement with the Class 'A' (HT) contract license holder issued by the Kerala State Electrical Licensing Board (KSELB). *In case the license is due for renewal or under the process of renewal the same will be considered for evaluation provided the proof of same shall be submitted. However the renewed license copy shall be submitted in the event of receipt of work order.*	Copy of valid license from KSELB in the name of tenderer/authorized person or copy of valid agreement between tenderer and Class 'A' (HT) contract license holder issued by Kerala state Electrical Licensing Board (KSELB). *In case the license is due for renewal or under the process of renewal the same will be considered for evaluation, provided the proof of same shall be submitted. However the renewed license copy shall be submitted in the event of receipt of work order.*
2	**Financial Criteria:** The average annual turnover of the bidder during the last three consecutive financial years i.e. 2022-23, 2023-24, 2024-25, and shall be at least INR 142 lakh.	The bidder shall submit documents like Audited Balance Sheet and Profit & Loss statement or CA turnover certificate for last three consecutive financial years 2024-25, 2023-24 and 2022-23 as proof of the average annual turnover. If the Audited Balance Sheet and Profit & Loss statement are prepared in foreign currency, exchange rate as on tender e-publishing date shall be taken for calculation of average annual turnover in INR (₹). *In case, the audited balance sheet and Profit & Loss account of any financial year is not available, a certificate from the Chartered Accountant on their letter head certifying the financial turnover for the*

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		above said financial year may be submitted.
3.	**Concurrent Commitment** In order to assess Bidder's capability and spare capacity to perform the assignment of execution of works, bidders should submit all works being executed by them as per the format given below:	

Sl. no	Full postal address of client and name of officer in charge	Description of the work	Value of contract	Date of commence work	Scheduled completion period	% completion as on date	Remarks
1							
2							

CRITERIA FOR DISQUALIFICATION For Point No 3.

The annualized concurrent commitments of the bidder plus annualized estimated value of the work under consideration exceeds 4 times the average annual turnover of the preceding 3 years.

NB: 1. Pre-qualification shall be carried out based on the documents submitted by the bidders for past performance, technical, financial capability & Concurrent commitment, and shall be subject to verification, if required.

NB: 2. Documents against the Pre-qualification criteria as above complete in all respect must be uploaded. Failure to compliance of above shall make the bid incomplete and as such it shall be rejected. In the absence of receipt of Pre-qualification criteria, the offer will not be considered under any circumstances.

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SPECIAL CONDITIONS OF CONTRACT (SCOC)

The whole work consist of following three parts:

Part A: Civil Work
Part B: Mechanical work
Part C: Electrical work
Part D: General Terms & Conditions

1.0 SCOPE OF THE WORK: Part A for Civil work

The scope of work includes the construction of New Calciner building of size (27m x 7m x 16m) in between SEP & Nd-Pr Godown. The general arrangement drawing is attached for reference (Layout, plan and sectional view) .The work includes submission of architectural & detailed engineering drawings (reinforcement, structural drawings) of all structural components at different levels, getting building approval from local municipality for construction clearance (if applicable), drawings for roof supports. The work also includes construction of foundation, providing & laying reinforcement, concrete, structural steel, supply & laying roof sheet, heavy duty screed lining on floor, aluminium windows, masonry work, plastering, painting, gutter, pvc down take pipe & other work as directed by the Engineer-in-Charge (EIC), as and when required to meet the requirements of user departments.

The details / description of the work are given below:

1.1. Submission of detailed engineering / working drawings and structural designs calculations with applicable loads coming on the structure, getting approval from local municipality. All designs shall be certified by a Chartered Structural Engineer and a detailed design basis report shall be prepared based on the all input loads, in accordance with the latest revisions of the relevant Indian Standard (IS) codes submitted to Engineer-in charge & obtain GFC(Good for Construction) approval before commencement of the work. In addition to that, all the working drawings & design calculations shall be vetted by SERC / NIT/ IIT / CUSAT/ Government Engineering Colleges. Submission of drawings in hard copy on A2 or A3 sheets, soft copy in Auto CAD formats.

1.2. Site clearing, levelling and removal of all existing baby metal materials from the site & kept to the nearby location as directed by EIC. Vegetation, shrubs, grass, roots, undergrowth, and other waste, as well as stripping and removing the topsoil to a uniform depth and removed waste shall be disposed within 1000 m inside the factory premises.

1.3. Dismantling of concrete, rubble stones, cutting of road pavement / floor concrete etc. using portable electrically operated heavy-duty breaker machine/ chain driven excavator fitted with breaker unit in low vibration mode/ without affecting the adjacent structure or building & shifting the all waste/debris generated as directed by Engineer-in-charge within 1000m inside factory premises.

1.4. Earthwork excavation up to a depth of 2 m or above (approx.) from the natural ground level by mechanical means including removing all waste materials, dewatering by providing well rings, fixing suitable capacity automatic submersible pumps, pumping of ground water, backfilling. The work also includes shoring, strutting the sides of the excavation to prevent land sliding during the monsoon. The Contractor shall backfill around structures after the structural elements have attained adequate strength. The backfill material shall be thoroughly compacted in layers of about 300 mm deep to achieve a maximum dry density.

1.5. Providing and laying Granular Sub Base (GSB) of approximately 200 mm thickness over the existing excavated surface, including levelling and consolidation to form a compact surface by watering and compacting with vibratory rollers, and properly consolidating the layer, complete as per standard specifications and as directed by the Engineer-in-Charge. Minimum 25 %compaction will be considered. Measurement shall be taken for the compacted layer based on the actual thickness at site. Measurement

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shall be taken for the compacted layer based on the actual thickness at site. Supply quantity will not be considered for payment.

1.6. Supplying, filling, laying & levelling gravelly red earth of good quality as approved, compacting with vibratory rollers, watering and well consolidated properly as directed by EIC.

1.7. Shifting, filling, laying & levelling of concrete/brick debris / red earth from nearby location / guesthouse premises or any other location inside factory premises to work site by engaging suitable JCB & Tippers, compacting in layers using portable vibrator rollers or tamping rammer machine.

1.8. Providing PCC 1:3:6 mix for foundations (raft / isolated footing), plinth beams, floors, beams etc. as directed by the EIC, using either machine mixing or hand mixing with 20mm/12mm down-grade broken stone aggregate, M-sand, cement, etc. Before placing the concrete, the surface should be thoroughly cleaned of slurry and the existing earth should be rammed and well compacted. The side shuttering should be properly aligned and necessary curing shall be performed after concreting.

1.9. Providing & laying Ready Mix Concrete for foundation, columns, beams, floors (M30 Grade design mix as per relevant IS code) with minimum cement content of 380 kg/m^3 using OPC 53 grade cement, 20mm - 12mm downgraded broken stones, m-sand. The work also includes proper planning of concrete supply, pump locations, line layout, placing sequence and the entire pumping operation shall be made before execution of concrete work in each occasion. The concrete shall be mechanically vibrated, consolidated and cured, with materials of approved quality. The scope includes the cost, conveyance, lead, lift of all materials, labor, etc. Before placing the concrete, any debris present in the reinforcement shall be cleared. Slump cone test for workability of concrete and casting of cubes required numbers for compressive strength shall be carried out as per relevant IS codes.

1.10. Supply and fixing of high-yield strength deformed (HYSD) Fe500 grade reinforcement, including cutting to the required size, bending, placing in position, and binding with 18/20 gauge black/GI tying wire. All reinforcement shall be inspected by the EIC before concreting. Defective, brittle, excessively rusted, or burnt bars shall be removed. Cracked ends of bars shall be cut out. No work shall commence without the EIC's approval of the bar bending schedule. Manufacturer's Test Certificates shall be provided for each lot of supply. Prior to starting bar bending work, the Contractor shall prepare a bar bending schedule based on the EIC-approved reinforcement drawings. The Contractor shall provide approved types of supports to maintain the bars in position, ensuring the required spacing and correct concrete cover to the reinforcement, as specified on the drawings. Cover blocks of the required shape and size, MS chairs, and spacer bars shall be used to ensure accurate positioning of reinforcement.

1.11. Providing centering & shuttering of approved quality for all RCC works shall conform to the shape, lines and dimensions as shown in the drawings, strong enough to withstand the dead and live loads and forces caused by ramming and vibrations of concrete and other incidental loads, imposed upon it during and after casting of concrete and shall be sufficiently tight to prevent loss of cement slurry from the concrete. It shall be made sufficiently rigid by using adequate number of ties and braces, Screw jacks or hard board wedges wherever required shall be provided to prevent any settlement in the form work either before or during placing of concrete.

1.12. All staging shall be of either Tubular steel structure (cup lock system) with adequate bracings as approved or made of built-up structural sections. The shutter / form work for structural component (RCC roof slab & beam etc.,) shall be designed by qualified Structural Engineer before erection at site. The arrangement and alignment of formwork shall be got approved by the Engineer-in charge (EIC) prior to concreting. However this shall not relieve the contractor from his responsibility for proper work and safety. All joints and holes in the formwork shall be caulked with putty jute cloth or other approved materials to the satisfaction of the EIC.

1.13. Providing masonry work using Autoclaved Aerated Concrete (AAC) blocks of 200mm thick laying with joint mortar of polymer modified adhesive material as per manufacture recommendation and as directed by Engineer-in-charge including raking out joints, finishing to proper lines & levels, chipping or hacking the existing floor concrete/ columns/ beams surface for necessary bonding.

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1.14. Providing plastering in cement mortar 1:4, 12 mm average thickness, on new and existing masonry surfaces wherever required, including mixing and application of mortar, finishing the surface to a smooth and even level, and completing all work as directed by the Engineer-in-Charge. All construction joints of beam & columns, beams and masonry wall shall be plastered with 110 GSM fiber mesh to avoid joint cracks due to temperature.

1.15. Supply and painting of the exterior surface of the buildings which includes masonry walls, RCC columns, beams, sunshade, jally and other masonry surface etc., with one coat of water based primer and 2 or more coats of polyurethane (PU) water based finish paint for smooth finish and better appearance suitable for exterior application, after proper surface preparation &disposing the debris within a distance of 1000m inside the company premises. Successive coat of paint shall be applied only after hard drying of the previous coat.

1.16. Supply & painting interior surface of buildings including masonry walls, RCC columns, beams, ceiling etc., as directed by Engineer in charge, prepared & applied as per manufacturer's recommendation with one coat of epoxy primer (dual pack) and two or more coats of epoxy finish paint (dual pack-light shade, chemical resistant suitable for masonry surface application) and disposing the debris within a distance of 1000m inside the company premises. Successive coat of paint shall be applied only after hard drying of the previous coat.

1.17. Coverage of materials (paint items) shall be calculated as follows – Water based primer & Polyurethane finish paint (exterior) - 10m2/litre/coat, High build epoxy primer & epoxy chemical resistant finish paint (interior) - 7m2/litre/coat.

1.18. Fabrication, supply & fixing of aluminum sliding/casement windows with 6mm thick toughened glass fixing using screws/anchor bolts, handle, beading to air tight closure etc. The gaps between the masonry wall and window shall be sealed with weather resistant silicon sealant.

1.19. Providing and finishing concrete floor surfaces using a mechanical power trowel (power trowel or ride-on trowel machine) to achieve a smooth, hard, and level finish. The work includes operating the machine over freshly laid concrete after its initial setting, as per the manufacturer's recommendations and site conditions. The process may involve multiple passes using float and finish blades to ensure proper compaction and surface finishing.

1.20. Supply, providing, fabricating, and erection of MS steel structural members such as purlins, ladders, bracing , gusset plates, stiffeners, etc., using standard sections of angles, flats and plates with welded or bolted connections at all heights and levels. The work includes cutting, welding, jointing and grinding, surface preparation thoroughly clean the surface using a cup brush fitted with an angle grinder and painted with one coat of epoxy primer (zinc phosphate/red oxide) followed by two coats of high-build epoxy finish paint. The rate shall include the cost of all materials, labour, necessary scaffolding, working platforms, suitable capacity cranes for erection of structural members and all other incidental works, complete as directed by the Engineer-in-Charge. Manufacturer's Test Certificates shall be provided for each lot of materials procured for fabrication work.

1.21. Supplying, providing, laying and fixing of industrial profile PVC roof sheet 1.90mm thick white colour, (overall width of 1063mm and crest height of 40mm with centre to centre crest of 250mm), fixing with suitable size aluminium alloy mill finish cyclonic / storm washer on crest of sheet profile, SS304 self-tapping screws, FRP flats on joints and apply weather proof silicon joint sealant to make the roof leak proof and roof setup as per standard specification and as directed by Engineer-in-charge.

1.22. Supply, laying & fixing UPVC gutter with suitable accessories for valley gutter just below the edge of roof sheet, providing sufficient slope towards both ends, application of weather resistant silicon sealant for leak proof and fixing PVC rain water down take pipes at required intervals. The work shall be carried out as per manufacturer recommendation and as directed by EIC all with proper approval.

1.23. Supply & fixing PVC pipe of 140mm dia, 4 kg/cm2 pressure rating for rain water down take from roof gutter, including suitable specials such as bends, tees, elbows etc., required for the work suit to existing site condition.

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1.24. Supply & fixing 600mm dia. powder coated aluminium wind driven turbo roof extractor with variable angle-elbow, laying with FRP base suitable to same profile of PVC roof sheets. The rate shall include cost & conveyance of all materials & labour charges, working platforms, scaffolding arrangements etc required for completion of the work.

1.25. Providing heavy duty Polyurethane (PU) screed lining, 5mm average thick, over the existing concrete floor area using approved brand & shade of materials, laid as per manufacturer recommendations, after proper surface preparation which includes grinding the floor making anchor grooves 100 mm from around the peripheral walls, 20sqm areas for a size of 6 mm x 6 mm (width and depth) , remove any loose plaster, dirt, grease, surface contamination, laitance completely and priming with suitable primer 24 hrs dry. Thereafter a screed lining with approved shade & finish shall be applied in required thickness. The debris generated while cleaning shall be disposed at our disposal/scrap yard within a distance of 1000m inside the company premises.

1.26. Supply and fixing pre colored white solid rolling shutter (0.90mm thick) strips with side guides (2mm GI) brackets & bottom plate (2mm GI), MS pipe shaft (12mm), top cover, side motor with push button switch, locking arrangements etc. including a coat of epoxy primer as per direction of Engineer-in-charge.

1.27. Supply, cutting and fixing of PVC foam board/ polycarbonate sheet for cabins, partitions etc., as per the site requirement with required shape, line & level over MS structural using self-tapping alloy screws, complete as directed by Engineer-in-Charge.

1.28. Anchoring of new reinforcement bars in RCC columns, beams, and slabs wherever required, using pure epoxy resin anchoring mortar (Master Flow 935 of BASF or equivalent of FOSROC/SIKA/HILTI), with holes drilled to the appropriate diameter to ensure proper bonding, complete in all respects. The rate shall include the cost of epoxy resin anchoring mortar, labour charges, cost/hire charges of tools, scaffolding, machinery, and all other implements required to carry out the work. After completion of the anchoring work, each anchor shall be checked and verified by the site-in-charge, and measurements shall be recorded only after such verification.

1.29. Engaging core cutter of different sizes to provide drainage holes at floor/wall for fixing of PVC pipes, walls, slabs, rubbles for laying pipelines, cable lines, down-take pipes, exhaust fan etc., in masonry structure (RCC/Brick/Rubble sealing the gaps using high strength foundation grout with FRP lining as directed by Engineer-in charge.

1.30. Providing and fixing good quality vitrified tiles, 8mm thick double charged, anti-skid, anti-strain and scratch resistant at all levels, over the existing cement flooring and slab, approved design, shade and finish, laying over the existing masonry surface after chipping, cleaning, fixing using suitable tile adhesive with spacers, filling the joints with epoxy grout.

1.31. Supply & fixing powder coated aluminium ventilator using section size of 50mm x 25mm approx, 1.2 mm thickness or nearest, clear glass louvers of 5mm thick at 120mm center to center with sufficient dividers suit to site condition.

1.32. Providing & laying lean concrete for handrails to a height of 1m from step using 6mm metal granite, m sand, to a thickness of 40-50mm, curing, including usage of quality material as approved, cost, conveyance, lead, lift of all materials, labour, necessary scaffolding etc

1.33. Fabrication, Supply & fixing powder coated aluminum door, windows of required size. The outer frame 80mmx45mm, 1.60mm thickness shall be fixed rigidly into the masonry wall using suitable fasteners at regular intervals & filling all the edges & corners, damaged area, gaps by suitable silicon sealant as directed by EIC.

1.34. The work must be carried out generally as per the technical specification and the contractor must be willing to undertake minor changes to suit the site conditions and as per company requirements. The successful contractor must ensure full compliance of the directives of Engineer-in-charge during every stage of work.

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2. LIST OF MATERIALS OF APPROVED BRAND AND / OR MANUFACTURERS

1.	Ready Mix Concrete	Ultra Tech, RMC / PRISM, RDC/Neptune, ACC/ Lafarge or Equivalent having in-house testing lab
2.	Reinforcement steel/ structural	SAIL,TATA/TISCO, VIZAG/RINL, ESSAR, JINDAL/JSW
3.	Cement	ACC, Malabar, Ultra Tech, Ambuja, Birla, Chettinadu, Ramco, Coromandel, Zuari, Dalmia & India Cements (Not applicable for ready-mix concrete).
4.	AAC Block	Renacon, Birla Aerocon
5.	Paint & Primer	Apex UltimaProtek of ASIAN PAINTS or equivalent BERGER /NEROLAC / INDIGO
6.	UPVC Gutter	AQUASTAR /EUROGUARD /SUPREME
7.	PVC pipes	ASTRAL / FINOLEX / SUPREME
8.	Floor Tiles	KAJARIA/NITCO/SOMANY/JHONSON
9.	Joint fillers and tile adhesive	LATICRETE/KERAKOLL/MAPEI
10.	Wind driven turbo roof extractor	SUTHA VENTILATING SYSTEMS / MUKTHA ENGINEERS / VAYUVENT
11.	Screed & Coating material	SIKA / BASF/ ARDEX ENDURA / FOSROC/ FLOWCRETE / STP TREMCO
12.	PVC Roof sheet	PALRAM MAKE - PALRUF BRAND/BRETT MARTIN/KY POLICA
13.	Fasteners (SS self-tapping screws) / Storm Washers (OKRON)	EJOT/KLIMAS/ROOFIX
14.	Aluminum door/Window (Profile)	TOSTEM / DORFEN / ETERNIA / HINDALCO
15.	Rebar anchoring mortar	RE-500 of HILTI or equivalent FOSROC /SIKA
16.	Chequered floor board	Western India Plywood or equivalent

3. INSPECTION & TESTING

3.1. Cube testing shall be carried out during the progress of the work to ascertain the quality of work. The number of concrete cubes to be tested shall be as per IS: 456. However, in case of ready-mix concrete confirming to IS: 4926, the number of cubes to be tested shall be as per the provisions in the standard. The concrete cubes shall be casted at site as per relevant IS standard and tested at approved laboratories (CUSAT, BUREAU VERITAS or any other NABL accredited lab etc., with prior intimation to / permission of EIC) on 28th day from the day of casting of the cubes. The laboratory test results shall be tabulated and furnished to Engineer in charge (EIC). The EIC will pass the concrete if average strength of the specimens meets the requirement specified in the relevant IS codes. In addition to this, the contractor may provide test certificate from the RMC manufacturer, if instructed. The transportation & testing charges shall be borne by the contractor.

3.2. If any portion of the works fails to pass the tests, test of the said portion shall, if required by the Engineer-in-Charge or by you, be repeated within a reasonable time on the same terms and conditions and all reasonable expenses for the repetition of the tests shall be borne by you or deducted from the amount due to you. In lieu of repeat cube test, you shall arrange of core testing as per relevant IS standards.

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3.3. Concrete of each grade shall be liable to be rejected if it is porous or honeycombed, its placing has been interrupted without providing a proper construction joint, reinforcement has been displaced beyond the tolerances specified or construction tolerance have not been met. However, the hardened concrete may be accepted after carrying out suitable remedial measures to the satisfaction to the Engineer-in-charge.

3.4. Curing shall be carried out after the completion of concrete, next day by providing necessary bund to stagnation /pond of water for 14 days minimum.

3.5. All structural steel used in the works shall conform to IS 2062 and shall be tested as per relevant Indian Standards. Test certificates from the manufacturer shall also be submitted for approval. Any material failing to meet the specified requirements shall be rejected and replaced at no extra cost to the Department.

3.6. Tensile strength test of reinforcement of diameter 10mm to 32mm at least 1 no in each size of bar for every 15 ton materials shall be carried out in NABL accredited Laboratory & test report shall be submitted to Engineer-in-charge.

4.0. <u>TERMS & CONDITIONS</u>

4.1. The volume of concrete shall be considered as per actual site measurement. Supply quantity as per delivery note of ready mix concrete will not be considered for measurement. Higher side tolerance in any case will not be considered for payment, site measurement as per approved construction drawing will be considered for arriving quantity as per actually executed at site.

4.2. In the case of earth work excavation, the measurements (length x breadth) will be considered/taken for a working space of 30cm (max.) from the edge of PCC for calculating the volume of earth work. Depth of excavation will be taken from the average grid level before & after earth excavation. Expenses for additional working space, if required, shall be borne by the contractor. All measuring instruments & arrangements shall be made by the contractor.

4.3. Excess earth generated after backfilling shall be levelled & rammed with rollers in the nearby area at the disposal yard as shown & directed by Engineer-in-charge (EIC). In addition, any waste material found during the excavation shall be shifted & disposed in the nearby area in the disposal yard after excavating earth for not more than 2m from ground level. The measurement for such excavation will be considered for payment along with the earthwork excavation for the silo. No addition payment for shifting of materials will be entertained.

4.4. For works where no specification is laid down in the Contract as aforesaid, such works shall be carried out in accordance with the specifications decided by the Engineer-in-Charge.

4.5. The contractor is responsible to rectify site constraints found during the execution of work such as pipe racks, pipe lines, cable trays, electrical cables etc., shall be carried out in consultation with the Engineer-in-charge.

4.6. Finally clearing away of all rubbish surplus materials, plant, etc, on completion of the work and dressing and leveling off and restoring the site to a tidy condition prior to handing over the work to the Engineer-in-Charge or his authorized assistant and also its maintenance until so taken over.

4.7. Any materials brought to the site of work, or any work done by the Contractor but rejected by the Engineer-in-Charge as being not up to the specifications shall in the case of materials supplied be then and there removed from or broken up at the site of work, and in the case of work done be dismantled or rectified at the expense of the contractors as may be ordered by the Engineer-in-charge.

4.8. The theoretical consumption of cement, reinforcement steel and structural steel required for the work will be calculated on the basis of approved drawings / joint site measurements. In the case of Cement, the theoretical consumption shall be decided by the Engineer as per CPWD specification and his decision in this regard shall be final and binding on the Contractor. Reinforcement and structural steel shall be measured by weight in tones. The weight will be arrived at by multiplying the used length by the sectional weight. Standard hooks, cranks, bends and authorised laps, chairs, separator pieces etc. specified in drawing or instructed by engineer as required shall be measured and paid for. No payment shall be made for binding wires, spacer block etc. required for keeping the steel in position unless otherwise specified in

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the contract. No extra payment will be made for modification of already embedded reinforcement, if required due to faulty fabrication or placement.

4.9. Materials will be accounted only for permanent works and not for making templates, other temporary works, enabling works etc. and the same shall not be taken into account for purpose of material reconciliation for billable items. The coefficients for theoretical consumption of material shall be as per CPWD specifications.

4.10. The contractor shall bear all other costs including the lifting, carting to works site form contractor's stores, custody and handling etc. and all other expenditure will be made by the contractor.

4.11. All steel shall be accounted in available lengths / shapes and no claims for extra payment on account of receipt of non-standard lengths/shapes will be entertained. For the purpose of billing and accounting only linear measurement will be taken and weight will be calculated as per the IS code -coefficient. The difference in unit weight as per IS code and actual if any shall be to the contractor's account and contractor shall quote the rates for corresponding item to take care of such difference.

4.12. The theoretical weight of each bag of cement will be considered as 50 kg per Bag. No claim whatsoever shall be entertained on this. The weight of each consignment at suitable capacity of weighbridge, nearest to the plant shall be ensured, if required and ascertained by IREL.

4.13. The Contractor shall maintain good stores for storing the cement, reinforcement, steel and other bought out items. The flooring of the storage house, the clearance of cement bags from the side walls etc., shall be as per the instructions of the Engineer-in-charge

4.14. The Contractor will have to submit their design mix as per scope of work & technical specification for different grades of concrete keeping in view the requirements stipulated in IS: 456, specifically regarding slump and water cement ratio, specific gravity of materials brought to site as analysed in the NABL accredited laboratories. For other than above designated mix Concrete items, the coefficients for consumption of cement shall be adopted as per CPWD practice. The theoretical consumption of cement thus worked out shall be binding upon the Contractor for reconciliation of materials.

4.15. All work shall be done strictly according to technical specifications & scope of work specified in the tender document and as per latest applicable CPWD specifications / latest BIS Codes. In the event of any item not finding a place in CPWD.specification or in BIS codes, the matter will be referred to the Engineer-in-charge for decision. The decision of EIC shall be final regarding the specifications to be adopted. All Standards, codes, Technical Specifications, Codes of Practice referred to shall be of the latest editions including all applicable official amendments and revisions.

4.16. All the works shall be carried out in accordance with drawings, specifications, description of item in schedule of quantities or as per the direction of Engineer-in-charge to his full satisfaction. If the substitution of any approved / specified material and make, due to its non – availability, with an alternative one, becomes necessary, the bidder must get specific approval of the same before placing order for purchase of materials.

4.17. Providing and operating necessary measuring and testing devices and materials are included in the Contractor's scope of work. The quoted price shall be inclusive of the cost of all such tests, which are required to ensure achievement of the specified quality. No separate payment for testing shall be made.

4.18. All finished work must be truly vertical & horizontal or in any other plane as specified. The rates quoted by the agency must include the cost for taking necessary measures to achieve it.

4.19. Any scaffolding used shall be of double vertical supports and no portion of scaffolding shall touch the wall surface.

4.20. The workmanship should be best available and of a high standard. Use of special trade's men in all aspects of the work may be done. Contractor shall maintain uniform quality and consistency in workmanship throughout.

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4.21. Any work not conforming to specifications or workmanship shall be rejected and the same shall be rectified or removed and replaced with work of the required standard of workmanship at no extra cost to the employer.

4.22. Rates quoted for the items shall be valid for carrying out the item of work at any and / or all floor heights of the building.

4.23. No workmen below 18 years will be permitted to work. For all hazardous works experienced personnel shall only be engaged.

4.24. The whole responsibility for supervision of the work and the workers employed by the contractor shall rest with the contractor. The contractor shall nominate minimum one experienced & qualified site engineer & one supervisor for civil work at site all throughout the execution period. Such supervisor shall be authorized to act as Lead supervisor for the work and shall be authorized to act on behalf of the contractor, to accept notices under the contract and carryout the instructions of IREL (India) Limited from time to time.

4.25. IREL (India) Limited may ask to change/delete the person not found suitable for the work at any point of time. For any addition and deletion of the working person, prior permission from IREL (India) Limited shall be taken.

4.26. Contractor's all workmen and supervisor shall conduct himself in an orderly manner with the staff working in the department of IREL. Contractor and the personnel they have engaged for the execution of the contract shall abide by all the Safety & security rules and regulations of IREL (India) Limited. Contractor shall give the list of persons who shall be deployed at site like Site in-charge, supervisors, foreman, mason, fitters, welders, workers, etc. with their address and age proof well in advance. All such persons shall be subject to security check by security officials of IREL (India) Limited. The contractor shall obtain necessary Entry passes from concerned officials of IREL (India) Limited Security Wing prior to their deployment. Contractor shall ensure that no unauthorized persons are entering the work site except authorized workmen and supervisor.

4.27. Contractor shall adhere to all security procedures, checks and practices of IREL (India) Limited with regards all personnel engaged, all equipment, consumables, tools and tackles brought inside and taken out from the work site/s.

4.28. The contractor and his person shall maintain absolute integrity in carrying out the work and in case of any act detrimental to the interest of the company IREL (India) Limited, the contract shall be terminated.

4.29. The contractor shall strictly adhere to the 'work schedule' submitted by them on receipt of work order vide the relevant clause mentioned in the GCOC. Any deviation in the work schedule without valid justification may lead to cancellation of work order by invoking Risk Purchase Clause mentioned in the GCOC.

4.30. The bidder shall inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the site (so far as it is practicable), mechanism/equipments/safety precautions they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influences or affect their bid. The bidder shall be responsible for arranging and maintaining at his own cost all materials, mechanism, equipments, tools and plants, electricity access, safety and other facilities for workers, safety requirements and all other service required for work unless otherwise specifically provided for in the bid documents. Submission of a bid by a bidder implies that he has made himself aware of the scope of the work to be done and prevailing conditions and local conditions and other factors.

4.31. Any specifications given in this document shall be supplementary to the specifications contained in the CPWD specifications, where at variance, these particular specifications shall take precedence over the provisions in the CPWD Specifications & IS codes of practice.

4.32. The bidder shall inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the site (so far as its practicable), mechanism/equipment/safety precautions they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influences or effect their bid. The bidder shall be

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responsible for arranging and maintaining at his own cost all materials, mechanism, equipment, tools and plants, electricity access, safety and other facilities for workers, safety requirements and all other service required for work unless otherwise specifically provided for in the bid documents. Submission of a bid by a bidder implies that he has made himself aware of the scope of the work to be done and prevailing conditions and local conditions and other factors.

4.33. The bidder can inspect the site on any working days at our specified visiting hours with the permission of Engineer-in charge or concerned Section/Purchase Dept. The bidders are also advised to study the labour supply/availability, trade union practices and labour rates prevailing at Industrial belt of Udyogamandal.

4.34. The SPOC & supervisor must thoroughly understand all the traces entailed and be constantly in attendance, while the men are at work. Any directions, explanations, instructions or notices given by IREL Officer to such SPOC shall be deemed to be given to the Contractor and shall be binding. The Engineer should be able to read, write and speak English and will be responsible for ensuring safety of workers during execution.

5.0. <u>SCOPE OF THE WORK: Part B for Mechanical work</u>

5.1. The Scope of Work includes supply, fabrication and erection of MS Structural working platforms, platform supports, step ladders, handrails, toe board and any other MS Structure fabrication works required for the erection of Calciner and its associated/ connected equipment.

5.2. Painting of all MS structures including platform, platform support, pipe racks, etc.

5.3. Supply & Fixing of wooden Chequered board on the working platform.

5.4. Fabrication and Erection of Monorail and Installation and Commissioning of Electric Hoist on the monorail.

5.5. MS Structural Working Platforms and Platform supports shall be fabricated and erected for the Calciner and its associated/ connected equipment and structures and as per the instructions of EIC suiting to the site conditions. MS working platform shall be fabricated and erected with staircase, hand rails, toe guards along with proper supports. MS structural platform for Electric hoist shall be fabricated and installed suiting to the site condition, if required.

5.6. Wooden Chequered Board of 18mm thickness shall be fixed on the MS Structural as working Platform. Party has to cut the Wooden Chequered Board as per the site condition and platform area. Wooden Chequered Board shall be fastened firmly with the working platform. Joining of the Wooden Chequered Board shall be levelled and should be without any uneven surface. Fasteners used shall not project over the Wooden Chequered Board. Supply of Wooden Chequered Board is under the Scope of the contractor.

5.7. The fabrication of platforms shall be of welded construction. Welds shall be cleaned between passes to remove all traces of slag and before successive beads or layers are deposited. Fabrication of MS structural shall be carried out in accordance with latest relevant IS codes.

5.8. Any obstructions such as pipe trays, cable trays, pipes, slabs, etc. hindering the erection of Platform structures shall be rectified by the contractor in consultation with the EIC to ensure timely completion of the work.

5.9. The newly fabricated MS Working Platform structures, Platform Supports, Handrails, Toe guards, Pipe Trays and all other MS structures are to be painted with one coat of chemical resistant epoxy primer and two coats of chemical resistant epoxy paint of Eau-De-Nil colour after cleaning the surface. Cleaning of steel structural shall be done using angle grinder with cup brush arrangement wherever required as per instruction of the EIC.

5.10. The approximate quantity of steel required for the work is indicated in the BOQ/Price Schedule. Payment will be made based on the actual weight of the steel material fabricated & erected at Site.

5.11. Contractor has to carry out cutting and removing unwanted pipe lines, structures, RCC Slabs, parapet walls, dyke walls, etc. for installation of the platform structures suiting to the site condition if required.

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5.12. Contractor has to fabricate Monorail and install Electric hoist on the Monorail as per the instruction of EIC. Supply of electric hoist is under contractor scope. Electric Hoist cable shall be supported by the cable carrier to avoid sagging. Cable carrier shall be in the scope of the contractor. The contractor has to provide the working platform suiting to the site condition for the Electric Hoist as per the instruction of EIC.

5.13. Contractor has to carry out any other works pertaining to commissioning and streamlining of Electric Hoist on Monorail as well as any other modifications, if required, suiting the site condition as well as installed Calciner and as per the requirement of EIC/Plant in charge.

6.0. TERMS AND CONDITIONS

6.1. The successful contractor has to assess the quantity and type of MS Structures required for the fabrication of MS Platform, platform supports, step ladders, handrails, toe board and any other MS Structure fabrication works required for the erection of Calciner and its associated/ connected equipment before starting the work.

6.2. Any modification required in MS Structures during executing the work shall be undertaken by the contractor in consultation with the EIC to ensure successful and timely completion of the work.

6.3. Good and standard engineering practice has to be followed.

6.4. The contractor is advised to visit the site before quoting. Any clarification, if required, can be obtained from the EIC regarding MS structural Platform.

6.5. All standard safety practices shall be followed by the contractor. The debris developed during the course of the work shall be removed on daily basis.

6.6. Contractor's Scope of Supply: MS Steel Structures for Working Platforms, Support structures, Wooden Chequered Boards, Epoxy Chemical resistant Primers (Light Grey) & Finish Paints (Light Green Eau-De-Nil), etc.

6.7. Supply of electric hoist as per technical specification clause 8.2.

6.8. Tools such as Welding machine, Cutting set, Painting brush, Drilling Machines, fasteners, Anchor Bolts, Lifting Tools and tackles, all consumables required for the work, Chain blocks, shackles, rope, ladder, labour, cable carrier for electric hoist, Scaffoldings, etc.

6.9. All Safety Equipment and PPEs, etc., and all other materials required for the work has to be brought by the contractor.

7.0. IREL'S SCOPE OF SUPPLY:

7.1. Electrical cable laying and connections to the Electric hoist will be under the scope of the IREL.

7.2. Electricity and Water will be provided from a single point by IREL free of cost. The contractor has to make his own arrangements to utilize the same.

8.0. TECHNICAL SPECIFICATION AND PREFERRED MAKES:

8.1. Structural Steel: SAIL/ RINL/ VIZAG/ TATA/ Jindal/ Essar-With Material Test Certificate.

8.2. Electric hoist:

S. No.	Specification	Parameters
1	Hoist	Wire Rope Hoist
2	Capacity	2 Tons
3	Lift	20m
4	No. of Rope Falls	2
5	Rope Diameter	10mm

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6	Monorail Beam	Suitable for ISMB 350
7	Hoist Brake	Electromagnetic AC Disc Brake
8	Hoist Body	Light Weight, Robust Die Cast High Grade Aluminium Alloy
9	Gear Box Type	Spur/ Helical
10	Gear Torque	4.7Kg-m
11	Make	Indef/ Brady & Moris/ Swift

a. The system shall be provided with an inbuilt panel board.
b. Motor shall be provided with inbuilt brake system
c. The Hoist shall be provided with Minimum and Maximum lift switches for positional safety.
d. The hook has to be provided with safety latches.
e. Test Certificate must be provided at the time of supply.
f. Warranty: 1 year against any manufacturing defects and workmanship from the date of supply.
g. The material shall be supplied as per applicable IS specifications. Certificate shall be provided along with the material.
h. Hoist shall confirm to IS 3938-2005.
i. Rope confirming to IS 2266
j. Trolley Plate Material confirming to IS 2062.

