
Request for Bids
for
Supply and Installation of
‘Conversion of Overhead Network into Underground cable
system at Rajarhat Town under North 24 Parganas district
within the state of West Bengal' under West Bengal
Electricity Distribution Grid Modernisation Project
(P-170590)

E-TENDER Notice No :WBSEDCL/Dist. Project-III/Tender/
2020-21/UG/WB/08Date: 05.01.2021

National Open Competitive Procurement
(Two envelope Bidding Process with e-Procurement)

January 2021

WEST BENGAL STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED

(A GOVT. OF WEST BENGAL ENTERPRISE)

PROJECT -

‘Conversion of Overhead Network into Underground cable system at Rajarhat Town under North 24 Parganas district within the state of West Bengal' under West Bengal Electricity Distribution Grid Modernisation Project(P-170590)

National Open Competitive Procurement

(Two-Envelope Bidding Process with e-Procurement)

Design, Supply and Installation of Plant

CONTRACT TITLE :

‘Conversion of Overhead Network into Underground cable system at Rajarhat Town under North 24 Parganas district within the state of West Bengal' under West Bengal Electricity Distribution Grid Modernisation Project (P-170590)

PERIOD OF SALE OF BIDDING DOCUMENT	:	FROM 11 HOURS of 05.01.2021 TO 12 HOURS of 08.02.2021
TIME AND DATE OF PRE-BID MEETING	:	DATE 13.01.2021 TIME 11.00 HOURS
LAST DATE AND TIME FOR RECEIPT OF BIDS	:	DATE 08.02.2021 TIME 12.00 HOURS
TIME AND DATE OF OPENING OF BIDS – Technical Part	:	DATE 08.02.2021 TIME 14.00 HOURS
PLACE OF OPENING OF BIDS	:	KOLKATA, West Bengal State Electricity Distribution Company Limited, Vidyut Bhawan, Block DJ, Sal Lake City, Bidhannagar, Kolkata-700091, West Bengal, India
TIME AND DATE OF OPENING OF BIDS – Financial Part	:	To be notified later
OFFICER INVITING BIDS	:	Chief Engineer, Distribution Project III Department, WBSEDCL

REQUEST FOR BIDS

(RFB)

WEST BENGAL STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED
(A GOVT. OF WEST BENGAL ENTERPRISE)

‘Conversion of Overhead Network into Underground cable system at Rajarhat Town under North 24 Parganas district within the state of West Bengal’ under West Bengal Electricity Distribution Grid Modernisation Project(P-170590)

REQUEST FOR BIDS (RFB)
E-Procurement Notice

National Open Competitive Procurement
(Two-Envelope Bidding Process with e-Procurement)
Design, Supply and Installation of Plant

Employer: *West Bengal State Electricity Distribution Company Limited*

Contract title:

‘Conversion of Overhead Network into Underground cable system at Rajarhat Town under North 24 Parganas district within the state of West Bengal’ under West Bengal Electricity Distribution Grid Modernisation Project (P-170590)

Loan No. /Credit No.:

RFB No: IN-WBSEDCL-211042-CW-RFB

Issued on: 05.01.2021

1. The Government of India *has applied for* financing from the World Bank toward the cost of **West Bengal Electricity Distribution Grid Modernization Project** and intends to apply part of the proceeds toward payments under the Contract for **‘Conversion of Overhead HT and LT Network into Underground cable system at Rajarhat Town** within the state of West Bengal.
2. The West Bengal State Electricity Distribution Company Limited (WBSEDCL) now invites online Bids from eligible Bidders for **Supply and Installation of ‘Conversion of Overhead HT and LT Network into Underground cable system at Rajarhat Town under North 24 Parganas district within the state of West Bengal’**

Bidders are advised to note the clauses on eligibility (Section I Clause 4) and minimum qualification criteria (Section III – Evaluation and Qualification Criteria), to qualify for the award of the contract. In addition, please refer to paragraphs 3.14 and 3.15 of the “Procurement Regulations” setting forth the World Bank’s policy on conflict of interest.

3. Bidding will be conducted through national competitive procurement using a Request for Bids (RFB) as specified in the World Bank’s “Procurement Regulations for IPF Borrowers, July 2016,

revised August 2018” (“Procurement Regulations”), and is open to all eligible Bidders as defined in the Procurement Regulations.

4. Bidders from India should, however, be registered with the Government of West Bengal or other State Governments/ Government of India, or State/ Central Government Undertakings. Bidders from India, who are not registered as above, on the date of bidding, can also participate provided they get themselves registered by the time of contract signing, if they become successful bidders.
5. The bidding document is available online on www.wbtenders.gov.in from 05.01.2021 to 08.02.2021 for a non-refundable fee as indicated in the table. The method of payment will be Bankers Cheque / Demand Draft (DD). Payment is made through Bankers cheque or demand draft (DD), it shall be issued by a Scheduled / Nationalized bank, and shall be payable at Kolkata, in favour of WBSEDCL (Bankers cheque or demand draft to be submitted subsequently as per the procedure described in paragraph 9 below). Bidders will be required to register on the website, which is free of cost. The bidders would be responsible for ensuring that any addenda available on the website is also downloaded and incorporated.
6. For submission of the bid, the bidder is required to have Digital Signature Certificate (DSC) from one of the Certifying Authorities authorized by Government of India for issuing DSC. (Bidders can see the list of licensed CA’s from the link www.cca.gov.in). Aspiring bidders who have not obtained the user ID and password for participating in e-procurement in this Project, may obtain the same from the website: www.wbtenders.gov.in. A non-refundable fee of Rs 28320/- (inclusive of GST) is required to be paid (to be submitted along with other documents listed in paragraph 9 below) before the opening of the bid i.e. before 08.02.2021. The mode of payment shall be DD / Bankers cheque. Payment is made through cashier’s check or demand draft, it shall be issued by a Scheduled/ Nationalized bank, and shall be payable at Kolkata in favour of WBSEDCL. GST no. with state name for receiving DD may please be provided.
7. Bids must be submitted online on www.wbtenders.gov.in on or before **12 hours on 08.02.2021** and the ‘Technical Part’ of the bids will be opened online on **08.02.2021 at 14.00 hours**. The “Financial Part” shall remain unopened in the e-procurement system until the second public Bid opening for the financial part. Any bid or modifications to bid (including discount) received outside e-procurement system will not be considered. If the office happens to be closed on the date of opening of the bids as specified, the bids will be opened on the next working day at the same time. The electronic bidding system would not allow any late submission of bids.
8. All Bids must be accompanied by a bid security of the amount specified for the contract in the table below, drawn in favour of The Chief Engineer, Distribution Project III Department, WBSEDCL, Vidyut Bhawan, 2ndFloor, ‘C’ Block, Salt Lake City, Bidhannagar, Kolkata-700091. Bid security will have to be in any one of the forms as specified in the bidding document and shall have to be valid for 45 days beyond the validity of the bid. Procedure for submission of bid security is described in Para 9.
9. The bidders are required to submit (a) original Bankers cheque, demand drafts (DD) towards the cost of bid document and registration on e-procurement website (if not previously registered); and (b) original bid security in approved form with The Chief Engineer, Distribution Project III Department, WBSEDCL, Vidyut Bhawan, 2ndFloor, ‘C’ Block, Salt Lake City, Bidhannagar, Kolkata-700091 before the opening of the technical part of the Bid i.e. before 08.02.2021, either by registered post/speed post/courier or by hand, failing which the bids will be declared non-responsive and will not be opened.
10. A pre-bid meeting will be held on **13.01.2021 at 11.00.hrs.** at the office of The Chief Engineer, Distribution Project III Department, WBSEDCL to clarify the issues and to answer questions on any matter that may be raised at that stage as stated in ITB Clause 7.4 of ‘Instructions to Bidders’ of the

bidding document. Bidders are advised to download the bidding document prior to the pre-bid meeting in order for bidders to have a good understanding of the scope of the requirements under this contract for discussion and clarification at the pre-bid meeting. In the event of the specified date of bid opening being declared a holiday for the Employer, the bids will be opened at the appointed time and location on the next working day.

Owing to the current pandemic situation, the Pre-Bid meeting may be held in virtual mode, details of which will be uploaded in WBSEDCL Portal as well as e-tendering portal before the scheduled date of meeting.

11. Other details can be seen in the bidding documents. The Employer shall not be held liable for any delays due to system failure beyond its control. Even though the system will attempt to notify the bidders of any bid updates, the Employer shall not be liable for any information not received by the bidder. It is the bidders' responsibility to verify the website for the latest information related to this bid.
12. Details of the Plants requirements (*including facilities, location, delivery period, etc.*) are shown in the table below: Each Contract being included in the RFB will be evaluated and awarded separately.

Contract No	PKG no.	Contract Title (UG Cabling under 24 PGN(N) Region at)	Approx. Estimated Cost (including GST) (Rs in lakhs)	Bid Security (Rs. in Lakhs)	Cost of Document (Rs.)Including GST	Period of Completion (Months)
1	2	3	4	5	6	7
1	UG_2	Rajarhat Town	12162.93	243.26	28,320	24

13. Rate should be quoted considering the **Environmental & Social Management Framework (ESMF) & Environmental & Social Impact Assessment (ESIA)** of the project. Details of ESMF & ESIA for the project are enclosed as a part of bidding document
14. The address(es) referred to above is (are):

*The Chief Engineer, Distribution Project III Department,
WBSEDCL, Vidyut Bhawan, 2nd Floor, Bidhannagar, Kolkata - 700091
Phone: 033 23212203 / 7449300838
Email address:- cep3.wbsedcl@gmail.com
<http://www.wbsedcl.in>*

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PART 1 – Bidding Procedures

Section I - Instructions to Bidder

Contents

Section I - Instructions to Bidders

A. General

1. **Scope of Bid**
 - 1.1 In connection with the Specific Procurement Notice - Request for Bids (RFB), specified in the Bid Data Sheet (BDS), the Employer, as specified **in the BDS**, issues this bidding document for the Design, Supply and Installation of Plant as specified in Section VII, Employer's Requirements. The name, identification and number of lots (contracts) of this RFB are specified **in the BDS**.
 - 1.2 Throughout this bidding document:
 - (a) the term "in writing" means communicated in written form (e.g. by mail, e-mail, fax, including if specified **in the BDS**, distributed or received through the electronic-procurement system used by the Employer) with proof of receipt;
 - (b) if the context so requires, "singular" means "plural" and vice versa; and
 - (c) "Day" means calendar day, unless otherwise specified as "Business Day." A Business Day is any day that is an official working day of the Borrower. It excludes the Borrower's official public holidays.
2. **Source of Funds**
 - 2.1 The Government of India or Recipient (hereinafter called "Borrower") indicated **in the BDS** has applied for or received financing (hereinafter called "funds") from the World Bank (hereinafter called "the Bank") in an amount specified **in BDS**, towards the project named **in BDS**. The Borrower intends to apply a portion of the funds to eligible payments under the contract(s) for which this bidding document is issued.
 - 2.2 Payment by the Bank will be made only at the request of the Borrower and upon approval by the Bank in accordance with the terms and conditions of the Loan (or other financing) Agreement.

The Loan (or other financing) Agreement prohibits a withdrawal from the loan account for the purpose of any payment to persons or entities, or for any import of goods, equipment, plant, or materials, if such payment or import is prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations. No party other than the Borrower shall derive any rights from the Loan (or other financing) Agreement or have any claim to the proceeds of the Loan (or other financing).

- 3. Fraud and Corruption**
- 3.1 The Bank requires compliance with the Bank's Anti-Corruption Guidelines and its prevailing sanctions policies and procedures as set forth in the WBG's Sanctions Framework, as set forth in Section VI.
- 3.2 In further pursuance of this policy, bidders shall permit and shall cause their agents (whether declared or not), subcontractors, sub-consultants, service providers, suppliers, and their personnel, to permit the Bank to inspect all accounts, records and other documents relating to any initial selection process, prequalification process, bid submission, proposal submission and contract performance (in the case of award), and to have them audited by auditors appointed by the Bank.
- 4. Eligible Bidders**
- 4.1 A Bidder may be a firm that is a private entity, a state-owned enterprise or institution subject to ITB 4.6, or any combination of such entities in the form of a joint venture (JV), unless otherwise specified **in the BDS**, under an existing agreement or with the intent to enter into such an agreement supported by a letter of intent. In the case of a joint venture when permitted, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the Bidding process and, in the event the JV is awarded the Contract, during contract execution. The joint venture agreement should be registered in the place **specified in BDS** so as to be legally valid and binding on partners. Unless specified **in the BDS**, there is no limit on the number of members in a JV.
- 4.2 A Bidder shall not have a conflict of interest. Any Bidder found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest for the purpose of this Bidding process, if the Bidder:
- (a) directly or indirectly controls, is controlled by or is under common control with another Bidder; or

- (b) receives or has received any direct or indirect subsidy from another Bidder; or
 - (c) has the same legal representative as another Bidder; or
 - (d) has a relationship with another Bidder, directly or through common third parties, that puts it in a position to influence the Bid of another Bidder, or influence the decisions of the Employer regarding this Bidding process; or
 - (e) any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the Plant and Installation Services that are the subject of the Bid; or
 - (f) any of its affiliates has been hired (or is proposed to be hired) by the Employer or Borrower as Project Manager for the Contract implementation; or
 - (g) would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the project specified in the BDS ITB 2.1 that it provided or were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm; or
 - (h) has a close business or family relationship with a professional staff of the Borrower (or of the project implementing agency, or of a recipient of a part of the loan) who: (i) are directly or indirectly involved in the preparation of the bidding document or specifications of the Contract, and/or the Bid evaluation process of such Contract; or (ii) would be involved in the implementation or supervision of such contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Bank throughout the Bidding process and execution of the Contract.
- 4.3 A firm that is a Bidder (either individually or as a JV member) shall not participate as a Bidder or as JV member in more than one Bid except for permitted alternative Bids. This includes participation as a Subcontractor in other Bids. Such participation shall result in the disqualification of all Bids in which the firm is involved. A firm that is not a Bidder or a JV member may participate as a subcontractor in more than one Bid.
- 4.4 A Bidder may have the nationality of any country, subject to the restrictions pursuant to ITB 4.8. A Bidder shall be deemed to have the nationality of a country if the Bidder is constituted, incorporated or registered in and operates in conformity with the provisions of

the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed subcontractors or sub-consultants for any part of the Contract including related Services.

- 4.5 A Bidder that has been sanctioned by the Bank, pursuant to the Bank's Anti-Corruption Guidelines, in accordance with its prevailing sanctions policies and procedures as set forth in the WBG's Sanctions Framework as described in Section VI paragraph 2.2 d., shall be ineligible to be prequalified for, initially selected for, bid for, propose for, or be awarded a Bank-financed contract or benefit from a Bank-financed contract, financially or otherwise, during such period of time as the Bank shall have determined. The list of debarred firms and individuals is available at the electronic address **specified in the BDS**.
- 4.6 Bidders that are state-owned enterprises or institutions in the Employer's Country may be eligible to compete and be awarded a Contract(s) only if they can establish, in a manner acceptable to the Bank, that they (i) are legally and financially autonomous (ii) operate under commercial law, and (iii) are not under supervision of the Employer.
- 4.7 Not used.
- 4.8 Firms and individuals may be ineligible if so indicated in Section V and (a) as a matter of law or official regulations, the Borrower's country prohibits commercial relations with that country, provided that the Bank is satisfied that such exclusion does not preclude effective competition for the supply of goods or the contracting of works or services required; or (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's country prohibits any import of goods or contracting of works or services from that country, or any payments to any country, person, or entity in that country. Where the procurement is implemented across jurisdictional boundaries (and more than one country is a Borrower, and is involved in the procurement), then exclusion of a firm or individual on the basis of ITB 4.8 (a) above by any country may be applied to that procurement across other countries involved, if the Bank and the Borrowers involved in the procurement agree.
- 4.9 A Bidder shall provide such documentary evidence of eligibility satisfactory to the Employer, as the Employer shall reasonably request.

4.10 Not used.

- 5. Eligible Plant and Installation Services**
- 5.1 The Plant and Installation Services to be supplied under the Contract and financed by the Bank may have their origin in any country in accordance with Section V, Eligible Countries.
- 5.2 For purposes of ITB 5.1 above, “origin” means the place where the plant, or component parts thereof are mined, grown, produced or manufactured, and from which the services are provided. Plant components are produced when, through manufacturing, processing, or substantial or major assembling of components, a commercially recognized product results that is substantially different in its basic characteristics or in purpose or utility from its components.

B. Contents of Bidding Document

- 6. Sections of Bidding Document**
- 6.1 The bidding document consists of Parts 1, 2, and 3, which include all the sections indicated below, and should be read in conjunction with any Addenda issued in accordance with ITB 8.

PART 1. Bidding Procedures

- Section I - Instructions to Bidders (ITB)
- Section II - Bid Data Sheet (BDS)
- Section III - Evaluation and Qualification Criteria
- Section IV - Bidding Forms
- Section V - Eligible Countries
- Section VI - Fraud and Corruption

PART 2. Employer’s Requirements

- Section VII -Employer’s Requirements

PART 3. Conditions of Contract and Contract Forms

- Section VIII - General Conditions of Contract (GCC)

- Section IX -Particular Conditions of Contract (PCC)
- Section X -Contract Forms

- 6.2 The Specific Procurement Notice-Request for Bids (RFB) issued by the Employer is not part of the bidding document.
- 6.3 Unless obtained directly from the Employer, the Employer is not responsible for the completeness of the document, responses to requests for clarification, the Minutes of the pre-Bid meeting (if any), or Addenda to the bidding document in accordance with ITB 8. In case of any contradiction, documents obtained directly from the Employer shall prevail.
- 6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding document and to furnish with its Bid all information or documentation as is required by the bidding document.

7. Clarification of Bidding Document, Site Visit, Pre-Bid Meeting

- 7.1 The electronic bidding system **specified in the BDS** provides for online clarifications. A Bidder requiring any clarification on the bidding document may notify the Employer online or raise his enquiries during the pre-Bid meeting if provided for in accordance with ITB 7.4. Clarifications requested through any other mode shall not be considered by the Employer. The Employer will respond to any request for clarification, provided that such request is received prior to the deadline for submission of Bids within a period specified **in the BDS**. Description of clarification sought and the response of the *Employer* shall be uploaded for information of all Bidders without identifying the source of request for clarification. Should the clarification result in changes to the essential elements of the bidding document, the Employer shall amend the bidding document following the procedure under ITB 8 and ITB 23.2.
- 7.2 The Bidder is advised to visit and examine the site where the plant is to be installed and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the Bid and entering into a Contract for the provision of Plant and Installation Services. The costs of visiting the site shall be at the Bidder's own expense.
- 7.3 The Bidder and any of its personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the Bidder, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal

injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.

- 7.4 If so specified **in the BDS**, the Bidder's designated representative is invited to attend a pre-Bid meeting and/or a site visit. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 7.5 The Bidder is requested to submit any questions only through the procurement portal, not later than one week before the meeting. Clarifications requested through any other mode shall not be considered by the Employer.
- 7.6 Minutes of the pre-Bid meeting, including the text of the questions raised without identifying the source, and the responses given, together with any responses prepared after the meeting, will be uploaded online on e-procurement system. Any modification to the bidding document that may become necessary as a result of the pre-Bid meeting shall be made by the Employer exclusively through the issue of an Addendum pursuant to ITB 8 and not through the minutes of the pre-Bid meeting. It is the bidder's responsibility to check on the e-procurement system, for any addendum/ amendment/ corrigendum to the bidding document. Nonattendance at the pre-Bid meeting will not be a cause for disqualification of a Bidder.

8. Amendment of Bidding Document

- 8.1 At any time prior to the deadline for submission of Bids, the Employer may amend the bidding document by issuing addenda. The addendum will appear on the e-procurement system under "Latest Corrigendum" and email notification is also automatically sent to those bidders who have started working on the tender, or as **otherwise specified in BDS**.
- 8.2 Any addendum thus issued shall be part of the bidding document and shall be deemed to have been communicated to all bidders.
- 8.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer may, at its discretion, extend the deadline for the submission of bids, pursuant to ITB 23.2.

C. Preparation of Bids

9. Cost of Bidding

- 9.1 The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Employer shall not be responsible or liable for those costs, regardless of the conduct or outcome of the Bidding process.