9.0. <u>SCOPE OF THE WORK: Part C for Electrical work</u>

Electrification work for the 250KW Calciner – II includes but not limited to the following:

9.1 Design, Supply, Installation, Testing and Commissioning of MSB LT panel as per the given specification.
9.2 Design, Supply, Installation, Testing and Commissioning of Lighting panel as per the given specification
9.3 Supply Installation and commissioning of 12 Way PDB as per the given specification
9.4 Supply Installation and commissioning of 12 Way LDB as per the given specification
9.5 Supply, Laying, dressing, termination of 3.5C x 400 Sq.mm Al conductor armoured Cable as per the given specification
9.6 Supply, Laying, dressing, termination of 4C x 16 Sq.mm Cu conductor armoured Cable as per the given specification
9.7 Supply, Laying, dressing, termination of 4C x 6 Sq.mm Cu conductor armoured Cable as per the given specification
9.8 Supply, Laying, dressing, termination of 4C x 1.5 Sq.mm Cu conductor armoured Cable as per the given specification
9.9 Supply, Laying, dressing, termination of earth strip/insulated earth wire as per the given specification
9.10 Supply and installation of LED Street light fittings as per the given specification
9.11 Supply of MS structural materials and fabrication of cable tray, cable tray support, PDB&LDB fixing frames light fixing frames, etc.
9.12 Supply and installation of 4 x 4 junction box (Weather proof, polycarbonate box) along with each light fixings frames as per the given specification
9.13 Supply and installation of Industrial power socket (Weather proof, polycarbonate box) as per the given specification
9.14 Isolation, Disconnection of existing power cable connection from the MSB LT panel/switch gears without disturbing the cable sockets and glands as per the given specification
9.15 Dismantling, removing and shifting of existing obsolete MSB LT panels to scrape yard. (Within 150 mtr inside company premises). After weighment of the dismantled panels, entire Busbar fitted inside

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the dismantled panels shall be removed, weighed and handed over to EIC.

9.16 Modification work on the REP-II outgoing feeder in align with the existing panel for easy operation and maintenance.

9.17 Demolish the substation wall at a suitable location for leading the dismantled old panels from the site to disposal yard and also to lead new panels to the site. After the electrical work the demolished was shall be reconstructed and plastered.

9.18 Obtaining Approval from CEA/KSEBL/Kerala state electrical inspectorate for the replacement of old panel with new MSB panel and energization approval of the same.

NOTE: The entire work will be executed in a live & working substation. Necessary feeders shall be isolated and handed over to the contractor to carry out the replacement of panels work in safe manner. Considering the site constrains, the entire new MSB panels shall be fabricated in 3 segments for easy and smooth handling at site. Shutdown period for each segment of MSB panels shall not be exceeded more than three days in single stretch.

Shutdown work for Lighting panel including dismantling of old panel and erection and commissioning of new lighting panel shall be completed in three days separately.

10.0. SCOPE OF IREL, RED:

10.1 IREL, RED shall provide Electricity Water on free of cost at single point. The contractor shall make his own necessary arrangement for the safe use of the same, if required, following the safety regulation followed in RED.

11.0. SOCPE OF CONTRACTOR:

11.1 All the working implements, fasteners like screws/nut & Bolt/Anchor bolts. etc.

11.2 All the working implements, Cement, Bricks, Sand etc for the masonry work.

11.3 Fork lift/ tractor - tailor for shifting the debris generated/ dismantled panels, subjected to the availability of same and within the safe load carrying capacity.

11.4 Required trained and unskilled manpower for the safe and timely execution of the work

11.5 Qualified electrical supervisor shall be present at site throughout the execution of work.

11.6 Electrical supervisor shall have 4Ys/8 semester regular engineering degree or 3 Yr/6 Semester Diploma engineering. Proof of the same shall be produced before the execution of the work.

11.7 The electrical supervisor - Engineering graduate/ Diploma shall have 3 yr. /5Yr. Supervisory experience. Proof of the same shall be produced before the execution of the work.

11.8 The electrical supervisor shall have 'A' Grade supervisory licence issued by KSELB (Kerala state Electrical Licensing Board) Proof of the same shall be produced before the execution of the work.

12.0 SITE INSPECTION:

12.1 The contractors are advised have site inspection before submitting the quotation.

12.2 Major part of the work is happening at live & working 11KV Substation. Due to the site constrains and limitation, the site inspection is advised.

12.3 The contractor are advised to know the labour practice followed at Eloor area before submitting the quotations.

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13.0 TECHNICAL SPECIFICATION FOR ELECTRICAL WORKS:

Technical specification for MSB & Lighting Panels

1. SCOPE OF SUPPLY

1.1. The scope of supply includes design, manufacture, wiring, testing, inspection, packing & delivery to working site at IREL, RED, Udyogamandal.

1.2. MSB & Lighting panels shall be fabricated and supplied as per the technical specification and respective bill of material.

2. SERVICE CONDITIONS

All the item supplied against this Specification shall be suitable for satisfactory operation under the following climatic conditions. Location Udyogamandal, Kochi, Kerala Maximum ambient air temperature 50°C Minimum ambient air temperature 15°C Maximum Relative Humidity 91% at 22 degree Celsius Atmosphere Highly corrosive, acidic& alkaline

3. SYSTEM PERTICULARS

3.1. Nominal System Voltage: 415 V
3.2. Number of Phases: 3 phases, 4 wire system
3.3. Frequency: 50 Hz
3.4. Voltage Variation: +/-10-%
3.5. Frequency Variation: +/-3%
3.6. Earthing: Solidly grounded

4. DESIGN AND FABRICATION CRITERIA

4.1. Derating factor: As per site condition
4.2. Ingress Protection: Minimum IP 54
4.3. Short circuit current: 50 kA for incomer & bus couplers and 36kA for outgoing feeders.
4.4. Control circuit and display voltage: 240V, 50Hz, AC
4.5. Fuse and Overload relay: Type -2 Coordination
4.6. Cable entry (Bottom entry for MSB and top entry for Lighting panel) as specified in the drawings.
4.7. Due to the site constrains, the overall dimensions of the panels and components of the panels shall be restricted to the indicative dimension given in the GA drawing.

5. DESCRIPTION OF PANEL MATERIAL

5.1. The panel shall be non-draw type, Indoor application, Floor mounting rigid free standing type.
5.2. The panels shall be of metal enclosed, free standing, cubicle type, compartmentalized, single front execution, front and rear accessible as required (having individual cubical for each incoming, bus coupler and outgoing feeder), totally enclosed, dust and vermin proof, floor mounting type. All the sheet steel members and parts of the panel board shall be fully fabricated and painted as per **Rittal/BCH standards** only.
5.3. The Panels shall be designed to ensure maximum safety during operation, inspection, connection of cables, relocation of outgoing circuits and maintenance with bus bar systems energized and without taking any special precautions. Finger protection plate shall be provided at all devices and components to prevent accidental direct contact with live parts. Phase protection barrier for SDFs, MCCBs etc shall be provided. Door interlock and defeat feature shall be provided for SDFs. Power termination at cable chamber shall be shrouded. **Adequate means shall be provided to prevent shorting of power and / or control terminals due to accidental dropping of maintenance tools etc**. inside the panels. Checking and removal of components shall be possible without disturbing adjacent compartment. **All identical equipment and corresponding parts shall be fully interchangeable.** Mechanical inter locking shall be provided for doors of cubicles having incoming/outing feeder such that door can be opened only if feeder is OFF.

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5.4. The Panels shall be provided with integral base frame of dimensions as per the drawing for each shipping section. The panel integral base frame shall be suitable for tack welding. All hardwires shall be corrosion resistant. All joints and connections of the panel members shall be made of **stainless steel bolts, nuts and washers**, secured against loosening. Suitable removable type eyebolts/ lifting hooks shall be provided for lifting of the panel/ for shipping purpose. These eyebolts/ lifting hooks, when removed shall not leave any opening in the panels.

5.5. Metal sheet shall be provided between two adjacent vertical panels running up to the full useful height of panel may be for adjacent cubicles, between feeder compartment, between bus bar chamber and other compartment.

5.6. All cable termination compartment/cable alley shall have adequate width and length for glanding and termination, neat arrangement and termination of total number and size of cable mentioned in the specification/data sheet and shall have free access for cable termination. The same shall be approved before manufacturing. Cable chambers shall be provided with suitable hinged doors. Barrier plates shall be provided between individual compartment and cable alley. This barrier plates shall be provided with opening for power and control connections and it shall be possible to safely carryout maintenance work on cable connection to any one circuit in the cable alley with bus bar and adjacent live circuit. Removable undrilled gland plates shall be provided for termination of cables.

5.7. Unused compartments if any in the panel shall be fully equipped with hinged door and shall be suitable for mounting power and control components.

5.8. Separate connectors of adequate size shall be provided for terminating power and control cables. Power cable terminations shall be properly shrouded

6. PAINTING

6.1. All the surface shall be made free from all imperfections before undertaking the painting process. All the parts shall be thoroughly cleaned and degreased to remove mill scale, rust, grease and dirt by giving full surface treatment and **painted as per Rittal/BCH standards. The overall outside of panel shall be over coated with corrosion retardant clear coat.** Panel finish shall be free from imperfections like pinholes, orange peels, runoff paint etc. The painting shall be suitably rated for 1000Hrs spray test. Painting test certificate shall be provided along with the supply of panels to the site.

6.2. All unpainted mild steel pats shall be zinc passivated or cadmium plated or suitably treated to prevent rust formation. If these parts are moving elements, then they shall be greased.

7. GASKETS

All joints between different sections and the switchboard, openings, covers, and doors shall be provided with **heavy duty neoprene gaskets** around the perimeters so as to make the complete switchboards completely dust and vermin proof.

8. BUS BARS

8.1. Main bus bar shall be of **Copper** material, house in separate compartment. The bus bar shall be made of high conductivity, electrolytic grade Copper, suitable for carrying continuous rated current and short circuit current **50kA for 1 sec.,** without overheating and, PVC sleeved, air insulated, and of adequate size, **current density to be considered as 1.2Amp/sq.mm** for operation on 3 phases, 4 wires, 440 V, 50 Hz. AC supply system, as per IS 345-1963 with amendment till date. The bus bars shall be supported on insulators made of non-hygroscopic, non-inflammable material with tracking index equal to or more than that defined in Indian standards, and at close intervals to prevent bus bar sag and to effectively withstand electromagnetic & dynamic stresses in the event of a short circuit. Bus bar support design should ensure free thermal expansion. Minimum clearance to be maintained for enclosed indoor air insulated bus bars working at system voltage up to 600 V shall be as follows:

Phase to earth	**-**	**20 mm**
Phase to phase	**-**	**25 mm**

8.2. Clearance between terminals at components shall be as per applicable individual standards for components. Adequate bus bar and bus bar chamber sizes for temperature rise withstand shall be considered as per IS.

8.3. Bus Bar size for Phase and Neutral shall be as specified in the drawings (Copper)

8.4. The main bus bars shall have uniform current ratings throughout their length. In the case of TPN S/G, removable neutral links shall be provided on feeders to permit isolation of the neutral bus bar. Both horizontal and vertical bus bars, bus joints and supports shall be capable of withstanding dynamic and

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thermal stress of the specified short circuit current. All the bus bars and interconnections shall be insulated with heat shrunk PVC sleeves of 1100V grade. Red yellow and blue shall be used for phase bus bars and black colour shall be used for neutral bus bar. Removable type shrouds shall be provided for all joints and tap off points to prevent accidental contact and danger to personal. **Vertical and horizontal bus bar shall be of same rating** .Bus bar connections shall be adequately supported to ensure proper connection of cables. Proper shrouding with insulated sheets shall be provided for ease of connection and disconnection of cable.

8.5. Auxiliary bus bar if any, for control, interlock, indication and metering shall be arranged separately with perforated sheet steel / insulating material

8.6. The current rating as defined for panels and component in data sheet are for design ambient temperature at site conditions and for being inside the cubicle at fully loaded condition. The supplier shall suitably derate the normal rating to suit the above condition.

9. CONNECTIONS

9.1. Connections to the bus bars shall be made by drilling holes. However, no holes shall be left in the bus bars. **The bolts & nuts used for connections to bus bars shall be of stainless steel.** For tapping of connections from bus bars suitable size copper links/bus bar link with PVC sleeves shall be used. The tapping from bus bars to different feeders shall be taken from different points. 9.2. For all outgoing cables, cable alleys of suitable sizes as required for proper cable connections/ lying inside the panel, shall be provided. Hinged type covers shall be provided for the cable ally portion on all sides.

9.3. Panels shall be suitable for Aluminium conductor PVC insulated incoming and outgoing cables. Removable gland plates shall be provided for cable entries. The voltage and current leads should be segregated and clamped separately.

9.4. Suitable **FRP/Polycarbonate shrouding shall be provided for live parts. FRP/SMC/Poly-carbonate partition plates shall be provided between the feeder boxes and the bus bar chambers,** in order to avoid, falling down of any nuts/bolts into the bus bar chambers while carrying out maintenance of the feeder components. The panels shall be extensible in design.

10. EARTHING

10.1. The minimum earth bus size shall be 50x3 mm copper.

10.2. All sections shall be connected to a tinned copper earth bus bar running throughout the length of the panels.

10.3. All doors and movable parts shall be earthed, using flexible copper connections, to the earthed fixed frame of the switch board.

10.4. Two independent earthing points shall be provided outside the panel near bottom/Top to connect the earthing bus bar to the plant earthing. All earthing points inside the Switch Board shall be interconnected to these earthing points with suitable size copper conductor.

10.5. All non-current carrying metallic parts of the mounted equipments shall be earthed.

11. NAME PLATE LABELS

11.1. Nameplates designation of the starter as specified in the drawing shall be affixed prominently on the panel. All components whether mounted inside the panel or on the door shall be permanently and clearly labeled with reference number and / or letter of their function. (Rating of fuse shall form a part of the fuse designation). All labels shall be non-corrodible, laminated plastic, with white letters on black background. Labels shall be clearly indicating feeder No, Switch &fuse rating, Equipment description, KW/HP/Ampere, Cable &Bus Size, Type of starting etc.

11.2. Caution board shall be provided at suitable locations. Danger labels for bus bar chamber shall be provided.

12. Document submittal along with Quotation

12.1. Typical GA and SLD drawings for the panel is attached for reference. You shall submit the following drawing within 10 days from the receipt of purchase order, for approval before starting the Fabrication work of the panel.

12.1.1. Single line drawing of MSB and Lighting panels.

12.1.2. GA /Layout drawing of both MSB and Lighting panels.

12.1.3. Power and control wiring diagram of one chamber/segment.
12.1.4. Bill of materials

13. APPROVALS, INSPECTION, TESTING, AND ACCEPTANCE

13.1. Contractor/panels Integrator should have type tested their panels (PCC/MCC/VFD/Control panels) under IEC-61439/IS 8623 at any NABL approved Lab. Copy of Type test certificate shall be enclosed along with the technical bid. During fabrication, the panels shall be subjected to inspection, if required by the IREL, RED. All routine and acceptance tests shall be carried out at Contractor's/panel integrator's site/work place under his care and expense. Acceptance test shall be as follows:

13.2. Stage Inspection after fabrication but before powder coated painting (Optional):-
General visual check and dimensional check shall be carried out. This shall cover measurement of overall dimensions, location, number etc.

13.3. Pre delivery inspection (Optional):-

13.3.1. Verification for make of components, wires/cables, Bus bars, interconnecting leads, clearance spacing between bus bars, neutral bus, Earth bus, Hardware etc.
13.3.2. Insulation resistance (Megger test).
13.3.3. High voltage withstand test.
13.3.4. Provision for external cable termination shall be checked.
13.3.5. All control circuits, interlocks circuits Power circuits.
13.3.6. Operation of switches, starters, Panel meters Indicators etc.
13.3.7. For equipment brought from sub-suppliers, certified test reports of test carried out at manufactures work shall be submitted. Normally all routine test as specified in the relevant standard shall be conducted by the sub-supplier at his works.
13.3.8. The panels and its component shall conform to Indian Electricity Rules & relevant I.S. and in accordance with Local statutory requirements
13.3.9. **Copies of test certificate shall be furnished by the supplier after completion of all tests. The certificates shall be produced along with the supply.**
13.3.10. The painting of the entire panels shall be suitably rated for 1000Hrs spray test. Painting test certificate shall be provided along with the supply of panels to the site.

14. STANDARD MAKE OF SWITCH GEARS

14.1. The rating of the panel shall be strictly as per the approved SLD & GA drawings.
14.2. The panels shall comply with the latest applicable Indian Standards/IEC specification & all requirements of the local Authorities
14.3. General requirement of switch gear and control gear: - IS 4237 and IS 13947 or its latest amendment
14.4. Equipment meeting the requirements of any other authoritative standards which ensure equal or better quality than the standards mentioned above shall also be acceptable.
14.5. Standard make of the switchgears shall be As follows:

14.5.1. MSB Panel:

Sl. No	Description	Qty	Make
	INCOMER		
1	Panel enclosure. (minimum dimension of enclosure shall be 2275mm (H) x 8300mm (W) x 1090 mm (D))	1 No	Rittal/BCH
2	Solar Incomer: 1000A, TPN, 50kA, MCCB Thermal Mag. Type, O/L & S/C Releases + 3P Spreader + Extender Rom +1C/O Aux Contact + 1C/O Trip Contact.	1 No	LK/Siemens/Schneider
3	Tranformer – 5 incomer: 1000A, TPN, 50kA, EDO ACB with S/T.	1 No	LK/Siemens/Schneider
4	DG Incomer: 1000A, TPN, 50kA, MCCB Thermal Mag. Type, O/L & S/C Releases + 3P Spreader + Extender Rom +1C/O Aux Contact + 1C/O Trip Contact.	1 No	LK/Siemens/Schneider
5	RYB Indication Lamps 230V AC LED	3 Set	LK/Siemens/Schneider

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6	3Ph, Digital multi-function meter	2 No	LK/Siemens/Schneider
7	3Ph, 4 wire digital Energy Meter – 5A, 230V AC	1 No	LK/Siemens/Schneider
8	CT 1000/5A CL-1 15VA	6 No	KALPA/Rishab/Reputed
9	Neutral CT 200/5A Cl-5P10, 15VA	1 No	KALPA/Rishab/Reputed
10	Earth fault replay (EFR)	1 No	LK/Siemens/Schneider
11	Reverse Power Relay (RPR)	1 No	LK/Siemens/Schneider
12	6A, SP, 10KA C-curve MCB	11 No	LK/Siemens/Schneider
13	Neutral Link	5 No	Reputed
14	ON/OFF/TRIP Indication Lamps 230V AC LED	3 Set	LK/Siemens/Schneider
	BUS COUPLER		
15	1250A, TPN, 50kA, EDO ACB	3 No	LK/Siemens/Schneider
16	ON/OFF/TRIP Indication Lamps 230V AC LED	3 Set	LK/Siemens/Schneider
	OUTGOINGS		
17	630A, TPN, 36KA, MCCB Thermal Mag. Type O/L & S/C Releases + 3P Spreader + Extender Rom +1C/O Aux Contact + 1C/O Trip Contact.	7 No	LK/Siemens/Schneider
18	400A, TPN, 36KA, MCCB Thermal Mag. Type O/L & S/C Releases + 3P Spreader + Extender Rom +1C/O Aux Contact + 1C/O Trip Contact	1 No	LK/Siemens/Schneider
19	250A 36KA 4P MCCB Thermal Mag. Type O/L & S/C Releases + 4P Spreader + Extender Rom +1C/O Aux Contact + 1C/O Trip Contact.	10 No	LK/Siemens/Schneider
20	ON/OFF/TRIP Indication Lamps 230V AC LED	18 Set	LK/Siemens/Schneider
21	6A, SP, 10KA C-curve MCB	18 No	LK/Siemens/Schneider
22	Neutral Link	18 No	Reputed

14.5.2. Lighting Panel:

Sl.No	Description	Qty	Make
	INCOMER		
1	Panel enclosure. (minimum dimension of enclosure shall be 2275mm (H) x 2400mm (W) x 400 mm (D))	1 No	Rittal/BCH
	400A, TPN, 36KA, MCCB Thermal Mag. Type O/L & S/C Releases + 3P Spreader + Extender Rom +1C/O Aux Contact + 1C/O Trip Contact	1 No	LK/Siemens/Schneider
2	CT 400/5A CL-1 15VA	3 No	KALPA/Rishab/Reputed
3	3Ph, Digital multi-function meter	1 No	LK/Siemens/Schneider
4	3Ph, 4 wire digital Energy Meter – 5A, 230V AC	1 No	LK/Siemens/Schneider
5	RYB Indication Lamps 230V AC LED	1 Set	LK/Siemens/Schneider
6	ON/OFF/TRIP Indication Lamps 230V AC LED	1 Set	LK/Siemens/Schneider
7	6A, SP, 10KA C-curve MCB	3 No	LK/Siemens/Schneider
8	Neutral Link	1 No	Reputed
	OUTGOINGS		
10	100A, TPN, 36kA, MCCB Thermal Mag. Type O/L & S/C Releases + 3P Spreader + Extender Rom +1C/O Aux Contact + 1C/O Trip Contact.	12 No	LK/Siemens/Schneider
11	ON/OFF/TRIP Indication Lamps 230V AC LED	12 Set	LK/Siemens/Schneider
12	6A, SP, 10KA C-curve MCB	12 No	LK/Siemens/Schneider
13	Neutral Link	12 No	Reputed

NOTE: 1) Control circuit Isolation shall by means of MCB of suitable capacity.
2) Contractors with 240V AC coil supply of suitable capacity shall be used for starters.
3) Any switchgears/components not mentioned here but required for the completion of the panels shall be added and quoted accordingly.
4) Connecting lead wire for the outgoing feeders shall be selected one rating higher than the standard rated wires.

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15. PERFORMANCE GUARANTEE/PRODUCT WARRANTY

You shall guarantee the switch gears and all other materials fitted inside/on the panel (the panels as a whole) for a minimum period of 12 months from the date of commissioning at site or 18 months from the date of supply to IREL store, whichever is earlier. The supplier shall further guarantee that during the guarantee period, he shall repair/replace the defective component on free of cost.

TECHNICAL SPECIFICATIONS FOR PDB

Vertical TPN DB with 4P 100A, 'C' Curve, MCB isolator and 4P, 100A, 30mA RCCB. Outgoing 12+12+12, 12 way, pre wired, IP-54, conforming to 8623-1/IEC 61439-1. Incomer MCB/RCCB and Outgoing MCBs 4P, 32A, 'C' curve shall also be supplied along with the DB

TECHNICAL SPECIFICATIONS FOR LDB

Vertical SPN DB with 2P, 32A, 'C' curve MCB isolator and 2P, 32A, 30mA, RCCB. Outgoing 1P, 6A, 'C' Curve, MCBs, 12 way, pre wired, IP 54, conforming to 8623-1/IEC 61439-1. Incomer MCB/RCCB 32A, 2P and Outgoing MCBs 1P, 6A shall also be supplied along with the DB.

TECHNICAL SPECIFICATIONS FOR CABLES & ACCESSORIES

POWER CABLES

1) 3.5C x 4000Sq. mm. multi stranded Al conductor, XLPE insulated, PVC inner sheathed, GI steel wire armoured, Overall PVC insulated, 1.1KV graded, cable as per IS 7098. Make: Ploycab, Finolex, KEI, Lapp, RPG, Mancab
2) 4C x 16 Sq. mm. multi stranded Cu conductor, XLPE insulated, PVC inner sheathed, GI steel wire armoured, Overall PVC insulated, 1.1KV graded, cable as per IS 7098. Make: Ploycab, Finolex, KEI, Lapp, RPG, Mancab
3) 4C x 6 Sq. mm. multi stranded Cu conductor, XLPE insulated, PVC inner sheathed, GI steel wire armoured, Overall PVC insulated, 1.1KV graded, cable as per IS 7098. Make: Ploycab, Finolex, KEI, Lapp, RPG, Mancab
4) 4C x 1.5 Sq. mm. multi stranded Cu conductor, XLPE insulated, PVC inner sheathed, GI steel wire armoured, Overall PVC insulated, 1.1KV graded, cable as per IS 7098. Make: Ploycab, Finolex, KEI, Lapp, RPG, Mancab

(Special Condition: Each meter length shall be marked on the outer surface of the cable along with the ISI marking. Cable shall be supplied in single length.)

CABLE GLANDS. (REPUTED MAKE)

1) Single compression, Brass material, cable gland suitable for 3.5C x 400 Sq.mm Al conductor XLPE Armoured Cable.
2) Single compression, Brass material, cable gland suitable for 4C x 16 Sq.mm Cu conductor XLPE Armoured Cable.
3) Single compression, Brass material, cable gland suitable for 4C x 6 Sq.mm Cu conductor XLPE Armoured Cable.
4) Single compression Brass material, cable gland suitable for 4C x 1.5 Sq.mm Cu conductor XLPE Armoured Cable.

CRIMPING SOCKET. (REPUTED MAKE)

1) 400 Sq.mm Aluminium material PAM type Crimping socket.
2) 185 Sq.mm Aluminium material PAM type Crimping socket.
3) 16 Sq.mm Copper material PAM Type crimping Socket.
4) 6 Sq.mm Copper material PAM Type crimping Socket.
5) 1.5 Sq.mm Copper material PAM Type crimping Socket.

Earth Strip & Earth Wire (Copper)

1) 25mm x 3mm earth strip copper – 300 Mtr. (One role should have a minimum length of 50 Mtr each.)

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2) Earth wire 4 Sq.mm copper – 2000mtr. (Single core, cu conductor, PVC Insulated Green colour. One role should have a minimum length of 180-200Mtr each.)

TECHNICAL SPECIFICATIONS FOR LED STREET LIGHTS

Sl No.	Description	Requirement
01	Wattage	30W to 35W
02	Type	Pole Mount LED street Light (35mm dia)
03	Body/Housing	Pressure die cast Aluminium alloy housing
04	IP standard	IP66
05	Drive efficiency	85% (minimum)
06	LED Efficiency	120Lumen per watt (minimum)
07	System efficiency	110Lumen per watt (minimum)
08	Surge Protection (Internal)	4KV (minimum)
09	Power factor	0.95 lag (minimum)
10	CRI	70 (minimum)
11	CCT	5700K (minimum)
12	LM 79 Complied	Yes
13	LM 80 Complied	Yes
14	RoHs Complied	Yes
15	Make	Phlips, Bajaj, Osram, Wipro, Crompton, LT

TECHNICAL SPECIFICATION FOR JUNCTION BOX

1) 100 x 100 mm junction box
   Thermoplastic Polycarbonate, Chemical resistant, Fire retardant, shock proof, IP65 ingress protection, rust proof, dust proof water proof, corrosion proof 4 x 4 Polycarbonate box, Model DM9020 with cable connector and also have internally embedded gaskets confirmed to IP65(IEC 60529) with terminal blocks of suitable size and quantity of Phoenix /Elmak or equivalent make fitted in c type din rail. Hensel make.
2) Polycarbonate Cable Gland
   Industrial Power socket (Male & Female) housed in Thermoplastic Polycarbonate box with power isolator of 32A, 4 P, 'C' Curve MCB. Make Hensel.
3) 32A Industrial Plug: (Male and Female)
   Thermoplastic Polycarbonate, Chemical resistant, Fire retardant, shock proof, IP65 ingress protection, rust proof, dust proof water proof, corrosion proof industrial plug sock (male and female part) with 32A, TPN Isolator. Make Hens

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GENERAL TERMS & CONDITIONS - PART D

14.0 SAFETY & HOUSEKEEPING

14.1 All the working force including Supervisor. Skilled & Unskilled labour shall undergo half day safety training conducted through Safety Section of IREL, RED.

14.2 It is the sole responsibility of the contractor to carry out the work in an utmost safe manner. The contractor will have to carry out the work as per the rules laid down by IREL Safety section. Necessary safety work permit has to be taken before starting the site work. The work spot shall be maintained neat and clean on daily basis. The debris generated during the course of erection must be shifted to the scrap yard situated within 300 m radius from the work site in consultation with the Engineer-in-charge. If such waste is not removed, the expenses incurred for the waste removal will be deducted from the Supplier's bill.

14.3 The Supervisors and Workmen engaged by the Contractor for the work shall undergo 1 day Safety Training conducted by company's safety department before the commencement of the field work.

14.4 Safety permit for working at heights and hazardous areas must be obtained on daily basis prior to starting of the work.

14.5 The work must be carried out under close supervision and without causing any damage/hindrance to the existing structure or equipment and other activities in the surrounding areas.

14.6 The work spot shall be cleared of the waste materials /debris on daily basis. On completion of the work all working implements, scaffoldings, excess materials, etc., if any must be removed from site immediately.

14.7 Proper covering should be provided to prevent any foreign impurities from contaminating other tanks/products by covering the nearby tank/equipment by tarpaulin or any other arrangement.

14.8 The contractor has to ensure proper ventilation and illumination.

14.9 The Contractor must provide Personal Protective Equipment for their workmen suitable for the working environment and also as per the advice of the Safety-in-charge/Engineer-in-charge. All tools & tackles and working implements such as ladders, welding machines, gas cutting machines, drilling machines, angle grinder, welding mirrors, extension boards, scaffolding materials, etc. shall be shown to safety department for competent person approval before executing the work. The list of tools & tackles and working implements approved by safety Department shall be submitted to the EIC.

14.10 The scaffolding used for height work shall be of Mild steel tubular type with base plate, boards and necessary bracings and working platform must be provided with hand rails. Materials used must be of good quality and strength. Safety net shall be provided wherever the work is carried out at height of more than 3 metres. Also, safety net shall be provided below the working platform of the scaffolding while work is being carried out at height. Double lanyard safety belt shall be used while working at height and the hook shall be clamped at different locations on the lifeline/ rigid structures.

14.11 Electrical extension boards are to be fitted with safety devices like ELCB/RCCB, MCB, etc. Each power tool shall be supplied through individual plug sockets. Electrical power shall be tapped through ISI marked industrial socket. Flexible cable used shall be of FRLS type with adequate current carrying capacity for the loads to be connected. Poor insulated cables and too many joints on the cable shall be avoided.

14.12 Flash back arrestors shall be provided in both the torch side and the cylinder side of all gas cutting equipment. Gas cylinders used for cutting and welding operations shall be mounted on the trolley.

In order to ensure 100% compliance of safety related regulations and procedures and non-use of PPE, penalty will be imposed on the contractor for not adhering to safety rules & regulations as detailed below in table. The contractor must endeavor to avoid penalty by encouraging, motivating and making their employees aware about all the Safety regulations.

14.13 Smoking /Use of drugs is strictly prohibited inside the company premises.

14.14 Mobile Phone (Android/I Phone)/ Phone with camera facility) are not permitted inside company premises. However Keypad type mobile phone shall be allowed subjected to prior approval from the competent authority.

14.15 All working force are to strictly obey the rules & regulation/ Dos & Donts issued by IREL RED from time to time during course of execution of contract.

14.16 Party is responsible for the best housekeeping at the work site. Debris generated during the work shall be shifted to scrape yard or to the place identified by EIC, on daily basis. If the party failed to shift the debris in time, IREL, RED will make arrangement to shift the debris on the cost to contractor.

14.17 Final payment will be settled only after clearing /shifting the debris from the site

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15.0 PENALTY FOR NON-COMPLIANCE

In order to ensure 100% compliance of safety related regulations and procedures and non-use of PPE, penalty will be imposed on the contractor for not adhering to safety rules & regulations. The contractor must endeavor to avoid penalty by encouraging, motivating and making their employees aware about all the Safety regulations.

Sl. No.	Safety violation	Penalty
1	Non-use of PPE like Helmet/Safety shoes etc.	Rs. 250/-per day/item/person
2	Hot work without proper permit/clearance	Rs. 1000/- per occasion
3	Non-use of ELCB, use of non-standard socket, poor cable joint, laying wire/ cables on roads, electrical job by incompetent person, use of more than 24V power in confined space	Rs. 500/- per item/day
4	Working at height without safety belt, using non-standard scaffolding and not arranging fall protection arrangement	Rs. 500/- per case/day
5	Handling of compressed gas cylinders without trolley, jubilee clips, double gauge regulator & improper storage & handling	Rs. 200/- per item/day
6	Non deployment of safety supervisor/supervisor responsible for safety at work site	Rs. 1000/- per day
7	Engaging workers without valid height pass	Rs. 1000/- per activity/person
8	Standing and working on a ladder	Rs. 1000/- per activity /day
9	Non-usage of Full Body Safety Harness Double Lanyard / Retractable Fall Arrestor / Grab Arrestor or Descender / Vertical Lifeline / Horizontal Lifeline.	Rs. 2000/- per item/day
10	For not providing Safety Net / Roof ladder / Scaffolding / H-Frame	Rs. 3000/- per activity /day

16.0 Safety to be followed at site for Height Work above 3 m height

16.1 Vertical Lifeline attached with Personal fall arrestor– The Contractor shall install and maintain vertical lifelines at all designated vertical access to rigid structural members by ensuring that workmen connect personal fall arrestor systems/Grab Arrestor/ Descender to the vertical lifeline before commencement of the work at height. Lifelines shall be anchored to rigid structural members and Supervisor shall inspect daily for defects prior to use.

16.2 Horizontal Lifeline – The Contractor shall provide and maintain horizontal lifeline systems where lateral movement is required by ensuring workmen remain continuously anchored to the Life line while working at height. Horizontal Life line should not be in sagged condition. The fall length of the Double lanyard full body harness/ Safety belt shall not be more than 50cms in order to avoid injury on the body. The hook of the Double lanyard full body harness/ Safety Belt to be anchored in two different

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Horizontal life line. Lifeline systems must be designed, installed and inspected by a competent person and capable of supporting anticipated loads if required.

16.3 Retractable Fall Arrestor – The Contractor shall arrange and install self-retracting fall arrestor devices for personnel working at height by ensuring the fall arrestor is rigidly anchored and compatible with the full body harness to prevent fall from height. Devices shall be inspected periodically and maintained in serviceable condition.

16.4 Grab Arrestor or Descender – The Contractor shall provide and use grab arrestors or controlled descender devices on Vertical lifelines to allow safe movement up and down with automatically locking in the event of fall from height.

16.5 Safety Net – The Contractor shall install Safety net systems, properly tensioned and secured for all structural roof work at height or any other opening where hazard is noticed, to arrest person fall from height or debris and inspect nets daily to ensure integrity before work begins.

16.6 Roof Ladder – The Contractor shall provide roof ladders with appropriate hooks, safety ties, and non-slip rungs wherever access to roof or sloped surfaces is necessary by ensuring ladders are secured before use. All roof ladders must be inspected prior to use and maintained in good condition. Roof work will be carried out only with roof ladders on any roof sheets.

16.7 Ladder - The Contractor shall provide ladders that are of rigid construction having sufficient strength for the intended loads and fitted with anti-skid rubber shoes. No wooden, bamboo, or rope ladders are permitted and that all ladders are inspected and maintained in good condition prior to use and throughout the contract period. Ladders must be securely fixed to the ground or rigid platforms. Ladders shall extend from the floor to at least one metre above the platform. No single portable ladder is used for access to a height of more than 4.5 metres. Standing and working on a ladder is prohibited. Ladders are to be used solely as a means of access.

16.8 Scaffold / H-Frame – The Contractor shall erect and maintain Scaffolds, including H-Frame scaffolds, in accordance with safety standards by ensuring platforms are stable with a minimum width of 1 meter, equipped with guardrails at a height of 1 meter from platform (top rail & intermediate rail) and toe boards, and inspected by a competent person before permitting worker access. H- Frame shall have attached ladder without intermediate gap. H-frame shall not be used for more than 5 metre height. Landing Platform is required for scaffolding for every 5 metre height. If required, Cage shall be made available for vertical ladder above 3 metre height. For work at heights exceeding 3 m, the Contractor shall erect and display a sample scaffolding up to a height of 5 m and demonstrate the usage of Safety Belt and obtain approval from the Safety Section prior to commencement of the work.

16.9 Full Body Safety Harness Double Lanyard – The Contractor shall provide full body safety harnesses with double lanyard systems to all workers performing work at height, and ensure 100% tie-off is maintained at all times while at elevated work locations.

16.10 Height Pass – The Contractor shall ensure that no personnel are permitted to work at heights above 3 meters without a valid height pass issued by Safety Department.

16.11 Contractor shall submit test certificate for all the equipment's/appliances stated above by a competent person. All the stated equipment/appliances shall confirm to applicable IS standards. All the items are to be available at site before the commencement of work at site. Permission to Work inside Factory Premises shall be signed only after showing the Safety equipment/appliances to Safety Department

17.0 THE OTHER IMPORTANT POINTS

17.1 The Tenderer has to quote the supply, transportation, unloading and erection prices separately along with statutory levies and applicable taxes as per the Format of Price schedule attached in the Price Bid.

17.2 The Supplier has to engage only the labour having ESI, PF and other statutory valid registration for

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Site work at IREL. Any claim raised out of any such violation will be at the Supplier's own risk and cost.

17.3 The Tenderer can inspect the site on any working day during office hours (9.00 AM TO 4.30 PM) before submitting their tender.

17.4 The entire work will be executed in a live & working substation. Necessary feeders shall be isolated and handed over to the contractor to carry out the replacement of panels work in safe manner. Considering the site constrains, the entire new MSB panels shall be fabricated in 3 segments for easy and smooth handling at site. Shutdown period for each segment of MSB panels shall not be exceeded more than three days in single stretch. Shutdown work for Lighting panel including dismantling of old panel and erection and commissioning of new lighting panel shall be completed in three days separately.

17.5 All the equipment, facilities and associated structures to be supplied by the qualified bidder shall be freshly acquired and new only. No used/ old equipment/ facilities or any item is accepted as part of this supply. In case, it is found at a later stage during execution of this project or operation of the plant that the equipment/parts of the equipment/ facilities supplied by the selected bidder were used/old, IREL may have the right to reject that equipment/ facility or portion/ part of the facility(s) and the selected bidder need to replace the same with new ones at its own cost as per mutually agreed timelines.

18.0 COMPLETION PERIOD

18.1 The work shall be completed in all respects within a period of 12 (Twelve) months from the date of acceptance of order and this shall be reckoned as the zero date of the Contract. Date of acceptance of order means seven days from the release of order date.

18.2 The successful bidder shall submit detailed schedule of activities to EIC within 10 days from the acceptance of order to ensure timely completion of work.

18.3 Within 10 days of acceptance of order, the contractor shall appoint a supervisor who will represent the contractor and shall be responsible for all activities under the scope of work.

19.0 PAYMENT TERMS

For Price Schedule Part A and B (SI No. 01 to 35):

19.1 The payment for all the items indicated in the Price Schedule will be based on the actual measurement of work carried out at site after completion of work on production of proper invoice and written request for the payment by the Contractor, duly certified by the respective E.I.C.

19.2 The contractor is eligible for part/interim payments on completion of work to a value not less than 10 lakhs. 95% payment minus statutory deduction shall be released after the successful completion of the work in all respects.

19.3 The Security Deposit along with Retention money will be refunded after successful completion of the guarantee period on due certification by the EIC, or on submission of bank guarantee from Scheduled Bank for an equal amount valid till the completion of the guarantee period.

19.4 The Contractor is responsible and liable to remit all statutory dues (GST etc.,) collected/included in the Price Schedule/BOQ of the contract, to the statutory authorities without fail. IREL is not responsible for remittance of such tax collections.

19.5 No advance payment will be made under any circumstances.

19.6 The Contractor has to submit Guarantee certificate for the complete work including electric hoist from the OEM while submitting the final claim.

19.7 Payment shall be made after statutory deductions. All bills/invoices are to be certified by EIC. Party has to submit commercially clear invoice/ bills to avail Input Tax credit on the materials supplied.

For Price Schedule Part C (SI No. 36 to 88):

19.8 The contractor is eligible for part/interim payments of each invoice value not less than 10 lakhs for the supply part (S No 36 to 66).

19.9 Payment shall be made within 30 days after completion of the work as specified in the work order, against submission of clean and clear bill duly certified by EIC.

19.10 For Sl No 36 to 66 of price schedule, 80% amount of invoice value will be released after completion of supply and duly certified by respective EIC. Balance 15% amount will be released along with final bill of Part C.

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19.11 For Sl No 67 to 88 of price schedule 95% amount of invoice will be released only after completion of the entire work and duly certified by respective EIC.

19.12 Reaming 5% for Sl No 36 to 88 will be released after completion of the warranty period

19.13 The payment shall be subject to deduction of statutory levies /penalty (if any).

19.14 Contractor is responsible for remitting all statutory dues (like EPF, ESI etc.) as applicable for their supervisor/skilled & unskilled work force. Proof of the remittance of the same shall be submitted in original along with the bill. In case the work force covers under the group insurance or other means, proof of the same shall be submitted along with the final bill.

19.15 The Security Deposit along with Retention money will be refunded after successful completion of the guarantee period on due certification by the EIC, or on submission of bank guarantee from Scheduled Bank for an equal amount valid till the completion of the guarantee period.

20.0 PRE-BID MEETING

20.1 The pre bid meeting shall be conducted on 02/09/2026 as online/offline at IREL, RED, Udyogamandal. Online details will be send to the party based on the response through mail to IREL.

20.2 Purpose of pre-bid is to invite clarifications (if any) from the interested experienced agencies regarding the Minimum technical specifications, Scope of work, other terms & conditions related to this tender. Also, to know the site condition and labor practice followed at Eloor industrial belt before submitting the quote.

20.3 No queries form any bidders other than participants of pre bid meeting shall not entertained after the pre bid meeting.

21.0 QUALIFICATION AND EXPERIENCE OF SUPERVISOR AND WORKMEN

Contractor must appoint work supervisor for carrying out the site work.

21.1 Work Supervisor -Degree in Civil Engineering with min. 2 year experience/ Diploma in Civil Engineering with min. 4 year experience in civil work. Proof of the same shall be produced before the execution of the work.

21.2 Electrical supervisor shall have 4Ys/8 semester regular engineering degree or 3 Yr/6 Semester Diploma engineering. Proof of the same shall be produced before the execution of the work.

21.3 The electrical supervisor - Engineering graduate/ Diploma shall have 3 yr. /5Yr. Supervisory experience. Proof of the same shall be produced before the execution of the work.

21.4 The electrical supervisor shall have 'A' Grade supervisory licence issued by KSELB (Kerala state Electrical Licensing Board) Proof of the same shall be produced before the execution of the work.

21.4 Welder/Fabricator/Electrician- ITI Passed (Welder/Fabricator/Fitter/Sheet Metal/Electrical Trade) with min. 2 year experience OR person with 5 year experience in arc welding, gas welding and gas cutting works connected with fabrication / mechanical maintenance works/ electrical maintenance works in any industry

21.5 Fitter/Rigger- ITI Passed (Fitter/Rigger Trade) with min. 2 year exp. In mechanical maintenance of any industries with multi craft skills OR person with minimum 5 years' experience in fabrication / mechanical maintenance works of any industry with multi craft skill like fitting, welding, gas cutting and rigging.

22.0 PERFORMANCE WARRANTY

The whole work must be guaranteed against any defective workmanship for the ability to withstand the process requirement mentioned, and for the quality of the material used for a minimum period of twelve months from the date of completion of all works. Party has to submit a comprehensive warranty certificate after commissioning and performance test acceptance by IREL, RED.

23.0 ENGINEER IN CHARGE (EIC)

Shri. K. Sankaralingam, Sr M -Tech (Civil) shall be the Engineer in charge for Civil related works.
Shri. Joshy K A, Sr. M -Tech (Elect) will coordinate for Electrical related works.
Shri. Anurag Pandey, DM-Technical (Mechanical) will coordinate for Mechnical related works

24.0 SECURITY DEPOSIT

Security deposit (SD) shall be uniformly levied @ 5% of contract value (excluding Taxes) towards completion of order as per Clause No: 11 of general instruction to bidder

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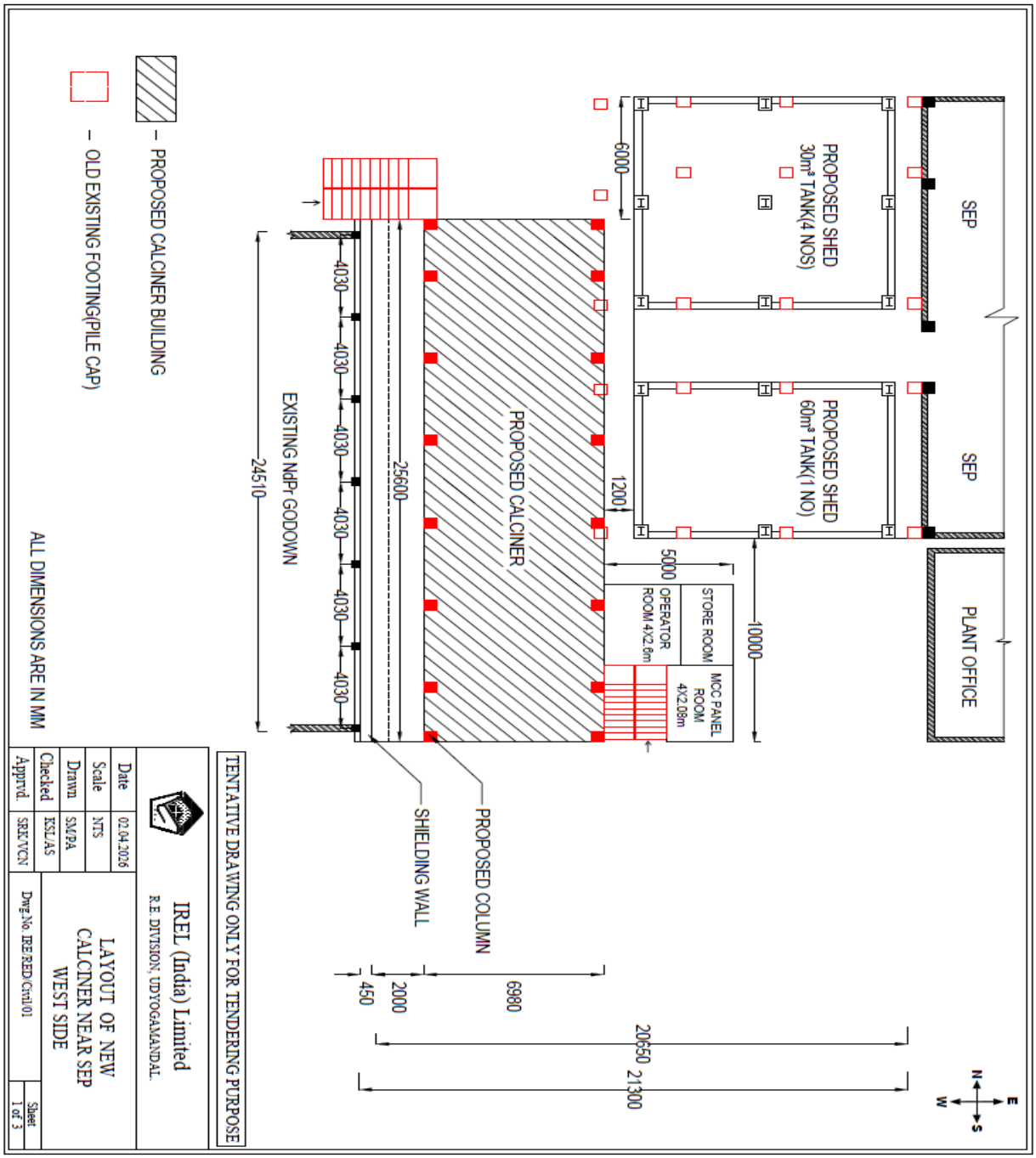
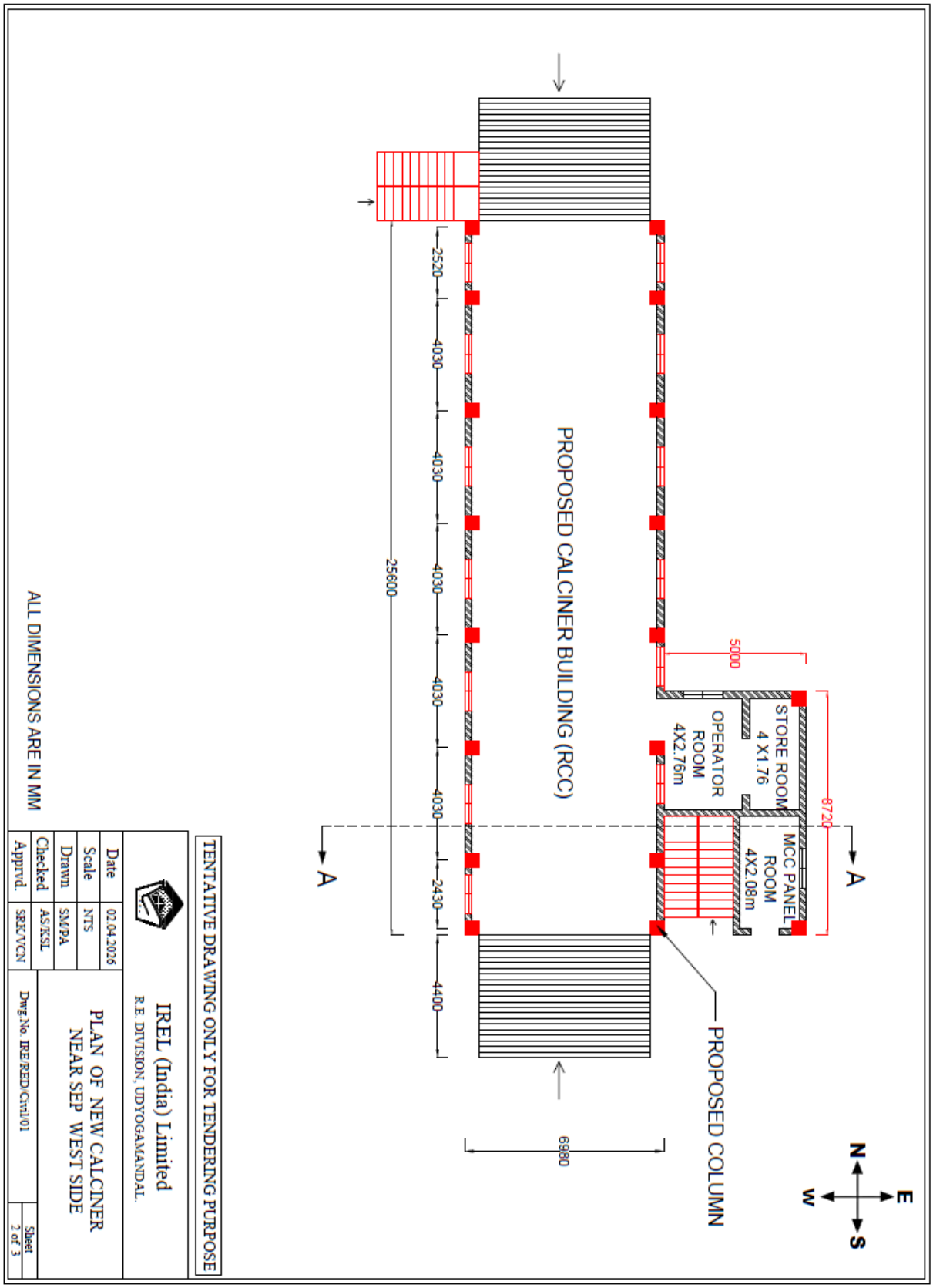
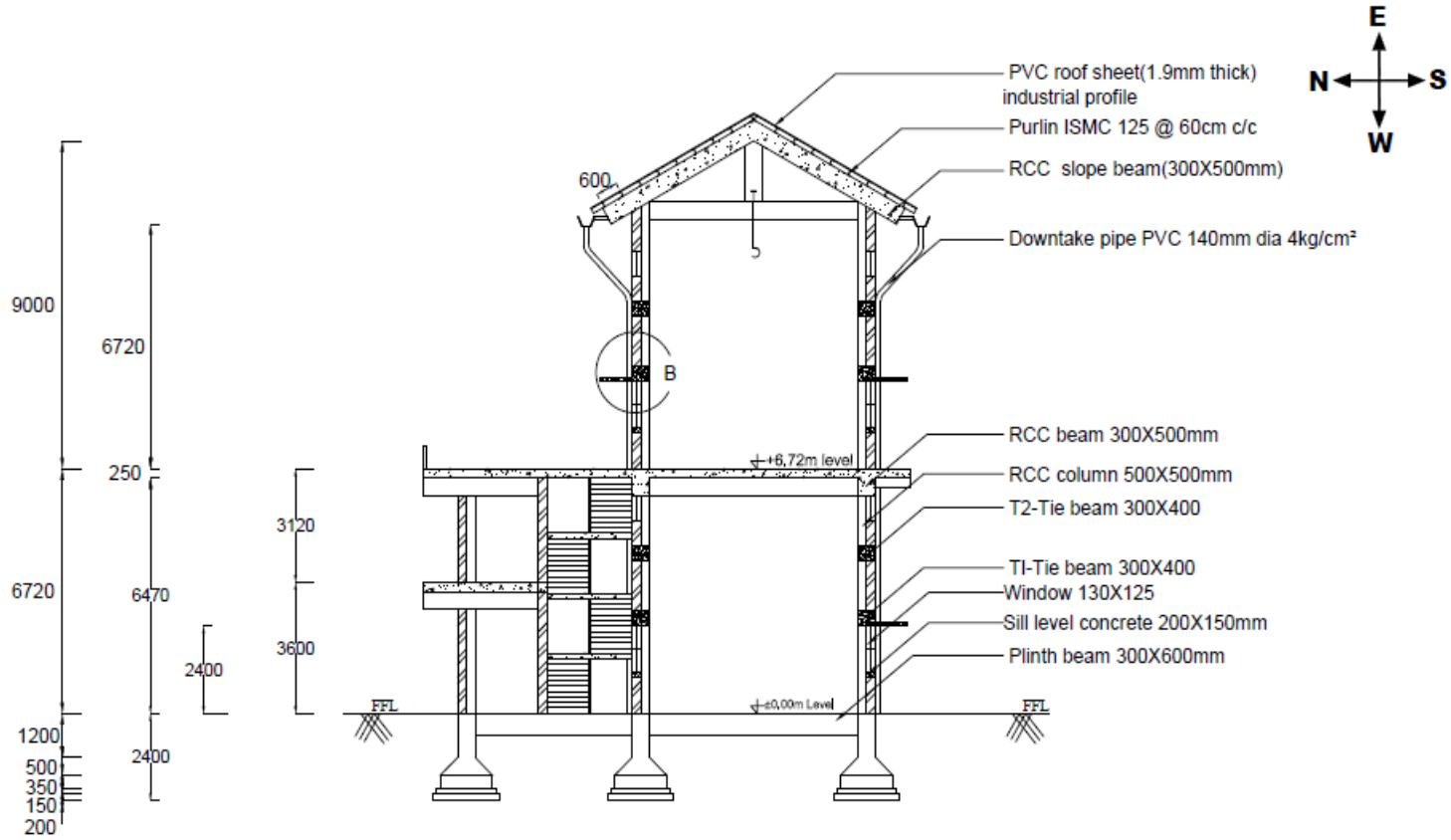
Layout and section view drawings: Civil



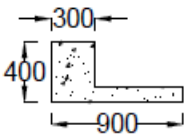
Signature and seal of the contractor



Signature and seal of the contractor



SECTION A-A



DETAIL B

ALL DIMENSIONS ARE IN MM

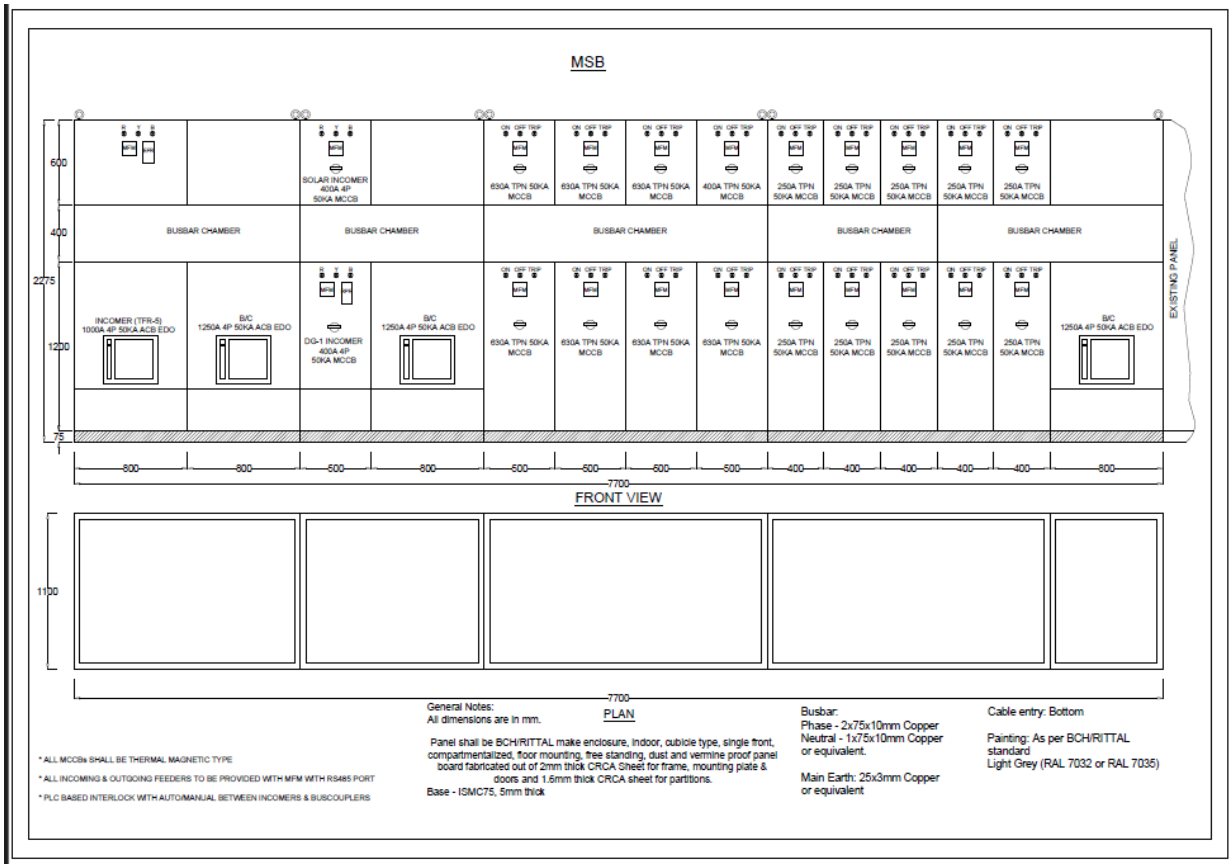
TENTATIVE DRAWING ONLY FOR TENDERING PURPOSE

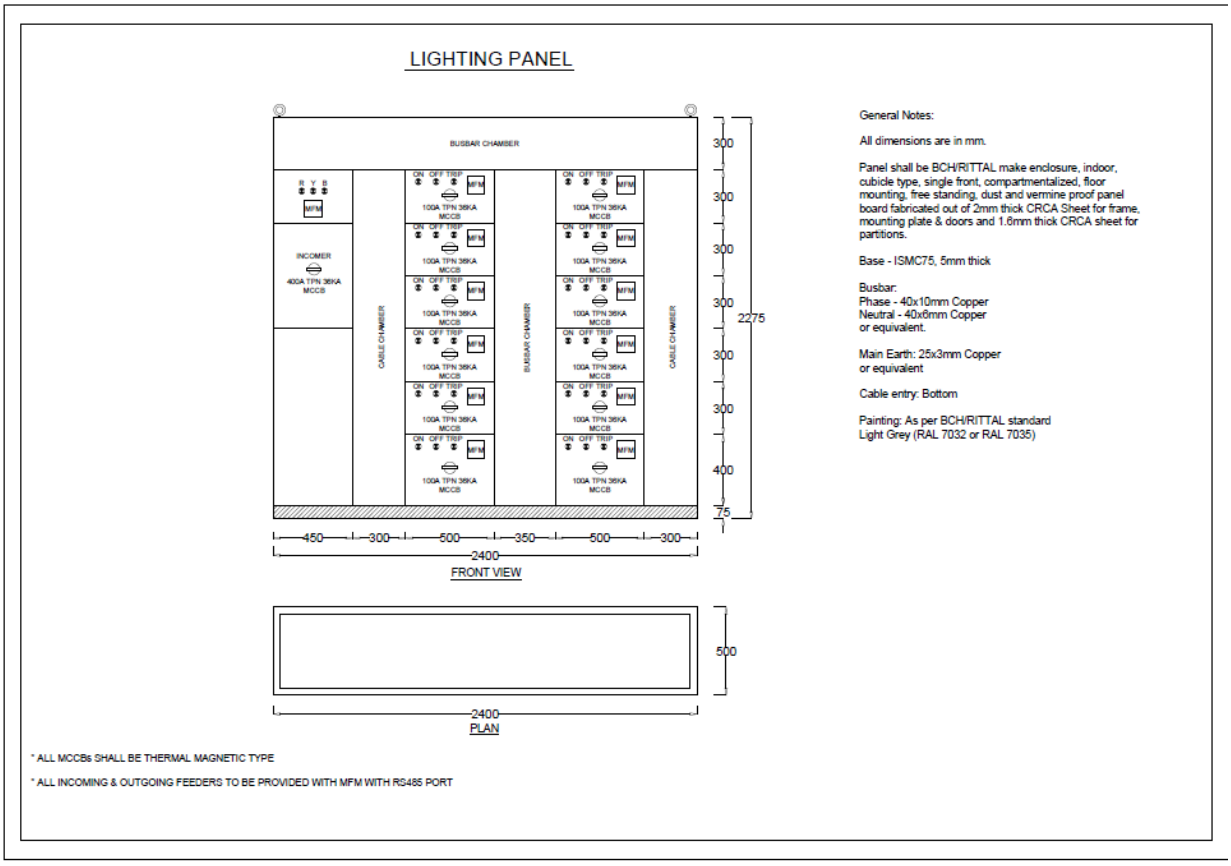
IREL (India) Limited
R.E. DIVISION, UDYOGAMANDAL.

Date	02.04.2026	SECTION OF NEW CALCINER NEAR SEP WEST SIDE
Scale	NTS	
Drawn	SM/PA	
Checked	AS/KSL	
Apprvd.	SRK/VCN	Dwg.No. IRE/RED/Civil/01 — Sheet 3 of 3

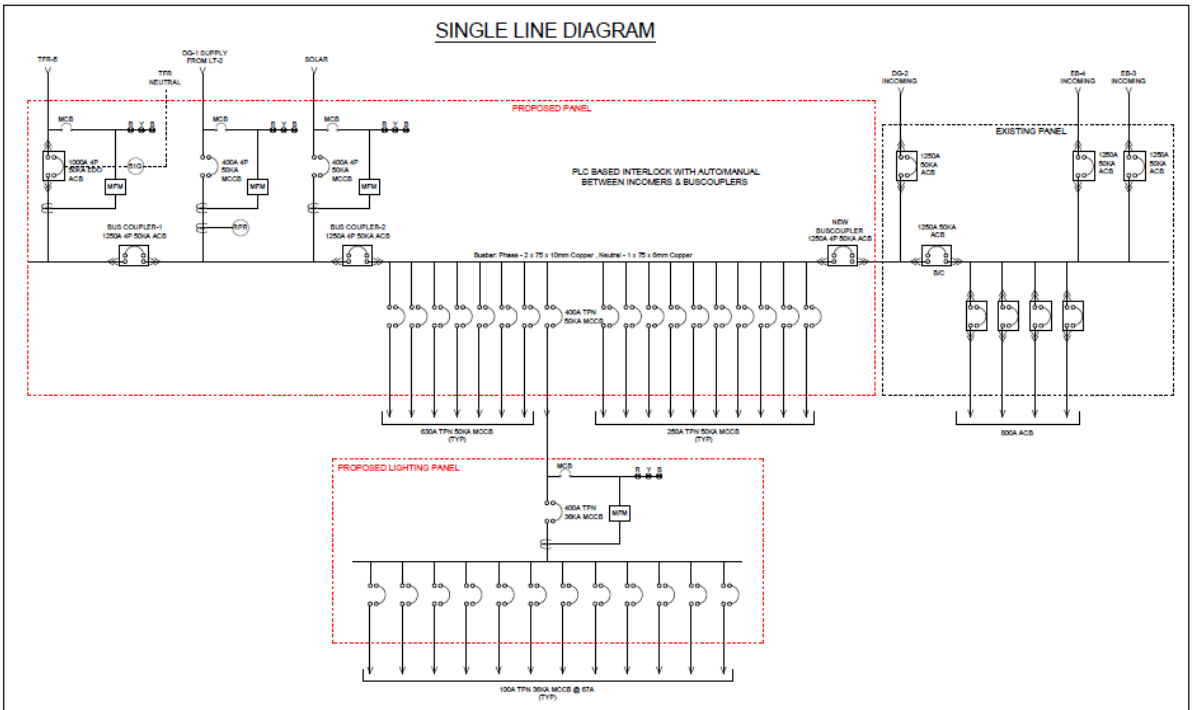
Signature and seal of the contractor

Layout and section view drawings: Electrical





Signature and seal of the contractor



Signature and seal of the contractor

BILL OF QUANTITIES (BOQ)

Sl. No.	Particulars	Qty	Unit
Part A: Civil			
1.	Submission of design basis report with detailed load calculation, foundation, beam, slab, column detailed reinforcement details using relevant software and submission of reinforcement drawings as per latest IS codes and certified by charted structural Engineer. Statutory approval from local authorities for construction clearance, building permit etc. (other than govt. fee). Submission of Architectural drawings such as Front Elevation, Side views, Roofing - 3 D views etc. Submission of drawings in hard copy on A2 or A3 sheets, soft copy in Auto CAD formats. *The rate includes approval costs, travel expenses, design charges, preparation & submission of required drawings, site visit by charted structural engineer and other requirements required for completion of the entire work in all respects to the satisfaction of Engineer-in-charge.*	270	m^2
2.	Site clearance for the proposed new development area and clearing of existing baby metal materials from the site & kept to the location specified by the Engineer-in-Charge. Site clearance shall include removal of grass, bushes, shrubs, small trees, surface vegetation, rubbish, debris, loose stones, organic matter, and any other unwanted materials within the designated area. Where instructed, topsoil shall be stripped to the required depth and disposed of or stacked as directed. All roots and minor obstructions shall be properly uprooted, and the cleared area shall be dressed and levelled to the required lines and levels. The work shall be carried out manually or mechanically as necessary, taking adequate precautions to avoid damage to existing structures, services, and utilities. *The rate shall include all labour, tools and plants, loading, unloading, transportation, disposal, levelling, safety measures etc.*	235	m^2
3.	Dismantling of concrete, masonry/brick wall, floor, foundation, rubble stones, road etc. using portable electrically operated heavy-duty breaker machine/ chain driven excavator fitted with breaker unit in low vibration mode/ without affecting the adjacent structure or building, cleaning and shifting the all waste/debris generated as directed by Engineer-in-charge within 1000m inside factory premises. *The rate shall include cost of all tools & equipment's, labour charges, machineries, consumables, shifting charge etc. required for completion of work*	45	m^3
4.	Earthwork excavation by mechanical means & as directed, in all classes of soil up to a depth of about 2m or more from the existing	460	m^3

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	earth level & as required suit to site conditions including removing all waste materials, vegetation, trees, scraps etc., which comes in proposed area, strutting, shoring wherever required to prevent sliding of soil, bailing out ground water from any depth required for the work without fail & pumping to earthen pits or wells to be specially made for collection of ground water within a distance of 250m, dressing, ramming the bottom of excavated level, making the surface suitable for concreting, shifting of excavated soil from the site and then bringing back the same partly for refilling purpose at required places up to the top level as directed in multiple layers including consolidating each layer by watering, ramming using vibratory rollers, disposing off all waste material/ excess earth within a distance of 1000m & levelling the disposed material properly as directed by EIC etc., complete. No extra charges are payable for shifting, transportation, levelling etc. (No extra quantity for working space more than 30 cm from the edge of PCC will be measured and paid.)		
5.	Providing and laying GSB 200mm thick (approx.) over the existing surface as directed by EIC for foundation, floor etc. including levelling and consolidation to form a compact surface by pouring water, compacting with vibratory rollers and well consolidated properly etc., complete as per standard specification and as per the direction of Engineer-in-charge. Measurement will be taken for compacted layer by actual thickness at site. Supply quantity will not be considered for payment. *The rate shall include cost & conveyance of all material, labour charges, tools & machineries required etc., to carry out the complete work.*	100	m^3
6.	Supplying, filling, laying & levelling gravelly red earth of good quality as approved, compacting with vibratory rollers, watering and well consolidated properly for heavy equipment movement. Measurement will be taken for compacted layer by actual thickness at site. Supply quantity will not be considered for payment. *The rate shall include cost & conveyance of material, labour charges, tools & machineries required etc., to carry out the complete work.*	50	m^3
7.	Shifting, filling, Laying & Levelling of concrete/brick debris / red earth from nearby location to proposed work site by engaging suitable JCB & Tippers & compacting in layers by using portable vibrator rollers or tamping rammer machine. *The rate shall include cost of vehicles, cost of labours required for compaction/consolidation with watering etc., to carry out the complete work. Measurement will be taken on the basis of compacted layer after filling at site only.*	50	m^3
8.	Providing and laying in position plain cement concrete mix 1:3:6 (1 cement, 3 coarse sand and 6 graded broken stone aggregate 20 & 12 mm nominal size) after ramming of existing earth, well	50	m^3

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	compacted, side shuttering, finishing smooth to a fair face at all levels, curing etc., complete. *The rate shall include cost of all materials including cement, labour charges, mixing, laying, cleaning, lead & lift of all materials, cost of tools etc., to carry out the complete work.*		
9.	Providing & laying of Reinforced Cement Concrete for foundation, footings, columns, beams, slabs, floors etc., upto 16.0m height from natural ground level of M30 Grade as per IS 456 with minimum cement content of 380 kg/m^3 of concrete by using 20-12 mm downgraded stones, machine mixed, mechanically vibrated, consolidated, curing, including usage of quality material as approved, cost, conveyance, lead, lift of all materials, labour, necessary scaffolding etc. excluding cost of formwork and reinforcement work which will be paid separately under relevant item. Wherever possible Ready Mix Concrete shall be carried out at required places as directed by Engineer-in-charge with prior approval. *The rate shall include labour charges, cost & conveyance of all materials, scaffolding & working platform, concrete pump & pipes etc. for carrying out the complete work.*	360	m^3
10.	Supply & Laying reinforcement High yield strength deformed bars Fe 500 grade, cutting to required size, bending, straightening & placing in position, binding with 18/20 gauge black annealed /GI tying wire, including lead, lift of reinforcement to work site, laying as per drawing and directed by Engineer-in-charge (Weight of steel bar shall be taken as per relevant IS standard). *The rates shall include labour charges, cost of reinforcement, binding wire, tools, etc., for carrying out the complete work.*	45	t
11.	FOOTING, COLUMNS, TIE BEAM, PLINTH BEAM Providing, centering & shuttering of approved quality for all RCC works, strong enough to withstand the dead and live loads and forces caused by ramming and vibrations of concrete and other incidental loads, imposed upon it during and after casting of concrete. It shall be made sufficiently rigid by using adequate number of ties and braces, Screw jacks or hard board wedges where required shall be provided to make up any settlement in the form work either before or during the placing of concrete. Forms shall be so constructed as to be removable in sections in the desired sequence, without damaging the surface of concrete or disturbing other sections. Care shall be taken to see that no piece is keyed into the concrete. Contractor shall design the staging as per design for slabs / beams etc. and as per levels as shown in drawings. All the staging to be either Tubular steel structure (cup lock system) with adequate bracings as approved or made of built-up structural sections including all propping and centering and removing the same after the curing period or as directed including cost and conveyance of all materials, necessary scaffolding etc., complete	700	m^2

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12.	ROOF SLAB, ROOF BEAM, STAIRCASE, SUNSHADES Providing, centering & shuttering of approved quality for all RCC works, strong enough to withstand the dead and live loads and forces caused by ramming and vibrations of concrete and other incidental loads, imposed upon it during and after casting of concrete. It shall be made sufficiently rigid by using adequate number of ties and braces, Screw jacks or hard board wedges where required shall be provided to make up any settlement in the form work either before or during the placing of concrete. Forms shall be so constructed as to be removable in sections in the desired sequence, without damaging the surface of concrete or disturbing other sections. Care shall be taken to see that no piece is keyed into the concrete. Contractor shall design the staging as per design for slabs / beams etc. and as per levels as shown in drawings. All the staging to be either Tubular steel structure (cup lock system) with adequate bracings as approved or made of built-up structural sections including all propping and centering and removing the same after the curing period or as directed including cost and conveyance of all materials, necessary scaffolding etc., complete	900	m^2
13.	Providing masonry work in using Autoclaved Aerated Concrete (AAC) block of required size, laying using cementitious polymer-modified adhesive joint mortar as per manufacturer recommendation including raking out joints, finishing to proper lines & levels, chipping or hacking the existing floor concrete / columns / beam surface for necessary bonding, curing, etc., complete at all levels. *The rate shall include cost & conveyance of all materials, labour charges for lead & lift of all materials, mixing, scaffolding, working platforms, curing etc., for carrying out the complete work.*	125	m^3
14.	Providing Plastering in CM 1:4, 12 mm thick average in masonry structure by application rough coat first, then finished to required thickness mixing & application one coat neat finish of cement grout with mortar, finishing smooth to proper line & level, fixing button marks, before plastering all construction joints (beam / columns & masonry wall) shall be laid with 110GSM glass fiber mesh cloth of width 1.0m to prevent any cracks, all required for completion of work as directed by EIC. *The rate shall include cost & conveyance of all materials & labour, supply & fixing charges, scaffolding, working platforms, curing etc., for carrying out the complete work.*	2000	m^2
15.	Providing and applying paint on the exterior surfaces of the proposed locations as directed by the Engineer-in-Charge (EIC), including masonry walls, RCC columns, beams, sunshades, roof slabs etc., The work shall comprise one coat of water-based primer and two or more coats of PU (polyurethane) water-based finish paint suitable for exterior application, to achieve a smooth finish and improved appearance. Proper surface preparation shall be carried out prior to painting, including the removal of dirt, grease, old paints etc., using sandpaper, emery paper, wire brush, or buffing machine; washing the surface with a high-pressure water	940	m^2