- 10. Language of Bid** 10.1 The Bid, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the Employer, shall be written in English.
- 11. Documents Comprising the Bid** 11.1 The Bid shall comprise two Parts, namely the Technical Part and the Financial Part. These two Parts shall be submitted simultaneously.
- 11.2 **The Technical Part** shall contain the following:
- (a) **Letter of Bid - Technical Part** prepared in accordance with ITB12;
 - (b) **Bid Security**, in accordance with ITB 20;
 - (c) **Alternative Bid - Technical Part**, if permissible, in accordance with ITB 13;
 - (d) **Authorization**: written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 21.3, and in accordance with ITB 21.4 in case of a JV;
 - (e) **Eligibility of Plant and Installation Services**: documentary evidence established in accordance with ITB 14.1 that the Plant and Installation Services offered by the Bidder in its Bid or in any alternative Bid, if permitted, are eligible;
 - (f) **Bidder's Eligibility and Qualifications**: documentary evidence in accordance with ITB 15.1 establishing the Bidder's eligibility and qualifications to perform the Contract if its Bid is accepted;
 - (g) **Conformity**: documentary evidence in accordance to ITB 16 that the Plant and Installation Services offered by the Bidder conform to the bidding document;
 - (h) **Subcontractors**: list of subcontractors in accordance with ITB 16.2;
 - (i) Bids submitted by a JV (where permitted) shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful bid shall be signed by all members and submitted with the Bid, together with a copy of the proposed Agreement; and
 - (j) any other document required **in the BDS**.
- 11.3 **The Financial Part** shall contain the following:

- (a) **Letter of Bid – Financial Part:** prepared in accordance with ITB 12 and ITB 17;
- (b) **Price Schedules** completed online in accordance with ITB 12 and ITB 17;
- (c) **Alternative Bid - Financial Part:** if permissible in accordance with ITB 13; and
- (d) any other document required **in the BDS.**

11.4 The Technical Part shall not include any information related to the Bid price. Where material financial information related to the Bid price is contained in the Technical Part the Bid shall be declared non-responsive

11.5 The Bidder shall furnish in the Letter of Bid – Financial Part information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Bid

12. Process of Bid Submission

12.1 The Letter of Bid – Technical Part, Letter of Bid – Financial Part and Price Schedules shall be prepared, using the relevant forms furnished in Section IV, Bidding Forms. The forms must be completed as instructed in each form without any alterations to the text, and no substitutes shall be accepted except as provided under ITB 21.3. **All blank spaces shall be filled in with the information requested.**

12.2 Entire Bid including the Letters of Bid and filled-up Price Schedules shall be submitted online on e-procurement system specified in ITB 7.1. Details and process of online submission of the tender and relevant documents are given in the website mentioned above. Scanned copies of documents listed in ITB clauses 11 and 12.3 should also be uploaded on this website.

12.3 **Submission of Original Documents:** The bidders are required to separately submit (i) original demand drafts towards the cost of bid document and registration on e-procurement website (if not previously registered) (as per RFB); and (ii) original bid security in approved form, with the office **specified in the BDS**, before the opening of the technical part of the Bid, either by registered/speed post/courier or by hand, failing which the bids will be declared non-responsive and will not be opened. **Hard copy of rest of the bid or any other document are not to be submitted.**

- 13. Alternative Bids**
- 13.1 Unless otherwise specified **in the BDS**, alternative Bids shall not be considered.
- 13.2 When alternatives to the Time Schedule are explicitly invited, a statement to that effect will be included **in the BDS**, and the method of evaluating different time schedules will be described in Section III, Evaluation and Qualification Criteria.
- 13.3 Except as provided under ITB 13.4 below, Bidders wishing to offer technical alternatives to the Employer's requirements as described in the bidding document must also provide: (i) a price at which they are prepared to offer a Plant meeting the Employer's requirements; and (ii) all information necessary for a complete evaluation of the alternatives by the Employer, including drawings, design calculations, technical specifications, breakdown of prices, and proposed installation methodology and other relevant details. Only the technical alternatives, if any, of the Bidder with the Most Advantageous Bid conforming to the basic technical requirements shall be considered by the Employer.
- 13.4 When Bidders are invited **in the BDS** to submit alternative technical solutions for specified parts of the facilities, such parts will be identified **in the BDS**, as will the method for their evaluation, and described in Section VII, Employer's Requirements.
- 14. Documents Establishing the Eligibility of the Plant and Installation Services**
- 14.1 To establish the eligibility of the Plant and Installation Services in accordance with ITB 5, Bidders shall complete the country of origin declarations in the Price Schedule Forms, included in Section IV, Bidding Forms.
- 15. Documents Establishing the Eligibility and Qualifications of the Bidder**
- 15.1 To establish its eligibility and qualifications to perform the Contract in accordance with Section III, Evaluation and Qualification Criteria, the Bidder shall provide the information requested in the corresponding information sheets included in Section IV, Bidding Forms.

**16. Documents
Establishing the
Conformity of the
Plant and
Installation
Services**

- 16.1 The Bidder shall furnish the information stipulated in Section IV, Bidding Forms in sufficient detail to demonstrate substantial responsiveness of the Bidders' proposal to the work requirements and the completion time.
- 16.2 For major items of Plant and Installation Services as listed by the Employer in Section III, Evaluation and Qualification Criteria, which the Bidder intends to purchase or subcontract, the Bidder shall give details of the name and nationality of the proposed Subcontractors, including manufacturers, for each of those items. In addition, the Bidder shall include in its Bid information establishing compliance with the requirements specified by the Employer for these items. Quoted rates and prices will be deemed to apply to whichever Subcontractor is appointed, and no adjustment of the rates and prices will be permitted.
- 16.3 The Bidder shall be responsible for ensuring that any Subcontractor proposed complies with the requirements of ITB 4, and that any plant, or services to be provided by the Subcontractor comply with the requirements of ITB 5 and ITB 15.1.

**17. Bid Prices and
Discounts**

- 17.1 The prices and discounts quoted by the Bidder in the Letter of Bid –Financial Part and in the Price Schedules shall conform to the requirements specified below.

Unless otherwise specified **in the BDS**, Bidders shall quote for the entire Plant and Installation Services on a “single responsibility” basis. The total Bid price shall include all the Contractor's obligations mentioned in or to be reasonably inferred from the bidding document in respect of the design, manufacture, including procurement and subcontracting (if any), delivery, construction, installation and completion of the Plant. This includes all requirements under the Contractor's responsibilities for testing, pre-commissioning and commissioning of the plant and, where so required by the bidding document, the acquisition of all permits, approvals and licenses, etc.; the operation, maintenance and training services and such other items and services as specified in the bidding document, all in accordance with the requirements of the General Conditions. Items against which no price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed to be covered by the prices for other items. Corrections if any in the bid can be carried out by editing the information before electronic submission on e-procurement portal.

- 17.2 Bidders are required to quote the price for the commercial, contractual and technical obligations outlined in the bidding document.

17.3 Bidders shall give a breakdown of the prices in the manner and detail called for in the Price Schedules included in Section IV, Bidding Forms.

17.4 Depending on the scope of the Contract, the Price Schedules may comprise up to the six (6) schedules listed below. Separate numbered Schedules included in Section IV, Bidding Forms, from those numbered 1 to 4 below, shall be used for each of the elements of the Plant and Installation Services. The total amount from each Schedule corresponding to an element of the Plant and Installation Services shall be summarized in the schedule titled Grand Summary, (Schedule 5), giving the total Bid price(s) to be entered in the Letter of Bid – Financial Part. Bidders shall note that the plant and equipment included in Schedule Nos. 1 and 2 below exclude materials used for civil, building and other construction works. All such materials shall be included and priced under Schedule No. 4, Installation Services. The Schedules comprise:

Schedule No. 1: Plant (including Mandatory Spare Parts) Supplied from Abroad – **Not Used**

Schedule No. 2: Plant (including Mandatory Spare Parts)

Schedule No. 3: Design Services

Schedule No. 4: Installation Services

Schedule No. 5: Grand Summary (Schedule Nos.1 to 4)

Schedule No. 6: Recommended Spare Parts

17.5. In the Schedules, Bidders shall give the required details and a breakdown of their prices as follows:

(a) Plant to be supplied from abroad (Schedule No. 1): **Not used.**

(b) Plant including Mandatory Spare Parts (Schedule No. 2):

(i) The price of the plant shall be quoted on an EXW Incoterm basis (such as “ex-works,” “ex-factory,” “ex-warehouse” or “off-the-shelf,” as applicable);

(ii) GST and all other taxes payable in the Employer’s Country on the plant if the contract is awarded to the Bidder; and

(iii) The total price for the item.

(c) Design Services (Schedule No. 3);

- (d) Installation Services shall be quoted separately (Schedule No. 4) and shall include rates or prices for local transportation to named place of final destination as specified **in the BDS**, insurance and other services incidental to delivery of the plant, all labor, contractor's equipment, temporary works, materials, consumables and all matters and things of whatsoever nature, including operations and maintenance services, the provision of operations and maintenance manuals, training, etc., where identified in the bidding document, as necessary for the proper execution of the installation and other services, including all taxes, duties, levies and charges payable in the Employer's Country as of twenty-eight (28) days prior to the deadline for submission of Bids;
 - (e) Recommended spare parts shall be quoted separately (Schedule 6) as specified in subparagraph (b) above.
- 17.6 The terms EXW and other similar terms shall be governed by the rules prescribed in the current edition of Incoterms, published by the International Chamber of Commerce, as specified **in the BDS**.
- 17.7 The prices shall be either fixed or adjustable as specified **in the BDS**.
- 17.8 In the case of **Fixed Price**, prices quoted by the Bidder shall be fixed during the Bidder's performance of the contract and not subject to variation on any account. A Bid submitted with an adjustable price quotation will be treated as non-responsive and rejected.
- 17.9 In the case of **Adjustable Price**, prices quoted by the Bidder shall be subject to adjustment during performance of the contract to reflect changes in the cost elements such as labor, material, transport and contractor's equipment in accordance with the procedures specified in the corresponding Appendix to the Contract Agreement. A Bid submitted with a fixed price quotation will not be rejected, but the price adjustment will be treated as zero.
- 17.10 If so indicated in ITB 1.1, Bids are being invited for individual lots (contracts) or for any combination of lots (packages). Bidders wishing to offer any price reduction (discount) for the award of more than one Contract shall specify in their Letter of Bid – Financial Part, the price reductions applicable to each package, or alternatively, to individual Contracts within the package, and the manner in which the price reductions will apply.

- 17.11 Bidders wishing to offer any unconditional discount shall specify in their Letter of Bid– Financial Part the offered discounts and the manner in which price discounts will apply.
- 17.12 Bidders may like to ascertain availability of tax/duty exemption benefits available in India to the contracts financed under World Bank loan/credits. They are solely responsible for obtaining such benefits which they have considered in their bid and in case of failure to receive such benefits for reasons whatsoever, the Employer will not compensate the bidder (contractor). The bidder shall furnish along with his bid a declaration to this effect in the Declaration Format provided in Section IV of the bidding documents.

Where the bidder has quoted taking into account such benefits, it must give all information required for issue of certificates in terms of the Government of India's relevant notifications as per form stipulated in Section IV. In case the bidder has not provided the required information or has indicated to be furnished later on in the Declaration Format, the same shall be construed that the goods/construction equipment for which certificate is required is Nil.

To the extent the Employer determines the quantity indicated therein are reasonable keeping in view the quantities in bill of quantities, construction program and methodology, the certificates will be issued within 60 days of signing of the contract and no subsequent changes will be permitted. In case of materials pertaining to Variation items and quantities the certificate shall be issued only on request from the contractor when in need and duly certified by the Engineer.

No certificate will be issued for items where no quantity/capacity of equipment is indicated in the statement.

If the bidder has considered the tax/duty exemption for materials/construction equipment to be bought for the work, the bidder shall confirm and certify that the Employer will not be required to undertake any responsibilities of the Government of India Scheme or the said exemptions being available during the contract execution, except issuing the required certificate. The bids which do not conform to the above provisions or any condition by the bidder which makes the bid subject to availability of tax/duty exemption for materials/construction equipment or compensation on withdrawal of any variations to the said exemptions will be treated as non-responsive and rejected.

Any delay in procurement of the construction equipment/machinery/goods as a result of the above shall not be a cause for granting any extension of time.

18. Currencies of Bid and Payment

18.1 The Bidder shall quote the rates and prices, and shall be paid for, entirely in Indian Rupees (Rs.).

18.2 Deleted.

19. Period of Validity of Bids

19.1 Bids shall remain valid for the Bid Validity period specified **in the BDS**. The Bid Validity period starts from the Bid submission deadline (as prescribed by the Employer in accordance with ITB 23.1). A Bid valid for a shorter period shall be rejected by the Employer as nonresponsive.

19.2 In exceptional circumstances, prior to the expiration of the Bid validity period, the Employer may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing. If a Bid Security is requested in accordance with ITB 20, **the Bidder granting the request shall also extend the Bid Security for forty-five (45) days beyond the deadline of the extended validity period**. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request shall not be required or permitted to modify its Bid, except as provided in ITB 19.3.

19.3 If the award is delayed by a period exceeding fifty-six (56) days beyond the expiry of the initial Bid validity period, the Contract price shall be determined as follows:

- (a) in the case of **fixed price** contracts, the Contract price shall be the Bid price adjusted by the factor specified **in the BDS**;
- (b) in the case of **adjustable price** contracts, no adjustment shall be made;
- (c) in any case, Bid evaluation shall be based on the Bid price without taking into consideration the applicable correction from those indicated above.

20. Bid Security

20.1 The Bidder shall furnish as part of the Technical Part of its Bid, a Bid Security as specified **in the BDS**, in original form and, in the amount specified **in the BDS**.

20.2 Not used.

20.3 If a Bid Security is specified pursuant to ITB 20.1, the Bid security shall be a demand guarantee in any of the following forms at the Bidder's option:

- (a) an unconditional guarantee issued by a Nationalized or Scheduled bank in India;
- (b) an irrevocable letter of credit issued by a Nationalized or Scheduled bank located in India;
- (c) a Banker's or certified cheque or demand draft issued by a Nationalized or Scheduled bank located in India; or
- (d) another security indicated **in the BDS**,

In the case of a bank guarantee, the Bid Security shall be submitted using the Bid Security Form included in Section IV, Bidding Forms. The form must include the complete name of the Bidder. The Bid Security shall be valid for forty-five (45) days beyond the original validity period of the Bid, or beyond any period of extension if requested under ITB 19.2.

20.4 If a Bid Security is specified pursuant to ITB 20.1, any Bid not accompanied by a substantially responsive Bid Security shall be rejected by the Employer as nonresponsive.

20.5 If a Bid Security is specified pursuant to ITB 20.1, the Bid Security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's signing the contract and furnishing the Performance Security pursuant to ITB 50.

20.6 The Bid Security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the Contract and furnished the required Performance Security.

20.7 The Bid Security may be forfeited:

- (a) if a Bidder withdraws its Bid during the period of Bid validity specified by the Bidder on the Letter of Bid Technical Part and repeated in Letter of Bid - Financial Part, or any extension thereto provided by the Bidder in accordance with ITB 19.2; or
- (b) if the Bidder does not accept the correction of its Bid Price pursuant to ITB 36; or
- (c) if the successful Bidder fails to:
 - (i) sign the Contract in accordance with ITB 49; or
 - (ii) furnish a Performance Security in accordance with ITB 50.

20.8 The Bid Security of a JV where permitted shall be in the name of the JV that submits the Bid. If the JV has not been legally constituted into a legally enforceable JV at the time of bidding, the Bid Security shall be in the names of all future members as named in the letter of intent referred to in ITB 4.1 and ITB 11.2.

20.9 Not used.

**21. Format and
Signing of Bid**

21.1 The Bidder shall prepare the Bid as per details given in ITB 22.

21.2 Bidders shall mark as “CONFIDENTIAL” information in their Bids which is confidential to their business.

21.3 **The Bid shall be signed by a person duly authorized to sign on behalf of the Bidder.** This authorization shall consist of a written confirmation as specified **in the BDS** and shall be uploaded along with the Bid.

21.4 In the case that the Bidder is a JV where permitted, the Bid shall be signed by an authorized representative of the JV on behalf of the JV, and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives.

21.5 **Documents establishing authority to sign the bid on behalf of the JV, if permitted shall be uploaded along with the bid.**

D. Online Submission and Opening of Bids

**22. Preparation of
Bids**

22.1 **The Bids, both Technical and Financial Parts, shall be submitted online on the e-procurement system specified in BDS 7.1.** Detailed guidelines for viewing bids and submission of online bids are given on the website. The Request for Bids under this Project is published on this website. Any citizen or prospective bidder can logon to this website and view the Request for Bids and can view the details of works for which bids are invited. A prospective bidder can submit its bid online; however, the bidder is required to have enrolment/registration in the website, and should have valid Digital Signature Certificate (DSC) in the form of smart card/e-token obtained from any certifying agency authorised by the Government of India (for class of DSC **specified in BDS**). The bidder should register in the website using the relevant option available. Then the Digital Signature registration has to be done with the e-token, after logging into the website. The bidder can then login the website through the secured login by entering the password of the e-token & the user id/ password chosen during registration. After getting the bid schedules, the Bidder should go

through them carefully and submit the specified documents, along with the bid, otherwise the bid will be rejected.

22.2 **The completed bid comprising of documents indicated in ITB 12, should be uploaded on the e-procurement portal along with scanned copies of requisite certificates** as are mentioned in different sections in the bidding document and scanned copy of the bid security.

22.3 **All the documents are required to be signed digitally by the bidder. After electronic on line bid submission, the system generates a unique bid identification number** which is time stamped as per server time. This shall be treated as acknowledgement of bid submission.

22.4 Physical, E-mail, Telex, Cable or Facsimile bids will be rejected as non-responsive.

**23. Deadline
Submission
of
Bids**

23.1 **Bids, both Technical and Financial Parts, must be uploaded online** no later than the date and time indicated in the BDS.

23.2 **The Employer may, at its discretion, extend the deadline** for the submission of Bids by amending the bidding document in accordance with ITB 8, in which case all rights and obligations of the Employer and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

24. Late Bids

24.1 The electronic bidding system would not allow any late submission of bids after due date & time as per server time.

**25. Withdrawal,
Substitution, and
Modification
of
Bids**

25.1 **Bidders may modify their bids by using the appropriate option for bid modification on e-procurement portal, before the deadline for submission of bids.** For this the bidder need not make any additional payment towards the cost of bid document. For bid modification and consequential re-submission, the bidder is not required to withdraw his bid submitted earlier. The last modified bid submitted by the bidder within the bid submission time shall be considered as the bid. For this purpose, modification/withdrawal by other means will not be accepted. In online system of bid submission, the modification and consequential re-submission of bids is allowed any number of times. **A bidder may withdraw his bid by using the appropriate option for bid withdrawal, before the deadline for submission of bids, however, if the bid is withdrawn, re-submission of the bid is not allowed (or allowed if specified in BDS).**

25.2 Bids requested to be withdrawn in accordance with ITB 25.1 shall not be opened.

- 25.3 **No Bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of Bids and the expiration of the period of Bid validity specified by the Bidder on the Letter of Bid or any extension thereof.** This will result in the forfeiture of the Bid Security pursuant to ITB 20.7.

E. Public Opening of Technical Parts of Bids

26. Public Opening of Technical Parts of Bids

- 26.1 The Employer shall publicly open Technical Parts of all Bids received by the deadline at the date, time and place specified **in the BDS** in the presence of Bidders' designated representatives and anyone who choose to attend, and this could also be viewed by the bidders online. The Financial Parts of the bids shall remain unopened in the e-procurement system, until the subsequent public opening, following the evaluation of the Technical Parts of the Bids. **In all cases, original documents submitted as specified in ITB 12.3 shall be first scrutinized, and Bids that do not comply with the provisions of ITB 12.3 will be declared non-responsive and will not be opened.** Thereafter bidder's names, and such other details as the Employer may consider appropriate shall be notified online as Technical Part bid opening summary.

In the event of the specified date of bid opening being declared a holiday for the Employer, the bids will be opened at the appointed time and location on the next working day.

- 26.2 **The electronic summary of the bid opening will be generated and uploaded online.** The Employer will also prepare minutes of the Bid opening, including the information disclosed and upload the same for viewing online. **Only Technical Parts of Bids that are opened at Bid opening shall be considered further for evaluation.**

F. Evaluation of Bids – General Provisions

27. Confidentiality

- 27.1 Information relating to the evaluation of Bids and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with the Bidding process until information on Intention to Award the Contract is transmitted to all Bidders in accordance with ITB 45. In cases where ITB 45 is not applicable, such information shall not be disclosed until Notification of Award is transmitted in accordance with ITB 47.
- 27.2 Any effort by a Bidder to influence the Employer in the evaluation of the bids or Contract award decisions may result in the rejection of its Bid.

27.3 Notwithstanding ITB 27.2, from the time of Bid opening to the time of Contract Award, if any Bidder wishes to contact the Employer on any matter related to the Bidding process, it should do so in writing.

28. Clarification of Bids 28.1 **To assist in the examination, evaluation, and comparison of the Bids, and qualification of the Bidders, the Employer may, at its discretion, ask any Bidder for a clarification of its Bid including breakdown of unit rates giving a reasonable time for a response. Any clarification submitted by a Bidder that is not in response to a request by the Employer shall not be considered. The Employer’s request for clarification and the response shall be in writing. No change in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Bids, in accordance with ITB 36.**

28.2 **If a Bidder does not provide clarifications of its Bid by the date and time set in the Employer’s request for clarification, its Bid may be rejected.**

29. Deviations, Reservations, and Omissions 29.1 During the evaluation of Bids, the following definitions apply:

- (a) “Deviation” is a departure from the requirements specified in the bidding document;
- (b) “Reservation” is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the bidding document; and
- (c) “Omission” is the failure to submit part or all of the information or documentation required in the bidding document.

30. Nonmaterial Nonconformities 30.1 Provided that a Bid is substantially responsive, the Employer may waive any nonconformity in the Bid which do not constitute a material deviation, reservation or omission.

30.2 Provided that a Bid is substantially responsive, the Employer may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the Bid related to documentation requirements. **Requesting information or documentation on such nonconformities shall not be related to any aspect of the price or substance of the Bid.** Failure of the Bidder to comply with the request may result in the rejection of its Bid.

30.3 Provided that a Bid is substantially responsive, the Employer shall rectify quantifiable nonmaterial nonconformities related to the Bid

Price. To this effect, the Bid Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component in the manner specified in the BDS.

G. Evaluation of Technical Parts of Bids

- 31. Evaluation of Technical Parts of Bids**
- 31.1 The Employer shall use the criteria and methodologies listed in this ITB and Section III, Evaluation and Qualification criteria.** No other evaluation criteria or methodologies shall be permitted.
- 31.2 Technical Evaluation.** The Employer will carry out a detailed technical evaluation of the Bids not previously rejected to determine whether the technical aspects are in compliance with the bidding document. The Bid that does not meet minimum acceptable standards of completeness, consistency and detail, and the specified minimum (or maximum, as the case may be) requirements for specified functional guarantees, will be rejected for non-responsiveness. In order to reach its determination, the Employer will examine and compare the technical aspects of the Bids on the basis of the information supplied by the Bidders, taking into account the following:
- (a) overall completeness and compliance with the Employer's Requirements; conformity of the Plant and Installation Services offered with specified performance criteria, including conformity with the specified minimum (or maximum, as the case may be) requirement corresponding to each functional guarantee, as indicated in the Specification and in Section III, Evaluation and Qualification Criteria; suitability of the Plant and Installation Services offered in relation to the environmental and climatic conditions prevailing at the site; and quality, function and operation of any process control concept included in the Bid;
 - (b) type, quantity and long-term availability of mandatory and recommended spare parts and maintenance services; and
 - (c) other relevant factors, if any, listed in Section III, Evaluation and Qualification Criteria.
- 31.3** Where alternative technical solutions have been allowed in accordance with ITB 13, and offered by the Bidder, the Employer will make a similar evaluation of the alternatives. Where alternatives have not been allowed but have been offered, they shall be ignored.

- 32. Determination of Responsiveness:**
- 32.1 The Employer's determination of a Bid's responsiveness is to be based on the contents of the Bid itself, as defined in ITB11.
 - 32.2 A substantially responsive Bid is one that meets the requirements of the bidding document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:
 - (a) if accepted, would:
 - (i) affect in any substantial way the scope, quality, or performance of the Plant and Installation Services specified in the Contract; or
 - (ii) limit in any substantial way, inconsistent with the bidding document, the Employer's rights or the Bidder's obligations under the proposed Contract; or
 - (b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive Bids.
 - 32.3 The Employer shall examine the technical aspects of the Bid in particular, to confirm that all requirements of Section VII, Employer's Requirements have been met without any material deviation, reservation, or omission.
 - 32.4 If a Bid is not substantially responsive to the requirements of the bidding document, it shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.
- 33. Qualification of the Bidder**
- 33.1 The *Employer* shall determine to its satisfaction whether the eligible Bidders that have submitted substantially responsive Bid - Technical Parts meet the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.
 - 33.2 **The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 15.** The determination shall not take into consideration the qualifications of other firms such as the Bidder's subsidiaries, parent entities, affiliates, subcontractors (other than Specialized Subcontractors if permitted in the bidding document), or any other firm different from the Bidder.
 - 33.3 **If a Bidder does not meet the qualifying criteria specified in Section III, Evaluation and Qualification Criteria,** its Bid shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

- 33.4 Only Bids that are both substantially responsive to the bidding document, and meet all Qualification Criteria shall have the Financial Parts of their Bids opened at the second public opening.

H. Public Opening of Financial Parts of Bids

34. Public Opening of Financial Parts

34.1 Following the completion of the evaluation of the Technical Parts of the Bids, and the Bank has issued its no objection (if applicable), the Employer shall notify in writing those Bidders whose Bids were considered non-responsive to the bidding document or failed to meet the Qualification Criteria, advising them of the following information:

- (a) the grounds on which their Technical Part of Bid failed to meet the requirements of the bidding document;
- (b) their Financial Part of Bid shall not be opened; and
- (c) notify them of the date and time for public opening of Financial Parts of the Bids.

34.2 The Employer shall, simultaneously, notify in writing those Bidders whose Technical Part have been evaluated as substantially responsive to the bidding document and met all Qualifying Criteria, advising them of the following information:

- (a) their Bid has been evaluated as substantially responsive to the bidding document and met the Qualification Criteria;
- (b) their Financial Part of Bid will be opened at the public opening of the Financial Parts; and
- (c) notify them of the date and time of the second public opening of the Financial Parts of the Bids, as specified in the BDS.

34.3 The opening date should allow Bidders sufficient time to make arrangements for attending the opening. The Financial Part of the Bids shall be opened publicly in the presence of Bidders' designated representatives and anyone who chooses to attend, and this could also be viewed by the bidders online. The bidder's names, the Bid prices, the total amount of each bid, per lot (contract) if applicable, including any discounts, and such other details as the Employer may consider appropriate, will be notified online by the Employer at the time of bid opening.

In the event of the specified date of bid opening being declared a holiday for the Employer, the bids will be opened at the appointed time and location on the next working day.

- 34.4 **The electronic summary of the bid opening will be generated and uploaded online.** The Employer will also prepare minutes of the Bid opening, including the information disclosed and upload the same for viewing online. Only Financial Parts of Bids and discounts that are opened at Bid opening shall be considered further for evaluation.

I. Evaluation of Financial Parts of Bids

- 35. Evaluation of Financial Parts** 35.1 To evaluate the Financial Part, the Employer shall consider the following:
- (a) the Bid price, excluding Provisional Sums and the provision, if any, for contingencies in the Price Schedules;
 - (b) not used;
 - (c) price adjustment due to discounts offered in accordance with ITB 17.11;
 - (d) price adjustment due to quantifiable nonmaterial nonconformities in accordance with ITB 30.3;
 - (e) not used; and
 - (f) the evaluation factors specified **in the BDS** and in Section III, Evaluation and Qualification Criteria.
- 35.2 If price adjustment is allowed in accordance with ITB 17.7, the estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in Bid evaluation.
- 35.3 If this bidding document allows Bidders to quote separate prices for different lots (contracts), and the award to a single Bidder of multiple lots (contracts), the methodology to determine the lowest evaluated cost of the lot (contract) combinations, including any discounts offered in the Letter of Bid – Financial Part, is specified in Section III, Evaluation and Qualification Criteria
- 36. Correction of Arithmetical Errors** 36.1 The e-procurement system automatically calculates the total amount from unit rates and quantities, automatically populates the amount in words from the amount in figures, and picks up data from one table to another. Therefore there is no scope of discrepancy and need for arithmetic correction.
- 37. Conversion to Single Currency** 37.1 Not used.

- 38. Margin of Preference** 38.1 No margin of domestic preference shall apply.
- 39. Comparison of Financial Parts** 39.1 The Employer shall compare the evaluated costs of all substantially responsive Bids established in accordance with ITB 35.1 to determine the Bid that has the lowest evaluated cost.
- 40. Abnormally Low Bids** 40.1 **An Abnormally Low Bid is one where the Bid price, in combination with other elements of the Bid, appears so low that it raises material concerns as to the capability of the Bidder to perform the Contract for the offered Bid Price.**
- 40.2 In the event of identification of a potentially Abnormally Low Bid, the Employer, unless otherwise **specified in the BDS**, shall seek written clarifications from the Bidder, including detailed price analyses of its Bid price in correlation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the bidding document.
- 40.3 **After evaluation of the price analyses, in the event that the Employer determines that the Bidder has failed to demonstrate its capability to deliver the contract for the offered tender price, the Employer shall reject the Bid.**
- 41. Unbalanced or Front Loaded Bids** 41.1 **If the Bid that is evaluated as the lowest evaluated cost is, in the Employer's opinion, seriously unbalanced or front loaded the Employer may require the Bidder to provide written clarifications.** Clarifications may include detailed price analyses to demonstrate the consistency of the Bid prices with the scope of works, proposed methodology, schedule and any other requirements of the bidding document.
- 41.2 **After the evaluation of the information and detailed price analyses presented by the Bidder, the Employer may:**
- (a) accept the Bid without any additional Performance Security; or
 - (b) require that the total amount of the Performance Security be increased, at the expense of the Bidder, to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract; or
 - (c) reject the Bid, if the risk cannot be mitigated through additional performance security.

- 42. Most Advantageous Bid**
- 42.1 Having compared the evaluated costs of Bids, the Employer shall determine the Most Advantageous Bid. **The Most Advantageous Bid is the Bid of the Bidder that meets the Qualification Criteria and whose Bid has been determined to be:**
- (a) substantially responsive to the bidding document; and
 - (b) the lowest evaluated cost.
- 42.2 The capabilities of the manufacturers and subcontractors proposed in its Bid to be used by the Bidder with the Most Advantageous Bid for identified major items of supply or services will also be evaluated for acceptability in accordance with Section III, Evaluation and Qualification Criteria. **Their participation should be confirmed with a letter of intent between the parties, as needed. Should a manufacturer or subcontractor be determined to be unacceptable, the Bid will not be rejected, but the Bidder will be required to substitute an acceptable manufacturer or subcontractor without any change to the Bid price. Prior to signing the Contract, the corresponding Appendix to the Contract Agreement shall be completed, listing the approved manufacturers or subcontractors for each item concerned.**
- 43. Employer's right to Accept Any Bid and to Reject Any or All Bids**
- 43.1 The Employer reserves the right to accept or reject any Bid, and to annul the Bidding process and reject all Bids at any time prior to Contract Award, without thereby incurring any liability to Bidders. In case of annulment, all documents submitted and specifically, Bid securities shall be promptly returned to the Bidders.
- 44. Standstill Period**
- 44.1 Standstill Period shall not apply.
- 45. Notice of Intention to Award**
- 45.1 Not used.

J. Award of Contract

- 46. Award Criteria**
- 46.1 Subject to ITB 40, the Employer shall award the Contract to the successful Bidder. This is the Bidder whose Bid has been determined to be the Most Advantageous Bid. **This is the Bid of the Bidder that meets the qualification criteria and whose Bid has been determined to be:**
- (a) substantially responsive to the bidding document; and

(b) **the lowest evaluated cost.**

- 47. Notification of Award**
- 47.1 **Prior to the expiration of the Bid Validity Period, the Employer shall transmit the Letter of Acceptance to the successful Bidder.** The Letter of Acceptance shall specify the sum that the Employer will pay the Contractor in consideration of the execution of the contract (hereinafter and in the Conditions of Contract and Contract Forms called “the Contract Price”).
- 47.2 At the same time, the Employer shall publish the Contract Award Notice which shall contain, at a minimum, the following information:
- (a) name and address of the Employer;
 - (b) name and reference number of the contract being awarded, and the selection method used;
 - (c) names of all Bidders that submitted Bids, and their Bid prices as read out at Bid opening, and as evaluated;
 - (d) names of all Bidders whose Bids were rejected either as nonresponsive or as not meeting qualification criteria, or were not evaluated, with the reasons therefor; and
 - (e) the name of the successful Bidder, the final total contract price, the contract duration and a summary of its scope.
- 47.3 The Contract Award Notice shall be published on a National website (GoI website <http://wbtdenders.gov.in> or GoI Central Public Procurement Portal <https://eprocure.gov.in/cpppp/>) or on the Employer’s website with free access if available, or in the official gazette.
- 47.4 Until a formal contract is prepared and executed, the Letter of Acceptance shall constitute a binding Contract**
- 48. Debriefing by the Employer**
- 48.1 Not used.
- 49. Signing of Contract**
- 49.1 Promptly upon Notification of Award, the Employer shall prepare the Contract Agreement, and keep it ready in the office of the Employer for the signature of the Employer and the successful Bidder, **within 28 days following the date of Letter of Acceptance.** The Contract Agreement shall incorporate all agreements between the Employer and the successful Bidder.
- 49.2 Within twenty-eight (28) days of receipt of the Letter of Acceptance, the successful Bidder shall (a) furnish the performance security in accordance with ITB Clause 50; (b) if the successful bidder is a JV, it shall also furnish the JV agreement duly signed by all the members, if it had submitted only a letter of intent to execute the JV agreement

along with the bid; and (c) shall sign, date, and return the Agreement to the Employer along with the documents stated at (a) and (b) above.

49.3 Not used.

50. Performance Security

50.1 Within twenty-eight (28) days of the receipt of the Letter of Acceptance from the Employer, the successful Bidder shall furnish the Performance Security in accordance with the General Conditions GCC 13.3, subject to ITB 41, using for that purpose the Performance Security Form included in Section X, Contract Forms. The performance security of a Joint Venture shall be in the name of the Joint Venture specifying the names of all members.

50.2 **Failure of the successful Bidder to submit the above-mentioned Performance Security or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security.** In that event the Employer may award the Contract to the Bidder offering the next Most Advantageous Bid.

50.3 **Upon the successful Bidder's signing the Agreement and furnishing of the Performance Security pursuant to ITB Clause 50.1, the Employer shall promptly notify the name of the winning bidder to each unsuccessful bidder and shall discharge the Bid Securities of the bidders pursuant to ITB Clause 20.5 and 20.6.**

51. Adjudicator

51.1 The Employer proposes the person **named in the BDS** to be appointed as Adjudicator under the Contract, at the daily fee **specified in the BDS**, plus reimbursable expenses (actual boarding, lodging, travel and other incidental expenses). If the Bidder disagrees with this proposal, the Bidder should so state in his Bid. If, in the Letter of Acceptance, the Employer does not agree on the appointment of the Adjudicator, the Employer will request the Appointing Authority designated in the Particular Conditions of Contract (PCC) pursuant to Clause 46.1 of the General Conditions of Contract (GCC), to appoint the Adjudicator.

Adjudicator to be mutually decided at the time of signing of Contract Document

Section II - Bid Data Sheet

The following specific data for the Facilities to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

A. General	
ITB 1.1	<p>The reference number of the Request for Bids (RFB) is: RFB No: IN-WBSEDCL-211042-CW-RFB Issued on: 05.01.2021</p> <p>The Employer is: WBSEDCL(<i>West Bengal State Electricity Distribution Company Limited</i>)</p> <p>The name of the RFB is: Supply and installation of 'Conversion of Overhead HT and LT Network into Underground cable system at Rajarhat Town under North24 Parganas district within the state of West Bengal'</p> <p>The number and identification of lots (contracts) comprising this RFB is: <i>Package no. UG_2 for RajarhatTown</i></p>

ITB 1.2 (a)	<p>The Employer shall use the e-procurement system specified in BDS 7.1.</p> <p>Following are added after 1.2 (c)</p> <ul style="list-style-type: none"> (d) the term “ES” means environmental and social (including Sexual Exploitation, and Abuse (SEA), and Sexual Harassment (SH)); (e) “Sexual Exploitation and Abuse” “(SEA)” means the following: <ul style="list-style-type: none"> (i) “Sexual Exploitation” is defined as any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another. (ii) “Sexual Abuse” is defined as the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions; (f) “Sexual Harassment” “(SH)” is defined as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature by the Contractor’s Personnel with other Contractor’s or Employer’s Personnel; (g) “Contractor’s Personnel” is as defined in Sub-Clause 1 of the General Conditions of Contract in SCC; and (h) “Employer’s personnel” is as defined in GCC Sub-Clause 1 of the General Conditions of Contract in SCC. <p>A non-exhaustive list of (i) behaviors which constitute SEA and (ii) behaviors which constitute SH is attached to the Code of Conduct form in Section IV.</p>
ITB 2.1	<p>The Borrower is: Government of India. The sub-Borrower is GoWB / WBSEDCL</p> <p>The amount of the financing is: USD 280 m</p> <p>The name of the Project is: <i>West Bengal Electricity Distribution Grid Modernization Project</i></p>
ITB 4.1	<p>Bids from Joint ventures are acceptable.</p> <p>Maximum number of members in the Joint Venture (JV) shall be: 2 (Two) Place where the agreement to form JV to be registered is: To be mentioned by contractor</p>

ITB 4.5	A list of debarred firms and individuals is available on the Bank's external website: http://www.worldbank.org/debarr .
B. Bidding Document	
ITB 7.1	<p>Electronic –Procurement System</p> <p>The Employer shall use the following electronic-procurement system to manage this Bidding process:</p> <p><i>www.wbtenders.gov.in</i></p> <p>Requests for clarification should be received by the Employer no later than:15 days prior to the deadline for submission of bids.</p>
ITB 7.4	<p>A Pre-Bid meeting will take place at the following date, time and place:</p> <p>Date: 13.01.2021</p> <p>Time: 11.00 hours</p> <p>Place: Kolkata (Vidyut Bhawan, Block-DJ, Sector-II, Bidhannagar, Kolkata-700091)</p> <p>Owing to the current pandemic situation, the Pre-Bid meeting may be held in virtual mode, details of which will be uploaded in WBSSEDCL Portal as well as e-tendering portal before the scheduled date of meeting.</p> <p>A site visit may be conducted by the prospective bidders at their own cost. However, other support for site visit may be extended by the concerned Regional Manager (WBSSEDCL), if required.</p>
ITB 7.5	Bidders are requested to submit questions online through given e-mail id of Chief Engineer Project-III - cep3.wbsedcl@gmail.com
ITB 8.1	The addendum will appear on the e-procurement system under http://www.wbtenders.gov.in and email notification is also automatically sent to those bidders who have started working on this tender.
C. Preparation of Bids	

ITB 11.2 (j)	<p>The Bidder shall submit with its bid the following additional documents in its Bid – Technical Part:</p> <p>a).Copy of GST Registration certificate. (GST.IN No.)</p> <p>b). Copy of Firm Registration&Incorporation</p> <p>c). Valid A-Grade License or equivalent license issued by Electrical Inspector of any state to be in force as on the date of Technical Bid opening</p> <p>d) Electrical Supervisor’s Certificate of Competency as per clause 1.7(c) in Section III.However,the bidder may submit declaration at the time of Bid submission for compliance of same with undertaking for submission of required certificates before signing of contract.</p> <p>f) EPF Registration</p> <p>g) Type tests Certificates issued by NABL accredited laboratories, of equipment listed under clause 3.1 (i) of Section III h) and any other documents specified in bid</p>
ITB 11.3 (d)	<p>The Bidder shall submit the following additional documents in its Bid – Financial Part:<i>Not Applicable</i></p>
ITB 12	<p>Bidders have to submit the bids on the e-procurement portal along with the relevant required documents. For this purpose, the bidders shall fill up online, the forms that are available for online filling on the e-portal. The rest of the forms shall be download by the bidders and filled up. The filled up pages shall then be scanned and uploaded on the e-procurement portal along with the scanned copies of the supporting documents.</p>
ITB 12.3	<p>For submission of original documents, the Employer’s address is:</p> <p>Attention: <i>Chief Engineer, Distribution Project III Department</i></p> <p>Street Address: Sector II, Karunamayee, Bidhannagar, Block-DJ</p> <p>Floor/ Room number: <i>VidyutBhawan, 2ndFloor, C Block, WBSEDCL.</i></p> <p>City: <i>Salt Lake City</i>,Kolkata, West Bengal</p> <p>PIN/Postal Code: 700091</p> <p>Country: INDIA</p>

ITB 13.1	Alternative Bids shall not be considered.
ITB 13.2	Alternatives to the Time Schedule <i>“shall not be”</i> accepted.
ITB 13.4	Alternative technical solutions shall not be permitted.
ITB 17.1	Bidders shall quote for the entire Plant and Installation services on a single responsibility basis
ITB 17.5	<p>Following details to be replaced with the following:</p> <p>Schedule No. 1: Plant (including Mandatory Spare Parts) Supplied from Abroad – Not Used</p> <p>Schedule No. 2: Plant (including Mandatory Spare Parts) and associated F & I Charges Schedule No. 3: Design Services Not Used</p> <p>Schedule No. 4: Installation Services</p> <p>Schedule No. 5: Grand Summary (Schedule Nos.1 to 4)</p> <p>Schedule No. 6: Recommended Spare PartsNot Used</p>
ITB 17.5 (a)	Place of destination: <i>As below</i>
and (b) & (d)	<p>Final destination (Project Site): Rajarhat Town</p> <p>Rates or prices for local transportation to named place of final destination as specified in the BDS, insurance and other services incidental to delivery of the plant should be a part of Schedule 2.</p>
ITB 17.6	The Incoterms edition is: 2010
ITB 17.7	<p>The supply prices quoted by the bidder shall be adjusted only for the following items:</p> <ul style="list-style-type: none"> a) Distribution Transformer b) RMU c) LT/HTUG Cable d) LTAB Cable