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	jet at all levels; cleaning with cotton waste; and disposing of debris within a distance of 1000m inside the company premises. Successive coats of paint shall be applied only after 4–6 hours of hard drying of the previous coat. *The rate shall include the cost & conveyance of all materials, labour charges, scaffolding, working platforms, sander machine painting tools such as brushes, wire brushes, jet pumps, and all tools and machinery required for the complete execution of the work. (The required quantity of paint and primer, as per the technical specifications, shall be delivered to the department and utilized at site as needed after informing EIC.)*		
16.	Supply and applying paint on the interior surfaces of the proposed locations as directed by the Engineer-in-Charge (EIC), including masonry walls, RCC columns, beams, ceilings, and roof slabs. The work shall be carried out as per the manufacturer's recommendations, consisting of one coat of epoxy primer (dual pack) and two or more coats of epoxy finish paint (dual pack, light shade, chemical-resistant, and suitable for masonry surface application). Proper surface preparation shall be done prior to painting, including the removal of any loose old paint layers, dirt, grease, etc., using sandpaper, emery paper, or wire brush; scrubbing with water wherever required; cleaning with cotton waste; and disposing of the debris within a distance of 1000 m inside the company premises. Successive coats of paint shall be applied only after 4–6 hours of hard drying of the previous coat. The make and colour shade shall be approved by the EIC before commencement of work. *The rate shall include the cost & conveyance of all paint materials, labour charges, scaffolding, working platforms, painting brushes, sander machine, wire brushes, crack fillers, and all tools and equipment necessary to complete the work in all respects.*	1200	m^2
17.	Fabrication, supply & fixing of powder coated Aluminium sliding/casement window of outer frame size 60mm x 50mm (approx), thickness 1.6mm or nearest, width of shutter 60cm or equally divide the existing opening length, Shutter size 80mm x 60mm (approx), thickness 1.6mm or nearest, heavy duty ball bearing hinges, 6mm thick toughened glass(clear/tinted), fixing the windows using screws/anchor bolts, handle, beading to air tight closure using EPDM gasket etc. and placing at site suitable for the existing openings. The gaps between the masonry wall and window shall be sealed with weather resistant silicon sealant. The colour shall be got approved from civil dept. before fabrication. Window size varies from Width – 1.30m to 1.5m, Height – 1.20m to 1.40m or to suitable site conditions. *The rate shall include cost of all materials & labour, fabrication, supply, dismantling & fixing charges etc., for carrying out the complete work.*	57	m^2
18.	Providing and finishing concrete floor surface using mechanical power trowel finish (power trowel or ride-on trowel machine) to achieve a smooth, hard, and level finish. The work includes operating the machine over freshly laid concrete after initial setting, as per the manufacturer's recommendation and site conditions. The process may involve multiple passes using float and finish blades to ensure proper compaction and surface finish.	200	m^2

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	The rate includes all labor, tools, equipment, fuel, and operator charges for the trowel machine, including edge finishing manually where machine access is restricted, and protection of finished surfaces as per the direction of the Engineer-in-Charge.		
19.	Supply, fabrication & erection of MS structural supports such as purlins, wind bracing, sag rod, supporting cleats, stiffeners, battens, gusset plates, joint plates and other supports etc., for providing roofing of building which includes straightening, cutting, fixing in position, bolting, welding at required places upon site condition etc. for carrying out the complete work. The MS roof structural shall be painted with one coat of high build epoxy primer & two coats of chemical resistant epoxy finish paint after thorough cleaning / surface preparation using wire brush/scrapper/chisel and buffing with steel brush cup type fitted in angle grinder. *The rate shall include labour charges & cost of all materials, hire charges of tools & machineries required for the work, consumables etc., scaffolding charges, safety tools and appliances, standard working platforms, ties etc., for carrying out the complete work.*	8.5	t
20.	Supplying, providing, laying and fixing of industrial profile PVC roof sheet 1.9mm thick white colour, (overall width of 1063mm and crest height of 40mm with centre to centre crest of 250mm),fixing with suitable size aluminium alloy mill finish cyclonic / storm washer on crest of sheet profile, SS304 self-tapping screws, FRP flats on joints and apply weather proof silicon joint sealant to make the roof leak proof, to suit the existing M.S. angle/channel, purlin, in required shape/length etc. to suit for existing site conditions and roof setup as per standard specification and as directed by Engineer-in-charge. *The rate shall include cost of all materials, machineries, labour charge, tools required for the work, scaffolding, platforms, etc., for carrying out the complete work.*	300	m^2
21.	Supply and installation of UPVC gutter of size of about 320X250mm of length 3m each for diverting rainwater from roof and a weight 3kg per meter with a holding capacity of 52 liter/metre as directed by Engineer In-charge. Gutter shall be laid with sufficient slope (1 in 50 to 1 in 100 suitable to the site set-up) from the starting end to discharge end. The work also include supply & fixing accessories such as UPVC coated GI clamp @ 60cm spacing welding MS purlin to proper line, fitting the Joint clamp suitably by weather resistant grade sealant and make leak proof etc., as per manufacturer recommendations & as directed EIC to complete. *The rate shall include labour charges & cost of all materials, hire charges of tools & machineries required for the work, consumables etc., scaffolding charges, safety tools and appliances, standard working platforms, ties etc., for carrying out the complete work.*	54	Rm
22.	Supply & fixing PVC pipe of 140mm dia or nearest, 4 kg/cm^2 pressure rating for rain water down take from roof gutter, including suitable specials such as bends, tees, elbows etc., required for the work suit to site setup, placing at site in position	80	Rm

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	using GI threaded rod of minimum dia 7mm, sliding rail on both side of flange of MS column, U clamps, bolts, nuts with washer, necessary jointing to proof leak, slopping to drain etc., accessories for the roof set-up and sealing them, necessary anchoring, clamping, grouting to the masonry structure etc., all required for the completion of work and as directed by Engineer-in-Charge with prior approval for all fittings. *The rate shall include labour charges & cost of materials, scaffolding charges, cost of staging / working platform, lead & lift of materials, tools etc., for carrying out the complete work.*		
23.	Supply and fixing 600 mm diameter powder-coated aluminium wind-driven turbo roof extractor, installed on the roof using an FRP base matching the profile of the roofing sheet. The work includes providing a variable-angle elbow fixing with self-tapping screws, and applying weather-resistant silicone sealant to ensure water tight installation. *The rate shall include the cost & conveyance of roof extractor, all other materials, labour charges, scaffolding, staging, working platforms, tools, and consumables required for the complete execution of the work.*	12	Nos
24.	Providing heavy duty PU screed lining, 5mm average thick, over the existing concrete floor area as per the scope of work detailed in the specification using approved brand & shade of materials as per manufacturer recommendations, after proper surface preparation which includes grinding the floor making anchor grooves 100 mm from all round walls, 20sqm areas for a size of 6 mm x 6 mm (width and depth) , remove any loose plaster, dirt, grease, surface contamination, laitance completely and priming with suitable primer 24 hrs dry. Thereafter a screed lining with approved shade & finish shall be applied in required thickness. The debris generated while cleaning shall be disposed at our disposal/scrap yard within a distance of 1000m inside the company premises. *The rate shall include cost of all materials, labour charges, hire charges of tools & machineries required for the work etc., for carrying out the complete work.*	360	m^2
25.	Supply and fixing pre coloured white solid rolling shutter (0.90mm thick) strips with side guides (2mm GI) brackets & bottom plate (2mm GI), MS pipe shaft (12mm), top cover, side motor with push button switch (Make – Jielong/Noarch), locking arrangements etc. including a coat of epoxy primer, all complete as per direction of Engineer-in-charge. Opening size – 3.75m x 4.20m (Approx.) *The rate shall include cost of all materials & labour, supply, fixing charge, cost of scaffolding etc., for carrying out the complete work.*	2	Nos
26.	Supply, cutting and fixing of PVC foam board 9mm thick for cabins, partitions etc., as per the site requirement with required shape, line & level over MS structural using self tapping alloy screws, complete as directed by Engineer-in-Charge.	50	m^2
27.	Anchoring of new re-bars in the RCC columns, beams & slab wherever required by using pure epoxy resin anchoring mortar (Master flow 935 of BASF or equivalent FOSROC/SIKA/HILTI)	250	Nos

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	with appropriate diameter of drilling of holes required for proper bonding into the concrete etc., complete. 8mm to 20 mm dia bar - drilling length of 160-180mm *The rate shall include cost of epoxy resin anchoring mortar, labour charges, cost/hire charges of tools, machineries & other working implements, scaffoldings & platforms etc., to carry out the complete work.*		
28.	Engaging a core cutting machine for making holes of 25 mm to 200 mm diameter cores using a diamond core cutter machine to a depth of 300 to 500mm for walls, slabs, rubbles, for laying pipelines, cable lines, down-take pipes, exhaust fan etc., in masonry structure (RCC/Brick/Rubble), at all levels as directed by the Engineer-in-Charge (EIC). The gaps shall be sealed using high-strength foundation grout, and the joints shall be provided with FRP lining as directed by the Engineer-in-Charge. *The rate shall include cost of all tools & equipment, labour charges, scaffoldings, platforms etc., for carrying out the complete work.*	10	Nos
29.	Providing & fixing good quality vitrified tiles of 600mmx600mm or 600mmx1200mm, 8mm thickness anti-skid, anti-strain & scratch resistant at all levels in floor & wall area of operator cabin, approved design, shade & finish, laying with tile adhesive after chipping & hacking of existing wall from masonry surface, providing spacers between the tile joints 4mm and filling the gap using suitable epoxy joint fillers. The tiles must be fixed using suitable tile adhesive with minimum 4mm thickness using notch trowel as per manufacturer recommendation. The sample tile colour, design & shade pattern shall be got approved from civil dept before commencement of work. *The rate shall include cost & conveyance of all materials & labour, shifting, supply & fixing charges etc., for carrying out the complete work.*	80	m^2
30.	Supply & fixing powder coated aluminium ventilator using section size of 50mm x 25mm approx, 1.2 mm thickness or nearest, clear glass louvers of 5mm thick at 120mm center to center with sufficient dividers at 60cm spacing suit to opening. The outer frame shall be fixed rigidly into the masonry wall using suitable fasteners at regular intervals & gaps shall be filled by suitable silicon sealant. *The rate shall include cost & conveyance of all materials & labour, fabrication, supply & fixing charges etc., for carrying out the complete work.*	14	m^2
31.	Providing & laying lean concrete for handrails to a height of 1m from step using 6mm metal granite, m-sand, to a thickness of 40-50mm, curing, including usage of quality material as approved, cost, conveyance, lead, lift of all materials, labour, necessary scaffolding etc. GI welded mesh of size (25X25X3 or nearest), chicken mesh shall be laid in the existing MS square rod after cleaning as per site conditions. Removing rubber beading from top of handrail and anchor bolt should be done at the bottom of step where severe condition occurred with 'L' angle including plastering on both sides in all accessible location with one coat cement slurry CM 1:4 ratio.	50	m^2

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32.	Fabrication, supply & fixing powder coated aluminium door partially glazed, suitable to existing door opening with outer section size of 80 mm x 50mm, 1.20mm thickness, top portion using 6mm thick clear toughened glass of height about 90cm approx., bottom portion using ACP/novapan sheet of 6mm thick or nearest, joining the section properly, fixing using heavy duty SS hinges of 4" size - 4 Nos or premium quality pivot type hinge, handle, lock with key, premium quality heavy duty door closer shall be fixed with screw bolt, etc., complete. The door size varies from Width – 1.0mm to 1.15m Height – 2.0 m - 2.15 m	4	Nos
Part B: Mechanical			
33.	Supply, Fabrication, Erection and Painting of MS structures for working platform and platform supports with handrails, staircases and toe guards for Calciner as well as MS structure (Monorail beam ISMB 350) for electric Hoist suiting site conditions and as per the instruction of EIC.	8	Tons
34.	Supply, Cutting and fixing of wooden Chequered boards of required size and shape of 18mm thickness on MS frames as part of providing working platforms suiting site conditions and as per the instruction of EIC.	20	Sq.m.
35.	Supply, Installation and Commissioning of Electric Hoist on the Monorail.	1	Numbers
Part C: Electrical			
	Supply Part		
	Design, Fabrication, testing and Supply, of Rittal/BCH make MSB & Lighting Panel having capacity:		
36.	MSB LT Panels: Incomer: (1) 100A, TPN, 50kA, MCCB with necessary metering and indication accessories for solar . (2) 1000A, TPN, 50kA, EDO ACB with S/T and with with necessary metering and indication accessories for Tranformer – 5 . (3) 1000A, TPN, 50kA, MCCB with necessary metering and indication accessories for DG and RPR. Bus couplers: 1000A, TPN, 50kA, EDO ACB-3 Nos. Out Goings: (1) 630A, TPN, 50kA, MCCB with necessary metering and indication accessories – 7 Nos. (2) 400A, TPN, 50kA, MCCB with necessary metering and indication accessories – 1 Nos. (3) 250A, TPN, 50kA, MCCB with necessary metering and indication accessories – 10 Nos.	1	No.
37.	Lighting Panel: Incomer: 400A, TPN, 50kA, MCCB with necessary metering and indication accessories – 1 Nos. Outgoing:	1	No.

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	100A, TPN, 36kA, MCCB with necessary metering and indication accessories – 12 Nos,		
38.	Supply of 12 Way PDB with 100A RCCB and 100A MCB as incomer and 32 A MCBs as outgoing (as per annexure-2).	1	No.
39.	Supply of 12 Way LDB metal door type, with 32A, 2P RCCB and 32A, 2P MCB as incomer and 6 A MCBs as outgoing (as per annexure-2).	2	No.
40.	Supply of 100A, 4P, 30mA RCCB (as per annexure-2).	1	No.
41.	Supply of 100A, 4P, 'C' curve MCB (as per annexure-2).	1	No.
42.	Supply of 32A, 3P, 'C' curve MCB (as per annexure-2).	12	No.
43.	Supply of 32A, 2P, 30mA RCCB (as per annexure-2).	2	No.
44.	Supply of 32A, 2P, 'C' curve MCB (as per annexure-2).	2	No.
45.	Supply of 6A, 1P, 'C' curve MCB (as per annexure-2).	30	No.
46.	Supply of 3.5C x 400 Sq.mm Al conductor XLPE Armoured Cable (as per annexure-3).	300	Mtr.
47.	Supply of 4C x 16 Sq.mm Cu conductor XLPE Armoured Cable (as per annexure-3).	500	Mtr.
48.	Supply of 4C x 6 Sq.mm Cu conductor XLPE Armoured Cable (as per annexure-3).	500	Mtr.
49.	Supply of 4C x 1.5 Sq.mm Cu conductor XLPE Armoured Cable (as per annexure-3).	500	Mtr.
50.	Supply of Single compression cable gland suitable for 3.5C x 400 Sq.mm Al conductor XLPE Armoured Cable (as per annexure-3).	2	No.
51.	Supply of Single compression cable gland suitable for 4C x 16 Sq.mm Cu conductor XLPE Armoured Cable (as per annexure-3).	10	No.
52.	Supply of Single compression cable gland suitable for 4C x 6 Sq.mm Cu conductor XLPE Armoured Cable (as per annexure-3).	14	No.
53.	Supply of Single compression cable gland suitable for 4C x 1.5 Sq.mm Cu conductor XLPE Armoured Cable (as per annexure-3).	50	No.
54.	Supply of Al crimping socket (400 Sq.mm) (as per annexure-3).	6	No.
55.	Supply of Al crimping socket (185 Sq.mm) (as per annexure-3).	2	No.
56.	Supply of Cu crimping socket (16 Sq.mm) (as per annexure-3).	50	No.

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57.	Supply of Cu crimping socket (6 Sq.mm) (as per annexure-3).	50	No.
58.	Supply of Cu crimping socket (1.5 Sq.mm) (as per annexure-3).	1000	No.
59.	Supply of earth strip 25 x 3mm (as per annexure-3).	300	Mtr.
60.	Supply of insulated copper wire 1.5 Sq. mm (as per annexure-3).	2000	Mtr.
61.	Supply of LED lights. (as per annexure-4).	40	No.
62.	Supply of M S Flat 40 x 6 mm.	750	Kg
63.	Supply of M S Angle 40 x 40 x 6 mm.	2000	Kg
64.	Supply of 30 mm heavy duty MS Pipe.	100	Kg
65.	Supply of 90 x 90 mm anticorrosive PVC junction Box (as per annexure-5).	50	No.
66.	Supply of Industrial Plug & Socket (as per annexure-5).	1	No.
	Erection Part		
67.	Isolation, Disconnection of existing power cable connection from the MSB LT panel/switch gears without disturbing the cable sockets and glands and sockets of the removed cable	25	Nos.
68.	Dismantling, removing and shifting of existing obsolete MSB LT panels to scrape yard. (Within 150 mtr inside company premises, After weighment of the entire dismantled panels. The Busbar shall be removed, weighed separately and handed over to EIC).	3	Ton
69.	Erection/Installation, providing power cable connection and Commissioning of Rittal/BCH make MSB LT panel having size :2275 mm (H) x 7700 mm (W) x 1100 mm (D) (Reconnection of the removed power cables power. Same cable gland and sockets of the removed cable shall be used as far as possible. If any cable gland and cable sockets seem to be damaged	1	No
70.	Erection/Installation, providing power cable connection and Commissioning of Rittal/BCH make Lighting panel having size : 2275 mm (H) x 2400 mm (W) x 500 mm (D). (Reconnection of the removed power cables power. Same cable gland and sockets of the removed cable shall be used as far as possible. If any cable gland and cable sockets seem to be damaged or loose, the same need to be replaced with new one and ensure sufficient length of cable available for the re-glanding and socketing).	1	No
71.	Installation and commissioning of 12 Way PDB with 100A RCCB and 100A MCB as incomer and 32 A MCBs as outgoing.	1	No.
72.	Installation and commissioning of 12 Way LDB with 32A, 2P RCCB and 32A, 2P MCB as incomer and 6 A MCBs as outgoing.	1	No.
73.	Fabrication of cable tray, cable tray supports, light fixing supports, exhaust fan fixing supports, DB fixing frames etc. of suitable dimensions and as per site requirement.	2750	Kg.

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74.	Surface preparation and painting of cable tray supports, light fixing supports, exhaust fan fixing supports, DB fixing frames etc.(including paint, Brush and other accessories)	300	Sq. Mtr
75.	Laying and dressing of 3.5C x 400 Sq.mm Al conductor Armoured Cable. (Cables shll be laid along the existing rout (cable trench/cable tray). Where ever cable tray are not available, new cable tray shall be fabricated and installed. Size of the cable tray shall be as per site requirement and instruction from EIC.	300	Mtr.
76.	Laying and dressing of 4C x 16 Sq.mm Cu conductor Armoured Cable	500	Mtr.
77.	Laying and dressing of 4C x 6 Sq.mm Cu conductor Armoured Cable	500	Mtr.
78.	Laying and dressing of 4C x 1.5 Sq.mm Cu conductor Armoured Cable	500	Mtr.
79.	Termination of 3.5C x 400 Sq.mm Al conductor XLPE Armoured Cable	2	No.
80.	Termination of 4C x 16 Sq.mm Cu conductor XLPE Armoured Cable	10	No.
81.	Termination of 4C x 6 Sq.mm Cu conductor XLPE Armoured Cable	14	No.
82.	Termination of 4C x 1.5 Sq.mm Cu conductor XLPE Armoured Cable	80	No.
83.	Installation and charging of LED light points	40	No.
84.	Fixing and installation of Installation 90 x 90 mm anticorrosive PVC junction Box	50	No.
85.	Laying and termination 25 x 3 mm earth copper strip	300	Mtr.
86.	Laying and termination 1.5 Sq. mm earth copper wire.	2000	Mtr.
87.	Fixing, installation and commissioning of Industrial Plug & Socket	2	No.
88.	Miscellaneous electrical/mechanical/civil works related to PART C of price schedule/electrical work	1	Lumpsum

Note: -

1. Party has to quote the basic rate in Rs. and the GST in % separately as per price schedule attached. If GST in % is not entered/quoted it will be considered as inclusive of GST.
2. Overall lowest will be considered as L1

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DETAILS TO BE FURNISHED ALONG WITH THE OFFER

Sl. No.	Particulars	GST	HSN Code
Part A: Civil			
1.	Submission of design basis report with detailed load calculation, foundation, beam, slab, column detailed reinforcement details using relevant software and submission of reinforcement drawings as per latest IS codes and certified by charted structural Engineer. Statutory approval from local authorities for construction clearance, building permit etc. (other than govt. fee). Submission of Architectural drawings such as Front Elevation, Side views, Roofing - 3 D views etc. Submission of drawings in hard copy on A2 or A3 sheets, soft copy in Auto CAD formats. *The rate includes approval costs, travel expenses, design charges, preparation & submission of required drawings, site visit by charted structural engineer and other requirements required for completion of the entire work in all respects to the satisfaction of Engineer-in-charge.*		
2.	Site clearance for the proposed new development area and clearing of existing baby metal materials from the site & kept to the location specified by the Engineer-in-Charge. Site clearance shall include removal of grass, bushes, shrubs, small trees, surface vegetation, rubbish, debris, loose stones, organic matter, and any other unwanted materials within the designated area. Where instructed, topsoil shall be stripped to the required depth and disposed of or stacked as directed. All roots and minor obstructions shall be properly uprooted, and the cleared area shall be dressed and levelled to the required lines and levels. The work shall be carried out manually or mechanically as necessary, taking adequate precautions to avoid damage to existing structures, services, and utilities. *The rate shall include all labour, tools and plants, loading, unloading, transportation, disposal, levelling, safety measures etc.*		
3.	Dismantling of concrete, masonry/brick wall, floor, foundation, rubble stones, road etc. using portable electrically operated heavy-duty breaker machine/ chain driven excavator fitted with breaker unit in low vibration mode/ without affecting the adjacent structure or building, cleaning and shifting the all waste/debris generated as directed by Engineer-in-charge within 1000m inside factory premises. *The rate shall include cost of all tools & equipment's, labour charges, machineries, consumables, shifting charge etc. required for completion of work*		
4.	Earthwork excavation by mechanical means & as directed, in all classes of soil up to a depth of about 2m or more from the existing		

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	earth level & as required suit to site conditions including removing all waste materials, vegetation, trees, scraps etc., which comes in proposed area, strutting, shoring wherever required to prevent sliding of soil, bailing out ground water from any depth required for the work without fail & pumping to earthen pits or wells to be specially made for collection of ground water within a distance of 250m, dressing, ramming the bottom of excavated level, making the surface suitable for concreting, shifting of excavated soil from the site and then bringing back the same partly for refilling purpose at required places up to the top level as directed in multiple layers including consolidating each layer by watering, ramming using vibratory rollers, disposing off all waste material/ excess earth within a distance of 1000m & levelling the disposed material properly as directed by EIC etc., complete. No extra charges are payable for shifting, transportation, levelling etc. (No extra quantity for working space more than 30 cm from the edge of PCC will be measured and paid.)		
5.	Providing and laying GSB 200mm thick (approx.) over the existing surface as directed by EIC for foundation, floor etc. including levelling and consolidation to form a compact surface by pouring water, compacting with vibratory rollers and well consolidated properly etc., complete as per standard specification and as per the direction of Engineer-in-charge. Measurement will be taken for compacted layer by actual thickness at site. Supply quantity will not be considered for payment. *The rate shall include cost & conveyance of all material, labour charges, tools & machineries required etc., to carry out the complete work.*		
6.	Supplying, filling, laying & levelling gravelly red earth of good quality as approved, compacting with vibratory rollers, watering and well consolidated properly for heavy equipment movement. Measurement will be taken for compacted layer by actual thickness at site. Supply quantity will not be considered for payment. *The rate shall include cost & conveyance of material, labour charges, tools & machineries required etc., to carry out the complete work.*		
7.	Shifting, filling, Laying & Levelling of concrete/brick debris / red earth from nearby location to proposed work site by engaging suitable JCB & Tippers & compacting in layers by using portable vibrator rollers or tamping rammer machine. *The rate shall include cost of vehicles, cost of labours required for compaction/consolidation with watering etc., to carry out the complete work. Measurement will be taken on the basis of compacted layer after filling at site only.*		
8.	Providing and laying in position plain cement concrete mix 1:3:6 (1 cement, 3 coarse sand and 6 graded broken stone aggregate 20 & 12 mm nominal size) after ramming of existing earth, well		

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	compacted, side shuttering, finishing smooth to a fair face at all levels, curing etc., complete. *The rate shall include cost of all materials including cement, labour charges, mixing, laying, cleaning, lead & lift of all materials, cost of tools etc., to carry out the complete work.*		
9.	Providing & laying of Reinforced Cement Concrete for foundation, footings, columns, beams, slabs, floors etc., upto 16.0m height from natural ground level of M30 Grade as per IS 456 with minimum cement content of 380 kg/m^3 of concrete by using 20-12 mm downgraded stones, machine mixed, mechanically vibrated, consolidated, curing, including usage of quality material as approved, cost, conveyance, lead, lift of all materials, labour, necessary scaffolding etc. excluding cost of formwork and reinforcement work which will be paid separately under relevant item. Wherever possible Ready Mix Concrete shall be carried out at required places as directed by Engineer-in-charge with prior approval. *The rate shall include labour charges, cost & conveyance of all materials, scaffolding & working platform, concrete pump & pipes etc. for carrying out the complete work.*		
10.	Supply & Laying reinforcement High yield strength deformed bars Fe 500 grade, cutting to required size, bending, straightening & placing in position, binding with 18/20 gauge black annealed /GI tying wire, including lead, lift of reinforcement to work site, laying as per drawing and directed by Engineer-in-charge (Weight of steel bar shall be taken as per relevant IS standard). *The rates shall include labour charges, cost of reinforcement, binding wire, tools, etc., for carrying out the complete work.*		
11.	FOOTING, COLUMNS, TIE BEAM, PLINTH BEAM Providing, centering & shuttering of approved quality for all RCC works, strong enough to withstand the dead and live loads and forces caused by ramming and vibrations of concrete and other incidental loads, imposed upon it during and after casting of concrete. It shall be made sufficiently rigid by using adequate number of ties and braces, Screw jacks or hard board wedges where required shall be provided to make up any settlement in the form work either before or during the placing of concrete. Forms shall be so constructed as to be removable in sections in the desired sequence, without damaging the surface of concrete or disturbing other sections. Care shall be taken to see that no piece is keyed into the concrete. Contractor shall design the staging as per design for slabs / beams etc. and as per levels as shown in drawings. All the staging to be either Tubular steel structure (cup lock system) with adequate bracings as approved or made of built-up structural sections including all propping and centering and removing the same after the curing period or as directed including cost and conveyance of all materials, necessary scaffolding etc., complete		

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12.	ROOF SLAB, ROOF BEAM, STAIRCASE, SUNSHADES Providing, centering & shuttering of approved quality for all RCC works, strong enough to withstand the dead and live loads and forces caused by ramming and vibrations of concrete and other incidental loads, imposed upon it during and after casting of concrete. It shall be made sufficiently rigid by using adequate number of ties and braces, Screw jacks or hard board wedges where required shall be provided to make up any settlement in the form work either before or during the placing of concrete. Forms shall be so constructed as to be removable in sections in the desired sequence, without damaging the surface of concrete or disturbing other sections. Care shall be taken to see that no piece is keyed into the concrete. Contractor shall design the staging as per design for slabs / beams etc. and as per levels as shown in drawings. All the staging to be either Tubular steel structure (cup lock system) with adequate bracings as approved or made of built-up structural sections including all propping and centering and removing the same after the curing period or as directed including cost and conveyance of all materials, necessary scaffolding etc., complete		
13.	Providing masonry work in using Autoclaved Aerated Concrete (AAC) block of required size, laying using cementitious polymer-modified adhesive joint mortar as per manufacturer recommendation including raking out joints, finishing to proper lines & levels, chipping or hacking the existing floor concrete / columns / beam surface for necessary bonding, curing, etc., complete at all levels. *The rate shall include cost & conveyance of all materials, labour charges for lead & lift of all materials, mixing, scaffolding, working platforms, curing etc., for carrying out the complete work.*		
14.	Providing Plastering in CM 1:4, 12 mm thick average in masonry structure by application rough coat first, then finished to required thickness mixing & application one coat neat finish of cement grout with mortar, finishing smooth to proper line & level, fixing button marks, before plastering all construction joints (beam / columns & masonry wall) shall be laid with 110GSM glass fiber mesh cloth of width 1.0m to prevent any cracks, all required for completion of work as directed by EIC. *The rate shall include cost & conveyance of all materials & labour, supply & fixing charges, scaffolding, working platforms, curing etc., for carrying out the complete work.*		
15.	Providing and applying paint on the exterior surfaces of the proposed locations as directed by the Engineer-in-Charge (EIC), including masonry walls, RCC columns, beams, sunshades, roof slabs etc., The work shall comprise one coat of water-based primer and two or more coats of PU (polyurethane) water-based finish paint suitable for exterior application, to achieve a smooth finish and improved appearance. Proper surface preparation shall be carried out prior to painting, including the removal of dirt, grease, old paints etc., using sandpaper, emery paper, wire brush, or buffing machine; washing the surface with a high-pressure water		

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	jet at all levels; cleaning with cotton waste; and disposing of debris within a distance of 1000m inside the company premises. Successive coats of paint shall be applied only after 4–6 hours of hard drying of the previous coat. *The rate shall include the cost & conveyance of all materials, labour charges, scaffolding, working platforms, sander machine painting tools such as brushes, wire brushes, jet pumps, and all tools and machinery required for the complete execution of the work. (The required quantity of paint and primer, as per the technical specifications, shall be delivered to the department and utilized at site as needed after informing EIC.)*		
16.	Supply and applying paint on the interior surfaces of the proposed locations as directed by the Engineer-in-Charge (EIC), including masonry walls, RCC columns, beams, ceilings, and roof slabs. The work shall be carried out as per the manufacturer's recommendations, consisting of one coat of epoxy primer (dual pack) and two or more coats of epoxy finish paint (dual pack, light shade, chemical-resistant, and suitable for masonry surface application). Proper surface preparation shall be done prior to painting, including the removal of any loose old paint layers, dirt, grease, etc., using sandpaper, emery paper, or wire brush; scrubbing with water wherever required; cleaning with cotton waste; and disposing of the debris within a distance of 1000 m inside the company premises. Successive coats of paint shall be applied only after 4–6 hours of hard drying of the previous coat. The make and colour shade shall be approved by the EIC before commencement of work. *The rate shall include the cost & conveyance of all paint materials, labour charges, scaffolding, working platforms, painting brushes, sander machine, wire brushes, crack fillers, and all tools and equipment necessary to complete the work in all respects.*		
17.	Fabrication, supply & fixing of powder coated Aluminium sliding/casement window of outer frame size 60mm x 50mm (approx), thickness 1.6mm or nearest, width of shutter 60cm or equally divide the existing opening length, Shutter size 80mm x 60mm (approx), thickness 1.6mm or nearest, heavy duty ball bearing hinges, 6mm thick toughened glass(clear/tinted), fixing the windows using screws/anchor bolts, handle, beading to air tight closure using EPDM gasket etc. and placing at site suitable for the existing openings. The gaps between the masonry wall and window shall be sealed with weather resistant silicon sealant. The colour shall be got approved from civil dept. before fabrication. Window size varies from Width – 1.30m to 1.5m, Height – 1.20m to 1.40m or to suitable site conditions. *The rate shall include cost of all materials & labour, fabrication, supply, dismantling & fixing charges etc., for carrying out the complete work.*		
18.	Providing and finishing concrete floor surface using mechanical power trowel finish (power trowel or ride-on trowel machine) to achieve a smooth, hard, and level finish. The work includes operating the machine over freshly laid concrete after initial setting, as per the manufacturer's recommendation and site conditions. The process may involve multiple passes using float and finish blades to ensure proper compaction and surface finish.		

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	The rate includes all labor, tools, equipment, fuel, and operator charges for the trowel machine, including edge finishing manually where machine access is restricted, and protection of finished surfaces as per the direction of the Engineer-in-Charge.		
19.	Supply, fabrication & erection of MS structural supports such as purlins, wind bracing, sag rod, supporting cleats, stiffeners, battens, gusset plates, joint plates and other supports etc., for providing roofing of building which includes straightening, cutting, fixing in position, bolting, welding at required places upon site condition etc. for carrying out the complete work. The MS roof structural shall be painted with one coat of high build epoxy primer & two coats of chemical resistant epoxy finish paint after thorough cleaning / surface preparation using wire brush/scrapper/chisel and buffing with steel brush cup type fitted in angle grinder. *The rate shall include labour charges & cost of all materials, hire charges of tools & machineries required for the work, consumables etc., scaffolding charges, safety tools and appliances, standard working platforms, ties etc., for carrying out the complete work.*		
20.	Supplying, providing, laying and fixing of industrial profile PVC roof sheet 1.9mm thick white colour, (overall width of 1063mm and crest height of 40mm with centre to centre crest of 250mm),fixing with suitable size aluminium alloy mill finish cyclonic / storm washer on crest of sheet profile, SS304 self-tapping screws, FRP flats on joints and apply weather proof silicon joint sealant to make the roof leak proof, to suit the existing M.S. angle/channel, purlin, in required shape/length etc. to suit for existing site conditions and roof setup as per standard specification and as directed by Engineer-in-charge. *The rate shall include cost of all materials, machineries, labour charge, tools required for the work, scaffolding, platforms, etc., for carrying out the complete work.*		
21.	Supply and installation of UPVC gutter of size of about 320X250mm of length 3m each for diverting rainwater from roof and a weight 3kg per meter with a holding capacity of 52 liter/metre as directed by Engineer In-charge. Gutter shall be laid with sufficient slope (1 in 50 to 1 in 100 suitable to the site set-up) from the starting end to discharge end. The work also include supply & fixing accessories such as UPVC coated GI clamp @ 60cm spacing welding MS purlin to proper line, fitting the Joint clamp suitably by weather resistant grade sealant and make leak proof etc., as per manufacturer recommendations & as directed EIC to complete. *The rate shall include labour charges & cost of all materials, hire charges of tools & machineries required for the work, consumables etc., scaffolding charges, safety tools and appliances, standard working platforms, ties etc., for carrying out the complete work.*		
22.	Supply & fixing PVC pipe of 140mm dia or nearest, 4 kg/cm^2 pressure rating for rain water down take from roof gutter, including suitable specials such as bends, tees, elbows etc., required for the work suit to site setup, placing at site in position		

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	using GI threaded rod of minimum dia 7mm, sliding rail on both side of flange of MS column, U clamps, bolts, nuts with washer, necessary jointing to proof leak, slopping to drain etc., accessories for the roof set-up and sealing them, necessary anchoring, clamping, grouting to the masonry structure etc., all required for the completion of work and as directed by Engineer-in-Charge with prior approval for all fittings. *The rate shall include labour charges & cost of materials, scaffolding charges, cost of staging / working platform, lead & lift of materials, tools etc., for carrying out the complete work.*		
23.	Supply and fixing 600 mm diameter powder-coated aluminium wind-driven turbo roof extractor, installed on the roof using an FRP base matching the profile of the roofing sheet. The work includes providing a variable-angle elbow fixing with self-tapping screws, and applying weather-resistant silicone sealant to ensure water tight installation. *The rate shall include the cost & conveyance of roof extractor, all other materials, labour charges, scaffolding, staging, working platforms, tools, and consumables required for the complete execution of the work.*		
24.	Providing heavy duty PU screed lining, 5mm average thick, over the existing concrete floor area as per the scope of work detailed in the specification using approved brand & shade of materials as per manufacturer recommendations, after proper surface preparation which includes grinding the floor making anchor grooves 100 mm from all round walls, 20sqm areas for a size of 6 mm x 6 mm (width and depth) , remove any loose plaster, dirt, grease, surface contamination, laitance completely and priming with suitable primer 24 hrs dry. Thereafter a screed lining with approved shade & finish shall be applied in required thickness. The debris generated while cleaning shall be disposed at our disposal/scrap yard within a distance of 1000m inside the company premises. *The rate shall include cost of all materials, labour charges, hire charges of tools & machineries required for the work etc., for carrying out the complete work.*		
25.	Supply and fixing pre coloured white solid rolling shutter (0.90mm thick) strips with side guides (2mm GI) brackets & bottom plate (2mm GI), MS pipe shaft (12mm), top cover, side motor with push button switch (Make – Jielong/Noarch), locking arrangements etc. including a coat of epoxy primer, all complete as per direction of Engineer-in-charge. Opening size – 3.75m x 4.20m (Approx.) *The rate shall include cost of all materials & labour, supply, fixing charge, cost of scaffolding etc., for carrying out the complete work.*		
26.	Supply, cutting and fixing of PVC foam board 9mm thick for cabins, partitions etc., as per the site requirement with required shape, line & level over MS structural using self tapping alloy screws, complete as directed by Engineer-in-Charge.		
27.	Anchoring of new re-bars in the RCC columns, beams & slab wherever required by using pure epoxy resin anchoring mortar (Master flow 935 of BASF or equivalent FOSROC/SIKA/HILTI)		

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	with appropriate diameter of drilling of holes required for proper bonding into the concrete etc., complete. 8mm to 20 mm dia bar - drilling length of 160-180mm *The rate shall include cost of epoxy resin anchoring mortar, labour charges, cost/hire charges of tools, machineries & other working implements, scaffoldings & platforms etc., to carry out the complete work.*		
28.	Engaging a core cutting machine for making holes of 25 mm to 200 mm diameter cores using a diamond core cutter machine to a depth of 300 to 500mm for walls, slabs, rubbles, for laying pipelines, cable lines, down-take pipes, exhaust fan etc., in masonry structure (RCC/Brick/Rubble), at all levels as directed by the Engineer-in-Charge (EIC). The gaps shall be sealed using high-strength foundation grout, and the joints shall be provided with FRP lining as directed by the Engineer-in-Charge. *The rate shall include cost of all tools & equipment, labour charges, scaffoldings, platforms etc., for carrying out the complete work.*		
29.	Providing & fixing good quality vitrified tiles of 600mmx600mm or 600mmx1200mm, 8mm thickness anti-skid, anti-strain & scratch resistant at all levels in floor & wall area of operator cabin, approved design, shade & finish, laying with tile adhesive after chipping & hacking of existing wall from masonry surface, providing spacers between the tile joints 4mm and filling the gap using suitable epoxy joint fillers. The tiles must be fixed using suitable tile adhesive with minimum 4mm thickness using notch trowel as per manufacturer recommendation. The sample tile colour, design & shade pattern shall be got approved from civil dept before commencement of work. *The rate shall include cost & conveyance of all materials & labour, shifting, supply & fixing charges etc., for carrying out the complete work.*		
30.	Supply & fixing powder coated aluminium ventilator using section size of 50mm x 25mm approx, 1.2 mm thickness or nearest, clear glass louvers of 5mm thick at 120mm center to center with sufficient dividers at 60cm spacing suit to opening. The outer frame shall be fixed rigidly into the masonry wall using suitable fasteners at regular intervals & gaps shall be filled by suitable silicon sealant. *The rate shall include cost & conveyance of all materials & labour, fabrication, supply & fixing charges etc., for carrying out the complete work.*		
31.	Providing & laying lean concrete for handrails to a height of 1m from step using 6mm metal granite, m-sand, to a thickness of 40-50mm, curing, including usage of quality material as approved, cost, conveyance, lead, lift of all materials, labour, necessary scaffolding etc. GI welded mesh of size (25X25X3 or nearest), chicken mesh shall be laid in the existing MS square rod after cleaning as per site conditions. Removing rubber beading from top of handrail and anchor bolt should be done at the bottom of step where severe condition occurred with 'L' angle including plastering on both sides in all accessible location with one coat cement slurry CM 1:4 ratio.		

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32.	Fabrication, supply & fixing powder coated aluminium door partially glazed, suitable to existing door opening with outer section size of 80 mm x 50mm, 1.20mm thickness, top portion using 6mm thick clear toughened glass of height about 90cm approx., bottom portion using ACP/novapan sheet of 6mm thick or nearest, joining the section properly, fixing using heavy duty SS hinges of 4" size - 4 Nos or premium quality pivot type hinge, handle, lock with key, premium quality heavy duty door closer shall be fixed with screw bolt, etc., complete. The door size varies from Width – 1.0mm to 1.15m Height – 2.0 m - 2.15 m		
Part B: Mechanical			
33.	Supply, Fabrication, Erection and Painting of MS structures for working platform and platform supports with handrails, staircases and toe guards for Calciner as well as MS structure (Monorail beam ISMB 350) for electric Hoist suiting site conditions and as per the instruction of EIC.		
34.	Supply, Cutting and fixing of wooden Chequered boards of required size and shape of 18mm thickness on MS frames as part of providing working platforms suiting site conditions and as per the instruction of EIC.		
35.	Supply, Installation and Commissioning of Electric Hoist on the Monorail.		
Part C: Electrical			
	Supply Part		
	Design, Fabrication, testing and Supply, of Rittal/BCH make MSB & Lighting Panel having capacity:		
36.	MSB LT Panels: Incomer: (1) 100A, TPN, 50kA, MCCB with necessary metering and indication accessories for solar . (2) 1000A, TPN, 50kA, EDO ACB with S/T and with with necessary metering and indication accessories for Tranformer – 5 . (3) 1000A, TPN, 50kA, MCCB with necessary metering and indication accessories for DG and RPR. Bus couplers: 1000A, TPN, 50kA, EDO ACB-3 Nos. Out Goings: (1) 630A, TPN, 50kA, MCCB with necessary metering and indication accessories – 7 Nos. (2) 400A, TPN, 50kA, MCCB with necessary metering and indication accessories – 1 Nos. (3) 250A, TPN, 50kA, MCCB with necessary metering and indication accessories – 10 Nos.		
37.	Lighting Panel: Incomer: 400A, TPN, 50kA, MCCB with necessary metering and indication accessories – 1 Nos. Outgoing:		

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	100A, TPN, 36kA, MCCB with necessary metering and indication accessories – 12 Nos,		
38.	Supply of 12 Way PDB with 100A RCCB and 100A MCB as incomer and 32 A MCBs as outgoing (as per annexure-2).		
39.	Supply of 12 Way LDB metal door type, with 32A, 2P RCCB and 32A, 2P MCB as incomer and 6 A MCBs as outgoing (as per annexure-2).		
40.	Supply of 100A, 4P, 30mA RCCB (as per annexure-2).		
41.	Supply of 100A, 4P, 'C' curve MCB (as per annexure-2).		
42.	Supply of 32A, 3P, 'C' curve MCB (as per annexure-2).		
43.	Supply of 32A, 2P, 30mA RCCB (as per annexure-2).		
44.	Supply of 32A, 2P, 'C' curve MCB (as per annexure-2).		
45.	Supply of 6A, 1P, 'C' curve MCB (as per annexure-2).		
46.	Supply of 3.5C x 400 Sq.mm Al conductor XLPE Armoured Cable (as per annexure-3).		
47.	Supply of 4C x 16 Sq.mm Cu conductor XLPE Armoured Cable (as per annexure-3).		
48.	Supply of 4C x 6 Sq.mm Cu conductor XLPE Armoured Cable (as per annexure-3).		
49.	Supply of 4C x 1.5 Sq.mm Cu conductor XLPE Armoured Cable (as per annexure-3).		
50.	Supply of Single compression cable gland suitable for 3.5C x 400 Sq.mm Al conductor XLPE Armoured Cable (as per annexure-3).		
51.	Supply of Single compression cable gland suitable for 4C x 16 Sq.mm Cu conductor XLPE Armoured Cable (as per annexure-3).		
52.	Supply of Single compression cable gland suitable for 4C x 6 Sq.mm Cu conductor XLPE Armoured Cable (as per annexure-3).		
53.	Supply of Single compression cable gland suitable for 4C x 1.5 Sq.mm Cu conductor XLPE Armoured Cable (as per annexure-3).		
54.	Supply of Al crimping socket (400 Sq.mm) (as per annexure-3).		
55.	Supply of Al crimping socket (185 Sq.mm) (as per annexure-3).		
56.	Supply of Cu crimping socket (16 Sq.mm) (as per annexure-3).		

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57.	Supply of Cu crimping socket (6 Sq.mm) (as per annexure-3).		
58.	Supply of Cu crimping socket (1.5 Sq.mm) (as per annexure-3).		
59.	Supply of earth strip 25 x 3mm (as per annexure-3).		
60.	Supply of insulated copper wire 1.5 Sq. mm (as per annexure-3).		
61.	Supply of LED lights. (as per annexure-4).		
62.	Supply of M S Flat 40 x 6 mm.		
63.	Supply of M S Angle 40 x 40 x 6 mm.		
64.	Supply of 30 mm heavy duty MS Pipe.		
65.	Supply of 90 x 90 mm anticorrosive PVC junction Box (as per annexure-5).		
66.	Supply of Industrial Plug & Socket (as per annexure-5).		
	Erection Part		
67.	Isolation, Disconnection of existing power cable connection from the MSB LT panel/switch gears without disturbing the cable sockets and glands and sockets of the removed cable		
68.	Dismantling, removing and shifting of existing obsolete MSB LT panels to scrape yard. (Within 150 mtr inside company premises, After weighment of the entire dismantled panels. The Busbar shall be removed, weighed separately and handed over to EIC).		
69.	Erection/Installation, providing power cable connection and Commissioning of Rittal/BCH make MSB LT panel having size :2275 mm (H) x 7700 mm (W) x 1100 mm (D) (Reconnection of the removed power cables power. Same cable gland and sockets of the removed cable shall be used as far as possible. If any cable gland and cable sockets seem to be damaged		
70.	Erection/Installation, providing power cable connection and Commissioning of Rittal/BCH make Lighting panel having size : 2275 mm (H) x 2400 mm (W) x 500 mm (D). (Reconnection of the removed power cables power. Same cable gland and sockets of the removed cable shall be used as far as possible. If any cable gland and cable sockets seem to be damaged or loose, the same need to be replaced with new one and ensure sufficient length of cable available for the re-glanding and socketing).		
71.	Installation and commissioning of 12 Way PDB with 100A RCCB and 100A MCB as incomer and 32 A MCBs as outgoing.		
72.	Installation and commissioning of 12 Way LDB with 32A, 2P RCCB and 32A, 2P MCB as incomer and 6 A MCBs as outgoing.		
73.	Fabrication of cable tray, cable tray supports, light fixing supports, exhaust fan fixing supports, DB fixing frames etc. of suitable dimensions and as per site requirement.		

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74.	Surface preparation and painting of cable tray supports, light fixing supports, exhaust fan fixing supports, DB fixing frames etc.(including paint, Brush and other accessories)		
75.	Laying and dressing of 3.5C x 400 Sq.mm Al conductor Armoured Cable. (Cables shll be laid along the existing rout (cable trench/cable tray). Where ever cable tray are not available, new cable tray shall be fabricated and installed. Size of the cable tray shall be as per site requirement and instruction from EIC.		
76.	Laying and dressing of 4C x 16 Sq.mm Cu conductor Armoured Cable		
77.	Laying and dressing of 4C x 6 Sq.mm Cu conductor Armoured Cable		
78.	Laying and dressing of 4C x 1.5 Sq.mm Cu conductor Armoured Cable		
79.	Termination of 3.5C x 400 Sq.mm Al conductor XLPE Armoured Cable		
80.	Termination of 4C x 16 Sq.mm Cu conductor XLPE Armoured Cable		
81.	Termination of 4C x 6 Sq.mm Cu conductor XLPE Armoured Cable		
82.	Termination of 4C x 1.5 Sq.mm Cu conductor XLPE Armoured Cable		
83.	Installation and charging of LED light points		
84.	Fixing and installation of Installation 90 x 90 mm anticorrosive PVC junction Box		
85.	Laying and termination 25 x 3 mm earth copper strip		
86.	Laying and termination 1.5 Sq. mm earth copper wire.		
87.	Fixing, installation and commissioning of Industrial Plug & Socket		
88.	Miscellaneous electrical/mechanical/civil works related to PART C of price schedule/electrical work		

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TECHNICAL DEVIATION STATEMENT FORM

Tender No. / Date:

Name of Work:.

The bidder has to quote as per technical specification and requirement of the bid. No deviation is expected. However, in case of any deviation, the same has to be recorded clearly in the technical deviation statement form.

The following are the particulars of deviations from the requirements of the Tender specifications.

CLAUSE	DEVIATION (Including Justification)	REMARKS

Signature & Seal of the Tenderer

Dated:

Note:

a. where there is no deviation, the statement should be returned duly signed with an endorsement indicating 'No deviations'. If not endorsed, it will be considered as 'No deviation'.

b. The technical specifications furnished in the Tender document shall prevail over those of any other document forming a part of our Tender, except only to the extent of deviations furnished in the statement.

Annexure - V

"ETHICS IN TENDERING & OTHER BUSINESS DEALINGS"

Dear Sir,

IREL (INDIA) LIMITED, a Government of India undertaking under the administrative control of Department of Atomic Energy is doing its business as per the rules and regulation of the Public Sector Undertaking and other statutory agencies. The business is done in an ethical, rational & impartial manner with good corporate governance.

In our endeavour to be more transparent in our dealings and to support our ideology all Vendors, Customers and Business Partners are requested not to provide any gift and / or inducement to any of our employees for securing / being granted favour in dealings with our Company. In assurance of your commitment to the aforesaid, it will be highly appreciated if you fill up, sign and abide by the attached undertakings.

Report of any gifts and / or inducements sought by any employee of the company should be immediately reported to any one of the following:

Chairman & Managing Director IREL (India) Limited 1207, V.S. Marg, Prabhadevi Mumbai 400 028. Ph: 022-24225778 E-mail:cmd@irel.co.in	Chief Vigilance Officer IREL (India) Limited 1207, V.S. Marg, Prabhadevi Mumbai 400 028. Ph: 022-24221068 E-mail:cvo@irel.co.in

We assure you that complaints if any made by you on the subject will be kept confidential and fair investigation will be conducted and appropriate action will be taken. Similarly, we except your commitment to the undertaking and its violation will have consequences as per prevailing rule of the Company.

Thanking you,

For IREL (India) Limited

Sd/-
Name V A Anil Kumar
Designation Deputy General Manager- Technical (Purchase)

Signature and seal of the contractor

Annexure-VI

UNDERTAKING TO BE SUBMITTED BY BIDDERS FOR ADOPTING ETHICAL PRACTICES

Date:

IREL (India) Limited
1207, V.S. Marg, Prabhadevi
Mumbai 400 028.

I / We …..... am / are a Vendor / Customer of IREL(India) Limited (now onwards to be referred as Company).

I / We agree and undertake:

Not to provide any gift and / or inducement to any employee of the Company in connection with securing / being granted favour (s) in my / our dealings with the Corporate office of the company and / or its any field units namely MK, Chavara, OSCOM, RED & IRERC.

To immediately report any gift and / or inducement sought by any employee of the Company granting favour(s) to me / us in my / our dealings with the Company and / or its field units.

Signature……

Name……..

Title……

Name of the Company and Address (with Seal)…….

Signature and seal of the contractor

EMD DECLARATION

I have furnished a sum of Rs. ……/- (Rupees……..only) towards EMD

vide NEFT/RTGS/BG No……. dated……..

Place: Signature of tenderer:

Full Address:

IREL Bank Details

Name of Bank	State Bank of India, Udyogamandal Branch, Udyogamandal
Account Type	Current Account
Name of beneficiary	**IREL(India) Limited**
Account Number	**57017844321**
IFSC Code	**SBIN0070158**
MICR Code	**682002926**

Details of payment to be uploaded as attachment during tender submission and the same shall be e-mailed to: purchase-red@irel.co.in

Email should contain the following details

1) Name of the Company.
2) Your E-mail ID and Contact Details including full postal Address.
3) EMD & TDC Amount.
4) Transaction ID with details of bank and branch.

Signature and seal of the contractor

Annexure - VIII

DECLARATION – NON-BLACKLISTING

(To be submitted by an Authorized Signatory on the company's original letter head with signature and seal)

To,

DGM -Technical (Purchase)
IREL (India) Limited
R E Division, Udyogamandal – 683 501
KERALA

Sir,

In response to the Bid Ref No.: _____ dated _____ 2023, I/We hereby declare that presently our agency has not been declared ineligible or black listed for corrupt & fraudulent practices either indefinitely or for a particular period of time by any State Govt./ Central Govt./PSU/Government of India Society on the date of bid submission.

If this declaration is found to be incorrect then without prejudice to any other action that may be taken, my/ our bid if any, to the extent accepted may be cancelled.

Thanking you,

Yours faithfully,

Name of the agency: -
Authorized Signatory: -
Seal of the Organization: -

Date:

Place:

Signature and seal of the contractor

Annexure - IX

Annexure to Bid Form: Eligibility Declarations

Tender Document No.

Tender Title:

Bidder's Name:

Bidder's Reference No. Date:

Restrictions on procurement from Bidders from a country or countries, or a class of countries under Rule 144 (xi) of the General financial Rules 2017.

"I/We have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India: and solemnly certify that we are not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered.

Penalties for false or misleading declarations:

We hereby confirm that the particulars given above are factually correct and nothing is concealed and also undertake to advise any future changes to the above details. We understood that any wrong or misleading self-declaration by us would be violation of Code of integrity and would attract penalties as mentioned in this tender document, including debarment.

(Signature of the Bidder, with Official Seal)

Signature and seal of the contractor

Annexure – X

CONTRACTOR ENROLMENT/ REGISTRATION FORM

1. NAME :

2. ADDRESS :

3. E-MAIL/ MOBILE :

4. INSURANCE DETAILS :

ESI No.	Name of Insurance Company	Policy No.	Valid	Type of Policy	No. of persons covered

5. LABOUR LICENSE DETAILS:

Labour License No.	Address of Licensing Office	License Issuance Authority	Date of Expiry	Maximum No. of Laboure's as per License

SIGNATURE OF CONTRACTOR

Signature and seal of the contractor

Annexure-XI

PRE-CONTRACT INTEGRITY PACT

General

This pre-bid pre-contract Agreement (hereinafter the Integrity Pact) is made on …… day of the month of …… year …….. between IREL (India) Limited (hereinafter called the "BUYER" which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns) of the First Part and M/s. …… ……. (hereinafter called the "BIDDER / Seller" which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Part.

WHEREAS the BUYER proposes to procure (Name of the Stores / Equipment / Item) and the BIDDER/Seller is will to offer / has offered the stores and

WHEREAS the BIDDER is a private company / public company / Government undertaking / partnership / registered export agency, constituted in accordance with the relevant law in the matter and the BUYER is a PSU.

NOW, THEREFORE,
To avoid all forms of corruption by following a system that is fair, transparent and free from any influence / prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:-

Enabling the BUYER to obtain the desired said stores/equipment at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary Impact of corruption on public procurement, and

Enabling BIDDERS to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the BUYER will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto hereby agree to enter into this Integrity Pact and agree as follows:
Commitments of the BUYER

1.1 The BUYER undertakes that no official of the BUYER, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immediate benefit or any other advantage from the BIDDER, either for themselves or for any person, organization or third party to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.

1.2 The BUYER will, during the pre-contract stage, treat all BIDDERS alike, and will provide to all BIDDERS the same information and will not ;provide any such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERS

1.3 All the officials of the BUYER will report to the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.

2.0 In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER to the BUYER will full and verifiable facts and the same is prima facie found to be correct by the BUYER, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the BUYER and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the BUYER the proceedings under the contract would not be stalled.

Signature and seal of the contractor

1.0 Commitments of BIDDERS

3.1 The BIDDER commit itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the followings:-

3.2 The BIDDER will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.

3.3 The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the contract or any other contract for showing or forbearing to show favour or disfavor to any person in relation to the contract or any other contract.

3.4 The BIDDER further confirms and declares to the BUYER that the BIDDER has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the BUYER or any of its functionaries, whether officially or unofficially to the award of the contract to the BIDDER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.

3.4The BIDDER, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to officials of the BUYER or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.

3.5 The BIDDER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.

3.6 The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.

3.7 The BIDDER shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the BUYER as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The BIDDER also undertakes to exercise due and adequate care lest any such information is divulged.

3.8 The BIDDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.

3.9 The BIDDER shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.

3.10 If the BIDDER or any employee of the BIDDER or any person acting on behalf of the BIDDER, either directly or indirectly, is a relative of any of the officers of the BUYER, or alternatively, if any relative of an officer of the BUYER has financial interest/stake in the BIDDER's firm, the same shall be disclosed by the BIDDER at the time of fill of tender. The term 'relative' for this purpose would be as defined in Section 6 of the Companies Act 1956

3.11 The BIDDER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the BUYER.

2.0 **<u>Previous Transgression</u>**:

4.1 The BIDDER declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify BIDDER's exclusion from the tender process.

4.2 The BIDDER agrees that if it makes incorrect statement on this subject, BIDDER can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Signature and seal of the contractor

3.0 Earnest Money (Security Deposit)

3.1 While submitting commercial bid, the BIDDER shall deposit an amount _____ (to be specified in RFP) as Earnest Money / Security Deposit, with the BUYER through any of the following instruments:

(i) Bank Draft or a Pay order in favour of _____

(ii) A confirmed guarantee by an Indian Nationalized Bank, promising payment of the guaranteed sum to the BUYER on demand within three working days without any demur whatsoever and without seeking any reasons whatsoever. The demand for payment by the BUYER shall be treated as conclusive proof of payment.

(iii) Any other mode or through any other instrument (to be specified by the RFP).

3.2 The Earnest Money / Security Deposit shall be valid upto complete conclusion of the contractual obligations to the complete satisfaction of both the BIDDER and the BUYER.

3.3 In case of the successful BIDDER a clause would also be incorporated in the Article pertaining to Performance Bond in the Purchase Contract that the provisions of Sanctions for Violation shall be applicable for forfeiture of Performance Bond in case of a decision by the BUYER to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.

3.4 No interest shall be payable by the BUYER to the BIDDER on Earnest Money / Security Deposit for the period of its currency.

4.0 Sanctions for Violations

4.1 Any breach of the aforesaid provisions by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle the BUYER to take all or any one of the followings actions, wherever required:-

(i) To immediately call off the pre contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.
(ii) The Earnest Money Deposit (in pre-contract stage) and/or Security Deposit / Performance Bond (after the contract is signed) shall stand forfeited either fully or partially, as decided by the BUYER and the BUYER shall not be required to assign any reason therefore.
(iii) To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.
(iv) To recover all sums already paid by the BUYER, and in case of an Indian BIDDER with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of BIDDER from a country other than India with interest thereon at 2% higher the LIBOR. If any outstanding payment is due to the BIDDER from the BUYER in connection with any other contract for any other stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.
(v) To encash the advance bank guarantee and performance bond / warranty bond, if furnished by the BIDDER, in order to recover the payments, already made by the BUYER, along with interest.
(vi) To cancel all or any other Contracts with BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the BUYER resulting from such cancellation / rescission and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.
(vii) To debar the BIDDER from participating in future bidding processes of IREL (India) Limited for a minimum period of five years, which may be further extended at the discretion of the IREL.
(viii) To recover all sums paid in violation of this Pact by BIDDER(s) to any middleman or agent or broker with a view to securing the contract.
(ix) In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the BUYER with the BIDDER, the same shall not be opened.
(x) Forfeiture of Performance Bond in case of a decision by the BUYER to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.

Signature and seal of the contractor

4.2 The BUYER will be entitled to take all or any of the actions mentioned at Para 6.1 (i) to (x) of this Pact also on the Commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of an offence as defined in Chapter IX of the Indian Penal code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.

4.3 The decision of the BUYER to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the Independent Monitor(s) appointed for the purposes of this Pact.

5.0 Independent External Monitors

7.1 The BUYER has appointed Independent Monitors (hereinafter referred to as Monitors) for this Pact in consultation with the Central Vigilance Commission (Names and Addresses of the Monitors to be given).

7.2 The task of the Monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.

7.3 The Monitors shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.

7.4 Both the parties accept that the Monitors have the right to access all the documents relating to the project/procurement, including minutes of meetings.

7.5 As soon as the Monitor notices, or has reason to believe, a violation of this Pact, he will so inform the Authority designated by the BUYER.

7.6 The BIDDER(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the BUYER including that provided by the BIDDER. The BIDDER 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 shall be under contractual obligation to treat the information and documents of the BIDDER/Subcontractor(s) with confidentiality.

7.7 The BUYER 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 parties. The parties will offer to the Monitor the option to participate in such meetings.

7.8 The Monitor will submit a written report to the designated Authority of BUYER with 8 to 10 weeks from the date of reference or intimation to him by the BUYER/BIDDER and, should the occasion arise, submit proposals for correcting problematic situations.

6.0 **Facilitation of Investigation**

In case of any allegation of violation of any provision of this Pact or payment of commission, the BUYER or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

9.0 **Law and Place of Jurisdiction**

This pact is subject to Indian Law. The place of performance and jurisdiction is the seat of the BUYER.

10 Other Legal Actions

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

11.0 Validity

The validity of this Integrity Pact shall be from date of its signing and upto the complete execution of the contract to the satisfaction of both the BUYER and the BIDDER/Seller, including warranty period, whichever is later. In case BIDDER is unsuccessful, this Integrity Pact shall expire after six months from the date of signing of the contract.

Signature and seal of the contractor

11.1 Should one or several provisions of this Pact turn out to be invalid, the remainder of this Pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intensions.

12 The Parties hereby sign this Integrity Pact at _____ on_____.

BUYER	BIDDER	
Signature		
Name of the Officer		
Designation		
Witness	Witness	
1	1	1
_____	_____	_____
2	2	2

Signature and seal of the contractor

SECRECY AGREEMENT

THIS AGREEMENT, made and entered into this ___th day of _____, 20- - by and between IREL (India) Limited, a company incorporated under Indian Companies Act having its registered office at Plot No.1207, , Opp. to Siddhivinayak Temple, Veer Savarkar Marg, Prabhadevi, Mumbai – 400 028, India (hereinafter called "IREL") on one part and _____, a company duly incorporated under....., with its registered office..... (hereinafter called _____) includes its successors and permitted assigns, on the other part.

WITNESSETH :

WHEREAS:

A. IREL intends to purchase _____from _____(Name of the company).
B. _____(Name of the company) intends to produce _____at their project in _____(Name of the place) and intend to sell the same to IREL.
C. The parties, therefore, intend to enter into an MoU and subsequently an agreement for the sale and purchase of _____.

NOW, THEREFORE, in consideration of the premises and the mutual covenants herein contained, the parties hereto agree as follows:

1. The term "Confidential Information" means:
(1) All details supplied by IREL/ (Name of the company) on technical, commercial and other information and data on the Process.
(2) All details supplied by IREL/ (Name of the company) on technical, commercial and other information and data relating to the products.
2 Each party hereto shall keep secret and confidential any and all confidential information it receives from any other party or parties hereto under this Agreement and shall not use such Confidential Information for any purposes except for the said tender purpose hereunder. The obligations under this Article shall not apply to any information or data that:

(i) at the time of its disclosure hereunder is in the public domain,
(ii) after disclosure hereunder becomes part of the public domain by publication or otherwise through no fault of the party to whom such information or data is disclosed hereunder ("Receiving party") (but only after it is published or otherwise becomes part of the public domain),
(iii) the Receiving Party can show in its possession at the time of disclosure hereunder and which the Receiving party, without breach or any obligation is free to disclose to others, or
(iv) was received by the Receiving Party after the time of disclosure by a party hereto ("Disclosing Party") hereunder from a third party who did not acquire it, directly or indirectly, from the Disclosing Party under an obligation of confidence and which the Receiving party, without breach of any obligation, is free to disclose to others.

For the purpose of this Article 2, information or data which is specific, e.g., those on operating conditions or equipment, shall not be deemed to be within the foregoing exceptions merely because it is embraced by general information or data in the public domain or in the possession of Receiving Party. In addition, any combination of features shall not be deemed to be within the foregoing exceptions merely because individual features are in the public domain or in the possession of the Receiving Party, but only if the combination itself and its principle of operation are in the public domain or in the possession of the Receiving Party.

3 The Receiving Party shall limit the access to the Confidential Information received hereunder to its

Signature and seal of the contractor

directors, officers and employees, who (i) need to have access with such Confidential Information, (ii) have been informed of the confidential nature thereof and (iii) have agreed to undertake the obligations of non-disclosure and non-use of such Confidential Information.

4 Upon request of IREL, ……. (name of the party) shall, free of charge, promptly return to IREL all the Confidential information received from IREL hereunder.

5 Each party hereto shall not, without the other party's prior express written consents, disclose or allow the disclosure of the existence of this Agreement.

6 It is mutually understood and agreed that no license or other rights are granted to any party hereto under this Agreement, by implication or otherwise, for any of the patents or patents applications of any other party hereto or as to any information and data disclosed by any other party or parties hereto under this Agreement.

7 None of the parties may assign its rights or obligations hereunder without the prior written consent of the other parties.

8 The obligation of non-disclosure and non-use of the Confidential information under this Agreement shall remain in effect for five (5) years after the date hereof and shall terminate upon lapse of said five (5) years.

9 This Agreement shall be governed by and construed in accordance with Indian laws.

10 Each party hereto acknowledges and agrees that monetary damages for any breach or threat of breach of this Agreement are inadequate. Each party hereto shall, therefore, be entitled to seek and obtain temporary and injunctive relief for any breach or threat of breach of this Agreement relating to its Confidential Information, in addition to any other remedy.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed in duplicate by their duly authorized representatives on the day and year first above written. The original shall remain with IREL and the duplicate with ……(name of the party).

1. For _____Witness:

(Name) 1.
Designation

2.

2. For IREL (India) Ltd.

Witness:

(Name) 1.
Designation

2.

Signature and seal of the contractor

Annexure - XIII

VENDOR UP-DATION DETAILS			
SI #	**Organisation Details**		
1	Name		
2	Address Type (sales office address/office address/Warehouse address/factory address)		
3	Building/House Number		
4	Area/Street Name		
5	City		
6	Pin Code		
7	State		
8	Contact Details	Ph No:	
		Mobile No.	
		Email:	
9	Ownership Information (Private Limited Company/ One Person Company/ Limited Liability Partnership/ Partnership Firm / Proprietorship/ Co-Operative Society/ Trust/ Others)		
10	Nature Of Business (Manufacturer/ Dealer/ Trader/ Distributor/ Stockiest/ Channel Partner/ Indian Sales Office/ Subsidiary of Registered foreign supplier/ Indian Agents/ Service Provider)		
11	Copy of PAN card		
12	GSTIN		
13	Audited copies of P&L for the last three years		
14	Valid MSE Udyam registration certificate, if any.		Yes
			No
15	ISO Certification if any		
16	Registered in GEM Portal	Yes	No
17	Whether Supplier/Service Provider is a Start-Up Enterprise. If yes provide the details.		
	Bank Details		
18	Name of bank:		
19	Name of Bank Branch:		
20	City/Place:		
21	Account Number:		
22	Account Type:		
23	IFSC Code:		
24	MICR Code:		

Signature and seal of the contractor

Annexure-XIV

GENERAL CONDITIONS OF CONTRACT (GCOC)

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Signature and seal of the contractor

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Acceptance of GENERAL CONDITIONS OF CONTRACT (GCOC) Sl.no. 1 to 80

Signature & Seal of the Tenderer

Date

Signature and seal of the contractor

GENERAL CONDITIONS OF CONTRACT (GCOC)

Definitions:

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

a) "Employer" means IREL (India) Limited (IREL) having its registered office at Plot No. 1207,Veer Savarkar Marg, Near Siddhi Vinayak Temple, Prabhadevi, Mumbai- 400028. The term Employer includes successors, assigns of IREL.

b) "Contractor" means the person or persons, firm or company whose tender has been accepted by the Employer and includes the Contractors' personal representatives, successors and permitted assignees.

c) "Engineer" means the representative of IREL or the other Engineer appointed from time to time by the Employer and notified in writing to the contractor to act as Engineer for thepurposes of the contract in place of the said representative.

d) "Engineer's Representative" means any resident engineer or assistant of the Engineer orany other employee or agent appointed from time to time by the Employer or the Engineerto perform the duties set forth in Clause 1.5 hereof and whose authority shall be notified in writing to the Contractor by the Engineer.

e) "Work" shall mean and include all works specified or setforth and required in and by the specifications, drawing and schedule hereto annexed or to be implied therefrom or incidental thereto or to be hereafter specified or required in such explanatory instructionsand drawings (being in conformity with the original specification, drawing and schedule) and also such additional instructions and drawings not in conformity as aforesaid as shallfrom time to time, during the progress of the work hereby contracted for, be supplied by the Employer.

f) "Contract" means the Invitation to tender, Instructions to Tenderers, General Conditions of Contract, Special. Conditions of Contract, Specifications, Drawings. Tender Schedule showing approximate quantities, quoted rates and amount against each item, Time Schedule, Letter of Intent/Award, Tender and Contract agreement.

g) "Contract Price" means:
In the case of Lump sum Contracts, the price payable to the Contractor as mentioned in the Contract for each line item. Price is fixed & firm during the entire duration of contract subject to price reduction clause in case of delay in performance; however, price is subjectto price variation clause as per special conditions of contract, if any.
In the case of Item Rate Contracts, Rates by the item rates quoted by the tenderer and accepted by the Company for the various items.

h) "Constructional Plant" means all appliances or things of whatsoever nature as required orabout the execution, completion or maintenance of the Works or, Temporary Works (as hereafter defined) but does not include materials or other things intended to form or forming part of the permanent work or temporary housing, hutting, offices & Stores etc.

i) "Temporary Works" means all temporary works of every kind required in or about the execution, completion or maintenance of the works.

j) "Drawings" means the drawings referred to in the Specification and any modification of such drawings approved in writing by the Engineer and such other drawings as may fromtime to time be furnished or approved in writing by the Engineer.

k) "Site "means the lands and other places envisaged by the Employer where the Works areto be executed or carried out.

l) "Letter of Intent" is an intimation by a letter to tenderer that tender has been accepted in accordance with the provisions contained in that letter.

m) "Approved" means approved in writing including subsequent written confirmation ofprevious verbal approval and "approval" means approval in writing including aforesaid.

1.2 **Singular & Plural** : Words importing the singular only also include the plural and vice versa where the context requires.

1.3 **Clause Headings or Marginal notes**: The Clause headings or marginal notes in these General Conditions shall not be deemed to be part thereof or be taken into considerationin the interpretation or construction thereof or of the contract.

1.4 **Specification**: The term "Specification" shall mean schedules, detailed designs, statements of technical data, performance characteristics and all such particulars mentioned as such in the contract. In the absence of any specific specifications issued bythe Employer, the specifications issued by the BIS will apply.

ENGINEER-IN-CHARGE:

The Engineer-in-charge shall represent and act on behalf of IREL at all times during the currency of the all notices, instructions, orders, certificates, approvals and all other communications under this Contract shall be given by the Engineer-in-charge, except as herein otherwise provided.

The Engineer-in-charge shall have authority for

1.4.1 General supervision, follow up of supply and direction of the Works

1.4.2 Direction to stop the Works whenever such stoppage may be necessary to ensure theproper execution of the works

1.4.3 To reject all Works and Materials which do not conform to the contract specifications. The Engineer-in-charge shall have no authority to relieve the CONTRACTOR of any of hisduties or obligations under the contract nor except as expressly provided here-in-under orelsewhere in the Contract to order any work involving delay or any extra payment by IRELor to make any variation of or in the Works.

2.0 **ASSIGNMENT AND SUB-LETTING**

2.1 The Contractor shall not assign the Contract or any part thereof or any benefit or interesttherein or thereunder (other than a charge in favour of the Contractor's Bankers of any money due or to become due under this Contract) without the prior written consent of Employer.

2.2 The Contractor shall not sub-let the whole or part of the Works except where otherwise provided by the Contract, and even then only with the prior written consent of the Employerand such Consent if given shall not relieve the Contractor from any liability or obligation under the contract and he shall be responsible for the acts, defaults and neglects of any Sub-contractor, his agents, servants or workmen as fully as if they were the acts, defaultsor neglects of the Contractor, his agents, servants or workmen Provided always that the provision of labour on a piecework basis shall not be deemed to be a sub- letting under this clause.

2.3 CONTRACTOR shall supervise and direct the work of all SUB-CONTRACTORS and shallbe responsible for co-coordinating their work. If CONTRACTOR fails to correct, orcommence to correct and execute the correction with due diligence of deficient or defectivework performed by any SUB-CONTRACTOR within

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reasonable time (provided it doesn't materially impact safe operation of plant), after receipt by CONTRACTOR of a notice fromEMPLOYER with respect thereto. EMPLOYER may (but shall not be obligated to), after seven days following receipt by CONTRACTOR of an additional notice, and without prejudice to any other right or remedy take all reasonable steps to remedy such defectiveor deficient work at risk and cost of CONTRACTOR.

2.4 **CONTRACTOR** shall require all SUB-CONTRACTORS to perform in accordance with therelevant requirements of the CONTRACT including FINAL PROPOSAL, all APPLICABLELAWS and APPLICABLE PERMITS, Prudent Utility Practice, Good Engineering Practices,the requirements of the NIT, and all Warranties of SUB-CONTRACTORS/SUBVENDORSand Manufacturers and all insurance policies relating to the PLANT or the WORK.

2.5 CONTRACTOR shall be solely responsible for paying each SUB-CONTRACTOR and anyother person to whom any amount is due from CONTRACTOR for services, equipment, construction equipment, materials or supplies otherwise related to the PLANT or the WORK.

2.6 CONTRACTOR shall take all reasonable steps and actions to ensure that such services,equipment, construction equipment, materials and supplies and the like have been or willbe received, inspected and approved and that such services have been or will be properlyperformed.

2.7 EMPLOYER shall not be deemed by virtue of the CONTRACT to have any contractual obligation to or relationship with any SUB-CONTRACTOR.

3.0 EXTENT OF CONTRACT:

The Contract comprises the construction, completion and maintenance of the works and except in so far as the contract otherwise provides, the provision of all labour, materials, constructional plant, temporary works and everything whether of a temporary or permanent nature required in and for such construction, completion and maintenance.

4.0 CONTRACT DOCUMENTS:

4.1 **CUSTODY OF DRAWINGS:**

The drawings shall remain in the sole custody of the Engineer but two copies thereof shallbe furnished to the Contractor free of cost. The Contractor shall provide and make at his own expense any further copies required by him. On the completion of the contract, the Contractor shall return to the Engineer all drawings provided under the contract, The Contractor shall give adequate notice in writing to the Engineer or Engineer's representative, of any further drawings or specifications that may be required for the execution of the works or otherwise under the contract.