	<p>The price adjustment shall be as per Appendix 2, Price Adjustment under Section X, Contract Forms</p> <p>Except above, all other supply items and transportation, insurance & installation shall remain firm:</p>
ITB 17.11	<p>Offered discounts must be indicated in percentage on total contract price or any Supply or Erection schedule. If the bidder opts for discount, GST shall be applicable on discounted price.</p>
ITB 17.12	<p>Add new clause ITB 17.12:</p> <p>“Bidders may like to ascertain availability of excise/custom duty exemption benefits available in India to the contracts financed under World Bank loan/credits. They are solely responsible for obtaining such benefits which they have considered in their bid and in case of failure to receive such benefits for reasons whatsoever, the employer will not compensate the bidder (contractor). The bidder shall furnish along with his bid a declaration to this effect in the Declaration Format provided in Section IV of the bidding documents.</p> <p>Where the bidder has quoted taking into account such benefits, he must give all information required for issue of certificates in terms of the Government of India Central Excise Notification and Customs Notification as per form stipulated in section IV. In case the bidder has not provided the required information or has indicated to be furnished later on in the Declaration Format, the same shall be construed that the goods/construction equipment for which certificate is required is Nil.</p> <p>To the extent the employer determines the quantities indicated therein are reasonable keeping in view the bill of quantities, work schedule, construction programme and methodology, the certificates will be issued and no subsequent changes will be permitted. The certificate will be issued within 60days of signing of the contract for material pertaining to BOQ quantities, equipment and machinery. In case of materials pertaining to Variation items and quantities the certificate shall be issued only on request from the contractor when in need and duly certified by the Engineer and no subsequent changes will be permitted.</p> <p>If the bidder has considered the customs/excise duty exemption for materials/construction equipment to be bought for the work, the bidder shall confirm and certify that the Employer will not be required to undertake any responsibilities of the Government of India Scheme or the said exemptions being available during the contract execution, except issuing the required certificate.</p>

	<p>The bids which do not conform to the above provisions or any condition by the bidder which makes the bid subject to availability of customs/excise duty exemption for materials/construction equipment or compensation on withdrawal of any variations to the said exemptions will be treated as non-responsive and rejected.</p> <p>Any delay in procurement of the construction equipment /machinery/goods as a result of the above shall not be entertained as a reason for granting any extension of time.”</p>
ITB 19.1	The Bid validity period shall be 120 days
ITB 19.3 (a)	The Bid price shall be adjusted by the factor: Not Applicable
ITB 20.1	<p>The Bidder shall furnish a Bid Security in the amount of:</p> <p>INR 243.26Lakhs (Rupees Two crore FourtyThree Lakhs Twenty six thousand only)</p>
ITB 20.3 (d)	<p>Other types of acceptable securities are:</p> <p>Fixed Deposit/Time Deposit certificate issued by a Nationalized or Scheduled Bank located in India for equivalent or higher values are acceptable provided it is pledged in favour of WBSEDCL (implementing agency) and such pledging has been noted and suitably endorsed by the bank issuing the certificate</p>
D. Online Submission and Opening of Bids	
ITB 21.3	<p>The written confirmation of authorization to sign on behalf of the Bidder shall consist of:</p> <p><i>Legally valid Power of Attorney is required to demonstrate the authority of the signatory to sign the Bid</i></p>
D. Online Submission and Opening of Bids	
ITB 22.1	Class of DSC required is: II or above
ITB 23.1	<p>The deadline for uploading the Bids is:</p> <p>Date 08.02.2021 Time: 12.00 Afternoon</p>

ITB 25.1	Re-submission of the bid is - <i>Allowed</i> , if withdrawn & submitted within deadline of Bid submission
E. Public Opening of Technical Parts of Bids	
ITB 26.1	<p>The online Bid opening of Technical Parts of Bids shall take place on:</p> <p>Street Address: Sector II, Karunamayee, Bidhannagar, Block-DJ</p> <p>Floor/ Room number: <i>VidyutBhawan, 2ndFloor, C Block, WBSEDCL.</i></p> <p>City: <i>Salt Lake City</i>, Kolkata, West Bengal</p> <p>PIN/Postal Code: 700091</p> <p>Country: INDIA</p> <p>Date: 08.02.2021</p> <p>Time: <i>02.00 PM</i></p>
F. Evaluation of Bids – General Provisions	
ITB 30.3	<p><u>The Bid Price shall be adjusted, for evaluation purposes only, to reflect the price of a missing or non-conforming item or component, as below:</u></p> <p><u>In case of missing items, the adjustment shall be based on the highest price of the item or component as quoted in other substantially responsive Bids, subject to a maximum of the estimated price of the item. If the price of the item or component cannot be derived from the price of other substantially responsive Bids, the Employer shall use its best estimate.</u></p>
H. Public Opening of Financial Parts of Bids	
ITB 34.2 (c)	<p>Following the completion of the evaluation of the Technical Parts of the Bids, the Employer will notify all Bidders of the location, date and time of the public opening of Financial Parts.</p> <p>In addition to the above the Employer shall publish a notice of the public opening of the Financial Parts of the Bid on its website http://www.wbtenders.gov.in</p>
I. Evaluation of Financial Parts of Bids	
ITB 35.1 (f)	The adjustments shall be determined using the following criteria, from amongst those set out in Section III, Evaluation and Qualification Criteria: <i>[refer to Section III, Evaluation and Qualification Criteria; insert complementary details if necessary]</i>

	<p>(a) Deviation in Time for Completion: <i>[insert Yes or No. If yes insert the adjustment factor in Section III, Evaluation and Qualification Criteria]; No</i></p> <p>(b) Life cycle costs: the projected operating and maintenance costs during the life of the goods or equipment <i>[insert Yes or No, If yes, insert the Methodology and criteria in Section III, Evaluation and Qualification Criteria]; No</i></p> <p>(c) Functional Guarantees of the Facilities <i>[insert Yes or No, If Yes, insert methodology and criteria in Section III, Evaluation and Qualification Criteria] Not applicable</i></p> <p>(d) Work, services, facilities, etc., to be provided by the Employer <i>[insert Yes or No, if yes, insert the Methodology and criteria in Section III, Evaluation and Qualification Criteria]; Yes, as per Bid for permission from Govt. Authorities</i></p> <p><i>(e) If the price or its component incl. tax has not been quoted in concerned price schedule as per format, it shall be considered that the price or its tax has already been included in its base price or in other items and award shall be issued accordingly.</i></p>
ITB 40.2	Provisions related to Abnormally Low Bids may not be accepted
J. Award of Contract	
ITB 47.3	http://www.wbtenders.gov.in
ITB 49.1	<p>Prior to signing of the contract, the Successful Bidder shall also submit the following Code of Conduct for Contractor's Personnel (ES) as per format enclosed in the "Contract Forms"</p> <p>The Successful Bidder shall submit its Code of Conduct that will apply to Contractor's Personnel (as defined in Sub-Clause 1.1 of the General Conditions of Contract), to ensure compliance with the Contractor's Environmental and Social (ES) obligations under the Contract. The successful Bidder shall use for this purpose the Code of Conduct form provided in "Contract Forms". No substantial modifications shall be made to this form, except that the successful Bidder may introduce additional requirements, including as necessary to take into account specific Contract issues/risks.</p> <p>Contractor's Environment & Social Management plan (C-ESMP) to manage the (ES) risks</p> <p>The Successful Bidder shall submit Contractor's Environment & Social Management plan (C-ESMP) to manage the following key Environmental and Social (ES) risks [Refer Contract Forms]:</p>

	<p>Traffic Management Plan to ensure safety of local communities from construction traffic];</p> <p>Plan for obtaining Permits to work (from WBSEDCL, P&T, Railways, Municipal Authority etc. prior to the start of relevant works;</p> <p>Plan to work alongside running roads, pavements, residential and commercial buildings, and service lines (sewage, water, electrical)</p> <p>Labour Management Plan in accordance with Labour Management Procedure/ESMF</p> <p>The above shall become part of the Contract Agreement.</p>
ITB 51	<p>The Adjudicator proposed by the Employer is: <i>Will be named during signing of contract Agreement.</i> The daily fee for this proposed Adjudicator shall be:decided with mutual consent between Employer and Contractor</p>
ITB 20, 50&Appendix 1 Terms and Procedure of Payment	<p>Bank details for preparation of Bank Guarantee (EMD, Advance BG and Performance BG):-</p> <p>Name of Bank:-United Bank of India(now merged with Punjab National Bank)</p> <p>Branch:-Mayukh Bhawan, Salt Lake, Kolkata</p> <p>Bank Account No.:- 1096050103428</p> <p>IFS Code:- UTBI0MBHD62</p>
General / Common Issue - Complaint Officer	<p>Designated Officer of WBSEDCL to be named latter</p> <p>Name :- Chief Engineer, Project III</p> <p>Designation:-</p> <p>Address:-</p> <p>Contact no.:-</p>

Section III - Evaluation and Qualification Criteria

This Section contains all the criteria that the Employer shall use to evaluate Bids and qualify Bidders through post qualification. No other factors, methods or criteria shall be used other than those specified in this bidding document.

The Bidder shall provide all the information requested in the forms included in Section IV, Bidding Forms.

Section III - Evaluation and Qualification Criteria

This Section contains all the criteria that the Employer shall use to evaluate Bids and qualify Bidders through post qualification. No other factors, methods or criteria shall be used other than those specified in this bidding document.

The Bidder shall provide all the information requested in the forms included in Section IV, Bidding Forms.

Table of Criteria

The Employer shall use the criteria and methodologies listed in this Section to evaluate Bids. By applying the criteria and methodologies, the Employer shall determine the Most Advantageous Bid. This is the Bid of the Bidder that meets the qualification criteria and whose Bid has been determined to be:

- (a) substantially responsive to the bidding document; and
- (b) the lowest evaluated cost.

1. Evaluation – Technical Part

1.1 Technical Evaluation - the Employer will carry out a detailed technical evaluation of the Bids to determine whether the technical aspects are in compliance with the bidding document. The Bid that does not meet minimum acceptable standards of completeness, consistency and detail, and the specified minimum (or maximum, as the case may be) requirements for specified functional guarantees, will be rejected for non-responsiveness.

Where alternative technical solutions have been allowed in accordance with ITB 13, and offered by the Bidder, the Employer will make a similar evaluation of the alternatives. Where alternatives have not been allowed but have been offered, they shall be ignored.

1.2 In addition to the criteria listed in ITB 31.2 (a) – (c) the following factors shall apply:

None

1.3 The following factors and methods will apply:

(a) Functional Guarantees of the Facilities – technical aspects

The total losses of offered transformers at 50 % & 100% loading at rated voltage and frequency at 75°C shall not exceed the value as mentioned below. No positive tolerance shall

be allowed on maximum total Losses at 50% & 100% loading at column (4) & (5) mentioned below:

Sl. No. (1)	Voltage Ratio (2)	Rating (kVA) (3)	Max ^m Total Loss (No Load + on Load) at 75 °C		Impedance Voltage (%) at 50 Hz & 75°C (6)
			50 % Loading (4)	100 % Loading (5)	
1.	11000 / 433 V	160	670 Watts	1950 Watts	4.50 ± (IS Tol)
2.	11000 / 433 V	315	1025 Watts	3100 Watts	4.50± (ISTol)

Note: Bids offering equipment with losses higher than the maximum permissible losses indicated above, shall be rejected. DTR losses will be strictly guided by the Table above superceding any other loss figure provided alongwith SBD.

All items should be as per approved technical specification and drawings of WBSSEDCL.

(b) Alternative technical solutions for specified parts – technical aspects

The acceptability of alternative technical solutions for parts of the facilities, if permitted under ITB 13.4, will be determined as follows: **Not Applicable**

(c) Specific additional criteria Not Applicable

2. Qualification

Factor	1 Eligibility					
Sub-Factor	Criteria					Docume ntation Require d
	Requirement	Bidder				
		Single Entity	Joint Venture (existing or intended) where permitted			
			All members combined	Each Partner	At least one Partner	
1.1 Nationality	Nationality in accordance with ITB 4.4.	Must meet requireme nt	NA	Must meet require ment	N / A	Form ELI — 1.1 and 1.2, with attachm ents

1.2 Conflict of Interest	No- conflicts of interests as described in ITB 4.2	Must meet requirement	NA	Must meet requirement	N / A	Letter of Bid
1.3 Bank Ineligibility	Not having been declared ineligible by the Bank as described in 4.5.	Must meet requirement	NA	Must meet requirement	N / A	Letter of Bid
1.4 State Owned Enterprise or Institution	Compliance with conditions of ITB 4.6	Must meet requirement	NA	Must meet requirement	N / A	Form ELI – 1.1 and 1.2, with attachments
1.5 Ineligibility based on a United Nations resolution or Borrower's country law	Not having been excluded as a result of the Borrower's country laws or official regulations, or by an act of compliance with UN Security Council resolution, in accordance with ITB 4.8 and Section V.	Must meet requirement	NA	Must meet requirement	N / A	Letter of Bid

Factor	2. Historical Contract Non-Performance					
Sub-Factor	Criteria					Documentation Required
	Requirement	Bidder				
		Single Entity	Joint Venture (existing or intended) where permitted			
			All members combined	Each member	At least one member	
2.1 History of non-performing contracts	Non-performance ¹ of a contract did not occur within the last Five (5) years prior to the deadline for application submission, based on all information on fully settled disputes or litigation. A fully settled dispute or litigation is one that has been resolved in accordance with the Dispute Resolution Mechanism under the respective contract, and where all appeal instances available to the Bidder have been exhausted.	Must meet requirement by itself or as member to past or existing JV	N / A	Must meet requirement by itself or as member to past or existing JV	N / A	Form CON - 2
2.2 Suspension	Not under suspension based on execution of a Bid Securing Declaration or Proposal Securing Declaration pursuant to ITB 4.7 and ITB 20.9	Must meet requirement	NA	Must meet requirement	NA	Letter of Bid

¹Nonperformance, as decided by the Employer, shall include all contracts where (a) nonperformance was not challenged by the contractor, including through referral to the dispute resolution mechanism under the respective contract, and (b) contracts that were so challenged but fully settled against the contractor. Nonperformance shall not include contracts where Employers decision was overruled by the dispute resolution mechanism. Nonperformance must be based on all information on fully settled disputes or litigation, i.e. dispute or litigation that has been resolved in accordance with the dispute resolution mechanism under the respective contract and where all appeal instances available to the Bidder have been exhausted

Factor	2. Historical Contract Non-Performance					
Sub-Factor	Criteria					Documentation Required
	Requirement	Bidder				
		Single Entity	Joint Venture (existing or intended) where permitted			
			All members combined	Each member	At least one member	
2.3 Pending Litigation	Bid's financial position and prospective long term profitability still sound according to criteria established in 3.1 below and assuming that all pending litigation will be resolved against the Bidder	Must meet requirement	N / A	Must meet requirement	N / A	Form CON – 2
2.4 Litigation History	No consistent history of court/arbitral award decisions against the Bidder ² since 1 st January 2015	Must meet requirement	NA	Must meet requirement	N/A	Form CON – 2
2.5 Declaration: Environmental and Social (ES) past performance	Declare any civil work contracts that have been suspended or terminated and/or performance security called by an employer for reasons of breach of environmental, or social (including Sexual Exploitation, and Abuse) contractual obligations in the past five years ³ .	Must make the declaration. Where there are Specialized Sub-contractor/s, the Specialized Sub-contractor/s must also make the declaration.	N/A	Must make the declaration.	N/A	Form CON-3 ES Performance Declaration

² The Bidder shall provide accurate information on the related Bid Form about any litigation or arbitration resulting from contracts completed or ongoing under its execution over the last five years. A consistent history of awards against the Bidder or any member of a joint venture may result in failure of the Bid.

³The Employer may use this information to seek further information or clarifications in carrying out its due diligence.

Factor	3 Financial Situation					
Sub-Factor	Criteria					Documentation Required
	Requirement	Bidder				
		Single Entity	Joint Venture (existing or intended) where permitted			
			All members combined	Each member	At least one member	
3.1 Financial Capabilities	Submission of audited balance sheets or if not required by the law of the Bidder's Country, other financial statements acceptable to the Employer, for the last five [5] years to demonstrate the current soundness of the Bidders financial position and its prospective long term profitability.	Must meet requirement	N / A	Must meet requirement	N / A	Form FIN – 3.1 with attachments
3.2 Average Annual Turnover	Minimum average annual turnover calculated as total certified payments received for contracts in Distribution & Transmission Sector, in progress or completed, in at least two financial years, within the last five (5) years: INR 121.63 crore	Must meet requirement	N/A	Must meet at least 40% of the requirement	Must meet at least 60% of the requirement	Form FIN –3.2
3.3 Financial Resources (Liquid Assets)	The Bidder must demonstrate access to, or availability of, financial resources such as liquid assets, unencumbered real assets, lines of credit, and other financial means, other than any contractual advance payments to meet the following cash-flow requirement:	Must meet requirement	NA	Must meet at least 40% of the requirement	Must meet at least 60% of the requirement	Form FIN –3.3

Factor	3 Financial Situation					
Sub-Factor	Criteria					Documentation Required
	Requirement	Bidder				
		Single Entity	Joint Venture (existing or intended) where permitted			
			All members combined	Each member	At least one member	
	INR 30.41 Cr.					
3.4 (i) Net Worth	Net Worth ⁴ for the each of the last three Financial Years should be positive	Must meet requirement	Not Applicable	Must meet requirement	Not Applicable	
3.4(ii) Credit Rating	Latest long-term issuer rating, not older than 15 months from the date of bid opening, as issued by a credit rating agency registered with Securities Exchange Board of India should be BBB(-) or above.Bidder to provide self declaration that the credit rating shared is the latest one available. Anyone bidder (in case of	Must meet requirement	Not Applicable	Must meet requirement	Not Applicable	

3.3 Liquid assets would include cash (and equivalents), bank deposits, securities that can be freely traded and receivables which has general certainty of getting received or Current Assets minus Current Liabilities minus Inventories that are easily tradeable.

3.3 Certificate from banker (as per format) indicating various fund based/non fund based limits sanctioned to the bidder and the extent of utilization as on date for supplementary information towards Liquid Assets

⁴**Net worth** means the sum total of the paid up capital and free reserves (excluding reserves created out of revaluation) reduced by aggregate value of accumulated losses (including debit balance in profit and loss account for current year) and intangible assets

Factor	3 Financial Situation					
Sub-Factor	Criteria					Documentation Required
	Requirement	Bidder				
		Single Entity	Joint Venture (existing or intended) where permitted			
			All members combined	Each member	At least one member	
	JV) should meet this requirement.					
3.4 (iii) Bid Capacity	The bid capacity of the contractor should be equal to or more than the estimated cost of the work put to Tender. The bidding capacity shall be worked out by the following formula: Bidding Capacity = [A x N x 2] – B Where, A = Maximum turnover in any one year during the last three years (in case of bidders having multiple lines of businesses, turnover only against construction related works* shall be considered, which shall be duly certified by a Chartered Accountant)	Must meet requirement	Must meet requirement	N / A	N / A	Form FIN – 3.3

Factor	3 Financial Situation					
Sub-Factor	Criteria					Documentation Required
	Requirement	Bidder				
		Single Entity	Joint Venture (existing or intended) where permitted			
			All members combined	Each member	At least one member	
	N = Number of years prescribed for completion of work for which bids have been invited B = Value of existing commitments and ongoing works (this will include works against which notification of intention of award/notification of award has been issued). Further, before opening of financial bids, Employer will update the value of B with any additional contracts for which notification of intention to award has been issued by Employer. If the bid submitted by the same bidder is being considered as Lowest Responsive Bid in any other forthcoming contract/bid, then their Bid Capacity shall be evaluated by considering Contract award decision under current contract commitment before opening of the financial					

Factor	3 Financial Situation					
Sub-Factor	Criteria					Documentation Required
	Requirement	Bidder				
		Single Entity	Joint Venture (existing or intended) where permitted			
			All members combined	Each member	At least one member	
	bids for any subsequent package * The nature of construction contracts eligible for consideration shall include only transmission/distribution lines and sub-stations. Full value of contracts would be considered in case of Supply & Installation contracts, EPC contracts of turnkey/partial-turnkey nature.					

Fact or	4 Experience						
Sub-Factor	Criteria					DDoc umen tation Requi red	
	Requirement	Bidder					
		Single Entity	Joint Venture (existing or intended) where permitted				
			All membe rs combin ed	Each member			At least one me mbe r
4.1 General Experie nce	Experience in power transmission and distribution sector contracts in the role of <i>contractor</i> , subcontractor, or management contractor for at least the last seven (7)years from deadline of Bid Submission Date.	Must meet requireme nt	N/A	Must meet requirem ent	Must meet requi reme nt	Form EXP- 4.1	
4.2Spec ific Experie nce	The bidder must have successfully supplied, installed, tested & commissioned as contractor, joint venture member ⁵ , management contractor, or subcontractor, the following works in last seven (7) years from deadline of Bid Submission dateand the system so created must be in satisfactory operation for at least one(1)year: (a) At least 53.644route km of 11kV or higher voltage	Must meet requireme nt	Must meet require ment	Must meet at least 40% of the requirem ent	Must meet at least 60% of the requi reme nt	For m EX P 4.2 (a)	

⁵ For contracts under which the Bidder participated as a joint venture member or sub-contractor, only the Bidder's share, by value, shall be considered to meet this requirement

Fact or	4 Experience					
	<p>underground cable in a single contract</p> <p>or</p> <p>at least 85.83 route km of 11kV or higher voltage underground cable in not more than two contracts</p> <p>And</p> <p>(a) At least 1.2 route km of 33 kV or higher voltage underground cable in a single contract</p> <p>or</p> <p>at least 1.5 route km of 33kV or higher voltage underground cable in not more than two contracts</p> <p>And</p> <p>(b)At least 55 route km of 1.1 kV underground cable in a single contract</p> <p>or</p> <p>at least 68.75 route km of 1.1kV underground cable in not more than two contracts</p> <p>And</p> <p>(c) At least 30 nos. of 11 kV or higher voltage RMUs in a single contract</p> <p>or</p> <p>at least 37 nos. of 11 kV or higher voltage RMUs in not more than two contracts</p>					

Fact or	4 Experience					
	<p>And</p> <p>(d) Sub-Stations of [33 KV or higher voltage class] in a single turnkey contract having installation of at least 18.125 MVA</p> <p>Or</p> <p>Sub-Stations of [33 KV or higher voltage class] in a maximum of two turnkey contracts, having installation of at least 29 MVA</p>					
<p>4.2 (c)</p>	<p>Even though the bidders may meet the above qualifying criteria, they are subject to be disqualified if they have:</p> <ul style="list-style-type: none"> a. made misleading or false representations in the forms, statements, affidavits, and attachments submitted in proof of the qualification requirement; b. record of poor performance such as abandoning the works, not properly completion or financial failures etc. c. consistent history of litigation or arbitration awards against the bidder or any member or the joint venture. d. Participated in the previous bidding (if this is a re-bidding) for the same plant and installation work and had quoted unreasonably high bid price and could not furnish any rational justification for the same to the employer. 					

2.5 Personnel

(a) The bidders must provide an undertaking that they will mobilize, at the minimum, the following personnel, in the event of contract award:

SN	Position	Number	Experience
1.	Project Manager	One	At least 10 years of experience in construction of transmission/distribution network including HT underground cabling systems
2.	Supervisor Electrical	One	Supervision of HT underground cabling works
3.	Supervisor Civil	One	Supervision of civil works related to HT underground cabling works
4.	Safety Supervisor	<u>One</u>	Safety Supervision of transmission and distribution sub-station/line construction sites for at least 5 years, including underground cabling works
5.	Safeguard Expert	<u>One</u>	Implementation of social and environment impact mitigation plan for electrical projects for 5 years

(b) The Bidder must not have in their employment:

- [i] the near relations (defined as first blood relations, and their spouses, of the bidder or the bidder's spouse) of persons of the following Government Departments.

Any Department of Government of West Bengal

- [ii] any person working without Government permission, who retired as gazetted officer within the last two years.

2.6 Equipment

The bidder shall provide an undertaking that they will mobilize the following equipment at site in the event of contract award:

No.	Equipment Type and Characteristics	Capacity	Minimum Number required
1	Cable puller	3 Ton	1 No.

2	Crane	8 Ton	1 No.
3	Pneumatic Demolisher	60 Pound	1 No.
4	Excavator	1 Cum	2 Nos.
5	Concrete Cutters		2 Nos.
6	Tippers	10 ton	1 No.
7	Vibratory Power Rollers	8 to 10 ton	As required
8	Mini Compactors		As required
9	Concrete Mixer	10/7 cu ft	As required
10	Electric Generator	125 kVA	As required

2.7 Special Technical Requirements

The bidder should possess the following:

- (a) "A" Classor Equivalent license issued by the Electrical inspectorate of Govt. of West Bengal/Central Inspectorial organization of Govt. of India/any other state Govt.
- (b) Electrical Supervisor's Certificate of Competency issued by the Govt. of West Bengal for Parts: 1,2,3,4,6A,6B,7A,7B,7C,11 & 12 or National Certificate of Competency (Parts I & II) The bidder may submit declaration at the time of Bid submission for compliance of same with undertaking for submission of required certificates before signing of contract.

3. Evaluation – Financial Part

3.1 The following factors and methods will apply:

Bidders have to quote GST separately (as applicable) on their Bid price as per Schedule, which is payable extra on EX-works Price, however, GST shall not be considered for evaluation. All other Taxes, Duties, Cess etc. shall be included in Bid Price.

(a) Time Schedule

Time to complete the Plant and Installation Services from the effective date specified in Article 3 of the Contract Agreement for determining time for completion of pre-commissioning activities is: 24 months from the date of Notification of Award (NoA) / Letter of Intent (LoI). No credit will be given for earlier completion.

(b) Life Cycle Costs *Not applicable.*

(c) Functional Guarantees of the Facilities – financial aspects Not Applicable for Evaluation

(d) Work, services, facilities, etc., to be provided by the Employer

Where Bids include the undertaking of work or the provision of services or facilities by the Employer in excess of the provisions allowed for in the Bidding document, the Employer shall assess the costs of such additional work, services and/or facilities during the duration of the contract. Such costs shall be added to the Bid price for evaluation.

(e) Sustainable procurement – Not used.

(f) Alternative technical solutions for specified parts – financial aspects

Not applicable

(g) Specific additional criteria

The relevant evaluation method, if any, shall be as follows:

The Bid Price shall be adjusted, for evaluation purposes only, to reflect the price of a missing or non-conforming item or component, as below:

a) In case of missing items, The adjustment shall be based on the highest price of the item or component as quoted in other substantially responsive Bids, subject to a maximum of the estimated price of the item. If the price of the item or component cannot be derived from the price of other substantially responsive Bids, the Employer shall use its best estimate.

Please refer BDS ITB 30.3.

(h) Multiple Contracts (ITB 35.3) Not Applicable

(i) Subcontractors

Subcontractors/manufacturers for the following major items of supply or services ('Specialized Subcontractors') must meet the following minimum criteria, herein listed for that item:

Item No.	Description of Item	Minimum Criteria to be met
1	Three Phase Distribution Transformers	Must have designed, manufactured, tested and supplied at least 5000 nos. of 160 kVA or higher rating 3-phase 11/0.433 kV or higher voltage level transformers during the last five (5) years. Type tests must have been conducted on the material offered as per IS 1180 & 2026 in NABL accredited laboratory as per the latest revision of the Technical Specification and the date of type

		test will not be later than 5 years from the date of bid opening.
2	XLPE Armoured cable(HT)	Must have designed, manufactured, tested and supplied at least 500km of 11kV or higher voltage rated XLPE armoured cable during the last five (5) years. Type tests certificate issued by a NABL accredited laboratory should be enclosed to indicate that the conductor meets requirements of IS 7098-Part II of 2011, IS 8130-1984, IS-10810-1984, IS-10418-1982 with latest amendments thereof.
3	XLPE Armoured cable(LT)	Must have designed, manufactured, tested and supplied at least 1000 km of LT XLPE armoured cable during the last five (5) years. Type tests certificate issued by a NABL accredited laboratory should be enclosed to indicate that the conductor meets requirements of IS 7098-Part I of 2011, IS 8130-1984, IS-10810-1984, IS-10418-1982 with latest amendments thereof.
4	AB Cable ((3 X 50 SQ.MM+1x35 SQ. MM.+1x16 SQ. MM.) or higher configuration	Must have designed, manufactured, tested and supplied at least 500km of AB cable during the last five (5) years. CPRI type test certificate should be enclosed to indicate that the offered cable meets Type Test requirements as per Cl.10.1 and 11.4 of IS:14255/1995.
5	Ring Main Units (RMUs)	Must have designed, manufactured, tested and supplied at least 400 nos. of RMUs during the last five (5) years. CPRI type test certificate should be enclosed to indicate that the offered item meets Type Test requirements as per IEC 60529, IEC 60298, IEC 1330, IEC 60694, IEC 60625, IEC 60801, IEC 60185, BS 159, IEC 60137, CP1013, IEC 60255, BS 6231, IEC 61000, IEC 60129, IEC 62271-200, IEC 62271-100, IEC 60060-1, BS 923, IEC 60947-4-1

Bidders can propose more than one sub-contractor for one or more items. Failure to comply with this requirement will result in rejection of the **subcontractor**.

In the case of a Bidder who offers to supply and install major items of supply under the contract that the Bidder did not manufacture or otherwise produce, the Bidder shall provide the manufacturer's authorization, using the form provided in Section IV, showing that the Bidder has been duly authorized by the manufacturer or producer of the related plant and equipment or component to supply and install that item in the Employer's Country. The Bidder is responsible for ensuring that the manufacturer or producer complies with the requirements of ITB 4 and 5 and meets the minimum criteria listed above for that item.

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Letter of Bid – Technical Part

INSTRUCTIONS TO BIDDERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE DOCUMENT

The Bidder must prepare this Letter of Bid – Technical Part on stationery with its letterhead clearly showing the Bidder's complete name and business address.

Note: All italicized text is to help Bidders in preparing this form.

Date of this Bid submission: 25.01.2021 to 08.02.2021 .

RFB No.: [insert number of RFB process]

Alternative No.: [insert identification No if this is a Bid for an alternative]

To: [insert complete name of Employer]

We, the undersigned, hereby submit our Bid, in two parts, namely:

- (a) the Technical Part, and
- (b) the Financial Part

In submitting our Bid, we make the following declarations:

- (a) **No reservations:** We have examined and have no reservations to the bidding document, including Addenda issued in accordance with ITB 8;
- (b) **Eligibility:** We meet the eligibility requirements and have no conflict of interest in accordance with ITB 4;
- (c) **Conformity:** We offer to provide design, supply and installation services in conformity with the bidding document of the following: [insert a brief description of the Plant, Design, Supply and Installation Services];
- (d) **Bid Validity Period:** Our Bid shall be valid for the period specified in BDS 19.1 (as amended if applicable) from the date fixed for the Bid submission deadline specified in BDS 23.1 (as amended if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (e) **Performance Security:** If our Bid is accepted, we commit to obtain a Performance Security along with the ES Performance Security (as required) in accordance with the bidding document;
- (f) **One Bid Per Bidder:** We are not submitting any other Bid(s) as an individual Bidder or as a subcontractor, and we are not participating in any other Bid(s) as a Joint Venture member and meet the requirements of ITB 4.3, other than alternative Bids submitted in accordance with ITB 13

- (g) **Suspension and Debarment:** We, along with any of our subcontractors, suppliers, consultants, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the World Bank Group or a debarment imposed by the World Bank Group in accordance with the Agreement for Mutual Enforcement of Debarment Decisions between the World Bank and other development banks. Further, we are not ineligible under the Employer's Country laws or official regulations or pursuant to a decision of the United Nations Security Council;
- (h) **State-owned enterprise or institution:** *[select the appropriate option and delete the other]* *[We are not a state-owned enterprise or institution]* / *[We are a state-owned enterprise or institution but meet the requirements of ITB 4.6];*
- (i) **Binding Contract:** We understand that this Bid, together with your written acceptance thereof included in your Letter of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed;
- (j) **Not Bound to Accept:** We understand that you are not bound to accept the lowest evaluated cost Bid, the Most Advantageous Bid or any other Bid that you may receive;
- (k) **Fraud and Corruption:** We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf engages in any type of Fraud and Corruption;
- (l) We also undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India on date namely "Prevention of Corruption Act 1988."; and
- (m) **Adjudicator:** The Adjudicator proposed by the Employer will be named **during signing of contract Agreement** . The daily fee for this proposed Adjudicator shall be: decided with mutual consent between Employer and contractor.

[or]

We do not accept the appointment of [insert name proposed in Bid Data Sheet] as the Adjudicator, and propose instead that [insert name] be appointed⁶ as Adjudicator, whose daily fees and biographical data are attached.

Name of the Bidder: *[insert complete name of person signing the Bid]

Name of the person duly authorized to sign the Bid on behalf of the Bidder: **[insert complete name of person duly authorized to sign the Bid]

Title of the person signing the Bid: [insert complete title of the person signing the Bid]

Signature of the person named above: [insert signature of person whose name and capacity are shown above]

Date signed [insert date of signing] **day of** [insert month], [insert year]

*: In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder

**: Person signing the Bid shall have the power of attorney given by the Bidder to be attached with the Bid

In case appointment of Adjudicator was proposed from the list provided by an Institution in ITB 51, the replacement should also be proposed from the list of same institution.

Technical Proposal

- Site Organization
- Method Statement
- Mobilization Schedule
- Construction Schedule
- Plant
- Contractor's Equipment
- Personnel
- Proposed Subcontractors for Major Items of Plant and Installation Services
- Others

Appendix to Technical Part: Site Organization
[Insert Site Organization Information]

Appendix to Technical Part: Method Statement

[Insert Method Statement - A detailed note should be submitted outlining bidders proposed methodology and program for the provision of Plant and Installation Services, backed with equipment, materials and manpower planning and deployment, and quality control procedures proposed to be adopted, justifying Bidder's capability for execution and timely completion of the work as per technical specifications].

Appendix to Technical Part: Mobilization Schedule

[Insert Mobilization Schedule]

Appendix to Technical Part: Construction Schedule

[Insert Construction Schedule]

Appendix to Technical Part: Plant

Appendix to Technical Part: Contractor's Equipment

Form EQU

The Bidder shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key Contractor's equipment listed in Section III, Evaluation and Qualification Criteria. A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Bidder.

Item of equipment		
Equipment information	Name of manufacturer	Model and power rating
	Capacity	Year of manufacture
Current status	Current location	
	Details of current commitments	
Source	Indicate source of the equipment <input type="checkbox"/> Owned <input type="checkbox"/> Rented <input type="checkbox"/> Leased <input type="checkbox"/> Specially manufactured	

Omit the following information for equipment owned by the Bidder.

Owner	Name of owner	
	Address of owner	
	Telephone	Contact name and title
	Fax	Telex
Agreements	Details of rental / lease / manufacture agreements specific to the project	

Appendix to Technical Part: Functional Guarantees

Form FUNCTIONAL GUARANTEE

The Bidder shall copy in the left column of the table below, the identification of each functional guarantee required in the Specification and stated by the Employer in para. 1.3 (a) of Section III, Evaluation and Qualification Criteria, and in the right column, provide the corresponding value for each functional guarantee of the proposed plant and equipment.

Required Functional Guarantee	Value of Functional Guarantee of the Proposed Plant and Equipment	
Equipment	Parameter	
	No-load Loss (kW)	Full load loss (kW)
1. 160 kVA DTR		
2. 315 kVA DTR		
...		

Appendix to Technical Part: Personnel

Form PER -1

Confirmation Regarding Personnel to be Mobilized in case of Contract Award

Bidders should provide an undertaking that the following suitably qualified personnel meeting the specified requirements stated in Section III shall be mobilized in the event of contract award.

1.	Title of position*
2.	Title of position*
3.	Title of position*
4.	Title of position*

**Title and number as listed in Section III.*

Appendix to Technical Part

Form PER-2

Resume of Proposed Personnel

Not Applicable

Name of Bidder

Position							
Personnel information	<table style="width: 100%;"> <tr> <td style="width: 40%; padding: 5px;">Name</td> <td style="padding: 5px;">Date of birth</td> </tr> <tr> <td colspan="2" style="padding: 5px;">Professional qualifications</td> </tr> </table>	Name	Date of birth	Professional qualifications			
	Name	Date of birth					
Professional qualifications							
Present employment	Name of employer						
	Address of employer						
	<table style="width: 100%;"> <tr> <td style="width: 40%; padding: 5px;">Telephone</td> <td style="padding: 5px;">Contact (manager / personnel officer)</td> </tr> <tr> <td style="padding: 5px;">Fax</td> <td style="padding: 5px;">E-mail</td> </tr> <tr> <td style="padding: 5px;">Job title</td> <td style="padding: 5px;">Years with present employer</td> </tr> </table>	Telephone	Contact (manager / personnel officer)	Fax	E-mail	Job title	Years with present employer
	Telephone	Contact (manager / personnel officer)					
	Fax	E-mail					
Job title	Years with present employer						

Summarize professional experience over the last 20 years, in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

From	To	Company / Project / Position / Relevant technical and management experience

[illegible]

Appendix to Technical Part: Proposed Subcontractors for Major Items of Plant and Installation Services

A list of major items of Plant and Installation Services is provided below.

The following Subcontractors and/or manufacturers are proposed for carrying out the item of the facilities indicated. Bidders are free to propose more than one for each item

Major Items of Plant and Installation Services	Proposed Subcontractors/Manufacturers	Nationality

Appendix to Technical Part

Others - Time Schedule

(to be used by Bidder when alternative Time for **Completion** is invited in ITB 13.2)

Appendix to Technical Part

Bidders Qualification

To establish its qualifications to perform the contract in accordance with Section III, Evaluation and Qualification Criteria the Bidder shall provide the information requested in the corresponding Information Sheets included hereunder.

Appendix to Technical Part

Form ELI 1.1

Bidder Information Sheet

Date: _____

RFB No.: _____

Page _____ of _____ pages

1. Bidder's Legal Name
2. In case of JV, legal name of each party:
3. Bidder's actual or intended Country of Registration:
4. Bidder's Year of Registration:
5. Bidder's Legal Address in Country of Registration:
6. Bidder's Authorized Representative Information Name: Address: Telephone/Fax numbers: Email Address:
7. Attached are copies of original documents of: Articles of Incorporation or Registration of firm named in 1, above, in accordance with ITB 4.1 and ITB 4.4. In case of JV, letter of intent to form JV including a draft agreement, or JV agreement, in accordance with ITB 4.1 and ITB 11.2. In case of state-owned enterprise or institution from the Employer's Country, documents establishing legal and financial autonomy and compliance with the principles of commercial law, and is not under the supervision of the Employer in accordance with ITB 4.6. Organizational chart, list of Board of Directors, and the beneficial ownership.

Please note that a written authorization needs to be attached to this sheet as required by ITB 21.3

Appendix to Technical Part
Form ELI 1.2
Party to JV Information Sheet
 (Where permitted as per BDS ITB 4.1)

Each member of a JV must fill in this form

Date: _____

RFB No.: _____

Page _____ of _____ pages

1. Bidder's Legal Name:
2. JV's Party legal name:
3. JV's Party Country of Registration:
4. JV's Party Year of Registration:
5. JV's Party Legal Address in Country of Registration:
6. JV's Party Authorized Representative Information Name: Address: Telephone/Fax numbers: Email Address:
7. Attached are copies of original documents of: Articles of Incorporation or Registration of firm named in 1, above, in accordance with ITB 4.4 and ITB 4.4. In case of state-owned enterprise or institution from the Employer's Country, documents establishing legal and financial autonomy and compliance with the principles of commercial law and is not under the supervision of the Employer, in accordance with ITB 4.6. Organizational chart, list of Board of Directors, and the beneficial ownership.

Appendix to Technical Part
Details of Participation in the
Joint Venture (where permitted)

PARTICIPATION DETAILS	FIRM 'A' (Lead Member)	FIRM 'B'	FIRM 'C'
Financial			N/A
Name of the Banker(s)			
Planning			
Construction Equipment			

Key Personnel			
Execution of Work (Give details on contribution of each)			

The Joint Venture should indicate the details of participation as above.

Appendix to Technical Part

Form CON – 2

Historical Contract Non-Performance

[The following table shall be filled in for the Bidder and for each member of a Joint Venture where permitted]

Bidder's Legal Name: _____ Date: _____

JV Member Legal Name: _____

RFB No.: _____

Page _____ of _____ pages

Non-Performed Contracts in accordance with Section III, Evaluation and Qualification Criteria			
<input type="checkbox"/> Contract non-performance did not occur since 1 st January <i>[insert year]</i> specified in Section III, Evaluation and Qualification Criteria, Sub-Factor 2.1.			
<input type="checkbox"/> Contract(s) not performed since 1 st January <i>[insert year]</i> specified in Section III, Evaluation and Qualification Criteria, requirement 2.1			
Year	Non- performed portion of contract	Contract Identification	Total Contract Amount (Rs million)
<i>[insert year]</i>	<i>[insert amount and percentage]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Reason(s) for nonperformance: <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>
Pending Litigation, in accordance with Section III, Evaluation and Qualification Criteria			
<input type="checkbox"/> No pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3.			
<input type="checkbox"/> Pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3 as indicated below.			

Year of dispute	Amount in dispute (Rs)	Contract Identification	Total Contract Amount (Rs million)
		Contract Identification: _____ Name of Employer: _____ Address of Employer: _____ Matter in dispute: _____ Party who initiated the dispute: ____ Status of dispute: _____	
		Contract Identification: Name of Employer: Address of Employer: Matter in dispute: Party who initiated the dispute: Status of dispute:	
Litigation History in accordance with Section III, Evaluation and Qualification Criteria			
<input type="checkbox"/> No Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4. <input type="checkbox"/> Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4 as indicated below.			
Year of award	Outcome as percentage of Net Worth	Contract Identification	Total Contract Amount (Rs million)

<i>[insert year]</i>	<i>[insert percentage]</i>	<p>Contract Identification: [indicate complete contract name, number, and any other identification]</p> <p>Name of Employer: <i>[insert full name]</i></p> <p>Address of Employer: <i>[insert street/city/country]</i></p> <p>Matter in dispute: <i>[indicate main issues in dispute]</i></p> <p>Party who initiated the dispute: <i>[indicate “Employer” or “Contractor”]</i></p> <p>Reason(s) for Litigation and award decision <i>[indicate main reason(s)]</i></p>	<i>[insert amount]</i>
----------------------	----------------------------	--	------------------------

Appendix to Technical Part

Form CCC

Current Contract Commitments / Works in Progress

Bidders and each member to a JV *where permitted*, should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

Name of contract	Employer, contact address/tel/fax	Value outstanding work (Rs million)	Estimated completion date	Average monthly invoicing over last six months (Rs million)
1.				
2.				
3.				
4.				
5.				
etc.				