4.2 **ONE COPY OF DRAWINGS TO BE KEPT ON SITE:**

One copy of the drawings furnished to the Contractor as aforesaid shall be kept by the Contractor on the site and the same shall at all reasonable time be available for inspection and use by the Engineer and the Engineer's representative and by any otherperson authorised by the Engineer in writing.

4.3.1.1 **FURTHER DRAWINGS AND INSTRUCTION**:

The Engineer shall have full power and authority to supply to the Contractor from time to time during the progress of the works such further drawings and instructions as shall be necessary for the purpose of the proper and adequate execution and maintenance of theworks and the Contractor shall carry out and be bound by the same.

5.0 **CONTRACT AGREEMENT:**

The Contractor shall enter into and execute a Contract Agreement in the form annexed hereto within the specified time in Letter of Intent/ Award and in default there of the earnestmoney paid by the Contractor shall be forfeited and acceptance of his Tender shall be considered as withdrawn. The cost of the stamp fee of the agreement is to be borne and paid by the Contractor.

6.0 **MODIFICATIONS IN CONTRACT**:

All modifications leading to changes in the CONTRACT with respect to technical or commercial aspects including terms of completion period shall be considered valid only when amendment to the CONTRACT is issued by the Employer.
The modification or amendment of the CONTRACT for an adjustment in the CONTRACTPRICE and/ or COMPLETION DATE in accordance with the applicable provision of the CONTRACT, if any, shall be subject to mutual agreement.
IREL shall not be bound by any printed conditions or provisions in the CONTRACTOR'sbid forms or acknowledgement of CONTRACT and other documents which support to impose any condition at variance with or supplemental to CONTRACT.

7.0 **USE OF CONTRACT DOCUMENTS AND INFORMATION:**

7.1 The CONTRACTOR shall not, without the IREL'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 the IREL in connection therewith, to any person other than a person employed by the CONTRACTOR in the performance of the CONTRACT. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purpose of such performance.

7.2 The CONTRACTOR shall not without the IREL's prior written consent, make use of any document or information enumerated in Clause 7.1 except for purpose of performing the CONTRACT.

7.3 Any document other than CONTRACT, itself, enumerated in Clause 7.1 shall remain the property of the IREL and shall be returned (all copies) to the IREL on completion of the CONTRACTOR's performance under the CONTRACT, if so required by the IREL.

7.4 **CONTRACTOR TO INFORM HIMSELF FULLY:**

The CONTRACTOR in fixing his rate shall for all purpose whatsoever reason may be, deemed to have himself independently obtained all necessary information for the purposeof preparing his tender and his tender as accepted shall be deemed to have taken into account all contingencies as may arise due to such information or lack of same. The correctness of the details, given in the Tender Document to help the CONTRACTOR to make up the tender is not guaranteed.
The CONTRACTOR shall be deemed to have examined the CONTRACT DOCUMENTS,to have generally obtained his own information in all matters whatsoever that might affectthe carrying out of the works at the schedules rates and to have satisfied himself to the sufficiency of his tender. Any error in description of quantity or omission there from shall not vitiate the CONTRACT or release the CONTRACTOR from executing the work comprised in the CONTRACT according to DRAWINGS and SPECIFICATIONS at the scheduled rates. He is deemed to have known the scope, nature and magnitude of the WORKS and the requirements of materials and labour involved etc., and as to what all works he has to complete in accordance with the CONTRACT documents whatever be the defects, omissions or errors that may be found in the DOCUMENTS. The CONTRACTOR shall be deemed to have visited surroundings, to have satisfied himself to the nature of all existing structures, if any, and also as to the nature and the conditionsof the Railways, Roads,

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Bridges and Culverts, means of transport and communication, whether by land, water or air, and as to possible interruptions thereto and the access andegress from the site, to have made enquiries, examined and satisfied himself as to the sites for obtaining sand, stones, bricks and other materials, the sites for disposal of surplusmaterials, the available accommodation as to whatever required, depots and such other buildings as may be necessary for executing and completing the works, to have made local independent enquiries as to the sub-soil, subsoil water and variations thereof, storms, prevailing winds, climatic conditions and all other similar matters affecting these works. He is deemed to have acquainted himself as to his liability of payment of Government Taxes, Customs duty and other charges, levies etc.

Any neglect or omission or failure on the part of the CONTRACTOR in obtaining necessaryand reliable information upon the foregoing or any other matters affecting the CONTRACTshall not relieve him from any risks or liabilities or the entire responsibility from completionof the works at the scheduled rates and times in strict accordance with the CONTRACT.

It is, therefore, expected that should the CONTRACTOR have any doubt as to the meaningof any portion of the CONTRACT DOCUMENT, he shall set forth the particulars thereof inwriting to IREL in duplicate, before submission of tender. IREL may provide such clarification as may be necessary in writing to CONTRACTOR, such clarifications as provided by IREL shall form part of CONTRACT DOCUMENTS.

No verbal agreement or inference from conversation with any effect or employee of the IREL before, during or after the execution of the CONTRACT AGREEMENT shall in any way affect or modify and of the terms or obligations herein contained. Any change in layoutdue to site conditions or technological requirement shall be binding on the CONTRACTORand no extra claim on this account shall be entertained.

7.5 **GENERAL INFORMATION:**

a) **Location of Site:** The proposed location of Project site is defined in the Special Conditionsof Contract.

b) **Access by Road:** CONTRACTOR, if necessary, shall build other temporary access roadsto the actual site of construction for his own work at his own cost. The CONTRACTOR shall be required to permit the use of the roads so constructed by him for vehicles of any other parties who may be engaged on the project site. The CONTRACTOR shall also facilitate the construction of the permanent roads should the construction there of start while he is engaged on this work. He shall make allowance in his tender for anyinconvenience he anticipates on such account. Non-availability of access roads, railway siding and railway wagons for the use of the CONTRACTOR shall in no case condone any delay in the execution of WORK nor be the cause for any claim for compensation against the EMPLOYER.

c) **Scope of Work:** The scope of WORK is defined in the Technical Part of the tender document. The CONTRACTOR shall provide all necessary materials, equipment, labour etc. for the execution and maintenance of the WORK till completion unless otherwise mentioned in the Tender Document.**Water Supply:** Contractor will have to make his own arrangements for supply of water tohis labour camps and for works. All pumping installations, pipe network and distribution system will have to be carried out by the Contractor at his own risk and cost. Alternatively,IREL at his discretion may endeavour to provide water to the Contractor at its source of supply provided the Contractor makes arrangement for pipe networks from source of supply and such distribution pipe network shall have prior approval of the Engineer-in- Charge so as not to interfere with the layout and progress of the other construction works.In such case, the rate for water shall be deducted from the running account bills (Subjectto rate of deduction

d) stipulated.

e) **Power Supply:** Subject to availability, IREL will supply power at 400/440 V at only one point at the nearest sub-station, from where the CONTRACTOR will make his own arrangement for temporary distribution. The point of supply will not be more than 500 m away from the CONTRACTOR'S premises. All the works will be done as per the applicable regulations and passed by the ENGINEER-IN-CHARGE. The temporary line will be removed forthwith after the completion of work or if there is any hindrance caused to the other works due to the alignment of these lines, the CONTRACTOR will re-route or removethe temporary lines at his own cost. The CONTRACTOR at his cost will also provide suitable electric meters, fuses, switches, etc. for purposes of payment to IREL which should be in the custody and control of the IREL. The cost of power supply shall be payable to IREL every month for Construction Works which would be deducted from the running account bills (subject to rate of deduction specifically mentioned in the tender, if any). IREL shall not, however, guarantee the supply of electricity nor have any liability in respect thereof. No claim for compensation for any failure or short supply of electricity willbe admissible.

It shall be the responsibility of the CONTRACTOR to provide and maintain the complete installation on the load side of the supply with due regard to safety requirement at site. Allcabling, equipment, installations etc. shall comply in all respects with the latest statutory requirements and safety provisions, i.e., as per the Central/State Electricity Acts and Rulesetc. The CONTRACTOR will ensure that his equipment and Electrical Wiring etc., are installed, modified, maintained by a licensed Electrician/Supervisor. A test certificate is tobe produced to the ENGINEER-IN-CHARGE for his approval, before power is made available.

At all times, IEA regulations shall be followed failing which the IREL has a right to disconnect the power supply without any reference to the CONTRACTOR. No claim shallbe entertained for such disconnection by the ENGINEER-IN-CHARGE. Power supply willbe reconnected only after production of fresh certificate from authorized electrical supervisors.

The IREL is not liable for any loss or damage to the CONTRACTOR's equipment as a result of variation in voltage or frequency or interruption in power supply or other loss to the CONTRACTOR arising therefrom.

The total requirement of power shall be indicated by the tenderer along with his tender.

7.6 **STANDARDS:**

The goods and services supplied under this CONTRACT shall conform to the standards mentioned in the technical specifications and when no applicable standard is mentioned,CONTRACTOR shall follow best engineering practices.

7.7 **PRIORITY OF CONTRACT DOCUMENTS**:

Except if and the extent otherwise provided by the Contract, the provisions of the GeneralConditions of Contract and Special Conditions shall prevail over those of any other documents forming part of the CONTRACT. Several documents forming the CONTRACTare to be taken as mutually explanatory of one another, but in case of ambiguities or discrepancies the same shall be explained and adjusted by the ENGINEER-IN-CHARGEwho shall thereupon issue to the Contractor instructions thereon and in such event, unlessotherwise provided in the Contract, the priority of the documents forming the Contract shallbe as follows :

7.7.1 The Contract Agreement;
7.7.2 The Letter of Acceptance;
7.7.3 The Instructions to Bidders(ITB);
7.7.4 Special Conditions of Contract (SCC);
7.7.5 General Conditions of Contract (GCC)
7.7.6 Any other document forming part of the Contract.

Works shown in the DRAWING but not mentioned in the SPECIFICATIONS or describedin the SPECIFICATIONS without being shown in the DRAWINGS shall nevertheless be deemed to be included in the same manner as if they had been specifically shown upon the DRAWINGS and described in the SPECIFICATIONS.

Signature and seal of the contractor

7.8 **SPECIAL CONDITIONS OF CONTRACT:**

Special Conditions of Contract shall be read in conjunction with the General Conditions ofContract, specification of Work, Drawings and any other documents forming part of this CONTRACT wherever the context so requires. Notwithstanding the sub-division of the documents into these separate sections and volumes, every part of each shall be deemedto be supplementary to and complementary of every other part and shall be read with andinto the CONTRACT so far as it may be practicable to do so.
Where any portion of the General Conditions of Contract is repugnant to or at variance with any provisions of the Special Conditions of Contract, unless a different intention appears, the provisions of the Special Conditions of Contract shall be deemed to over-ridethe provisions of the General Conditions of Contract and shall to the extent of such repugnancy, or variations, prevail.

8.0 **PATENT INFRINGEMENT**:

8.1 CONTRACTOR shall at all times, indemnify and keep indemnified IREL against all claimsor suits and defend, at its own cost, any suit or action brought against IREL and hold IRELfree and harmless against all costs of such claims or suits which may be made against IREL in respect of any infringement of any rights protected by patent, copyright, trademarks, and trade secrets to the extent that such claim, suit, or action is a result of theuse of CONTRACTOR's technical Information for the construction, maintenance, and operation of PLANT and the use of CONTRACTOR's and/or any other process, licenser'sprocesses used in PLANT. IREL shall pass on all claims made against it to CONTRACTOR for settlement.

8.2 CONTRACTOR declares that to the best of his knowledge and belief the use of CONTRACTOR's Technical Information for the construction, maintenance, and operationof PLANT and the use of CONTRACTOR's processes used in PLANT will not infringe anyvalid patent rights of a third party. However, if at any time such infringement arises, CONTRACTOR agrees to keep IREL indemnified and harmless against such claims andcosts thereof and make arrangements that will allow IREL to continue the operation of PLANT.

8.3 IREL shall promptly advise CONTRACTOR in writing of any claim of infringement or any action for infringement of patents brought against it by a third party and based upon the use of CONTRACTOR's Technical Information. If such use is in accordance with instructions given in writing by CONTRACTOR, CONTRACTOR shall undertake the defence, or assist IREL in the defence, of the claim or suit up to final judgment or settlement.

8.4 CONTRACTOR shall undertake the defence on behalf of IREL and shall have sole chargeand direction of the defence, and shall bear all costs related thereto. CONTRACTOR shallfurther hold IREL harmless from any damages or other sums that may become payable by IREL under a final judgment or settlement. However, IREL shall render to CONTRACTOR all reasonable assistance that may be required by CONTRACTOR in thedefence, and shall have the right to be represented therein by advisory counsel of its ownselection and at its own expense.

8.5 In addition to the measures specified in Clause-8.4, CONTRACTOR may further, at its option, however, in reasonable consultation with IREL, seek to abate the alleged infringement by modification of PLANT or its operation without adversely affecting the performance and/or secure for IREL immunity from suit for infringement. In such case, CONTRACTOR shall bear/ reimburse IREL all costs related to the said modification and to the said immunity.

8.6 In the event that IREL is legally restrained from operating PLANT on account of any infringement action or suit, CONTRACTOR shall take all possible actions to assist IREL to operate and use PLANT, is so far his area of operation is concerned.

8.7 Neither CONTRACTOR nor IREL shall settle or compromise any suit or action without thewritten consent of the other, if settlement or compromise obliges the other to make any payment or part with any property or assume any obligations or surrender any rights or tobe subjected to any injunction by reason of such settlement or compromise.

INDEMNITIES:

9.1 **INDEMNIFICATION FOR LIABILITIES:**

9.1.1 CONTRACTOR INDEMNIFICATION FOR LIABILITIES:

To the fullest extent permitted by Law, CONTRACTOR assumes liability for and agrees toindemnify, protect, save and hold harmless IREL from and against any and all Liabilities (including, any strict liability), arising out of acts or omissions of CONTRACTOR or its personnel or its agents in the performance of its obligations under the CONTRACT causing bodily injury, sickness, disease or death, damage to or loss of any property, and whether or not involving damage to WORKS or SITE that may be imposed on, suffered orincurred by or asserted against IREL and in any way relating to or arising out of

9.1.1.1 WORK, any EQUIPMENT

9.1.1.2 the presence, discharge, treatment, storage, transportation, disposal, escape or release of any Hazardous Substance, or the threat thereof, at, to or from SITE after commencement of work (any hazardous substance already existing at SITE beforecommencement of WORK excluded)

9.1.1.3 The performance of WORK, or as a result of personal injuries (including wrongful death);

9.1.1.4 the violation by CONTRACTOR or any SUB-CONTRACTOR/ VENDOR of any Government Approval or applicable Law;

9.1.1.5 Any breach of CONTRACT with any SUB-CONTRACTOR/VENDOR, provided, however, that CONTRACTOR shall not be required under this Clause to indemnifyIREL for any liability arising out of or resulting from events or circumstances occurring or existing after PRELIMINARY ACCEPTANCE OF PLANT except where the liability arises from an act or omission of CONTRACTOR or any SUB- CONTRACTOR/VENDOR or any other Person directly or indirectly employed by either of them or anyone for whose acts either of them may be liable that was a contributory cause of such liability.

9.1.2 CONTRACTOR INDEMNIFICATION FOR TAXES:

It is specifically understood that CONTRACTOR hereby accepts and assumes exclusive liability for and save and hold IREL harmless from and against of all Taxes arising from the performance of WORK, and all such Taxes shall be deemed to be included in CONTRACT PRICE, except for GST. GST at applicable rate is payable extra. Seller needto prepare E-Invoice under GST and submit monthly/ quarterly GST Return as per GST Rules. Failure to submit GST Return on time as per GST Rules may result into deductionof GST while processing Bills.

9.1.3 INDEMNIFICATION BY SUB-CONTRACTOR/VENDOR:

CONTRACTOR shall obtain from each SUB-CONTRACTOR/VENDOR, which is anaffiliate, and shall use all reasonable efforts to obtain from each SUB-CONTRACTOR/ VENDOR, an indemnification materially similar in form and substance to Clause-9.1.1 andClause-9.1.2 of which the IREL shall be named as beneficiary.

9.1.4 PAYMENT OF AMOUNTS UNDER THIS CLAUSE:

Except to the extent covered by insurance, all amounts payable and due by CONTRACTOR to IREL under this Clause shall be deducted from CONTRACT PRICE orany other amounts owed by IREL to CONTRACTOR here under. If such amounts payableby IREL to CONTRACTOR are less than the amounts payable and due by CONTRACTORunder this Clause, CONTRACTOR shall be liable to IREL for such excess and shall pay such amount to IREL immediately upon demand.

9.1.5 PERMITS AND CERTIFICATES:

Signature and seal of the contractor

CONTRACTOR shall procure, at its expense, all necessary permits, certificates and licences required by virtue of all applicable laws, regulations, ordinances and other rules in force at the place where any of the works is to be performed, and CONTRACTOR furtheragrees to hold IREL harmless from liability or penalty which might be imposed by reasonof any asserted or established violation of such laws, regulations, ordinances or other rule.IREL shall provide the necessary permits for CONTRACTOR's personnel to undertake any work in India in connection with CONTRACT.

9.1.6 MECHANICS LIEN:

CONTRACTOR agrees to indemnify and hold harmless IREL against all labourer'smaterial, men's and/or mechanics liens arising from its work, and shall keep the premisesof IREL free from all such claims, liens and encumbrances.

10.0 WORK TO BE TO THE SATISFACTION OF ENGINEER:

The Contractor shall execute, complete and maintain the Works in strict accordance withthe contract, to the satisfaction of the Engineer and shall comply with and adhere strictly to the Engineer's instructions and direction on any matter (whether mentioned in the Contract or not). The Contractor shall take instructions and directions only from the Engineer or from the Engineer's representative on any matter touching or concerning theWorks.

11.0 **PROGRAMME TO BE FURNISHED:**

As soon as practicable after the acceptance of his tender, the Contractor shall, if required,submit to the Engineer for his approval a programme showing the order of procedure andthe method in which he proposes to carry out Works and shall whenever required by the Engineer or Engineer's representative furnish for his information particulars in writing of the Contractor's arrangement for the carrying out of the Works and of the constructional plant and temporary Works which the Contractor intends to supply, use or construct as the case may be. The submission to and approval by the Engineer or Engineer's representative of such programme or the furnishing of such particulars shall not relieve the Contractor of any of his duties or responsibilities under the Contract.

12.0 Contractors Superintendence:

The Contractor shall give and provide all necessary superintendence during the executionof the works and as long thereafter as the Engineer may consider necessary for the properfulfilling of the Contractor's Obligation under the contract. The Contractor or one of his competent and authorised agent approved of in writing by the Engineer (which approval may at any time be withdrawn) is to be constantly on the Works and shall give his whole time to the superintendence of the same. If such approval shall be withdrawn by the Engineer, the Contractor shall as soon as is practicable (having regard to the requirementof replacing him as here-in-after mentioned) after receiving written notice of such withdrawal, remove the agent from the Site and shall not thereafter employ him again on the Site in any capacity and shall replace him by another agent approved by the Engineer,Such authorised agent shall receive on behalf of the Contractor directions and instructionsfrom the Engineer or (subject to the limitations of Clause 2 hereof) the Engineer's representative.

13.0 CONTRACTOR'S EMPLOYEE:

The Contractor shall provide and employ on the Site in connection with execution and maintenance of the Works.

(a) Only such technical assistants and other staff as are skilled and experienced in their respective callings and such sub-agents, foreman and loading hands as are competent to give proper supervision to the work they are required to supervise and

(b) Such skilled, semi-skilled and unskilled labour as is necessary for the proper and timely execution and maintenance of the Works.

13.1 The Engineer shall be at liberty to object to and require the Contractor to remove forthwithfrom the Works any person employed by the Contractor in or about the execution or maintenance of the Works who in the opinion of the Engineer misconducts himself or incompetent or negligent in the proper performance of his duties or whose employment isother-wise considered by the Engineer to be undesirable and such person shall not be again employed upon the Works without the written permission of the Engineer. Any person so removed from the Works shall be replaced without delay by a competent substitute approved by the Engineer.

14.0 EXTRA SUPERVISION ON WORK:

If in the opinion the Engineer, due progress is not made with the work in accordance withthe contract, and or the execution thereof becomes contrary to specifications, and/or badwork is executed and/or bad materials are used or supplied by the Contractor, and/or anydirections given by the Engineer are not properly complied with or attended to, the Engineer may if he considers it necessary or proper for the execution of the work in accordance with the contract, of which his certificate in writing will be sufficient evidence order the employment of extra supervising staff to supervise the work and the expenses of the employment including the salary of the supervising staff shall be provided by the Contractor, provided that the Engineer shall give to the Contractor not less than 7 days previous notice in writing of intention to exercise his power.

f) specifically mentioned in the tender, if any). However, IREL does notguarantee the supply of water and this does not relieve the Contractor of his responsibility in making his own arrangement and for the timely completion of the various works as stipulated.

g) **Power Supply:** Subject to availability, IREL will supply power at 400/440 V at only one point at the nearest sub-station, from where the CONTRACTOR will make his own arrangement for temporary distribution. The point of supply will not be more than 500 m away from the CONTRACTOR'S premises. All the works will be done as per the applicable regulations and passed by the ENGINEER-IN-CHARGE. The temporary line will be removed forthwith after the completion of work or if there is any hindrance caused to the other works due to the alignment of these lines, the CONTRACTOR will re-route or removethe temporary lines at his own cost. The CONTRACTOR at his cost will also provide suitable electric meters, fuses, switches, etc. for purposes of payment to IREL which should be in the custody and control of the IREL. The cost of power supply shall be payable to IREL every month for Construction Works which would be deducted from the running account bills (subject to rate of deduction specifically mentioned in the tender, if any). IREL shall not, however, guarantee the supply of electricity nor have any liability in respect thereof. No claim for compensation for any failure or short supply of electricity willbe admissible.
It shall be the responsibility of the CONTRACTOR to provide and maintain the complete installation on the load side of the supply with due regard to safety requirement at site. Allcabling, equipment, installations etc. shall comply in all respects with the latest statutory requirements and safety provisions, i.e., as per the Central/State Electricity Acts and Rulesetc. The CONTRACTOR will ensure that his equipment and Electrical Wiring etc., are installed, modified, maintained by a licensed Electrician/Supervisor. A test certificate is tobe produced to the ENGINEER-IN-CHARGE for his approval, before power is made available.
At all times, IEA regulations shall be followed failing which the IREL has a right to disconnect the power supply without any reference to the CONTRACTOR. No claim shallbe entertained for such disconnection by the ENGINEER-IN-CHARGE. Power supply willbe reconnected only after production of fresh certificate from authorized electrical supervisors.

The IREL is not liable for any loss or damage to the CONTRACTOR's equipment as a result of variation in voltage or frequency or interruption in power supply or other loss to the CONTRACTOR arising therefrom.

The total requirement of power shall be indicated by the tenderer along with his tender.

Signature and seal of the contractor

15.0 **SETTING-OUT OF THE WORKS**:

The Contractor shall be responsible for the true and proper setting out of the Works and the correctness of the position levels, dimensions and alignment of all parts of the Worksand for the provision of all necessary instrument appliances and labour in connection therewith. If at any time during the progress of the works, any error shall appear or arise in the position, levels, dimensions or alignment of any part of the Works, the Contractor on being required so to do by the Engineer or Engineers representative shall at his own expense rectify such error to the satisfaction of the Engineer or Engineer's representativeunless such error is based on incorrect data supplied in writing by the Engineer or the Engineer's representative in which case the expense of rectifying the same shall be borneby the Employer. The checking of any setting out or of any line or level by the Engineer orthe Engineer's representative shall not in any way relieve the Contractor of his responsibility for the correctness thereof and the Contractor shall carefully protect and preserve all bench marks, site rails, pegs and other things used in setting out the works.

16.0 **USE OF EXPLOSIVES:**

Explosives shall not be used on the work by the contractor without the permission in writingof the Engineer and then only in the manner and to the extent to which he has prescribed.Where explosives are used, the same shall be stored in a special magazine to be providedby and at the cost of the Contractor, who shall be liable for all damages, loss or injury to any person or property & shall be responsible for complying with all the Statutoryobligations in these respects.

17.0 **CARE OF WORKS:**

The Contractor shall in connection with the Works provide and maintain at his own cost all lights, guards, fencing and watching when and where necessary or required by the Engineer or Engineer's representative or by a duly constituted authority for the protectionof the Works or for the safety and convenience of the Public or others.

17.1 From the commencement to the completion of the Works, the Contractor shall take full responsibility or the care thereof and of all Temporary Works and in case any damage, loss or injury shall happen to the Works or to any part thereof or to any temporary Worksfrom any cause whatsoever (save and except the excepted risks as defined in sub-clause (2) of the clause) shall at his own cost repair and make good the same so that at completion the Works shall be in good order and condition and in conformity in every respect with the requirements of the Contract and the Engineer's instructions. In the eventof any such damage, loss or injury happening from any of the excepted risks theContractor shall if and to the extent required by the contractor shall also be liable for any damage to the Works occasioned by him in the course of any operations carried out by him for the purpose of complying with his obligations under Clause 58 hereof.

17.2 **EXCEPTED RISKS:**

The "excepted risks" mentioned in Sub-clause (1) above are war hostilities (whether war be declared or not), invasion act of foreign enemies, rebellion, revolution, insurrection of military or usurped power, civil war or (otherwise than among the Contractor's own employees) riot, commotion or disorder or any such operation of the forces of nature as responsible foresight and ability on the part of Contractor could not foresee or reasonablyprovide against (all of which are herein collectively referred to as "the excepted risks".)

18.0 **USE OF LAND & BUILDINGS**

(a) Wherever any land or building belonging to IREL is allotted to the Contractor, the Contractor shall return vacant possession of the same land/building in good condition toIREL after the completion of works as soon as the contract is over/terminated, failing which IREL would be entitled to withhold the payment of the security deposit and/or finalbill in addition to any other action which the IREL may like to take for getting the vacantpossession of the land or building as aforesaid.

(b) The Contractor should obtain the prior approval of the competent authority for construction of purely temporary shed. The Contractor should submit written applicationaccompanied by layout plan for construction of such temporary shed. Any modification/alteration if deemed necessary thereafter, should be done with prior approval of the competent authority.

(c) The Contractor shall have to pay licence fee for the area occupied as per rates fixed bythe Management of IREL from time to time.

(d) The permission for such temporary shed will be accorded only for the purpose of work as awarded to such Contractor and the temporary shed so constructed should be dismantled within 15 days from the date of completion of the maintenance work and restore the possession of vacant land in the original condition or in a condition acceptable to the Management of IREL. In case of any difficulty, the Contractor may obtain specific approval of the competent authority which may not be extended more than a period of one month in any case.
In case of failure of the Contractor to dismantle the temporary shed and hand over the vacant possession of the premises, the department shall be compelled to dismantle thetemporary shed so constructed at the risk and cost of the contractor without prejudice toany other action which may be taken including recovery of damages as per rates fixed by IREL for the unauthorised occupation of the shed/ premises beyond the permitted period.

(e) The Contractor should use such premises/shed for such purpose incidental to such awarded work and not as otherwise. It shall be the liability of the contractor to ensure that this occupation of the premises/shed does not provide to be of nuisance to the residents in the vicinity. The Contractor shall also not sublet the premises to any other party.

19.0 **DAMAGES TO PERSONS AND PROPERTY**:

19.1 The Contractor shall (except if and so far as the Specification provided otherwise) indemnify and keep indemnified the IREL against all losses and claims for injuries or damages to any person or any property whatsoever which may arise out of or inconsequence of the construction and maintenance of the works and against all claims, demands, proceedings, damages, costs charges and expenses whatsoever in respect ofor in relation thereto. Provided always that nothing hereby contained shall be deemed to render the Contractor liable for or in respect of or to indemnify the IREL against any compensation or damages for or with respect to:

(a) The permanent use or occupation of land by the works or any part thereof (save as herein -after provided) surface or other damage as aforesaid i.e. surface or other damage caused by contract works in the normal course.

(b) The right of the IREL to construct the Works or any part thereof on over under in or through any land.

(c) Interference whether temporary or permanent with any right to light, air, way or water or other easement or quasi-easement which is unavoidable result of the construction of the Works in accordance with the Contract.

Provided further that for the purposes of this clause, the expression "the land" shall be deemed to be limited to the area defined in the specification as shown on the drawings inwhich land crops, trees and structures will be disturbed or damaged as an inevitable consequence of the carrying out of the Works.

Signature and seal of the contractor

20.0 **ACCIDENT OR INJURY TO WORKMEN**:

(a) The employer shall not be liable for or in respect of any damages or compensationpayable as per or otherwise in respect of or in consequence of any accident or injury to any workmen or other persons in the employment of the Contractor or anySub-Contractor and the Contractor shall indemnify and keep indemnified the Employer against all such damages and compensation and against all claims, demands, proceedings, cost, charges and expenses whatsoever in respect thereofin relation there to.

(b) The Contractor shall forthwith report all accidents and injuries as a result of his contractual work to the employer or his representative.

21.0 WORKMEN'S COMPENSATION ACT:

The Contractor shall at all times indemnify the Employer against all claims for compensation under the provision of the Workmen's Compensation Act, 1923 (VIII of 1923) or any other law for the time being in force by or in respect of any workmen employedby the Contractor in carrying out the contract and against all costs and expenses incurredby the employer in connection therewith and (without prejudice to any other means of recovery) the employer shall be entitled to deduct from any money due or to become dueto the Contractor (whether under this contract or any other contract) all moneys paid or payable by the Employer by way of compensation aforesaid or for costs or expenses in connection with any claim thereto and the Contractor shall abide by the decision of the Employer as to the sum payable by the Contract, under the provision of this clause.

22.0 GIVING OF NOTICE AND PAYMENT OF FEES:

22.1 The Contractor shall give, all notices and pay all fees required to be given or paid to any Central or State, Statute, Ordinance or other Law or any rule, Regulation or Bye-Law of local or other duly constituted authority in relation to the execution of the Works or of anytemporary works and by the rules and regulations of all public bodies whose property or rights are affected or may be affected in any way by the works or any Temporary Works.

22.2 COMPLIANCE WITH STATUTES REGULATIONS ETC.:

The Contractor shall conform in all respects with the provision of any such statute, ordinance, or Law as aforesaid and the rules, Regulations or Bye-laws of any local or otherduly constituted authority which may be applicable to the Works or to any Temporary Works and with such rules and regulations of public bodies as aforesaid and shall keep the employer indemnify against all penalties and liability of every kind for breach of any such Statute, Ordinance, Law, Rules, Regulation or Bye-laws.

23.0 FOSSILS ETC.
All fossils, coins, articles, value of antiquity and structures and other remains or things of geological or archaeological interest discovered on the site of the works shall as betweenthe employer and the Contractor be deemed to be the absolute property of the Employerand the Contractor shall take reasonable precautions to prevent, his workmen or any otherpersons from removing or damaging any such article or thing and shall immediately upondiscovery thereof and before removal acquaint the Engineers representative of such discovery and carry out at the expense of the employer the engineer's Representative's orders as to the disposal, removal or otherwise of the same.

24.(a) PATENT RIGHTS & ROYALTIES:

The Contractor shall save harmless and indemnify the Employer from and against all claims and proceeding for or on account of infringement of any patent rights, designs trade-mark or name or other protected rights in respect of any Constructional plant, machine, work or material used for or in connection with the Works or Temporary Works of any of them and from and against all claims, demands, proceeding, damages, cost, charges and expenses whatsoever in respect thereof or in relation there to.

(b) Except where otherwise specified, the Contractor shall pay all tollage and other royalties,rent and other payments or compensation (if any) for getting stone, sand, gravel, clay or other materials required for the Works or temporary Works or any of them.

25.0 INTERFERENCES WITH TRAFFIC ADJOINING PROPERTIES.

All operations necessary for the execution of the Works and for the construction of any Temporary works shall so far as compliance with the requirements of the Contract permitsbe carried on so as not to interfere unnecessarily or improperly with the Public convenience or the access to use and occupation of public or private roads and footpathsor to or properties whether in the possession of the Employer's Workmen or of any other person and Contractor shall save harmless and indemnify employer in respect of all claims, demands, proceeding, damages, costs, charges and expenses whatsoever arisingout of or in relation to any such matters.

26.(a) EXTRAORDINARY TRAFFIC:

The Contractor shall use every reasonable means to prevent any of the highways and bridges communicating with or on the routes to the site from being damaged or injured byany traffic of the Contractor or any of his Sub-Contractors and in particular shall select routes, choose and use vehicles and restrict and distribute loads so that any such extraordinary traffic as will inevitably arise from the moving of plant and material from andto the site shall be limited as far as reasonably possible and so that no unnecessary damage or injury may be occasioned to such highways and bridges. For any damage caused by the breach hereof, the Contractor shall be solely responsible.

(b) WATERBORNE TRAFFIC:

Where the nature of the works is such as to require the use by the Contractor of water borne transport, the fore going provisions of this clause shall be construed as though "highway" included a dock, deck, sea wall, or other structure related to a water-way and "vehicles" included craft and shall have effect accordingly.

27.0 OPPORTUNITIES FOR OTHER CONTRACTORS:

The Contractor shall in accordance with the requirements of the Engineer afford all reasonable opportunities for carrying out their work to any other contractors employed bythe Employer and their workmen and to the workmen of the Employer and of any other duly constituted authorities who may be employed in the execution on or near the site of any work not included in the Contract or of any Contract which the Employer may enter into in connection with or ancillary to the works.

28.0 SUPPLY OF PLANT, MATERIAL AND LABOUR:

Except where otherwise specified the Contractor shall at his own expense supply and provide all the Constructional Plant, Temporary Works, materials both for temporary and for permanent Works, labour (including the supervision thereof), transport to or from the Site and in and about the Works and other things of every kind required for the constructions, completion and maintenance of the Works.

Signature and seal of the contractor

29.0 DELAY IN OBTAINING MATERIALS BY THE EMPLOYER:

If the Employer has undertaken to supply materials specified in the special conditions at rates stated therein, the Contractor shall keep himself in touch with the day-to-day positionregarding the supply of materials from the Engineer and so adjust the progress of the workthat their labour may not remain idle nor may there be any other claim due to or arising from delay if any, in obtaining the materials. It should be clearly understood that no claimwhatsoever shall be entertained by the Employer on account of delay in supplying materials.

30.0 SITE CLEARANCE ON COMPLETION OF WORK:

On the completion of the work all rubbish, debris, vats tanks, materials, and temporary structures of any sort or kind used for the purpose of or connected with its construction are to be removed by the Contractor and all pits and excavations filled up and the site handed over in a tidy and workman like condition and no final payment in settlement of the account for the said work shall be held to be due or shall be made to the Contractor, till such site clearance shall have been effected by him, and such clearance may be madeby the Engineer, at the expense of the Contractor in the event of his failure to comply withthis provision within 7 days after receiving notice in writing from the Engineer to that effect.If it becomes necessary for the Engineer to have the site cleared as indicated above at the expense of the Contractor, the Employer shall under no circumstances, be held liablefor any losses or damages to such of Contractor's property as may be on such site due tosuch removal there from which removal may be effected by means of public sale of suchmaterials and property or in such way as seems fit and most convenient to the Engineer.

31.0 RETURN OF SURPLUS MATERIALS:
Notwithstanding anything contained to the contrary anywhere in this contract, wherever any materials for the execution of the contract are procured with the assistance of the Employer either by issue from Employer's stocks or purchase made under orders or permits or licenses issued by the Employer, the Contractor shall use the said materials economically and solely for the purpose of the contract and not dispose of them without the permission of the Employer, and if required by the Engineer shall return to the Employer all surplus or unserviceable materials that may be left with the Contractor after the completion of the contract or at its termination, for any reason whatsoever on being paid or credited such price as the Engineer shall determine, having due regard to initial cost and the condition of the materials at the time of such return thereof. The price to be allowed to the Contractor, however, shall not exceed the amount charged to him excludingthe storage charge if any. The decision of the Engineer shall be final and conclusive. In the event of breach of the aforesaid condition, the Contractor shall in addition to making himself liable of action for contravention of the terms of the licences or permit and/or for criminal breach of trust) be liable to the Employer for payment of all moneys, advantagesor profit resulting or which in the usual course would have resulted to him by reason of such breach.

WORK MATERIAL AND PLANT

32.0 **QUALITY OF MATERIAL & WORKMANSHIP AND TESTS:**

All materials and workmanship shall be of the respective kinds described in the Contract and in accordance with the Engineer's instructions and shall be subjected from time to time to such tests as the Engineer may direct at the place of manufacture or fabrication oron the Site or at all or any of such places. The Contractor shall provide such assistance, instruments, machines, labour and materials as are normally required for examining, measuring and testing any work and the quality, quantity or weight of any material used and shall supply samples of materials before incorporation in the Works for testing as maybe selected and required by the Engineer.

Cost of samples: All samples shall be supplied by the Contractor at his cost.