Appendix to Technical Part

Form FIN – 3.1

Financial Situation

Historical Financial Performance

Bidder's Legal Name: _____ Date: _____

JV Member Legal Name: _____ RFB No.: _____

Page _____ of _____ pages

To be completed by the Bidder and, if JV, by each member

Financial information in Rs. million	Historic information for previous _____ (____) years (inRs. million)						
	Year 1	Year 2	Year 3	Year ...	Year n	Avg.	Avg. Ratio
Information from Balance Sheet							
Total Assets (TA)							
Total Liabilities (TL)							
Net Worth (NW)							
Current Assets (CA)							
Current Liabilities (CL)							
Information from Income Statement							

Financial information in Rs. million	Historic information for previous _____ (__) years (inRs. million)						
	Year 1	Year 2	Year 3	Year ...	Year n	Avg.	Avg. Ratio
Total Revenue (TR)							
Profits Before Taxes (PBT)							

Attached are copies of financial statements (balance sheets, including all related notes, and income statements) for the years required above complying with the following conditions:

Must reflect the financial situation of the Bidder or member to a JV, and not sister or parent companies

Historic financial statements must be audited by a certified chartered accountant

Historic financial statements must be complete, including all notes to the financial statements

Historic financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted)

Appendix to Technical Part

Form FIN – 3.2

Average Annual Turnover

[The following table shall be filled in for the Bidder and for each member of a Joint Venture where permitted]

Bidder's Legal Name: _____

Date: _____

JV Member Legal Name: _____

RFB

No.: _____

Page _____ of _____ pages

Annual turnover data**	
Year	Rs million equivalent
*Average Annual Turnover	

*Average annual turnover calculated as total certified payments received for work in progress or completed, divided by the number of years specified in Section III, Evaluation Criteria, Sub-Factor 2.3.2.

** This should be certified by a Chartered Accountant.

Appendix to Technical Part

Form FIN 3.3

Financial Resources

Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total cash flow demands of the subject contract or contracts as indicated in Section III, Evaluation and Qualification Criteria

Source of financing	Amount (Rs million)
1.	
2.	
3.	
4.	

Appendix to Technical Part

Form EXP 4.1

Experience

General Experience

[The following table shall be filled for the Bidder and for each member of a Joint Venture where permitted]

Bidder's Legal Name: _____

Date:

JV Member Legal Name: _____

RFB

No.:

Page _____ of _____ pages

Starting Month / Year	Ending Month / Year	Years*	Contract Identification	Role of Bidder
_____	_____		Contract name: Brief Description of the Works performed by the Bidder: Name of Employer: Address:	_____
_____	_____		Contract name: Brief Description of the Works performed by the Bidder: Name of Employer: Address:	_____

Starting Month / Year	Ending Month / Year	Years*	Contract Identification	Role of Bidder
-----------------------------	---------------------------	--------	-------------------------	-------------------

Contract name:

_____ Brief Description of the Works performed by the _____
Bidder:

Name of Employer:

Address:

_____	_____		<p>Contract name:</p> <p>Brief Description of the Works performed by the Bidder:</p> <p>Name of Employer:</p> <p>Address:</p>	_____
_____	_____		<p>Contract name:</p> <p>Brief Description of the Works performed by the Bidder:</p> <p>Name of Employer:</p> <p>Address:</p>	_____
_____	_____		<p>Contract name:</p> <p>Brief Description of the Works performed by the Bidder:</p> <p>Name of Employer:</p> <p>Address:</p>	_____

*List calendar year for years with contracts with at least nine (9) months activity per year starting with the earliest year

Appendix to Technical Part

Form EXP –4.2(a)

Specific Experience

[The following table shall be filled in for contracts performed by the Bidder, each member of a Joint Venture where permitted, and specialist sub-contractors]

Bidder's Legal Name: _____

Date: _____

JV Member Legal Name: _____ RFB No.: _____

Page _____ of _____ pages

Similar Contract Number: ____ of ____ required.	Information		
Contract Identification	_____		
Award date	_____		
Completion date	_____		
Role in Contract	<input type="checkbox"/> Contractor	<input type="checkbox"/> Management Contractor	<input type="checkbox"/> Subcontractor
Total contract amount	Rs million _____		Rs million _____
If member in a JV or subcontractor, specify participation of total contract amount	_____ %	_____	Rs million _____
Employer's Name:	_____		

Similar Contract Number: ____ of ____ required.	Information
Address:	_____ _____
Telephone/fax number:	_____ _____
E-mail:	_____ _____

Appendix to Technical Part

Form EXP –4.2(a) (cont.)

Specific Experience (cont.)

Bidder's Legal Name: _____
pages

Page _____ of _____

JV Member Legal Name: _____

Similar Contract No. __[insert specific number] of [total number of contracts] __ required	Information
Description of the similarity in accordance with Sub-Factor 4.2(a) of Section III:	
Amount	Rs million _____
Physical size	_____
Complexity	_____
Methods/Technology	_____
Physical Production Rate	_____

Appendix to Technical Part

Form EXP –4.2(b)

Specific Experience in Key Activities

Bidder's Legal Name: _____

Date: _____

JV Member Legal Name: _____ RFB No.: _____

Subcontractor's Legal Name: _____ Page _____ of _____ pages

	Information		
Contract Identification	_____		
Award date	_____		
Completion date	_____		
Role in Contract	<input type="checkbox"/> Contractor	<input type="checkbox"/> Management Contractor	<input type="checkbox"/> Subcontractor
Total contract amount	Rs million _____		Rs million _____ _____
If member in a JV or subcontractor, specify participation of total contract amount	_____ %	_____	Rs million _____ _____
Employer's Name:	_____		
Address:	_____ _____ _____		
Telephone/fax number:	_____ _____		
E-mail:	_____		

Appendix to Technical Part

Form EXP –4.2 (b)(cont.)

Specific Experience in Key Activities (cont.)

Bidder's Legal Name: _____
pages

Page _____ of _____

JV Member Legal Name: _____

Subcontractor's Legal Name: _____

	Information
Description of the key activities in accordance with Sub-Factor 4.2(b) of Section III:	

Appendix to Technical Part

Form CON – 3: Environmental and Social (ES) Performance Declaration

[The following table shall be filled in for the Bidder, each member of a Joint Venture and each Specialized Subcontractor]

Bidder's Name: _____ *[insert full name]*
 Date: _____ *[insert day, month, year]*
 Joint Venture Member's or Specialized Subcontractor's Name: _____ *[insert full name]*
 RFB No. and title: _____ *[insert RFB number and title]*
 Page _____ *[insert page number]* of _____ *[insert page number]* pages

Environmental and Social Performance Declaration in accordance with Section III, Qualification Criteria, and Requirements			
<input type="checkbox"/> No suspension or termination of contract: An employer has not suspended or terminated a contract and/or called the performance security for a contract for reasons related to Environmental or Social (ES) performance since the date specified in Section III, Qualification Criteria, and Requirements, Sub-Factor 2.5.			
<input type="checkbox"/> Declaration of suspension or termination of contract: The following contract(s) has/have been suspended or terminated and/or Performance Security called by an employer(s) for reasons related to Environmental or Social (ES) performance since the date specified in Section III, Qualification Criteria, and Requirements, Sub-Factor 2.5. Details are described below:			
Year	Suspended or terminated portion of contract	Contract Identification	Total Contract Amount (Rs.)
<i>[insert year]</i>	<i>[insert amount and percentage]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Reason(s) for suspension or termination: <i>[indicate main reason(s) e.g. for gender-based violence; sexual exploitation or sexual abuse breaches]</i>	<i>[insert amount]</i>
<i>[insert year]</i>	<i>[insert amount and percentage]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i>	<i>[insert amount]</i>

		Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Reason(s) for suspension or termination: <i>[indicate main reason(s)]</i>	
...	...	<i>[list all applicable contracts]</i>	...
Performance Security called by an employer(s) for reasons related to ES performance			
Year	Contract Identification		Total Contract Amount (Rs.)
<i>[insert year]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Reason(s) for calling of performance security: <i>[indicate main reason(s) e.g. for gender-based violence; sexual exploitation or sexual abuse breaches]</i>		<i>[insert amount]</i>

Appendix to Technical Part

Form of Bid Security – Bank Guarantee

[Guarantor letterhead or SWIFT identifier code]

[The bank shall fill in this Bank Guarantee Form in accordance with the instructions indicated.]

Beneficiary: Chief Engineer, Distribution Project III Department, WBSEDCL, VidyutBhaban,
2nd Floor, Kolkata-700091

RFB No.: IN-WBSEDCL-211042-CW-RFB

Issued on: 05.01.2021

Alternative No.: NA

Date: *[Insert date of issue]*

BID GUARANTEE No.: *[Insert guarantee reference number]*

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

WHEREAS, _____ *[name of Bidder]*⁷ (hereinafter called "the Applicant") has submitted his Bid dated _____ *[date]* or will submit his Bid for the execution of _____ *[name of Contract]* (hereinafter called "the Bid") under Request for Bids No. *[insert number]* (hereinafter called "the RFB")

KNOW ALL PEOPLE by these presents that We _____ *[name of bank]* of _____ *[name of country]* having our registered office at _____ (hereinafter called "the Bank") are bound unto _____ *[name of Employer]* (hereinafter called "the Employer") in the sum of _____⁸ for which payment well and truly to be made to the said Employer the Bank binds itself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this _____ day of _____ 20____.

⁷ In the case of a JV, the bidder should be stated as "a Joint Venture consisting of, and"

⁸ The Applicant should insert the amount of the guarantee in words and figures denominated in Rs. This figure should be the same as shown in Clause 19.1 of the Instructions to Bidders.

THE CONDITIONS of this obligation are:

- (1) If after Bid opening the Applicant (a) withdraws his bid during the period of Bid validity specified in the Letter of Bid, ("the Bid Validity Period"), or any extension thereto provided by the Bidder; or (b) does not accept the correction of the Bid Price pursuant to ITB 36;

or

- (2) If the Applicant having been notified of the acceptance of his bid by the Employer during the period of Bid validity:
- (a) fails or refuses to execute the Contract Agreement in accordance with the Instructions to Bidders, if required; or
 - (b) fails or refuses to furnish the Performance Security and the ES Performance Security (as required), in accordance with the Instruction to Bidders.

we undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the Employer having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him owing to the occurrence of one or any of the four conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date _____⁹ days after the deadline for submission of Bids as such deadline is stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this guarantee should reach the Bank not later than the above date.

The claim of invocation shall also be made on local branch of Bank at _____, Kolkata within claim validity period.

DATE _____ SIGNATURE OF THE BANK _____

WITNESS _____ SEAL _____

[signature, name, and address]

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

⁹ 45 days after the end of the validity period of the Bid.

Appendix to Technical Part

Manufacturer's Authorization

Date: _____

RFB No.: _____

To: _____ *[Insert: name of Employer]*

WHEREAS

We _____ *[insert: name of Manufacturer]*, who are official manufacturers of _____, having factories at _____, do hereby authorize _____ to submit a Bid the purpose of which is to provide the following goods, manufactured by us _____, and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 27 of the General Conditions, with respect to the goods offered by the above firm. We also hereby declare that we and _____, *[insert: name of the Bidder]* have entered into a formal relationship in which, during the duration of the Contract (including warranty / defects liability) we, the Manufacturer or Producer, will make our technical and engineering staff fully available to the technical and engineering staff of the successful Bidder to assist that Bidder, on a reasonable and best effort basis, in the performance of all its obligations to the Employer under the Contract.

For and on behalf of the Manufacturer

Signed: _____

Name: _____

Title: _____

Duly authorized to sign this Authorization on behalf of:

Dated on _____ day of _____, _____

Appendix to Technical Part

(Name of the Project)

(Declaration regarding tax/ duty exemption for plant/equipment/construction equipment bought for the work)¹⁰

(Bidder's Name and Address)

To,

(Chief Engineer, Distribution
Project III Department,
WBSEDCL, VidyutBhaban,
2nd Floor, Kolkata-700091

Dear Sir:

Re: [Name of Work].....

Certificate for Import/Procurement of Plant and Equipment/Construction Equipment

1. We confirm that we are solely responsible for obtaining tax/ duty waivers which we have considered in our bid and in case of failure to receive such waivers for reasons whatsoever, the employer will not compensate us.
2. We are furnishing below the information required by the Employer for issue of the necessary certificates in terms of the Government of India's relevant Notifications.
3. The goods/construction equipment for which certificates are required are as under:

Items (modify the list suitably for each specific work)*	Make/ Brand Name	Capacity [where applicable]	Quantity	Value	State whether it will be procured locally or imported [if so from which country]	Remarks regarding justification for the quantity and their usage in works.
Plant and Equipment						
[a] _____						
[b] _____						

¹⁰ This declaration refers to ITB 17.12 and shall be retained only if ITB 17.12 is retained. The format may be modified as per the latest instructions of Government of India.

[c] _____						
Construction Equipment						

4. We agree that no modification to the above list is permitted after bids are opened.
5. We agree that the certificate will be issued only to the extent considered reasonable by the Employer for the work, based on the Employer's Requirements and the construction program and methodology as furnished by us along with the bid.
6. We confirm that the above plant, equipment and construction equipment will be exclusively used for the construction of the above work and the construction equipment will not be sold or otherwise disposed of in any manner for a period of five years from the date of acquisition.

Date: _____

(Signature) _____

Place: _____

(Printed Name) _____

(Designation) _____

(Common Seal) _____

[This certificate will be issued within 60 days of signing of contract and no subsequent changes will be permitted.]

*** Modify the above to suit the requirements given in Government of India's Notifications as current of date of bidding.**

Letter of Bid – Financial Part

INSTRUCTIONS TO BIDDERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE DOCUMENT

The Bidder must prepare this Letter of Bid – Financial Part on stationery with its letterhead clearly showing the Bidder's complete name and business address.

Note: *All italicized text is to help Bidders in preparing this form.*

Date of this Bid submission: *[insert date (as day, month and year) of Bid submission]*

RFB No.: *[insert number of RFB process]*

Alternative No.: *[insert identification No if this is a Bid for an alternative]*

To: *[insert complete name of Employer]*

We, the undersigned, hereby submit the second part of our Bid, the Bid Price and Price Schedules. This accompanies the Letter of Bid - Technical Part.

In submitting our Bid, we make the following additional declarations:

- (a) **Bid Validity Period:** Our Bid shall be valid for the period specified in BDS 19.1 (as amended if applicable) from the date fixed for the Bid submission deadline specified in BDS 23.1 (as amended if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

Bid Price: The total price of our Bid, excluding any discounts offered in item (c) below is: *[Insert one of the options below as appropriate]*

Option 1, in case of one lot: Total price is: *[insert the total price of the Bid in Rs. in words and figures]*;

Or **ONLINE**

Option 2, in case of multiple lots: (a) Total price of each lot *[insert the total price of each lot in Rs. in words and figures]*; and (b) Total price of all lots (sum of all lots) *[insert the total price of all lots in Rs. in words and figures, indicating the various amounts]*;

- (a) **Discounts:** The discounts offered by us have been given in Percentage only, which is applicable on all items equally (in words and figures) package wise.
- (d) **Commissions, gratuities and fees:** *We have paid, or will pay the following commissions, gratuities, or fees with respect to the Bidding process or execution of the Contract:* *[insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount of each such commission or gratuity]*

Name of Recipient	Address	Reason	Amount

(If none has been paid or is to be paid, indicate “none.”)

Name of the Bidder: *[insert complete name of person signing the Bid]

Name of the person duly authorized to sign the Bid on behalf of the Bidder: **[insert complete name of person duly authorized to sign the Bid]

Title of the person signing the Bid: [insert complete title of the person signing the Bid]

Signature of the person named above: [insert signature of person whose name and capacity are shown above]

Date signed [insert date of signing] **day of** [insert month], [insert year]

*: In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder

**: Person signing the Bid shall have the power of attorney given by the Bidder to be attached with the Bid

Appendix to Financial Part

Schedule of Rates and Prices

Schedule No. 1. Plant and Mandatory Spare Parts Supplied from Abroad: Not Used

Appendix to Financial Part(ONLINE)

Schedule No. 2. Plant and Mandatory Spare Parts

Item	Description	Qty. (1)	EXW Unit Price ¹ (2)	EXW Total Price ¹ (1) x (2)
TOTAL (to Schedule No. 5. Grand Summa				
		<p style="text-align: right;">Name of Bid _____</p> <p style="text-align: right;">Signature of Bid _____</p>		

¹ All rates and prices shall be specified in Rs. only in accordance with ITB 18

Appendix to Financial Part

Country of Origin Declaration Form

Item	Description	Country Code ¹¹	Country

Appendix to Financial Part(ONLINE)

Schedule No. 3. Design Services Not Used

Item	Description	Qty. (1)	Unit Price ¹ (2)	Total Price ¹ (1) x (2)
TOTAL (to Schedule No. 5. Grand Summary)				
			Name of Bidder	

	Signature of _____ Bidder
¹ All rates and prices shall be specified in Rs. only in accordance with ITB 18.	

Appendix to Financial Part(ONLINE)

Schedule No. 4. Installation and Other Services

Item	Description	Qty. (1)	Unit Price ¹ (2)	Total Price ¹ (1) x (2)
TOTAL (to Schedule No. 5. Grand Summa				

Name of Bid _____

Signature of Bid _____

¹ All rates and prices shall be specified in Rs. only in accordance with ITB 18.

Appendix to Financial Part(ONLINE)

Schedule No. 5. Grand Summary

Item	Description	Total Price ¹
	Total Schedule No. 2. Plant, and Mandatory Spare Parts	
	Total Schedule No. 3. Design Services	
	Total Schedule No. 4. Installation and Other Services	To be entered with Schedule 2
	TOTAL (to Bid Form)	

Name of Bidder _____

Signature of Bidder _____

¹All rates and prices shall be specified in Rs. only in accordance with ITB 18

Schedule No. 6. Recommended Spare Parts

Item	Description	Country of Origin	Qty.	Unit Price ¹	Total Price ¹
				EXW	
			(1)	(2)	(1) x (2)

Name of Bidder _____

Signature of Bidder _____

¹ All rates and prices shall be specified in Rs. only in accordance with ITB 18.

Section V - Eligible Countries

Eligibility for the Provision of Goods, Works and Non Consulting Services in Bank-Financed Procurement

In reference to ITB 4.8 and 5.1, for the information of the Bidders, at the present time firms, goods and services from the following countries are excluded from this Bidding process:

Under ITB 4.8 (a) and 5.1: *None*

Under ITB 4.8 (b) and 5.1: *None*

Section VI - Fraud and Corruption

1. Purpose

- 1.1 The Bank's Anti-Corruption Guidelines and this annex apply with respect to procurement under Bank Investment Project Financing operations.

2. Requirements

- 2.1 The Bank requires that Borrowers (including beneficiaries of Bank financing); bidders (applicants/proposers), consultants, contractors and suppliers; any sub-contractors, sub-consultants, service providers or suppliers; any agents (whether declared or not); and any of their personnel, observe the highest standard of ethics during the procurement process, selection and contract execution of Bank-financed contracts, and refrain from Fraud and Corruption.

2.2 To this end, the Bank:

- a. Defines, for the purposes of this provision, the terms set forth below as follows:
 - i. "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
 - ii. "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
 - iii. "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
 - iv. "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
 - v. "obstructive practice" is:
 - (a) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
 - (b) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under paragraph 2.2 e. below.
- b. Rejects a proposal for award if the Bank determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or

indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;

- c. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring mis-procurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;
- d. Pursuant to the Bank's Anti-Corruption Guidelines and in accordance with the Bank's prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or otherwise benefit from a Bank-financed contract, financially or in any other manner;¹² (ii) to be a nominated¹³ sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract; and (iii) to receive the proceeds of any loan made by the Bank or otherwise to participate further in the preparation or implementation of any Bank-financed project;
- e. Requires that a clause be included in bidding/request for proposals documents and in contracts financed by a Bank loan, requiring (i) bidders (applicants/proposers), consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents personnel, permit the Bank to inspect¹⁴ all accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the Bank.

¹² For the avoidance of doubt, a sanctioned party's ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and bidding, either directly or as a nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract.

¹³ A nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider (different names are used depending on the particular bidding document) is one which has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower.

¹⁴ Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Bank or persons appointed by the Bank to address specific matters related to investigations/audits, such as evaluating the veracity of an allegation of possible Fraud and Corruption, through the appropriate mechanisms. Such activity includes but is not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data and information (whether in hard copy or electronic format) deemed relevant for the investigation/audit, and making copies thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information.

PART 2 - Employer’s Requirements

Technical Requirements (Specifications)

Section VII - Employer's Requirements

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General Technical Conditions (GTC)

PART A

Scope of Supply of Plant and Installation Services by the Contractor

Area of Work : Rajarhat Town under North 24 Parganas Region of the State of West Bengal, India

Funding pattern : 70 % Loan from World bank, 30% GoWB contribution

Objective of the package: With conversion of overhead network into underground system with ring main configuration, there will be considerable improvement in reliability of power supply apart from reduction of losses. The towns will have a better aesthetic view after dismantling of overhead assets and all these will add values towards reliable distribution system with reduced losses at **Rajarhat** Town. This will help to grow the local economy and the local inhabitants will be benefitted to a great extent.

Ambient conditions in Project Area:

Rajarhat is a City in [Bidhannagar Municipal Corporation](#) of [North 24 Parganas district](#) in the Indian [state](#) of [West Bengal](#). It is close to [Kolkata](#) and also a part of the area covered by [Kolkata Metropolitan Development Authority](#) (KMDA). Lying just on the periphery of the planned [New Town](#), Rajarhat-Gopalpur has seen huge spurt in real estate development.