Cost of tests: The cost of making any test in performance of his works shall be borne by the Contractor.

Cost of tests not provided for:
If any test is ordered by the Engineer which is either,

a. not so intended or provided or

b. is not so particularised for or

c. though so intended or provided for is ordered by the Engineer to be carried by anindependent person at any place other than the Site or the place of manufacture or fabrication of the materials tested. Then the cost of such test shall be borne bythe Contractor if the test shows the workmanship of materials not to be inaccordance with the provisions of the Contract or the Engineer's instructions but otherwise by the Employer.

33.0 ACCESS TO SITE:

The Employer/Engineer and any person authorised by him shall at all times have access to the Works and to the Site and to all workshops and places where work is being preparedor where materials, manufactured articles or machinery are being obtained for the Worksand the Contractor shall afford every facility for and every assistance in or in obtaining theright to such access.

34.0 INSPECTION, TESTING AND EXPEDITING:

34.1 The EMPLOYER or his representatives shall have their right to inspect and/or to test the goods to conform to the specifications laid down in the CONTRACT. The SPECIAL CONDITIONS OF CONTRACT and/ or the TECHNICAL SPECIFICATIONS shall specifywhat inspections and test the EMPLOYER requires and where they are to be conducted.The EMPLOYER shall notify the CONTRACTOR in writing of the identity of any other representatives retained for this purpose. Expediting by EMPLOYER's representative in no way relieves the CONTRACTOR of his obligation under the terms and conditions of this CONTRACT.

34.2 The inspections and tests may be conducted on the premises of the CONTRACTOR orhis SUB-CONTRACTOR at point of completion and/or at the good's final destination. When conducted on the premises of the CONTRACTOR or his SUB-CONTRACTOR, allreasonable facilities and assistances including access to drawings and production datashall be furnished to the inspector at no charge to the EMPLOYER.

34.3 CONTRACTOR shall be held responsible for any possible delay in the approval or testingphase as well as for any possible delay in the remittance of necessary certificates. Delayon the part of the Inspection institutions will not be considered a case of 'Force Majeure'.

34.4 Participation or presence of EMPLOYER or their representatives at any tests or their failure to be present at or to witness any tests to be undertaken pursuant here to shall notin any way or manner relieve or release the CONTRACTOR from any of its warranties, guarantees or other obligations under the CONTRACT.

34.5 Copies of all test results/report of the tests shall be furnished promptly by the CONTRACTOR to EMPLOYER.

Signature and seal of the contractor

35.1 EXAMINATION OF WORK BEFORE COVERING UP:

No work shall be covered up or put out of view without the approval of the Engineer or theEngineer's representative and the Contractor shall afford full opportunity for the Engineeror the Engineer's representative to examine and measure any work which is about to be covered up or put out of view and to examine foundations before permanent work is over,any such work or foundations is or are ready or about to be ready for examination and theEngineer's representative shall without unreasonable delay unless he considers it unnecessary and advises the Contractor accordingly attend for the purpose of examiningand measuring such work or of examining such foundations.

35.2 UNCOVERING & MAKING OPENINGS:

The Contractor shall uncover any part or parts of the Works or make opening in or throughsame as the Engineer may from time to time direct and shall reinstate and make good such part or parts to the satisfaction of the Engineer. If any such part or parts have been covered up or put out of view after compliance with the requirements of subclause(l) of this Clause and are found to be executed in accordance with the Contract, the expenses of uncovering making opening in or through reinstating and making good the same shall be borne by the Employer but in any other case all such expenses shall be borne by the Contractor and shall be recoverable from him by the Employer or may be deducted by theEmployer from any moneys due or which may become due to the Contractor.

36.0 **REMOVAL OF IMPROPER WORK & MATERIALS**:

The Engineer shall during the progress of the Works have power to order in writing from time to time:

(a) the removal from the Site within such time or times as may be specified in the orderof any materials which in the opinion of the Engineer are not in accordance with the contract,

(b) the substitution of proper and suitable materials and

(c) the removal and proper re-execution (not withstanding any previous test there of or interim payment there for) of any work which in respect of materials of workmanship is not in the opinion of the Engineer in accordance with the contract.

37.0 **DEFAULT OF CONTRACTOR IN COMPLIANCE**:

In case of default on the part of the Contractor in carrying out such order, the employer shall be entitled to employ and pay other persons to carry out the same and all expensesconsequent thereon or incidental thereto shall be borne by the Contractor and shall be recoverable from him by the Employer or may be deducted by the Employer from any moneys due or which may become due to the Contractor.

38.0 **SUSPENSION OF WORK:**

The Contractor shall on the written order of the Engineer suspend the progress of the works or any part thereof for such time or times and in such manner as the Engineer mayconsider necessary and shall during such suspension properly protect and secure the work so far as is necessary in the opinion of Engineer. Provided that the Contractor shall not be entitled to recover any such extra cost unless he gives notice in writing of his intention to claim to the Engineer within 28 days of the Engineer's order. The Engineer shall settle and determine the extra payment to be made to the Contractor in respect of such claim as the Engineer shall consider reasonable.

39.0 **SUSPENSION LASTING MORE THAN 90 DAYS:**

If the progress of the works or any part thereof is suspended on the written order of the Engineer for more than 90 days, the Contractor may serve a written notice on the Engineerrequiring permission within 28 days from the receipt thereof to proceed with the works or that part thereof in regard to which progress is suspended and if such permission is not granted within that time the Contractor by a further written notice so served may (but is notbound to) elect to treat the suspension where it affects part only of the Works as an omission of such part under Clause 62 thereof or where it affects the whole Works as an abandonment of the Contract by the Employer.

40.0 ISSUE OF OTHER MATERIALS FROM IREL STORES:

(i) Use of additional items:

If the Engineer directs the use of additional items of IREL stores in the work, the Contractor is bound to comply with such directions. The recovery rate for such stores shall be fixed by the Engineer.

(ii) Recovery Rates:
In addition to the above, other materials from IREL stores can be supplied subjectto availability if the Engineer is satisfied as to the necessity for such issues. Recovery rates for the materials so issued shall be IREL issue rates plus 12% plusGST as may be in force from time to time.

(iii) Handling Conveyance etc:
All handling, conveyance, etc. from place of issue to the worksite of the Contractorare to be borne by the Contractor and the rates quoted in the Tender Schedule cover these.

(iv) Proper accounting:
AII materials issued to the Contractor whether free of cost or on cost recoverable basis shall be properly accounted for. Any loss or damage to the stores issued byIREL will be debited to the Contractor at the IREL issue rates plus 20% plus GSTas may be in force from time to time.

(vi) Excess/misuse:
Steel drawn in excess or misused will be charged at 100% overissue/recovery rates as stipulated in the contract.

(vii) Surplus stock:
No claim will be entertained for non-supply or delay in supply of any or all the abovestores.

(viii) Except Steel, materials issued to the Contractor on recovery basis shall not normally be taken back. In case of steel and materials issued free, the surplus stock will be taken back at the stipulated rates of issue, provided they are returnedin good condition. In case of steel, rebate at full rates will be made only if the pieces are returned in length not less than 6M. Shorter pieces in the range of 4M to 6M length will be taken back @ 50% of the issue rates. The materials shall be returned at IREL stores and all expenses towards conveyance, handling, weighing, sorting,etc. shall be at Contractor's accounts. As regards to the conditions of the materialsto be returned, the decision of the Engineer shall be final and binding on the Contractor. The norms prevalent for consumption in respect of Steel shall apply forcalculating the consumption of these materials for recovery.

Signature and seal of the contractor

COMMENCEMENT TIME AND DELAYS

41.0 **COMMENCEMENT OF WORK:**

The Contractor shall commence the works on site within the period as mentioned in the contract and shall proceed with the same with due expedition and without delay.

42.0 **WAY LEAVES ETC.:**

The Contractor shall bear all expenses and charges for special or temporary way leaves required by him in connection with access to the Site. The Contractor shall also provide athis own cost any additional accommodation outside the Site required by him for the purposes of the works, except when otherwise specifically agreed and provided for.

43.0 TIME FOR COMPLETION:
Subject to any requirement in the Contract as to completion of any portion of the works before completion of the whole of the works, it shall be completed within the time stated inthe LOI/Award Letter/Agreement.

44.0 **EXTENSION OF TIME FOR COMPLETION:**

Should the amount of extra or additional work of any kind or other special circumstances of any kind whatsoever which may occur be such as fairly to entitle the contractor to an extension of time for the completion of the work, the Engineer shall determine the amountof such extension. Provided that the Engineer as not bound to take in to account any extraor additional work or other special circumstances unless the Contractor has within 14 daysafter such work has been commenced on such circumstances have arisen or as soon thereafter as is practicable, delivered to the Engineer's representative full and detailed particulars of any claim to extension of time to which he may consider himself entitled in order that such claim may be investigated at the time.

44.1 **TIME EXTENSION OF CONTRACT:**

The CONTRACTOR shall promptly notify the ENGINEER-IN-CHARGE any event or conditions which might delay the completion of work in accordance with the approved schedule and the steps being taken to remedy such situation.

44.2 If the Work is delayed at any time in the commencement or during the progress of the WORK by any act, delay or neglect solely attributable to IREL or his employees, or by anyother contractor utilised by the IREL or by FORCE MAJEURE conditions, the time of completion shall be extended by IREL (without levy of Mutually Agreed Damages) in writing for a reasonable period as may be mutually agreed upon, at the time of closure ofcontract. The CONTRACTOR shall, immediately on occurrence of such special circumstances but not later than 14 working days, bring to the knowledge of IREL throughwritten application for any such delay as mentioned above.

44.3 IREL shall have the right to suspend the WORK in whole or in part for such time as may be necessary in order that WORKS shall be well and properly executed. In such events, suitable extension of time shall be granted to CONTRACTOR.

45.0 **NO NIGHT OR SUNDAY WORK:**

Subject to any provision to the contrary contained in the contract, none of the permanent work shall save as hereinafter provided be carried on during the night or on Sundays (if locally recognised as days of rest) or their locally recognised equivalent without the permission in writing of the Engineer's representative save when the work is unavoidableor absolutely necessary for the saving of life or property or for the safety of the Works in which case the Contractor shall immediately advise the Engineer's representative. Provided always that the provisions of this Clause shall not be applicable in the-case of any work which it is customary to carry out by rotary or double shifts.

46.0 **RATE OF PROGRESS:**

The whole of the materials, plant and labour to be provided by the Contractor and the mode, manner and speed of execution and maintenance of the work are to be of a kind and conducted in a manner to the satisfaction of the Engineer. Should the rate of progressof the works or any part thereof be at any time in the opinion of the Engineer too slow to ensure the completion of the works by the prescribed time or extended time for completionthe Engineer shall so notify the Contractor in writing and the Contractor shall thereupon take such steps as the contractor may think necessary and the Engineer may approve toexpedite progress so as to complete the works by the prescribed time or extended time for completion. If the work is not being carried on by day and by night and the Contractor shall request permission to work by night as well as by then if the Engineer shall grant such permission, the Contractor shall not be entitled to any additional payment for so doingbut if such permission shall be refused and there shall be no equivalent practicable methodof expediting the progress of the work, the time for completion shall be extended by suchperiod as is solely attributable to such refusal. All work at night shall be carried out withoutunreasonable noise and disturbance. The Contractor shall indemnify the Employer from and against any liability for damages on account of noise or other disturbance created while or in carrying out the work and from and against all claims, demands, proceedings, costs, charges and expenses whatsoever in regard or in relation to such liability.

47.0 LIQUIDATED DAMGES FOR DELAYED EXECUTION OF CONTRACT:

Subject to Article -48, if the CONTRACTOR fails to deliver any or all of the GOODS or performance of the services within the time period(s) specified in the CONTRACT, the EMPLOYER shall, without prejudice to his other remedies under the CONTRACT, levy Liquidated damages from the CONTRACT PRICE, a sum calculated on the basis of the CONTRACT PRICE, including subsequent modifications.

Deductions shall apply as per following formula:
For repair works costing up to Rs. Ten lakhs (Rs 10,00,000/-) : One percent (1%) of the contract value per week subject to a maximum of ten percent (10%) of contract value

For all other works :
Half percent (0.5%) of the contract value per week of delay subject to a maximum of ten percent (10%) of contract value.

47.1 EMPLOYER may deduct the amount so payable by CONTRACTOR, from any amount falling due to the CONTRACTOR or by recovery against the Performance Guarantee. BothCONTRACTOR and EMPLOYER agree that the above percentages of price reduction aregenuine pre-estimates of the loss/damage which the EMPLOYER would have suffered onaccount of delay/breach on the part of the CONTRACTOR and the said amount will be payable on demand without there being any proof of the actual loss/or damage caused bysuch breach/delay. A decision of the EMPLOYER in the matter of applicability of price reduction shall be final and binding.

Signature and seal of the contractor

48.0 FORCE MAJEURE:

48.1 Force majeure is an event beyond the control of contractor and not involving the contractor's fault or negligence and which is not foreseeable. Such events may include, but are not restricted to acts of the purchaser/contractor either in its sovereign orcontractual capacity, wars or revolution, hostility, acts of public enemy, civil commotion, floods, explosions, epidemics, quarantine restrictions, strikes, lockouts and freight embargoes or any other event which IREL may deem fit to consider so. The decision aboutforce majeure shall rest with IREL which shall be final and binding.

48.2 If there is delay in performance or other failures by the contractor to perform obligations under its contract due to event of a Force Majeure, the supplier/contractor shall not be held responsible for such delays/failures.

48.3 If a Force Majeure situation arises, the contractor shall promptly notify the purchaser in writing of such conditions and the cause thereof within fifteen days of occurrence of suchevent. Unless otherwise directed by the EMPLOYER in writing, the CONTRACTOR shallcontinue to perform its obligations under the contract as far as reasonable/practical and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

48.4 If the performance in whole or in part or any obligation under this contract is prevented ordelayed by any reason of Force Majeure for a period of exceeding 120 days, IREL may atits option terminate the contract without any financial repercussion on either side.

49.0 CERTIFICATE OF COMPLETION OF WORK:

As soon as in the opinion of the Engineer the works shall have been substantially completed and shall have satisfactorily passed any final test that may be prescribed by the Contract, the Engineer shall on receiving a written undertaking by the Contractor to finish any outstanding work during the period of Maintenance issue a Certificate of completion in respect of the works and the Period of Maintenance of the works shall commence from the date of such certificate. Provided that the Engineer may give such a certificate with respect to any part of the works before the completion of the whole of the work and shall upon the written application of the contractor give such certificate with respect to any substantial part of the works, which has been both completed to the satisfaction of the Engineer and occupied or used by the employer and when any such certificate is given in respect of a part of the works such part shall be considered as completed and the Period of Maintenance of such part shall commence from the date of such certificate. Provided also that a Certificate of Completion given in accordance with the foregoing provision of any part of the works occupied and use as aforesaid shall not be deemed to certify completion of any round or surfaces requiring reinstatement unless such certificate shall expressly so state.

50.0 MAINTENANCE AND DEFECTS:

50.1 **DEFINITION OF PERIOD OF MAINTENANCE:**

In these conditions, the expression "Period of Maintenance" shall be either 12 (Twelve) months or any other period if specifically specified in the special conditions of this contract,and calculated from the date of completion of the works certified by the Engineer in accordance with Clause 49 hereof or in the event of more than one certificate having beenissued by the Engineer Under the said Clause from the respective dates so certified and in relation to the Period of maintenance, the expression "the works" shall be construed accordingly.

50.2 EXECUTION OF WORKS OF REPAIR ETC.:

To the intent that the works shall at or as soon as practicable after the expiration of the period of Maintenance be delivered up to the Employer in as good and perfect a condition(fair wear and tear expected) to the satisfaction of the Engineer as that in which they wereat commencement of the Period of Maintenance, contractor shall execute all such work ofrepair, amendment, reconstruction, rectification and making good of defects, imperfections, shrinkages or other faults as may be required of the Contractor in writing by the Engineer during the Period of Maintenance or within fourteen days after its expiration as a result of an inspection made by or on behalf of the Engineer prior to its expiration.

50.3 COST OF EXECUTION OF WORKS OF REPAIR ETC.:

All such work shall be carried out by the Contractor at his own expense if the necessity thereof shall in the opinion of the Engineer be due to the use of materials or workmanshipnot in accordance with the Contract or to neglect or failure on the part of the Contractor tocomply with any obligation expressed or implied on the Contractor's part under the Contract. If in the opinion of the Engineer such necessity shall be due to any other cause,the value of such work shall be ascertained and paid for as if it was an additional work.

50.4 REMEDY ON CONTRACTOR'S FAILURE TO CARRY OUT:

If the Contractor shall fail to do any such work as aforesaid required by the Engineer, theEmployer shall be entitled to carry out such work by his own workmen or by other Contractors, and if such work is the work which the Contractor should have carried out athis own cost, Employer shall be entitled to recover from the Contractor the cost thereof ormay deduct the same from any moneys due or that may become due to the Contractor.

51.0 CONTRACTOR TO SEARCH:

The Contractor shall if required by the Engineer in writing search or the cause of any defectin perfection or fault under the directions of the Engineer. Unless such defect, imperfectionor fault shall be one for which the Contractor is liable under the contract, the cost of the work carried out by the Contractor in searching as aforesaid shall be borne by the Employer. But if such defect, imperfection or fault shall be one for which the Contractor isliable as aforesaid the cost of the work carried out in searching as aforesaid shall be borneby the Contractor and he shall in such case repair, rectify and make good such defect, imperfection or fault at his own expense in accordance with the provisions of Clause 50 hereof.

52.0 ALTERATIONS, ADDITIONS AND OMISSIONS:

52.1 **VARIATIONS**

The Engineer shall make any variation from quality or quantity of the works or any part there of that may in his opinion be necessary and for that purpose or if for any other reasonit shall in his opinion be desirable he have power to order the Contractor to do and the Contractor shall do any of the following:

(a) increase or decrease the quantity of any works included in the contract.

(b) omit any such work

(c) change the character or quality or kind of any such work

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(d) change the levels, lines position and dimensions of any part of works and

(e) execute additional work of any kind necessary for the completion of the works andno such variation in any way vitiate or invalidate the contract but the value (if any)of all such variations shall be taken into account in ascertaining the amount of thecontract price.

52.2 No such variation shall be made by the Contractor without an order in writing of the Engineer. Provided that no order in writing shall be required for increase or decrease in the quantity of any work where such increase or decrease is not the result of an order given under this Clause but is the result of the quantities exceeding or being less than those stated in the Tender Schedule. Provided also that if for any reason the Engineer shall consider it desirable to give any such order verbally, the contractor shall comply withsuch order and any confirmation in writing of such verbal order given by the Engineer whether before or after the carrying out of the order shall be deemed to be an order in writing within the meaning of this clause.

53.1 VALUATION OF VARIATIONS:

The 'Engineer shall determine the amount (if any) to be added to or deducted from the sum named in the Tender in respect of any extra or additional work done or work omittedby his order. All such work shall be valued at the rates set out in the Contract, if in the opinion of the Engineer the same shall be applicable. If the Contract shall not contain anyrates applicable to the extra or additional work then reasonable prices shall be fixed by theEngineer.

53.2 POWER OF ENGINEER TO FIX RATES:

Provided that if the nature of amount of any omission or addition relative to the nature or amount of the whole of the contract work or to any part thereof shall be such that in the opinion of the Engineer the rate or price contained in the contract for any item of the workis by reason of such omission or additions rendered unreasonable or inapplicable, the Engineer shall fix such other rate or price as in the circumstances he shall think reasonableand proper.

Provided also that no increase of the Contract Price under sub-clause (1) of this clause onvariation of rate or price under sub-clause (2) of this clause shall be made unless as soonafter that date of the order as is practicable and in the case of extra or additional work before the commencement of the work or as soon thereafter as is practicable notice shallhave been given in writing.

(a) by the Contractor to the Engineer of his intention to claim extra payment or a variedrate or.

(b) by the Engineer to the Contractor of his intention to vary a rate or price as the casemay be.

53.3 CLAIMS:

The Contractor shall send to the Engineer's representative once in every month an account giving particulars (as full and detailed as possible) of all claims for any additionalexpenses to which the Contractor may consider himself entitled and of all extra or additional work ordered by the Engineer which he has executed during the preceding month and no claim for payment for any such work will be considered which has not beenincluded in such particulars. Provided always that the Engineer, shall be entitled to authorise payment to be made for any such work notwithstanding the Contractor's failureto comply with this condition, if the contractor has at the earliest practicable opportunity notified the Engineer that he intends to make a claim for such work.

53.4 EXTRA ITEM:

Any extra item arising during the execution of work due to any reason shall be paid for based on the sanctioned schedule of rates or rates derived therefrom. The percentage quoted by the tenderer shall be applied to the rate arrived at from the schedule of rates orrates derived therefrom. In case the rates cannot be derived from the Schedule of rates orthe quoted rates, CPWD norms shall be followed for determination of rates. Analysis of rates on the basis of field observations shall be considered if schedule of rates/CPWD norms are not available. The rates given in the schedule are complete for labour and materials including all leads, lifts, royalty etc. except otherwise stated in the items. No extraclaim on account of these item shall be entertained.

54.0 PROPERTY IN MATERIALS:

54.1 If the specification or estimate of the work provides for use of any special description of materials to be supplied from the Engineer's store, or if it is required that the Contractor shall use certain stores to be provided by the Engineer (such materials and stores, and Plants and the prices to be charged therefore, as here-in-after mentioned being so far aspracticable for the convenience of the Contractor but not so as in any way to control the meaning or effect of this contract specified in the schedule or memorandum hereto annexed), the Contractor shall be supplied with such materials and stores as required fromtime to time to be used by him for the purposes of the contract only, this being calculatedout from specifications, drawing etc. and the value of the full quantity of materials and stores so supplied at the rates specified in the said schedule or memorandum may be setoff or deducted from any sums then due, or thereafter to become due to the Contractor under the contract, or otherwise, or against or from the security deposit or the proceeds of sale there of if the same is held in Government securities, the same or a sufficient portion there of being in this case to fulfil the purpose. All materials supplied to the Contractor shall remain in the absolute property of Employer and shall not on any account be removed from the site of the work and shall at all times be open to inspection by the Engineer.

Any such materials unused and in perfectly good condition at the time of the completion of determination of the contract shall be returned to the Engineer store. If by a notice in writing under his hand he shall so require but the Contractor shall not be entitled to returnany such materials unless with such consent and shall have no claim for compensation on account of any such materials so supplied to him as aforesaid during being unused byhim or for any wastage in or damages to any such materials.

54.2 **MATERIALS OBTAINED FROM DISMANTLEMENT & EXCAVATION ETC:** Contractors in the course of their works, should understand that all material (e.g. store andother materials obtained in the work of dismantling, excavation, etc. will be consideredEmployer's property) and issued to the Contractor (if they require the same for their ownuse) at rates approved by him. If these materials are not required by them they will bedisposed off to the best advantage of Employer.

54.3 RELICS, GOLD, SILVER FOUND IN OR UPON THE SITE:

All gold, silver, oil and other minerals of any description and precious stones, coins, treasures, relics, antiquities and other similar things which shall be found in or upon the site shall be the property of the Employer, and the Contractor shall duly preserve the sameto the satisfaction of Employer and shall, from time to time deliver the same to such personor persons as the Employer may appoint to receive the same.

55.0 NO APPROVAL BY VESTING:

The operation of the Clause numbered 62 shall not be deemed to imply any approval by the Engineer of the materials or other matters referred to therein nor shall it prevent the rejection of any such materials at any time by the Engineer.

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MEASUREMENT

56.0 **QUANTITIES:**

The quantities set out in the Tender Schedule are the approximate estimated quantities ofthe work but they are not to be taken as the actual and correct quantities of the works to be executed by the Contractor in fulfilment of his obligations under the Contract. Any itemmay be omitted or altered and no claim for compensation will be entertained on this account or for any variation however substantial it may be in the Tender Schedule.

57.0 WORKS TO BE MEASURED:

The Engineer shall except as otherwise stated ascertain and determine by measurementthe value in accordance with the Contract of work done in accordance with the contract. He shall when he requires any part or parts of the Works to be measured give notice to the Contractor's authorised agent or representative who shall forthwith attend or send a qualified agent to assist the Engineer or the Engineer's representative in making such measurement and shall furnish all particulars required by either of them. Should the Contractor not attend or neglect or omit to send such agent then the measurement madeby the Engineer or approved by him shall be taken to be the correct measurement of the work. For the purpose of measuring such permanent work as is to be measured by record drawings, the Engineer's representative shall prepare record drawing month by month of such work and the Contractor as and when called upon to do so in writing shall within 14 days attend to examine and agree such record drawings, with the Engineer's representative and shall sign the same when so agreed and if the Contractor does not soattend to examine and agree any such record drawings they shall be taken to be correct.If after examination of such record drawings the Contractor does not agree the same or does not sign the same as agreed, they shall nevertheless be taken to be correct unless the Contractor shall within 14 days of such examination lodge with the Engineer'srepresentative for decision by the Engineer's notice in writing of the respects in which such record drawings are claimed by him to be incorrect. The Contractor shall be paid for the quantities resulting from measurement of the executed work.

58.0 MODE OF MEASUREMENT FOR CIVIL WORKS:

The mode of measurement shall be as per Indian Standard 1200 latest, subject to the following:

(a) In case the mode of measurement is not covered by the said Indian Standard for a particular item, the method of measurement shall be as per CPWD specificationsfor that item only.

(b) Wherever a particular mode of measurement is specified in the description of the item in the tender schedule/special conditions, the same shall only apply.

(c) In case of dispute regarding mode of measurement, the decision of the Engineer shall be final and binding on the Contractor.

59.0 PAYMENT FOR WORK DONE

59.1.1 100% payment against bills for the work done (Subject to the required deductions) shall be made to the Contractor based on detailed measurements and certification of bills by the Engineer.

59.1.2 **ON ACCOUNT PAYMENT:** Bills shall be prepared and submitted by the Contractor. Jointmeasurements shall be taken continuously and need not be connected with billing stage.Based on these joint measurements recorded in the register, the Contractor shall submit the bills in both soft and hard copies (three copies) in the prescribed format along with thedetailed measurements item wise. All the pages of the measurement sheets shall be serially machine numbered and signed by the Contractor. The bills along with measurement sheet shall be computer generated and also suitably programmed for effecting the necessary corrections easily. The bills shall be accompanied with necessarydocuments such as abstract of quantities, variation statements, reconciliation of materials,part rate statements indicating the extent of work done, statement of secured advance claimed and fulfilling other statutory obligations such as ESI / PF / Insurance / labour licence etc. Payment against bills for the work done (Subject to necessary deductions) willbe made after the verification and certification by the Engineer of the bill submitted by theContractor.

59.1.3 **COMPLETION CERTIFICATE:** The Works shall be deemed to have been completed in all respects on the day the Engineer certifies that the works have been so completed in accordance with this Contract, takes over the completed Works and issues a certificate tothat effect. The Defect Liability Period will start from the said date of completion / handingover of the work.

59.1.4 **FINAL PAYMENTS:** Based on the measurement of Work performed, the Contractor shallsubmit his final bill for the Works within 3 months of completion of work. The bill shall be based only on Works as measured and at accepted tender rates including rates for any additional or extra work which might have been approved by the Company. All deductionsdue under the Contract shall be incorporated. The final bill shall be accompanied by:

A) A copy of the Completion Certificate issued by the Engineer.

B) No Claim Certificate" in the prescribed form or a list of claims if any, not included in the final bill with full details.

The Engineer shall examine and certify the final bill for payment after satisfying that the Works have been satisfactorily completed and that all properties, works and things removed or disturbed or damaged in consequence of the Work have been properly replaced and made good and all expenses and demands incurred or made by or on the Company or in respect of any damage or loss by, from or consequence of the Works havebeen satisfied, all materials have been returned and the site cleared.

59.1.5 SECURED ADVANCE:

75% payment against bills as Secured Advance on the cost of all non-perishable materialsbrought by the Contractor to Site for use in the Works (excluding chargeable materials issued by the Company) as assessed and approved by the Engineer may be paid, provided the materials confirm to the specifications of the contract an accepted by the Engineer. These materials shall be pledged by the Contractor to the Company. All the Secured Advance allowed will be deducted while making payment of any bill for the workdone and a fresh Secured Advance on the materials remaining then at Site will be paid along with the same bill.

59.1.6 BILL TO BE SUBMITTED MONTHLY:

A bill shall be submitted by the Contractor each month on or before the date by the Engineer for all work executed in the previous month and the Engineer shall take or causeto be taken the requisite measurement for the purpose of having the same verified and theclaim, as far as admissible, adjusted if possible, before the expiry of ten days from the presentation of the bill. If the Contractor does not submit the bill within the time fixed as aforesaid, the Engineer may depute his representative to measure up the said work in thepresence of the Contractor, whose counter signature to the measurement list will be sufficient warrant, and the Engineer may prepare a bill from such list which shall be bindingon the Contractor in all respects.

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59.2 BILLS TO BE ON PRINTED FORMS:

The Contractor shall submit all bills on the printed forms to be had on application at the office of the Engineer and the charges in the bills shall always be entered at the rates specified in the tender in the case of any extra work ordered in pursuance of these conditions and not mentioned or provided for in the tender at the rates herein after providedfor such work.

Invoice must contain Contractor's GST Registration number, PAN, Bank detail of Contractor, GST Registration number of IREL Factory/ Office, HSN/SAC Code for servicerendered.

59.3 RETENTION MONEY (IF PROVIDED FOR SUBMISSION IN THE TENDER):

As and by way of additional security from every progressive on account bill of the Contractor, prescribed percent of the value of the work executed shall be deducted as Retention money and kept as security deposit until the total of the amount so deducted plus the initial security (including the Earnest money) already deposited will equal the prescribed security.

59.4 SET-OFF:

(a) Any sum of money due and payable to the Contractor (including security deposit returnable to him) may be appropriated/ retained/ withheld and/or set off by the Employer or Government against any claim of the Employer or Government or such other person or persons for the payment of a sum of money arising out of orunder this contract or other contracts made by Contractor with the employer or Govt. or such other person or persons.

(b) The Employer will be at liberty to recoup any damage/loss suffered as a result of any action on the part of the Contractor.

59.5 DEDUCTIONS FROM CONTRACT PRICE:

All costs, damages or expenses which the EMPLOYER may have paid for which, under the CONTRACT, the CONTRACTOR is liable, will be claimed by the EMPLOYER. All suchclaims shall be billed by the EMPLOYER to the CONTRACTOR regularly as and when they fall due. Such claims shall be paid by the CONTRACTOR within fifteen days of the receipt of the corresponding bills and if not paid by the CONTRACTOR within the said period, the EMPLOYER may then deduct the amount from any bill due or becoming due by him to the CONTRACTOR under the CONTRACT or may be recovered by action of law or otherwise, if the CONTRACTOR fails to satisfy the EMPLOYER of such claims.

59.6 TAXES APPLICABLE TO CONTRACTOR'S MANPOWER, TURNOVER, EQUIPMENTETC.

The CONTRACTOR shall be solely responsible for all taxes that may be levied on the CONTRACTOR's turnover & profit or on the earnings of any of his employees or personnelengaged by him and shall hold the EMPLOYER indemnified and harmless against any claims that may be made against the EMPLOYER in this behalf. The EMPLOYER does not undertake any responsibility whatsoever regarding any taxes levied on CONTRACTOR and/or his personnel by Centre/ State/ Local Authorities.

59.7 DEDUCTION OF INCOME TAX AT SOURCE:

Income Tax on the gross amount billed will be deducted from Contractor's bills as per Section 194 (C) of the Income Tax Act. In case of contract for consultancy or professionalservices Tax deduction at source as per Section 194 J. will be carried out

59.8 **OVER PAYMENTS / UNDER PAYMENTS DETECTED DURING TECHNICAL AUDIT:**

The Company reserves the right to carry out post-payment audit and technicalexamination of the running/ final bill including all supporting vouchers etc. The Companyalso reserves the right to propose recoveries detected by CVC (Central VigilanceCommission) based on their audit and observations of works / bills etc. The Companyfurther reserves the right to enforce recovery of any over payment when detected, notwithstanding the fact the amount of running / final bill may be included by one of theparties as an item of dispute before an arbitrator appointed and notwithstanding the factthat the amount of running / final bill figures in the arbitration award.

If as a result of such audit and technical examination any over payment is discovered in respect of any work done by the Contractor under the contract, the Company from the Contractor shall recover it, or if any under payment is discovered, the amount shall be dulypaid to the Contractor by the Company.

60.0 APPROVAL BY MAINTENANCE CERTIFICATE:

No certificate other than the maintenance certificate referred to in **clause 61** here of shallbe deemed to constitute approval of any work or other matter in respect of which it is issued or shall be taken as admission of the due performance of the contract or any part here of or of the accuracy of any claim or demand made by the contractor or of additionalor varied work having been ordered by the Engineer nor shall any other certificate conclude or prejudice any of the powers of the Engineer.

61.1 MAINTENANCE CERTIFICATE:

The contract shall not be considered as completed until a maintenance certificate shall have been signed by the Engineer and delivered to the Employer stating that the Works have been completed and maintained to his satisfaction. The maintenance certificate willbe given by the Engineer twenty - eight days after the expiration of the Period of maintenance (or if different Periods of maintenance shall become applicable to different parts of Works the expiration of the latest such period) or as soon thereafter as any worksordered during such Period pursuant to **Clause 50 and 51** hereof shall have been completed to the satisfaction of the Engineer and full effect given to this Clause notwithstanding any previous entry on the Works of taking possession, working or using thereof or any part thereof by the Employer.

61.2 CESSATION OF EMPLOYER'S LIABILITY

The Employer shall not be liable to the Contractor for any matter or thing arising out of orin connection with the Contract or the execution of the Works Unless the Contractor shallhave made a claim in writing in respect thereof before the giving of the maintenance certificate under this Clause.

61.3 UNFULFILLED OBLIGATION:

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Notwithstanding the issue of the Maintenance certificate the Contractor and (subject to sub - clause (2) of this clause) the Employer shall remain liable for the fulfilment of any obligation incurred under the provisions of the Contract prior to the issue of the Maintenance Certificate which remains un-performed at the time such certificate is issuedand for the purpose of determining the nature and extent of any such obligation, the contract shall be deemed to remain in force between the parties hereto.

62.0 URGENT REPAIRS:

If by reason of any accident or failure or other event occurring to in or in connection with the works or any part thereof either during the execution of the works or during the Periodof Maintenances, any remedial or other work or repair shall in the opinion of the Engineeror the Engineer's representative be urgently necessary for security and the Contractor is unable or un-willing at once to do such work or repair, the Employer may by his own or other workmen to such work or repair as the Engineer or the Engineer's representative may consider necessary. If the work or repair so done by the Employer is work which in the opinion of the Engineer the Contractor was liable to do at his own expense under thecontract, all cost and charges properly incurred by the Employer in so doing shall on demand be paid by the Contractor to the employer or may be deducted by the employer from any moneys due or which may become due to the Contractor. Provided always that the Engineer or the Engineer's representative (as the case may be) shall, as soon after the occurrence of any such emergency as may be reasonably practicable notify the Contractor thereof in writing.

63.0 RESOLUTION OF DISPUTES/ ARBITRATION:

63.1 The EMPLOYER and the CONTRACTOR shall make every effort to resolve amicably by direct informal, good faith negotiations any disagreement or dispute arising between themunder or in connection with the Contract.

63.2 If, after thirty days from the commencement of such informal, good faith negotiations, theEMPLOYER and the CONTRACTOR have been unable to resolve the disagreement or dispute, the same shall be referred for resolution as per the formal mechanism as specifiedhereunder shall be applicable.

63.3 LEGAL CONSTRUCTION: The Contract shall be, in all respects be construed and operated as an Indian Contract and in accordance with Indian Laws as in force for the timebeing.

63.4 ARBITRATION:

a) All disputes and differences of any kind whatsoever arising out of or in connection with the contract or carrying out of the works (whether during the course of works or after theircompletion and whether before or after determination, abandonment or breach of contract) shall be referred to and settled by the person authorized and notified in writing by IREL who shall state his decision in writing. Such a decision may be in the form of a final certificate or otherwise and shall be made within a period of 30 days from the date ofreceipt of such reference to them.

b) If the CONTRACTOR is dissatisfied with the decision of such authorized person, then he may within 30 days of receipt of such decision send a written appeal to PURCHASER,represented by the Chairman and Managing Director at the registered office, Mumbai forthe same to be referred to Arbitration by a Sole Arbitrator to be appointed by mutual consent and after due approval of CMD, IREL. The Arbitration proceedings shall be conducted as per the provisions of the Arbitration and Conciliation Act, 1996. It is made clear that this Arbitration Clause shall be applicable to any and all disputes and differences between the Parties arising out of and/or relating to this CONTRACT and theParties shall be bound to refer the same to arbitration in accordance with the procedure contemplated herein.

c) If the period of 30 days under Clause (b) has expired at any stage, stipulated in the preceding paras without any response from the CONTRACTOR before such expiry, the CONTRACTOR is deemed to have communicated his satisfaction to the decision of IRELat the relevant stage and all his rights of further appeal or as the case may be, adjudicationare deemed to have been waived once and for all.

d) The seat of arbitration will be at Mumbai and the language thereof shallbe English**.**

e) Notwithstanding the invocation, commencement and/or pendency any dispute resolution proceedings under this Clause 63 including arbitration under Clause 63.4, the CONTRACTOR shall continue to be bound by the provisions of the CONTRACT, if not terminated by the EMPLOYER, and shall be obligated to discharge its obligations under the CONTRACT including continuation of the WORK under the CONTRACT.

f) The CONTRACTOR shall not in any way delay or default or cause to delay or default thecarrying out of the works by reason of the fact that any matter has been agreed to be referred to and / or referred to dispute resolution under Clause 63 including Arbitration under Clause 63.4.