Rajarhat is located at Coordinates:  [22°37'0"N 88°31'0"E](#)

[Lok Sabha](#) constituency [Dum Dum](#), [Barasat](#)

[Vidhan](#) [Rajarhat](#) [Gopalpur](#), [Rajarhat](#)
[Sabha](#) constituency [New Town](#)

Local Body	Bidhannagar Municipal Corporation
-------------------	---

Area

- **Total** 34.97 km² (13.50 sq mi)

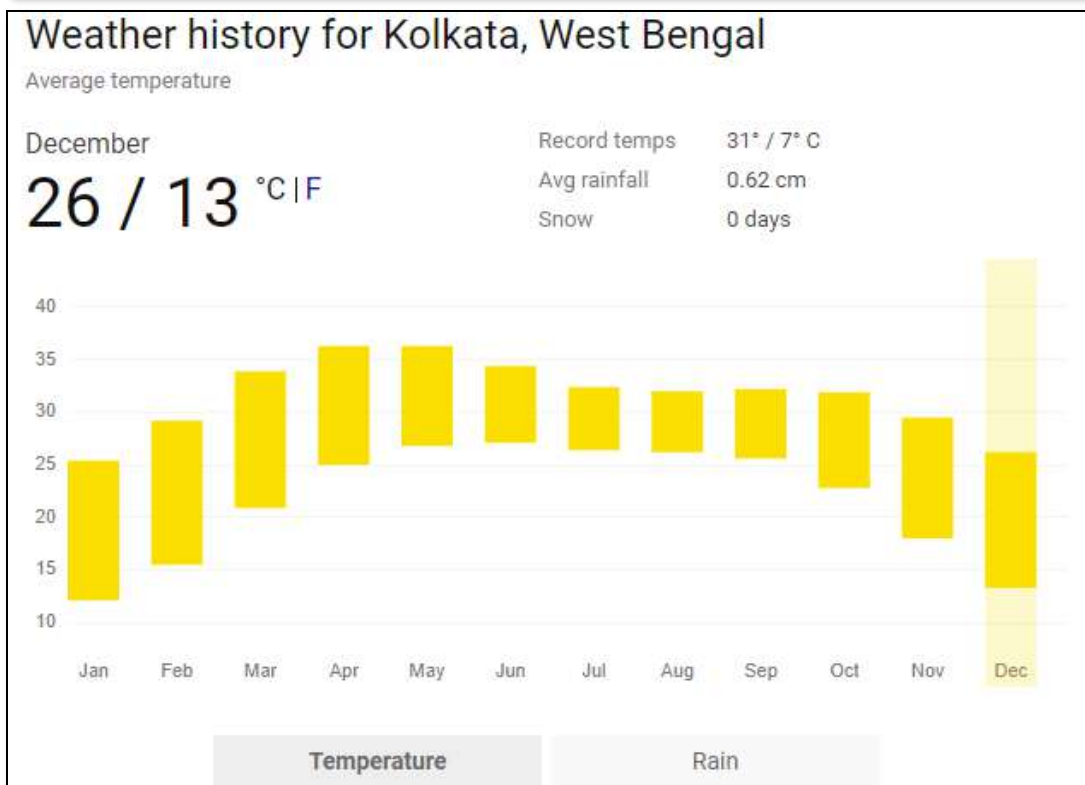
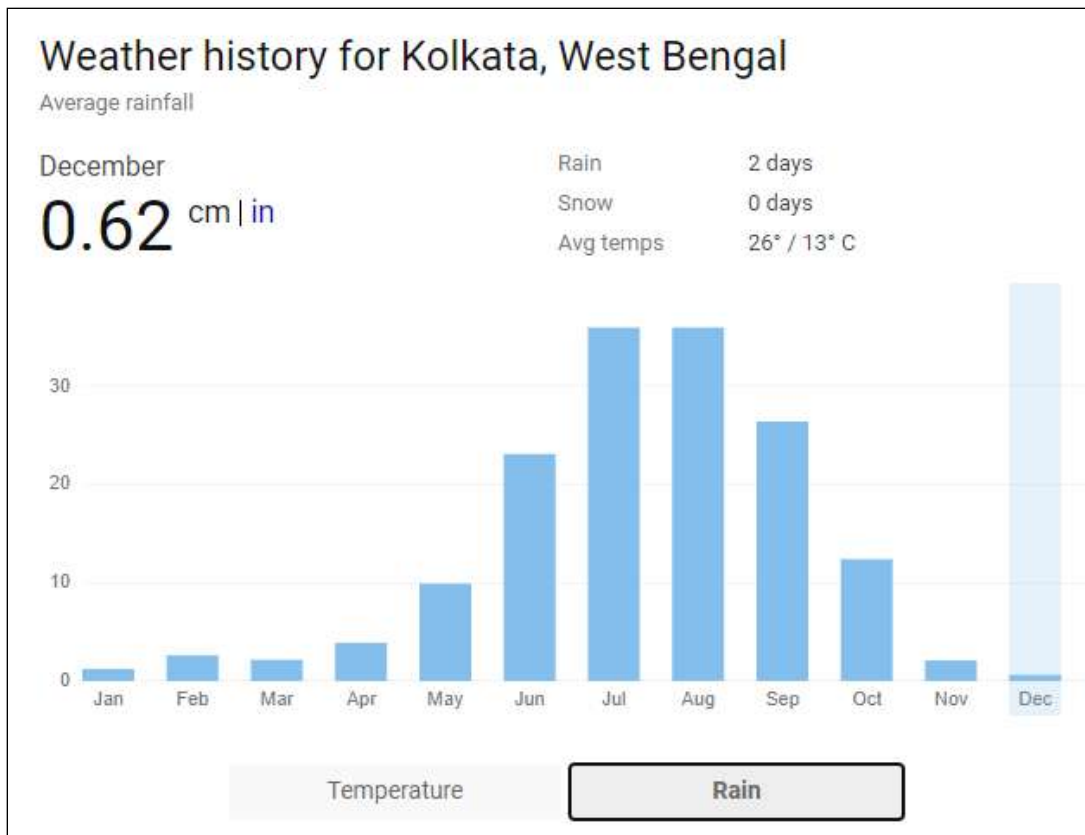
Population

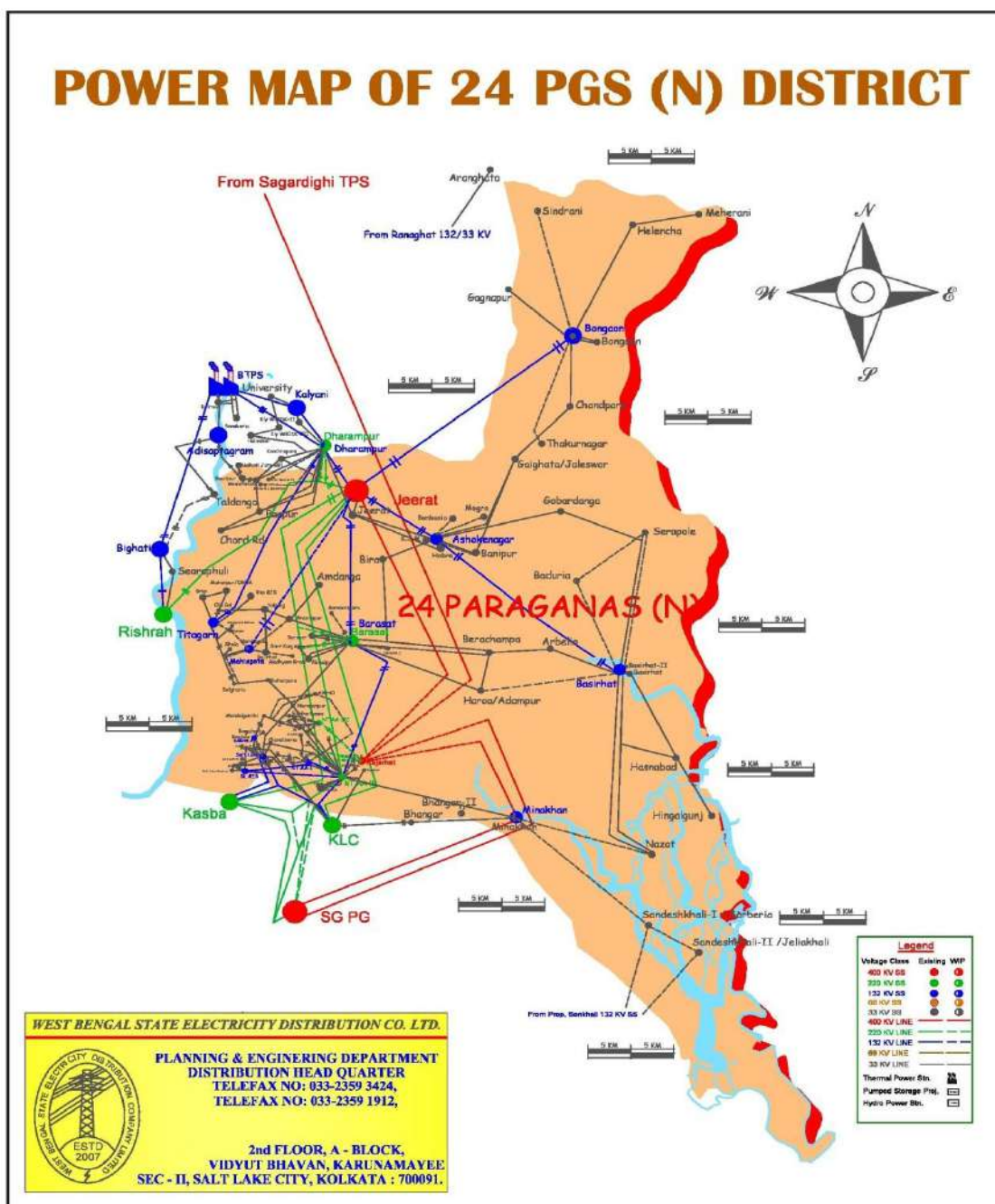
- **Total** 402,844
- **Density** 12,000/km² (30,000/sq mi)

2. The scheme shall cover the following main components:

- Detailed data preparation of proposed infrastructures provided by WBSEDCL for conversion of existing Overhead Distribution Network into Underground mode. Preparation of preliminary and final as-built drawings(after completion) and handover to WBSEDCL for record keeping
 - Construction of H-Beam Pole structures for installation of Distribution Transformers(DTR) and Concrete Plinth for installation of Ring Main Unit(RMU), LT Feeder Pillar Box and Junction Box.
 - Laying of HT cable along the road and terminating the same at RMU & DTRs.
 - Laying of LT cable along the road at load centers and terminating the same at Feeder Pillar & Junction Boxes. In narrow lanes, conversion from OH to LT AB cables have to be done as per site requirement.
 - Laying of optical fibre cable (with all terminations) along with HT cable.
 - Effecting service connections from the Junction Boxes for UG cable/SMC box for AB cable.
- Dismantling the old network assets and storing the returnable materials to the designated stores.
- Shifting of meters to outside of premises as per site requirement and street lighting arrangement
to be converted from OH to UG with erection of street light JB and LILO Boxes.

It is primarily envisaged that the proposed scheme would benefit around 75222 consumers of WBSEDCL covering Rajarhat Town.





WEST BENGAL STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED														
Details of 33 KV Feeders														
District: North 24 Pgs.														
Name of the Town Covered for UG Cable: Rajarhat Town														
Sl No	Name of the 33/11KVS/S		Source of 33KV Line(Mention Single/Doble Source)	Details of 33 KV Feeder	Existing 33KV Feeder Details					Proposed 33 KV Feeder Details				Remarks
	Capacity (MVA)	Peak Load(MW/AMPS at 33KV)			OH (Km)	Size of Conductor	UG (Km)	Size of Cable	Total Length of the Feeder(Km)	From Location	To Location	Total Route Length to be converted from OH to UG Cable(KM)	Proposed Cable Size(SQMM)	
1	NARAYANPUR (40 MVA)	16.57	DOUBLE	Narayan pur 1 Narayan pur 2	2	ACSR 150	14.5	XLPE 400 SQMM	16.5	2D Street, New Town	Near Derozio College More, Opposite Jagadamba enterprise	6	400 SQMM	Existing 33 KV OH Line is passing through cross country, for which route length is less in comparison to proposed UG cable.UG Cable has to be drawn by the side of the road, or through the pavement and may have to be drawn not in a straight way manner and needs to be bended.
2	SIDDHAPYNE (20 MVA)	14.34	DOUBLE	NA	0.3	ACSR 150	13.7	XLPE 400 SQMM	14	NOT REQUIRED	NOT REQUIRED	-	400 SQMM	
TOTAL		30.91			2.3		28.2		30.5	-	-	6		

WEST BENGAL STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED

Details of 11 KV Feeders

District: North 24 Pgs.

Name of the Town Covered for UG Cable: Rajarhat Town

Sl No	Name of the District	Name of the Division	Name of the 33/11 KV S/Stn.	Capacity	Peak Load on the Feeder (AMPS at 11KV)	Name of the 11 KV Feeder	Name of the Town Fed by this Feeder	Existing 11KV Feeder Details					Proposed 11 KV Feeder Details			
								OH (Km)	Size of Conductor	UG (Km)	Size of Cable	Total Length of the Feeder(Km)	From Location	To Location	Total Route Length to be converted from OH to UG Cable (KM)	Proposed Cable Size(SQM M)
1	North 24 Pgs.	BNDD II	1)NARAYANPUR	4X10 MVA	188	1)RAJARHAT TOWN	RAJARHAT - GOPALPUR	18.2	ACSR 50	0.3	3X300 SQMM XLPE	5.7	NARAYANPUR SS	RAJARHAT POLICE STN	18.2	95/300 SQMM
2					195	2)NARAYANPUR LOCAL		25.5	ACSR 100		7.5	NARAYANPUR SS	BABLATALA MORE	25.5	95/300 SQMM	
3					130	3)GOPALPUR 1		22.6	ACSR 100		6.2	NARAYANPUR SS	BABLATALA MORE	22.6	95/300 SQMM	
4			2)SIDDHAPYNE	2X10 MVA	162	1)SIDDHAGOPALPUR 1		14	ACSR 50	4.1	3X300 SQMM XLPE	8.1	ATGHARA	CHINAR PARK	14	95/300 SQMM
5					169	2)SIDDHAGOPALPUR 2		18.4	ACSR 50	4.1	3X300 SQMM XLPE	8.9	KALIPARK	CHINAR PARK	18.4	95/300 SQMM
6					180	3)RAJARHAT ROAD RMU		7.3	ACSR 50	4.5	3X300 SQMM XLPE	7.1	RAJARHAT CHOWMATHA	KHALPAR	7.3	95/300 SQMM
				TOTAL			106		13		119			106		

Major Project Activities(Not limited to the following but including all jobs as per SBD and BO

SINo.	Particulars	Reference for guidance
1	2	3
A	Installation of 11/0.4 KV 315&160 KVA DTR	Section VII,TS part 1&2 BOQ
B	Installation of 11 KV O/D Type 3w/4W RMU	Section VII ,TS part 1&2 BOQ
C	Conversion of 33KV line from OH to UG using 400SQMM XLPE UG Cable	Section VII, TS part 1&2 BOQ
D	Conversion of 11KV line from OH to UG using 3CX300& 3X95 SQMM. XLPE	Section VII, TS part 1&2 BOQ
E	Conversion of LT line from OH to UG using Diff Size of UG Cable and connection of existing consumer upto meter from service junction box and shifting of meter	Section VII, TS part 1&2 BOQ
F	Conversion of LT line from OH to AB cable in narrow lanes as per site requirement as clearance of site authority	Section VII ,TS part 1&2 BOQ

G	Dismantling of old OH line assets and other costs	Section VII ,TS part 1&2 BOQ
H	Supply Erection, Testing & Commissioning of Optical Fibre	Section VII ,TS part 1&2 BOQ
I	Environmental and Social standard compliance, road restoration etc.	Section VII

Note :The existing overhead infrastructure is to be replaced with underground infrastructure right up to the consumer meter apart from providing additional distribution transformer, RMU, LT feeder panels.

1. The Contractor must mobilize, at the minimum, the following personnel at site:

SN	Position	Number	Experience
1.	Project Manager	One	At least 10 years of experience in construction of transmission/distribution network including HT underground cabling systems
2.	Supervisor Electrical	One	Supervision of HT underground cabling works
3.	Supervisor Civil	One	Supervision of civil works related to HT underground cabling works
4.	Safety Supervisor	<u>One</u>	Safety Supervision of transmission and distribution sub-station/line construction sites for at least 5 years, including underground cabling works
5.	Safeguard Expert	<u>One</u>	Implementation of social and environment impact mitigation plan for electrical projects for 5 years

2. Equipment

The Contractor must mobilize the following equipment, at a minimum, at site:

No.	Equipment Type and Characteristic	Capacity	Minimum Number required
1	Cable puller	3 Ton	1 No.

2	Crane	8 Ton	1 No.
3	Pneumatic Demolisher	60 Pound	1 No.
4	Excavator	1 Cum	2 Nos.
5	Concrete Cutters		2 Nos.
6	Tippers	10 ton	1 No.
7	Vibratory Power Rollers	8 to 10 ton	As required
8	Mini Compactors		As required
9	Concrete Mixer	10/7 cu ft	As required
10	Electric Generator	125 kVA	As required

3. GENERAL INFORMATION

- 1.1 WBSEDCL proposes to improve distribution network in **Rajarhat** Town of West Bengal by providing Underground Cable System (UGCS) in identified areas of **Rajarhat** Town on turnkey single source responsibility basis. Underground Cable System (UGCS) would be implemented to the extent possible by Conversion of overhead network into Underground Cable system with installation of RMUs, new 315 & 160 KVA DTRs, H Beam poles, Feeder pillar boxes, Junction Boxes and Underground cable services with meter shifting, underground street light cable services and allied works.
- 1.2 The project is to be executed under World Bank and GoWB funding.
- 2.0 SCOPE: The following provisions shall supplement all the detailed technical specifications and requirements brought out in the accompanying Technical Specifications. The Bidder's proposal shall be based on the use of equipment and materials complying fully with the requirements, specified herein.
- 2.1 The material/equipment to be supplied on final destination at site basis as covered in this volume shall be designed, manufactured and tested as per the requirements specified.
- Final Destination shall mean the railheads or depots or stores established by the Contractor in the above-mentioned electrical circles/towns.
- 2.2 The materials/equipment covered here under this package shall be supplied complete in all respects, for completion of erection in all respect, including all components, fittings and accessories which are necessary or are usual for their efficient performance and satisfactory maintenance under the various operating and atmospheric conditions. Such parts shall be deemed to be within the scope of the contract, whether specifically included or not in the specification or in the Contract Schedules. The Contractor shall not be eligible for any extra charges for such fittings, etc.
- The details of the materials/equipment required for the sub-transmission and distribution improvement project have been elaborated in the respective volumes of specification. However, they briefly cover the following and the quantities of the same are mentioned in Bid Proposal Sheets (BPS).

- i) Transformers of different ratings and voltage class.
- ii) 33/11 kV HV (UG)/ 0.433 kV LV(UG) lines to be constructed underground.
- iii) 33 and 11kV RMUs, Feeder Pillar Boxes, Service Junction Box(SJB), Plot Junction Box(PJB) and Street light JB(SLJB) to be erected on foundations.
- iv) Conversion from OH to LT AB cable in narrow lanes where LT UG cable laying is not possible
- v) Shifting of service connections outside the consumer premises

3.0 WEIGHTS AND MEASURES

All weights and measures shall be in System International (S.I.) units. All fasteners shall be of Metric size only.

4.0 GENERAL TECHNICAL CONDITIONS

4.1 The Bidder shall furnish detailed technical data as required, on the Technical Specifications demonstrating that the offered goods are substantially responsiveness to the specifications and there are no deviations and exceptions to the provisions of the Technical Specification unless and until advised contrary to this in the bidding document.

4.2 Equipment Performance Guarantee

4.2.1 The performance requirements of the items are detailed separately in this specification. These guarantees shall supplement the general performance guarantee provisions covered under General Terms and Conditions of Contract in clause entitled 'Guarantee'.

4.3 Engineering Data

4.3.1 The furnishing of engineering data by the Contractor shall be in accordance with the appropriate Schedule appended to this document. The review of these data by the Owner/Employer will cover only general conformance of the data to the specifications and drawings. This review by the Owner may not indicate a thorough review of all dimensions, quantities and details of the equipment, materials, any devices or items indicated or the accuracy of the information submitted. This review and / or approval by the Owner shall not be considered by the Contractor, as limiting any of his responsibilities and liabilities for mistakes and deviations from the requirement, specified under these Specifications and documents.

4.3.2 All engineering data submitted by the Contractor after final process including review and approval by the Owner shall form part of the Contract Document and the entire works performed under these Specifications shall be performed in strict conformity, unless otherwise expressly requested by the owner in writing.