63.5 JURISDICTION:

The courts only shall, subject to Arbitration Clause, have exclusive jurisdiction to deal withand decide any matter arising out of this contract.

64.0 ACTS OF PARLIAMENT, LOCAL AND OTHER AUTHORITIES AND BYE-LAWS:

64.1 **COMPLYING WITH REGULATIONS:**

64.1.1 Throughout the execution of the WORK, the CONTRACTOR shall comply with the requirements of all applicable laws and regulations, bye-laws or orders made there underand to the requirements of public, municipal and other authorities in any way affecting or applicable to the work. IREL shall, when requested by the CONTRACTOR, give all reasonable assistance to the CONTRACTOR in obtaining information concerning local conditions.

64.1.2 Before making any departure from the specification or drawings which may be necessaryto conform to such requirements, the CONTRACTOR shall give the IREL written notice specifying the departure proposed to be made and the reason for making it and applying for instructions thereon. If the CONTRACTOR does not receive such instructions within thirty (30) days, he shall conform to those requirements and inform the IREL accordingly.

64.1.3 The Contractor shall remain liable for the payments of all wages or other money to his employees or labourers under the Minimum Wages Act, Payment of Wages Act, Employees Liability Act, Workmen's Compensation Act, PF and ESI Act or any other enactments and rules made applicable from time to time. The Contractor shall also complywith the provisions of the Apprenticeship Act, Contract Labour Regulation and Abolition) Act and the Rules and Orders issued there under from time to time. The Contractor shall be liable to pay the wages directly to the workmen employed by him on the Works.

64.1.4 It is obligatory on the part of the Contractor to forward the declaration forms to the ESI authorities for issue of ESIC numbers, make timely contribution towards ESI and PF in accordance with the provisions of relevant acts from time to time in respect of labour engaged by him for all the works executed in the Company. The Contractor should contactthe jurisdictional ESI and PF authorities and ensure to observe all formalities such as maintenance of muster rolls, opening of identification cards, making remittance etc. The Contractors / firms / establishments shall remit the PF and ESI contributions in their respective codes. However, in such cases, copies of muster roll, wage register, ESI / PF remittance, copies of the returns shall be furnished to the Engineer for verification and records while preferring bills.

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64.1.5 The Contractor shall ensure compliance of any other laws, bye-laws, Acts. Statues, Rules& Regulations framed there under as appreciable in relation to its employees/workmen and establishments in mandatorily, even though not explicitly mentioned here. It shall be the responsibility of the Contractor to get itself acquainted about them adequately.

65.0 BREACH OF TERMS, SUSPENSION AND TERMINATION:

65.1.1 **BREACH OF TERMS:**

Breach of any of the terms of the Contract, the EMPLOYER shall be entitled, without prejudice to any and all other remedies available to it, without incurring any liability what-so-ever, to fore-bear from doing such acts or fulfilling such obligations as are to be done or fulfilled by it here under until the CONTRACTOR on terms herein makes good the saidbreach;

65.2 SUSPENSION:

65.2.1 IREL may suspend the Works in whole or in part at any time by giving the CONTRACTORa notice in writing, if the CONTRACTOR shall be in breach of this Contract or shall fail toperform any of its obligations under this Contract, including the carrying out of the Works;provided that such notice of suspension (i) shall specify the nature of the breach or failure,and (ii) shall provide an opportunity to the CONTRACTOR to remedy such breach or failure within a period not exceeding 30 (thirty) days after receipt by the CONTRACTOR of such notice of suspension.

65.2.2 On receiving the notice of suspension from IREL, the CONTRACTOR shall stop all such work, which IREL has directed to be suspended with immediate effect. IREL may at any time cancel the suspension notice for all or any part of suspended work by giving written notice to the CONTRACTOR specifying the part of work to be resumed and the effective date of suspension withdrawal. The CONTRACTOR shall resume the suspended work onimmediately upon receipt of such withdrawal of suspension notice. In the event ofsuspension of work, IREL shall not be liable to the CONTRACTOR for any damage and loss.

65.3 TEMPORARY SUSPENSION:

65.3.1 IREL may at any time temporarily suspend the progress of work being performed under the Contract or any part thereof by notice in writing to the CONTRACTOR. All the work sosuspended shall be resumed by the CONTRACTOR and extended as assessed and deemed fit by IREL.

65.3.2 IREL will not pay the CONTRACTOR for any work, which is performed during such an interval of suspension, and IREL shall not be liable to the CONTRACTOR for any damagesor loss caused by such suspension of work.

65.4 EVENT OF DEFAULT:
Event of Default means the CONTRACTOR Event of Default or IREL Event of Default or both as the context may admit or require.

65.4.1 CONTRACTOR EVENT OF DEFAULT:

Any of the following events shall constitute an event of default by the CONTRACTOR ("CONTRACTOR Event of Default");

a. the CONTRACTOR fails to remedy any breach hereof or any failure in the performance ofits obligations hereunder, as specified in a notice of suspension pursuant to Sub-clause
65.2 hereinabove, within 30 (thirty) days of receipt of such notice of suspension or withinsuch further period as IREL may have subsequently granted in writing;

b. The CONTRACTOR fails to commence the Works;

c. The CONTRACTOR fails to ensure that Works Completion Date of the Plant is achieved as per schedule mentioned in the contract/ agreement;

d. Any representation made or warranties given by the CONTRACTOR under this Contract is found to be false or misleading;

e. The transfer, pursuant to law of either (a) the rights and/or obligations of the CONTRACTOR under the Contract, or (b) all or material part of the CONTRACTOR; except where such transfer in the reasonable opinion of IREL does not affect the ability ofthe CONTRACTOR to perform, and the CONTRACTOR has the financial and technical capability to perform. its material obligations under the Contract;

f. The CONTRACTOR suspends or abandons the Works without prior consent of IREL, provided that the CONTRACTOR shall be deemed not to have suspended/ abandoned operation if such suspension/ abandonment was (i) as a result of Force Majeure Event and is only for the period such Force Majeure is continuing, or (ii) is on account of a breachof its obligations under the Contract by IREL;

g. the CONTRACTOR becomes insolvent or bankrupt or enters into any agreement with itscreditors for relief of debt or take advantage of any law for the benefit of debtors or goes into liquidation or receivership whether compulsory or voluntary;

h. the CONTRACTOR fails to comply with any final decision reached as a result of arbitrationproceedings pursuant to Clause 63 hereof;

i. the CONTRACTOR submits to IREL a statement which has a material effect on the rights,obligations or interests of IREL and which the CONTRACTOR knows to be false;

j. any document, information, data or statement submitted by the CONTRACTOR in its Bid,based on which the CONTRACTOR was considered eligible or successful, is found to befalse, incorrect or misleading; or

k. The CONTRACTOR repudiates the Contract or otherwise evidences an intention not to be bound by the Contract.

65.4.2 IREL EVENT OF DEFAULT:

The following events shall constitute events of default by IREL (**"IREL Event of Default"),**unless any such IREL Event of Default has occurred as a result of CONTRACTOR Eventof Default or due to a Force Majeure Event:

a. IREL is in breach of the Contract and has failed to cure such breach within sixty (60) daysof receipt of notice in that behalf from the CONTRACTOR;

b. IREL repudiates the Contract or otherwise evidences an intention not to be bound by thisContract;

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c. Any representation made or warranties given by IREL under the Contract is found to befalse or misleading.

65.5 RECOURSE TO EVENT OF DEFAULT:

65.5.1 In case of an event of default, the following recourse is available to IREL and the CONTRACTOR or both as the situation may warrant:

a. In case of occurrence of Event of Default mentioned in Sub-clause a and Sub-clause b ofClause 65.4.1, the CONTRACTOR shall have an option to ask for extension from IREL specifying the conditions that have restricted the CONTRACTOR to complete the tasks instipulated time. However, IREL's decision on said matter shall stand final as the case maybe;

b. In case of occurrence of any other Event of Default in Clause 65.4.1, IREL shall be entitledto terminate this CONTRACT as per Clause 65.6 herein.

c. In case of occurrence of Event of Default mentioned in Sub-clause 65.4.2, the CONTRACTOR shall have an option to seek Termination of this Contract. In seeking theTermination of the Contract, CONTRACTOR would have to clearly demonstrate that the Event of Default has occurred despite all possible steps taken by CONTRACTOR to avoidTermination. The Parties shall mutually decide the modalities of Termination.

65.6 TERMINATION DUE TO CONTRACTOR EVENT OF DEFAULT:

65.6.1 Without prejudice to any other right or remedy which IREL may have in respect thereof under the Contract, upon the occurrence of an CONTRACTOR Event of Default, IREL shall be entitled to terminate the Contract by issuing a Termination Notice (the **"Termination Notice"**) to the CONTRACTOR, provided that before issuing the Termination Notice, IREL shall by a notice in writing inform the CONTRACTOR of its intention to issue the Termination Notice (the **"Preliminary Notice"**). In case the underlying breach/default is not resolved within a period of sixty (60) days from the date of the Preliminary Notice, IREL shall be entitled, to terminate the Contract by issuing the Termination Notice.

65.6.2 Upon termination of the Contract by notice of either Party to the other pursuant to Sub- clauses 65.5.1 b or 65.5.1 c hereof, the CONTRACTOR shall, immediately upon dispatchor receipt of such notice, take all necessary steps to bring the Works to a close in a promptand orderly manner and shall make every reasonable effort to keep expenditures for this purpose to a minimum.

65.7 PAYMENT UPON TERMINATION:

65.7.1 Upon termination of this Contract pursuant to Sub-clauses 65.5.1 c hereof, IREL shall make the following payments to the CONTRACTOR (after offsetting against these payments any amount that may be due from the CONTRACTOR to IREL):
Remuneration pursuant to Schedule of rates hereof for Works satisfactorily performed prior to the date of termination;

65.8 DISPUTES ABOUT EVENTS OF TERMINATION:

65.8.1 If either Party disputes whether an event specified in Sub-clause 65.4.1 or in Sub-clause
65.4.2 hereof has occurred, such Party may, within 30 (thirty) days after receipt of notice of termination from the other Party, refer the matter to arbitration pursuant to Sub-clause hereof.

66.0 LIMITATION OF LIABILITY:

Notwithstanding anything contrary contained herein, the aggregate total liability of Contractor under the Contract or otherwise shall be limited to 100% of contract price. However, neither party shall be liable to the other party for any indirect and consequentialdamages, loss of profits or loss of production.

67.0 METHOD OF BLACKLISTING VENDORS:

67.1 Any failure by the vendor (CONTRACTOR) to supply/execute the contract as per order may result in blacklisting of vendor by the authority competent to conclude the contract. The blacklisted vendor shall not be considered for a minimum period of one year from thedate of black listing.

67.2 Further, the competent authority may blacklist the bidder, if the bidder changes bid eithertechno-commercial and / or price or withdraw his bid after receipt of the same and duringthe validity period of bid.

67.3 Further, the vendor (CONTRACTOR) shall be banned from doing any business with IRELin case of :

a. If security considerations including question of loyalty to the state so warrant.

b. If the proprietor of the firm, its partner or representative is convicted by a court of law following prosecution for offences relating to business dealings.

- If there is strong justification for believing that the proprietor or employee or representativeof the CONTRACTOR has been guilty of malpractice such as bribery, corruption, fraud, substitution of tenders, interpolation, misrepresentation, evasion or habitual default in payment of any tax levied by law, etc.

67.4 An order for ban/ suspension passed for a certain specified period shall be deemed to have been automatically revoked on expiry of that specified period and it will not be necessary to issue a specific formal order of revocation, except that an order of uspension/ban passed on account of doubtful loyalty or security consideration shall continue to remain in force until it is specifically revoked.

67.5 An order of ban on grounds of conviction by Court of Law may be revoked if, in respect ofthe same facts, the accused has been wholly acquitted by a court of law.

68.0 SECRECY

The CONTRACTOR shall not at any time during the pendency of the contract or there after disclose any information furnished to them by IREL or any drawings, designs, reportsand other documents and information prepared by the Contractor for this contract, withoutthe prior written approval of IREL except in so far as such disclosure is necessary for theperformance of the Contractor's work and service hereunder.

69.0 LABOUR:

a) In respect of all labour directly or indirectly employed by the Contractor, Labour Rules, on the work, it shall be the bounden duty of the Contractor to abide by andto strictly comply with all labour legislations, as may be applicable, enacted by theparliament or by the State Legislature and the rules/regulations framed thereunderby the Central or State Government or Local Authorities providing for the conditions of employment protection of health, Sanitary arrangements, wages, provident fund, gratuity, welfare, and safety of workmen. These rules and statutoryobligations shall be deemed to be part of the Contract.

Signature and seal of the contractor

Instructions issued by the Employer in this behalf from time to time shall be equally binding on the contractor& the Contractor shall observe them stringently.

(b) In the event of the Contractor failing to discharge his obligations imposed upon himby or under any statute as aforesaid, the employer shall be entitled to rescind theContract.at the sole risk and cost of the Contractor and/or recover from him the amount of loss sustained by the Employer.

(c) It is advisable for the Contractor to properly and fully acquaint himself with all the legislations as applicable to his workmen and the work under this contract or in connection herewith, so as to preclude the possibility of infringement and noncompliance thereof and to make it easy for him to observe clause 69 without any deviation.

(d) The Contractor shall maintain records, registers in respect of workers employed by him as required under various statutes and or prescribed by the Employer, shallissue attendance cards to each worker and shall produce the same for inspectionon demand to the authorities under statutes or to the authorised representatives of the Employer.

(e) All payments of whatever nature to be made by the Contractor to his workmen shall be made in the presence of an authorised representative of Employer and Employer's representative shall sign the acquaintance in token of having witnessed the payment, as prescribed under law.

(f) The first R.A. bill of the Contractor shall be released only after HRM (Welfare Section) gives clearance regarding compliance of all statutory provisions by the contractor. Final bill of the Contractor shall be cleared only when a clearance certificate is issued by the Contractor from an authority declared for the purpose by the Employer, that the claims of workmen in respect of wages, workmen's compensation, statutory payments etc. have been paid by Contractor to his workmen in full and subject to fulfilment of other conditions of Contract. Labour Rules etc.

(g) The Contractor shall be entirely responsible for safe and good conduct of his employees during the period of his contract. The Contractor shall also ensure, that no safety rules/instructions are violated by him or his workmen. The Contractor shall maintain his machineries and tools for work in safe condition and shall presentthe same for checking whenever called by Employer/ his representatives.

(h) It shall be binding on the part of the Contractor to familiarise himself and be governed by all statutes such as Mines Act 1952, Rules and Regulations including amendments made thereunder, if any, applicable for the work, Indian Electricity Act. 1910 and Indian Electricity Rules 1956 including amendments, if any. applicable for the work.

(i) The Contractor shall provide and ensure proper use of safety appliances by his workmen throughout the course of their employment.

(j) The Contractor in fulfilment of his statutory obligations imposed by or under variousLabour Laws, will among other things:

i) Arrange to provide cool and wholesome drinking water at appointed place/places near work site. The container of water shall be in hygienic condition.

ii) Implement the Employees Provident Fund Scheme or Produce exemptioncertificate from Regional Provident Fund Commissioner if they are so exempted Otherwise, bills for the work will be released withholding 10% from such sums or as decided by the Management from time to time till such time they implement the scheme or produce exemption certificate from the Regional Provident Fund Commissioner. The Contractors are further required to indemnify Employer against any loss or damage, whatsoever, that may be suffered by Employer as a result of any claim. damage or penalties for any failure or non-compliance on their(Contractor's) part with the provisions of the aforesaid Act and Scheme framed thereunder.

(k) The Contractor shall arrange to get his workmen trained under Mines Vocational Rules-1966 at the Training Department of the Company and shall pay all statutoryallowances for such training to his workmen under training. The Contractor shall ensure the proper use of safety appliances by his workmen throughout the courseof their employment.

70.0 RETURNS OF LABOUR:

(a) The Contractor shall if required by the Engineer deliver to the Engineer's representative or at his office a return in detail in such from and at such intervals as the Engineer may prescribe showing the numbers of the labour from time to time employed by the contractor on the Site.

71.0 LABOUR LICENCE:

(a) The Contractor shall have to obtain a licence from Asstt. Labour Commissioner (Licensing Authority) within 15 days from the award of the Contract under ContractLabour (Regulation and Abolition) Act. 1970 and shall have to comply with all the provisions of the Act and Rules framed thereunder and shall ensure that no violations are pointed out by the Authorities under the Act.

(b) The RA Bills of the contract shall not be released until the licence for the number of labour employed under Contract Labour(Regulation and Abolition)Act, 1970 hasbeen produced by the Contractor to the office of the employer. Whenever the number is increased, the Contractor shall arrange to get such changes incorporated in the licence.

(c) The Contractor shall make payment to their workmen in the presence of authorisedrepresentative of the Employer only, and obtain the required certificate regarding witnessing of payments.

72.0 WOMEN LABOUR:

The working hours of women labour employed by the Contractor/ tenderer shall conform to the relevant labour acts in force. They shall not be detained after 7,00 PM and employedbefore 6.00 AM and in no case employed during the night time.

73.0 EMPLOYMENT OF CHILDREN:

No child below the age of 18 years shall be employed. If children/young persons in the work premises are employed contravening the provision of the Factories Act, 1948 and rules framed thereunder, their agreement/ contract is liable to cancellation and/or termination without any compensation or notice.

74.0 ENTRY PASS:

All representatives and workers of Contractor shall possess the Entry Pass issued from the Security Deptt. and concerned Officer/Engineer shall have the right to refuse the Entrypasses to any worker or representative of the Contractor without assigning any reason. Permission to enter the Plant to any representative or worker of the Contractor may be suspended or withdrawn at any time by the Security Deptt. or concerned Officer/Engineerwithout assigning any reason. The Contractor(s) shall ensure that any gate pass issued to their workmen or representatives by authorities are not misused by the unauthorised persons for entry in the plant area/in specified area inside the plant.

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75.0 SAFE CUSTODY OF ENTRY PASS:

The Contractor shall be governed by the following provisions for enforcing safe custody and proper use of gate passes that may be issued to him for entry into the Plant area:

(a) it shall amount breach of rules and regulations regarding entry into a prohibited place by Contractors in case any entry passes issued on their demand are found to be misused by any unauthorised person (s).

(b) It shall also amount to breach of terms of the contract for which the employer reserves the right to terminate the contract at any stage at the risk and cost of theContractor.

(c) Final payment would be made to the Contractor only after all the passes issued bythe Security Department are surrendered to the Security Department for cancellation for which 'No Demand Certificate' should be obtained.

(d) In case of passes lost/ not surrendered for any reason an amount as fixed shall belevied as penalty before final payments are cleared or as amended from time to time. No Dues Certificate will not be issued unless all the statutory payments to contract labour including retrenchment benefits, gratuity etc. are paid and a copy of full and final payment Muster Roll duly witnessed by the nominee of employer issubmitted to Welfare Dept. by the contractor The Contractor may be debarred in case he is found that he is not complying with the statutory provisions.

76.0 LIABILITY FOR ACCIDENTS AND DAMAGES:

76.1 The CONTRACTOR shall be responsible for loss or damage to the PLANT and provide new equipment and machineries in lieu of equipment/machineries lost/ damaged beyondrepairs, free of cost until the PLANT is handed over after successful completion of performance guarantee test run.

Notwithstanding the provisions in the CONTRACT, the CONTRACTOR shall not be responsible for any loss or damage to the PLANT or any part thereof if and to the extent that such loss or damage is not covered by insurance coverage such as War risk, providedthe same is general exclusion of the policy of the EAR insurance. War Risks shall mean any of the following events occurring within India: War, hostilities, warlike operations (whether a state of war be declared or not), invasion, act of foreign enemy, civil war, rebellion, terrorism, revolution, insurrection, mutiny, usurpation of civil or military government, conspiracy, riot, civil commotion, mine, bomb, shell, grenade or otherprojectile, missile, munitions or explosive of war.

76.2 The CONTRACTOR shall indemnify the IREL in respect of all damage or injury to any person or to any property (other than property forming part of the Work) and against all actions, suits, claims, demands, costs, charges and expenses arising in connection therewith which shall have been occasioned by the negligence of the CONTRACTOR or any SUB-CONTRACTOR, or by defective design (other than a design made, furnished orspecified by the IREL and which the CONTRACTOR has disclaimed responsibility in writing within a reasonable time after receipt of the IREL's instructions), material or workmanship, any breach of the CONTRACTOR's obligations.

77.0 SAFETY CLAUSES:

Before commencement of the work, the Contractor will give an undertaking in writing thatthey would abide by the safety Rules and Regulations laid down by the organisation rigorously and any deviation from this would make them liable for action.

(a) SAFETY CLEARANCE:

ong with contract document and job instructions from the contracting department, the Contractor will come to Safety & Training Deptt. where he will be further briefed and Contractor's Safety Management Policy will be explained. The Contractor will notbe permitted to start the job without getting a written safety clearance from Safety & Training Deptt.

(b) SHUTDOWNS

The contracting department would take necessary shutdowns wherever there are hazards of gases, electricity, moving machinery, etc. The Contractor shall ensure thatthe shutdowns/ clearance are taken before sending workers in such locations.

(c) WORK AT HEIGHT

Whenever work at height is involved Contractor should obtain passes to work at heightfor these persons who will be required to work at height from Safety & Training Deptt.

(d) INJURY TO WORKMEN

The Contractor after preliminary examination at PHC may take his injured workmen tohis own Doctor with a permission from the Doctor at PHC at his own risk giving an undertaking to that effect in writing to the Doctor. He will, however, have to keep S&TDeptt. informed about the nature of the injury and the period for which the injured person is off duty on account of injury.

(e) RESPONSIBILITY FOR ACCIDENTS

The Contractor shall be fully, responsible for accidents caused due to his or his agent'sor workmen's negligence or carelessness in regard to the observance of the safety requirements and shall be liable to pay compensation for injuries and delay work dueto these accidents.

(f) PRECAUTIONS & SUPERVISION:

The Contractor shall take all safety precautions and provide adequate supervision in order to do the job safely and without damage to equipment.

(g) SAFETY CODE

The Contractors shall strictly follow the IREL Safety Code and also the instructions issued by the Safety & Training Deptt. from time to time. Before starting the work, theContractor shall meet the safety Officer and get himself familiar with the safety measures to be taken during the execution of the job. The contractor shall bepersonally responsible for the safety of his workmen and shall be liable for prosecutionin case of any accident.

(h) OTHER ACTS RULES ETC.

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Notwithstanding the above clauses, there is nothing in these conditions to exempt theContractor from the operations of any other Act or Rule in force in the Republic of India.

(i) FAILURE TO OBSERVE SAFETY RULES:

Failure to observe the safety rules will make the Contractor liable to penalty by way ofsuspension of work, fine and termination of contract.

(j) SAFE USE OF VEHICLES:

It will be entirely the responsibility of the Contractor to ensure that the vehicles are notdriven with so high speed or in so reckless or rash manner as to cause accident or prove to be potential threat to the safety of the traffic. Where the speed limits have been fixed, they will be strictly adhered to by the Contractor's drivers who will also adhere to slow and safe driving inside the Plant and Township Area. Failure to complywith the above may result in termination of the contract.

(k) THEFT ETC.

Similarly, if a driver or any staff of the Contractor is caught in theft case or in any unauthorised movement of materials or in the activity which is punishable under the law or not authorised by the Plant, the Contractor will bear the full responsibility for theloss and other consequences which may result to the Plant due to such illegal/ unauthorised acts besides the action to terminate the contract by the Plant.

(l) COMPENSATION :

In case of accident or injury or damages caused by the Contractor's vehicle or staff toany person or property, the financial responsibility to compensate be borne solely by the Contractor and this amount may, at the discretion of the competent authority of IREL, be recovered from the bills or Security or other deposits of the Contractor.

(m) PRECAUTIONS FOR VEHICULAR TRAFFIC:

Suitable safety precautions must be taken by the Contractor for his vehicular traffic atthe level crossing/roads inside the Plant/ Township area. Contractors would be usingthose roads on their own risk and responsibility without any liability on the part of IRELManagement.

78.0 INSURANCE:

78.1 GENERAL:

CONTRACTOR shall at his own expense arrange, secure and maintain insurance with reputed insurance companies to the satisfaction of the EMPLOYER 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 fromtime to time and the interest of EMPLOYER against all risks as detailed herein. The formand the limit of such insurance, as defined here in together with the under works thereof in each case should be as acceptable to the EMPLOYER. However, irrespective of work acceptance the responsibility to maintain adequate insurance coverage at all times duringthe period of CONTRACT shall be that of CONTRACTOR alone. CONTRACTOR's failurein this regard shall not relieve him of any of his responsibilities and obligations under CONTRACT.

Any loss or damage to the equipment, during ocean transportation, port/custom clearance,inland and port handling, inland transportation, storage, erection and commissioning till such time the WORK is taken over by EMPLOYER, shall be to the account of CONTRACTOR.
CONTRACTOR shall be responsible for preferring of all claims and make good for the damage or loss by way of repairs and/or replacement of the parts of the Work damaged or lost. CONTRACTOR shall provide the EMPLOYER with a copy of all insurance policiesand documents taken out by him in pursuance of the CONTRACT. Such copies of document shall be submitted to the EMPLOYER immediately upon the CONTRACTOR having taken such insurance coverage. CONTRACTOR shall also inform the EMPLOYERat least 60(Sixty) days in advance regarding the expiry, cancellation and/or changes in any of such documents and ensure revalidation/renewal etc., as may be necessary well in time.
Statutory clearances, if any, in respect of foreign supply required for the purpose of replacement of equipment lost in transit and/or during erection, shall be made available by the EMPLOYER. CONTRACTOR shall, however, be responsible for obtaining requisitelicences, port clearances and other formalities relating to such import. The risks that are to be covered under the insurance shall include, but not be limited to the loss or damage in handling, transit, theft, pilferage, riot, civil commotion, weather conditions, accidents ofall kinds, fire, war risk (during ocean transportation only) etc. The scope of such insuranceshall cover the entire value of supplies of equipments, plants and materials to be importedfrom time to time.

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, theEMPLOYER 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.

78.2 CONTRACTOR as far as possible shall cover insurance with Indian InsuranceCompanies, including marine Insurance during ocean transportation.

i) EMPLOYEES' STATE INSURANCE ACT:

The CONTRACTOR agrees to and does hereby accept full and exclusive liability for the compliance with all obligations imposed by the Employees' State Insurance Act 1948 andthe CONTRACTOR further agrees to defend, indemnify and hold EMPLOYER harmless for any liability or penalty which may be imposed by the Central, State or Local authority by reason of any asserted violation by CONTRACTOR or SUB-CONTRACTOR of the Employees' State Insurance Act, 1948, and also from all claims, suits or proceeding that may be brought against the EMPLOYER arising under, growing out of or by reasons of the work provided for by this CONTRACTOR, by third parties or by Central or State Government authority or any political sub- division thereof.
The CONTRACTOR agrees to fill in with the Employee's State Insurance Corporation, theDeclaration Forms, and all forms which may be required in respect of the CONTRACTOR's or SUB- CONTRACTOR's employees, who are employed in the WORKprovided for or those covered by ESI from time to time under the Contract. The CONTRACTOR shall deduct and secure the agreement of the SUB- CONTRACTOR to deduct the employee's contribution as per the first schedule of the Employee's State Insurance Act from wages and affix the Employees Contribution Card at wages payment intervals. The CONTRACTOR shall remit and secure the agreement of SUB- CONTRACTOR to remit to the State Bank of India, Employee's State Insurance Corporation Account, the Employee's contribution as required by the Act. The CONTRACTOR agrees to maintain all cards and Records as required under the Act in respect of employees and payments and the CONTRACTOR shall secure the agreementof the SUB- CONTRACTOR to maintain such records. Any expenses incurred for the contributions, making contributions or maintaining records shall be to the CONTRACTOR's or SUB-CONTRACTOR's account.
The EMPLOYER shall retain such sum as may be necessary from the total VALUE OF CONTRACT until the CONTRACTOR shall furnish satisfactory proof that all contributionsas required by the Employees' State Insurance Act, 1948, have been paid. This will be pending on the CONTRACTOR when the ESI Act is extended to the place of work.

Signature and seal of the contractor

ii) **WORKMEN COMPENSATION AND EMPLOYER'S LIABILITY INSURANCE:** Insurance shall be effected for all the CONTRACTOR's employees engaged in theperformance of this CONTRACT. If any of the work is sublet, the CONTRACTOR shallrequire the SUB-CONTRACTOR to provide workman's compensation and employer'sliability insurance for the latter's employees if such employees are not covered under theCONTRACTOR's Insurance.

iii) TRANSIT INSURANCE:

In respect of all items to be transported by the CONTRACTOR to the SITE of WORK,the cost of transit insurance should be borne by the CONTRACTOR and the quoted price shall be inclusive of this cost.

iv) COMPREHENSIVE AUTOMOBILE INSURANCE:

This insurance shall be in such a form as to protect the Contractor against all claims for injuries, disability, disease and death to members of public including EMPLOYER's men and damage to the property of others arising from the use of motor vehicles duringon or off the `site' operations, irrespective of the Employership of such vehicles.

v) COMPREHENSIVE GENERAL LIABILITY INSURANCE:

a) This insurance shall protect the Contractor against all claims arising from injuries,disabilities, disease or death of member of public or damage to property of othersdue to any act or omission on the part of the Contractor, his agents, his employees,his representatives and Sub-Contractor's or from riots, strikes and civil commotion.

b) Contractor shall take suitable Group Personal Accident Insurance Cover for takingcare of injury, damage or any other risks in respect of his Engineers and other Supervisory staff who are not covered under Employees' State Insurance Act.

c) The policy shall cover third party liability. The third party liability shall cover the loss/ disablement of human life (person not belonging to the Contractor) and alsocover the risk of damage to others materials/ equipment/ properties during construction, erection and commissioning at site. The value of third party liability for compensation for loss of human life or partial/full disablement shall be of required statutory value but not less than Rs. 2 lakhs per death, Rs. 1.5 lakhs perfull disablement and Rs. 1 lakh per partial disablement and shall nevertheless cover such compensation as may be awarded by Court by Law in India and coverfor damage to others' equipment/ property as approved by the Purchaser. However, third party risk shall be maximum to Rs. 10 (ten) lakhs to death.

d) The Contractor shall also arrange suitable insurance to cover damage, loss, accidents, risks etc., in respect of all his plant, equipments and machinery, erection tools & tackles and all other temporary attachments brought by him at site to execute the work.

e) The Contractor shall take out insurance policy in the joint name of EMPLOYER and Contractor from one or more nationalised insurance company from any branchoffice at Project site.

f) Any such insurance requirements as are hereby established as the minimum policies and coverages which Contractor must secure and keep in force must be complied with, Contractor shall at all times be free to obtain additional or increasedcoverages at Contractor's sole expenses.

vi) ANY OTHER INSURANCE REQUIRED UNDER LAW OR REGULATIONS OR BYEMPLOYER:
CONTRACTOR shall also carry and maintain any and all other insurance(s) which hemay be required under any law or regulation from time to time without any extra cost to EMPLOYER. He shall also carry and maintain any other insurance which may be required by the EMPLOYER.

79.0 General

79.1 In the event that terms and conditions stipulated in the General Conditions of Contractshould deviate from terms and conditions stipulated in the Contract, the latter shall prevail.

79.2 LOSSES DUE TO NON-COMPLIANCE OF INSTRUCTIONS:

Losses or damages occurring to the EMPLOYER owing to the CONTRACTOR's failure toadhere to any of the instructions given by the EMPLOYER in connection with the contractexecution shall be recoverable from the CONTRACTOR.

79.3 RECOVERY OF SUMS DUE:

All costs, damages or expenses which the EMPLOYER may have paid, for which under the CONTRACT CONTRACTOR is liable, may be recovered by the EMPLOYER (he is hereby irrevocably authorized to do so) from any money due to or becoming due to the CONTRACTOR under this Contract or other Contracts and/or may be recovered by actionat law or otherwise. If the same due to the CONTRACTOR be not sufficient to recover therecoverable amount, the CONTRACTOR shall pay to the EMPLOYER, on demand, the balance amount.

79.4 PAYMENTS, ETC. NOT TO AFFECT RIGHTS OF THE EMPLOYER:

No sum paid on account by the EMPLOYER nor any extension of the date for completiongranted by the EMPLOYER shall affect or prejudice the rights of the EMPLOYER againstthe CONTRACTOR or relieve the CONTRACTOR of his obligation for the due fulfilment of the CONTRACT.

79.5 CUT-OFF DATES:

No claims or correspondence on this Contract shall be entertained by the EMPLOYER/Consultant after 90 days after expiry of the performance guarantee (from thedate of final extension, if any).

79.6 PARAGRAPH HEADING:
The paragraph heading in these conditions shall not affect the construction thereof.

80.0 **RISK PURCHASE CLAUSE**

After award of the contract, if the tenderer fails to execute the work as per tender or at any time repudiates the order, IREL (India) Limited has the right to forfeit and invoke the security deposit and execute the order from other agencies at the risk and cost of the tenderer. The cost difference between the alternative arrangements and total contract value will be recovered from the tenderer along with other incidental charges. In case of execution of order through alternative sources and if price is lower, no benefit on this account will be passed on to the tenderer.

Signature and seal of the contractor

Annexure - XV

PROFORMA FOR BANK GUARANTEE FOR EARNEST MONEY DEPOSIT (EMD)

(To be issued by approved Scheduled Banks)

In accordance with Notice Inviting Tender (NIT) No._____ Dated _____ for the work of _____ (herein after referred to as "the said Works") for Rs._____ (Rupees_____ only), under _____ RED unit of M/s IREL(India) Limited, a company incorporated under Indian Companies Act, having its registered office at Plot No.1207, ECIL building, Opp. to Siddhivinayak Temple, Veer Savarkar Marg, Prabhadevi, Mumbai–400028, India (herein after referred to as IREL (India) Limited, M/s _____ Address _____ [Herein after referred to as Contractor (s)] wish /wishes to participate in the said tender and a Bank Guarantee for the sum of Rs._____ (in words) valid for a period of _____ days (in words) is required to be submitted by the Bidder towards the Bid Security.

We the _____Bank (hereinafter called the said Bank) do hereby undertake to pay to IREL (India) Limited, the sum of Rs. _____ (Rupees _____ only) by reason of the said tenderer's failure to enter into an agreement of contract on intimation of acceptance of his tender and/or to commence the contract works and/or failure to deposit the security deposit within the stipulated period as per the terms and conditions relating to and/or governing the contract and/or specified in the Notice Inviting Tender (NIT). We also agree that any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. We also agree that notwithstanding any dispute or difference or any litigation in respect of or arising from the said contract and/or the acceptance of the tender of the tenderer afore stated by IREL(India) Limited including the question as to the tenability of the claim of the IREL(India) Limited for forfeiting the Earnest Money being the Bank Guarantee herein, we shall forthwith pay the said amount to IREL(India) Limited on demand being made as aforesaid.

We _____ Bank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for entering into an Agreement of contract and that it shall continue to be enforceable till all the dues of the IREL(India) Limited under the terms and conditions of the NIT for the work have been fully paid and its claims satisfied or discharged or till IREL(India) Limited certifies, that the terms and conditions of the NIT have been fully and properly carried out by the said tenderer and accordingly discharges the guarantee.

We _____ Bank further agree with the IREL(India) Limited that the IREL(India) Limited shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the NIT and/or terms and conditions governing the contract or to extend the time of validity of the offer from the said tenderer from time to time or to postpone for any time or from time to time any of the powers exercisable by the IREL against the said tenderer and to forbear or enforce any of the terms and conditions of the NIT and we shall not be relieved from our liability hereunder by reason of any such variation, or extension being granted to the said tenderer or for any forbearance, act or omission on the part of the IREL(India) Limited or any indulgence by the IREL(India) Limited to the said tenderer or by any such matter or thing whatsoever which under the law relating to surety/guarantee would but for this provision have effect of so relieving us.

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We _____Bank do hereby further agree that any change in the Constitution of the said tenderer or the Bank will not affect the validity of this guarantee.

We _____ Bank lastly undertake not to revoke this guarantee during its currency except with the previous consent of the IREL (India) Limited in writing.

Dated the _____ day of _____ 20--

_____Bank

(Signature with name in Block letters with designation, Attorney as per power of Attorney No._____dt. _____)

Bank's Common seal