4 Drawings

- 4.4.1 All Preliminary Working Drawing should be submitted by the Contractor after survey work with complete bill of materials including proper locations for approval by the Owner in triplicate before starting of erection. Again after completion of work, in built drawings with all details (as per GTC) in prescribed format and process as prescribed by WBSEDCL should be submitted.
- 4.4.2 Each drawing submitted by the Contractor shall be clearly marked with the name of the Employer, the unit designation, the Specification title, the Specification number and the name of the Project. All titles, noting, markings and in writings on the drawing shall be in English. All the dimensions should be to the scale and in metric units.
- 4.4.3 The drawings submitted by the Contractor shall be reviewed by the Owner as far as practicable within four (4) weeks and shall be modified by the Contractor if any modifications and/or corrections are required by the Owner in compliance with the Specifications. The Contractor shall incorporate such modifications and or corrections and submit the final drawings for approval. Any delays arising out of failure by the Contractor to rectify the drawings in good time shall not alter the Contract completion date.
- 4.4.4 All drawings, except Civil drawings, submitted for approval to the Owner shall be in triplicate (For GTP approval). One print of such drawings shall be returned to the Contractor by the Owner marked "approved"/"approved with corrections". The Contractor shall thereupon furnish to the Owner additional print as stipulated in Technical Specification (Electrical) after incorporating all corrections. All Civil drawings shall be submitted in the manner as specified in Technical Specification (Civil).
- 4.4.5 Further work by the contractor shall be strictly in accordance with these drawings and no deviation shall be permitted without the written approval of the Owner, if so required.
- 4.4.6 All manufacturing and fabrication work in connection with the equipment/material prior to the approval of the drawings shall be at the Contractor's risk. The Contractor may make any changes in the design which are necessary to make the equipment conform to the provisions and intent of the Contract and such changes will again be subject to approval by the Owner. Approval of Contractor's drawing or work by the Owner shall not relieve the Contractor of any of his responsibilities and liabilities under the Contract.
- 4.4.7 All rights of the design/drawing shall be strictly reserved with the Owner only and any designs/drawings/data sheets submitted by the contractor from time to time shall become the property of the owner, Under no circumstances, the Contractor shall be allowed to use/offer above designs/drawings/data sheets to any other authority without prior written permission of the Owner. Any deviation to above is not acceptable.
- 4.4.8 As-Built Drawings (with GPS markings, for different voltage grade) should be submitted by the Bidder before handing over the system shall be in complete Bill of Materials with proper locations to the Owner in 6 (Six) sets. Not limited to the following, it should contain data/markings up to consumer level in consultation with site authority of

WBSEDCL for various voltage grade i.e. for 33 KV & 11 KV level, showing DTRs and RMUs with demarcation of HV joints in UG cable, LT level (with demarcation of joints) with FPB and JB, consumer services etc. Microtunneling, Jack push depths and stretches, open cut depth and stretches location of other utilities, land marks, distance from kerb line and centre line of road etc. Soft copies also in AutoCAD and PDF Format should be provided to WBSEDCL in addition.

4.4.9 Approval of Vendors (Pl go through Section III- Evaluation and Qualification requirement for sub vendors Qualification)

Contractor may procure any Supply materials from live suppliers of WBSEDCL or any vendors (herein called as Sub-Vendor to the Contractor) approved by WBSEDCL, if the specifications of Supply materials match with approved TS by submission of following documents for WBSEDCL's approval.

- i) Sub-Vendor's credentials.
- ii) Performance Report regarding supply of such materials to other Govt. Power Utility, Private Power Distribution/Transmission/Generation Companies or any industries.
- iii) Type Test Report of the product conducted not before than 5 (five) years in a NABL accredited Govt. Laboratory along with relevant documents.
- iv) Manufacturing capability of the Vendor supported by copy of Purchase Order, copy of Dispatch Clearance from the Employer, copy of delivery note etc.

Failure to comply with these requirements will result in rejection of name of such vendor. Also if there is any litigation under sub-judice status between sub-vendor and its last 5 years client & the Owner (WBSEDCL), the Owner may reject the name of such vendor.

4.4.11 Design Co-ordination

Wherever, the design is in the scope of Contractor, the Contractor shall be responsible for the selection and design of appropriate material/item to provide the best co-ordinated performance of the entire system. The basic design requirements are detailed out in this Specification. The design of various components, sub-assemblies and assemblies shall be so done that it facilitates easy field assembly and maintenance.

4.5 Manufacturing Schedule

The Contractor shall submit to the Owner his manufacturing, testing and delivery schedules of various items within thirty (30) days from the date of the Letter of Award in accordance with the delivery requirements stipulated. Schedules shall also include the materials and items purchased from outside Contractors, if any.

4.6 Reference Standards

- 4.6.1 The codes and/ or Standard referred to in Specifications shall govern, in all cases wherever such references are made. In case of a conflict between such codes and/or Standards and the specifications, latter shall govern. Such codes and/or Standards, referred to shall mean the latest revisions, amendments/changes adopted and published by the relevant agencies. Any anomalies, ambiguities of this specification if arises, Board's standard specifications will govern without any escalation in item price.
- 4.6.2 Other internationally acceptable Standards which ensure equivalent or better performance than those specified shall also be accepted.

4.7 Design Improvements

- 4.7.1 The Owner or the Contractor may propose changes in the Specification of the equipment or quality thereof and if the parties agree upon any such changes the Specification shall be modified accordingly without any escalation in item price.
- 4.7.2 If any such agreed upon change is such that it affects the price and schedule of completion, the parties shall agree in writing as to the extent of any change in the price and/or schedule of completion before the Contractor proceeds with the change. Following such agreement, the provision thereof, shall be deemed to have been amended accordingly.

4.8 Quality Assurance

- 4.8.1 To ensure that the equipment under the scope of this Contract whether manufactured within the Contractor's Works or at his Sub-Contractor's premises is in accordance with the specifications, the Contractor shall adopt suitable Quality Assurance Programme to control such activities at all points necessary.

Such programme shall be outlined by the Contractor and shall be finally approved by the Owner.

Quality Assurance Programme of the Contractor shall generally cover but not limited to the following:

- a) His organization structure for the management and implementation of the proposed Quality Assurance Programme.
- b) Documentation control system.
- c) Qualification data for key personnel.
- d) The procedure for purchases of materials. Parts/components and selection of sub-Contractor's services including vendor analysis, source inspection, incoming raw material inspection, verification of material purchases etc.
- e) System for shop manufacturing including process controls.
- f) Control of non-conforming items and system for corrective action.
- g) Control of calibration and testing of measuring and testing equipments.
- h) Inspection and test procedure for manufacturing.
- i) System for indication and appraisal of inspection status.
- j) System for Quality audits.
- k) System for authorizing release of manufactured product to the Employers.
- l) System for maintenance of records.
- m) System for handling storage and delivery and
- n) A Quality Plan detailing out the specific quality control procedure adopted for controlling the quality characteristic of the product.

The Quality Plan shall be mutually discussed and approved by the Owner after incorporating necessary corrections by the Contractor as may be required.

4.8.2 Quality Assurance Documents

The Contractor shall be required to submit all the Quality Assurance Documents as stipulated in the Quality Plan at the time of Owner's inspection of equipment/material.

- 4.8.3 The owner or his duly authorized representatives reserves the right to carry out Quality Audit and Quality surveillance of the systems and procedures of the Contractor's/his vendor's Quality Management and Control Activities.

4.9 Owner's Supervision

- 4.9.1 To eliminate delays and avoid disputes and litigation it is agreed between the parties to the Contract that all matters and questions shall be resolved in accordance with the provisions of this documents.

- 4.9.2 The manufacturing of the product shall be carried out in accordance with the specifications. The scope of the duties of the Owner, pursuant to the contract, will include but not be limited to the following :

- a) Interpretation of all the terms and conditions of these Documents and Specifications.
- b) Review and interpretation of all the Contractor's drawings, engineering data etc.
- c) Witness or authorize his representative to witness tests at the manufacturer's works or at site, or at any place where work is performed under the Contract.
- d) Inspect, accept or reject any equipment, material and work under the Contract, in accordance with the Specifications.
- e) Issue certificate of acceptance and / or progressive payment and final payment certificate.
- f) Review and suggest modification and improvement in completion schedules from time to time; and
- g) Supervise the Quality Assurance Programme implementation at all stages of the Works.

4.10 Inspection, Testing & Inspection Certificate

- 4.10.1 The Owner, his duly authorized representative and/or outside inspection agency acting on behalf of the Owner shall have at the reasonable times access to the Contractor's premises or Works and shall have the power at all reasonable times to inspect and examine the materials and workmanship of the product during its manufacture and if part of the product is being manufactured or assembled at other premises or works, the Contractor shall obtain from the Owner and/or his duly authorized representative permission to inspect as if the equipment/materials were manufactured or assembled on the Contractor's own premises or works. Travel expenses of WBSEDCL or their representative will be borne by WBSEDCL
- 4.10.2 The Contractor shall give the Owner/Inspector fifteen (15) days written notice of any material being ready for testing. Such tests shall be to the Contractor's account except for the expenses of the Inspector. The Owner/Inspector, unless witnessing of the tests is virtually waived, will attend such tests within fifteen (15) days of the date of which the equipment is notified as being ready for test/inspection or on a mutually agreed date, failing which the Contractor will offer a 2nd inspection date with minimum 7 days notice, and on failure of the inspector to attend the same, the contractor may proceed with the test which shall be deemed to have been made in the Inspector's presence and he shall forthwith forward to the Inspector duly certified copies of tests in triplicate.
- 4.10.3 The Owner/Inspector shall, within fifteen (15) days from the date of inspection as defined herein give notice in writing to the Contractor, of any objection to any drawings and all or any equipment and workmanship which in his opinion is not in accordance with the Contract. The Contractor shall give due consideration to such objections and shall make the modifications that may be necessary to meet the said objections.
- 4.10.4 When the factory tests have been completed at the Contractor's or Sub-Contractor's works, the Employer Inspector shall issue a certificate to this effect within fifteen (15) days after completion of tests but if the tests are not witnessed by the Owner/Inspector, the certificate shall be issued within fifteen (15) days of receipt of the Contractor's Test certificate by the Owner/Inspector. The completion of these tests or the issue of the certificate shall not bind the Owner to accept the equipment should it, on further tests after erection, be found not to comply with the Contract.
- 4.10.5 In all cases where the Contract provides for tests whether at the premises or works of, the Contractor, the Contractor except where otherwise specified shall provide free of charge such item as labour, materials, electricity, fuel, water, stores, apparatus and instruments as may be reasonably demanded by the Owner/inspector or his authorized representative to carry out effectively such tests of the equipment in accordance with the Contract and shall give facilities to the Owner/Inspector or to his authorized representative to accomplish testing.

4.10.6 The inspection by Owner and issue of Inspection Certificate thereon shall in no way limit the liabilities and responsibilities of the Contractor in respect of the agreed Quality Assurance Programme forming a part of the Contract.

4.10.7 If during inspection at the contractor's or sub-contractor's works, the offered material / equipment are not found in entire quantity or found in a part quantity or without any identification mark as is required in case of PCC pole, the offer would be termed as "FAKE OFFER". The owner in that case shall ask the contractor to deposit a sum of Rs.50,000/-(fifty thousand) as a penal measure. However, the referred material / equipment shall be inspected further on receipt of re-offer as well as deposition of specified amount, as above, to the owner by the contractor.

5.0 TECHNICAL DESCRIPTION

5.1 The technical description of various materials/equipment has been specified in the respective volumes of technical specifications. Further technical descriptions if necessary after actual site visits, may be included in consultation with the engineers – in - charge in writing.

6.0 TESTS AND STANDARDS

6.1 Tests

The following type, acceptance and routine tests and tests during manufacture shall be carried-out on the material. For the purpose of this clause:

6.1.1 All equipment offered/supplied should have been type tested as per the relevant standards and certificates of the same shall be submitted to the owner/ employer. In case any equipment is not type tested, the bidder shall carry out the type testing at his own cost and provide the necessary certificates to the owner for approval.

6.1.2 Acceptance Tests shall mean those tests, which are to be carried out on samples taken from each lot offered for pre-dispatch inspection, for the purposes of acceptance of that lot.

6.1.3 Routine Tests shall mean those tests, which are to be carried out on the material to check

requirements, which are likely to vary during production.

- 6.1.4 Tests During Manufacturing shall mean those tests, which are to be carried out during the process of manufacture and end inspection by the Contractor to ensure the desired quality of the end product to be supplied by him
- 6.1.5 The norms and procedure of sampling for these tests will be as per the Quality Assurance Programme to be mutually agreed to by the Contractor and the Owner or as per relevant I.S.S.
- 6.1.6 The standards and norms to which these tests will be carried out are listed against them. Where a particular test is a specific requirement of this Specification, the norms and procedure of the test shall be as specified separately or as mutually agreed to between the Contractor and the Owner in the Quality Assurance Programme.
- 6.1.7 For all type and acceptance tests, the acceptance values shall be the values specified in the Specification or guaranteed by the Bidder, as applicable. The test and standards for various materials/equipment has been specified in the respective volume of technical specification.

6.2 Testing Expenses

No testing expenses will be borne by WBSEDCL.

6.3 Additional/ Alternative Tests

- 6.3.1 The Owner reserves the right if required necessary arrangements have to be done by contractor out of his own expenses. Any other test(s) of reasonable nature carried out at contractor's premises, at site, or in any other place in addition to the specified type, acceptance and routine tests to satisfy himself that the materials/equipment comply with the Specifications.
- 6.3.2 The Owner also reserves the right to conduct all the tests mentioned in this specification at his own expense on the samples drawn from the site at Contractor's premises or at any other test center. In case of evidence of non compliance, it shall be binding on the part of contractor to prove the compliance of the items to the technical specifications by repeat tests, or correction of deficiencies, or replacement of defective item all without any extra cost to the Owner.

6.4 Sample Batch for Testing

- 6.4.1 The contractor is required to carry out at the Acceptance tests as specified/as per I.S.S norms successfully in presence of Owner's representative.

7.0 GUARANTEED TECHNICAL PARTICULARS

- 7.1 The Guaranteed Technical Particulars of the various items shall be furnished by the Bidders in one original and two (2) copies in the prescribed schedules of the Specifications. The Bidder shall also furnish any other schedule information as in their opinion is needed to give full description and details to judge the item(s) offered by them.
- 7.2 The Data furnished in Guaranteed Technical Particulars should be the minimum or maximum value (as per the requirement of the specification) required. A Bidder may guarantee a value more stringent than the specification requirement. However, for testing purpose or from performance point of view, the material shall be considered performed successfully if it achieves the minimum / maximum value required as per the technical specification. No preference whatsoever shall be given to the bidder offering better/ more stringent values than those required as per specifications.

8.0 CLIMATIC CONDITIONS

All Equipment/Material to be supplied against this specification shall suitable for satisfactory continuous operation under tropical conditions as specified in Technical Specification.

9.0 APPROVAL FROM ELECTRICAL INSPECTORATE:

The contractor need not obtain approval from Electrical Inspectorate before commissioning and handing over. WBSEDCL shall arrange for the same. Contractor will have to provide data for obtaining the approval and also provide all assistance during inspection.

General Technical Conditions (GTC)

Part B

1. GENERAL TECHNICAL SPECIFICATION

The General Technical Specifications shall be those conforming to the Specifications prepared by the Central Public Works Department (CPWD), Specifications Vol-II 2007, Ministry of Road Transport and Highways, Government of India (GoI) for Road and Bridge works (IVth Revision) and including up to date amendments there to.

All the electrical works shall be carried by an electrical contractor valid license class and direct supervision of a person holding a certificate of competency issued by the Director, Electrical Safety / Chief Electrical Inspector to Government, Department of Power, Government of West Bengal and the Electrical works shall be done conforming to the up to date Indian Standards, CEA Regulation, Indian Electricity Rules, Code of Practice for Electrical wiring installations, National Building Code and Electrical Safety Procedures.

In the absence of any definite provisions on any particular issue in the aforesaid Specifications, reference may be made to the latest codes and specifications of IRC and BIS in that order. Where even these are silent, the cable laying and completion of the works shall conform to sound engineering practice as approved by the Engineer and in case of any dispute arising out of the above, the decision of the Engineer shall be final and binding on the Contractor.

2. SPECIFICATION OF PRELIMINARY WORKS

The Contractor is advised to go through the below specifications and price his bid accordingly. The Contractor shall include for the requirements of this Clause in his Programme of Works and his Bill of Quantities.

1. General Responsibilities for utility Works

The Contractor shall be responsible for liaison with Public Utility Departments and other Government Agencies with regards to the overall co-ordination and programming of UG Cabling works.

No trench or chamber excavation will be permitted until: -

- i) The locations and depth of all existing services have been established by trial-holes to the satisfaction of the Engineer.
- ii) The Contractor has provided the Engineer with accurate setting out information for the line and level of the proposed work.
- iii) The Engineer has confirmed the accurate setting out information for the line and levels of the proposed work.

The Contractor shall be responsible for arranging, providing and maintaining all road closures and traffic diversions required by the Works with the Traffic Police Department and the Engineer.

2. Housing, Water etc.

- (a) The Contractor is responsible for transportation of his workmen to and from the Site.
- (b) The Contractor is responsible for all arrangements for his workmen and everything concerning the procurement and employment of labour.
- (c) The Contractor shall be required to provide and maintain at his own cost all camps and housing to accommodate properly his personnel and labour for the period of the Contract having due regard for the Statutes, Ordinances, Laws, Regulations and By-Laws in force in the district and to the approval of the appropriate Government Authorities and as specified in this bid document. Such camps and housing shall not be permitted to be erected on the Site.

3. Trespass and Nuisance

The Contractor will be held responsible for and shall indemnify the employer against all claims in connection with noise, vibration, dust, smoke and any other nuisance arising from the execution of the Works.

4. Temporary Roads

The Contractor shall be required to maintain and provide satisfactory temporary access and traffic flow to and from and within the areas of the Works. Temporary traffic signs and lighting for temporary roads and diversions are to be in strict accordance with the requirements of the Local Police Department, other Government Agencies and any additional requirements instructed by the Traffic Police or the Engineer. Details of proposals for any such temporary measures are to be submitted by the Contractor at least 7 days in advance for approval by the Traffic Police and the Engineer unless otherwise instructed. Such approval shall not relieve the Contractor of any of his duties or responsibilities under the Contract.

The Contractor shall maintain at all times access to all properties fronting the roads affected by the Works.

5. Maintenance of Roads

The Contractor will be held responsible for any damage caused by him, his work people, sub-Contractors or suppliers to public or private roads, paved areas, paths verges, trees, shrubs, fences, boundary walls, gates, signs, drains, ducts and services during the execution of the Contract and shall bear the cost of making good any damage to the entire satisfaction of the local and other authorities and owners. The Contractor shall keep all private roads and paths clean and free from dirt and debris and any obstruction associated with the Works which would prejudice the safe and unimpeded normal use of the said roads and paths.

6. Contractor's Temporary Buildings

The Employer shall arrange for right of access only within the road reservation. Should the Contractor require to use adjacent areas of land for camps, plant site, stores etc., he shall arrange for the right to use the said land himself.

7. Measuring and Recording Equipment

The Contractor shall have the following equipment for the use of the Engineer's Representative for the duration of the Contract.

- a. 1 No. 1 second Wild T2 theodolite with calibrated E.D.M. (or equivalent) C/W tripods, prisms etc.
- b. 1 No. Automatic engineer's level including tripod.
- c. 1 No. Metric leveling staff.
- d. 1 No. Calibrated steel survey band 50 m long.
- e. 2 Nos. 30m nylon tape.
- f. 4 Nos. 5m pocket tapes.
- g. 6 Nos. Ranging rods.
- h. Level and field books as required.
- i. 1 No. Mason's Spirit level.
- j. 1 No. Thermometer.
- k. Total station
- l. 0-1000 Amps, 0-600V AC/DC Tong tester for measuring the current in electrical cables
- m. Digital Multi-meter

- n. 5 KV Megger for measuring insulation resistance of electrical equipment

Other equipment such as pegs, tools, etc., which are necessary for the checking of the Works shall be provided as requested by the Engineer.

The Contractor shall maintain and replace as necessary the equipment for the duration of the Contract. Surveying and testing instruments shall be new or in as good as new condition, of an approved make with a current certificate of calibration. The certificates shall be revalidated as per standards.

The Contractor shall provide for the use of the Engineer's Representative and his staff, any technician / qualified assistants to carry out any duties for the works, as required by the Engineer's Representative.

8. Site Diary

The Contractor shall also supply to the Engineer, weekly returns as to the number of labour and construction plant employed and the nature of the work on which they were employed.

9. Cleaning the Works

Clearance and Transportation of Building Refuse/Road Debris:

- i. The Contractor shall undertake to carry out the following within a maximum period of 15 days after completion of the agreed stretch of road.
 - a. Removal of all the Contractor's equipment, machinery and other belongings from the completed stretch of road.
 - b. Clearance of all earth, debris and refuse whatsoever and transporting them to the location designated by the concerned Municipality.
- ii. In the case of Contractor's delay or refusal to carry out such a job, he shall have to pay a penal compensation of Rs 10,000/- for delay for each day or part of a day. This compensation shall be final and the Judiciary shall not be entitled to mitigate it and it does not require establishing the occurrence of any damage to the owner.
- iii. In addition, WBSEDCL shall be entitled to clear the refuse themselves and transport it to the location designated by Local Municipality/Local Body. WBSEDCL may also stop the final payment due to the Contractor until such refuse has been cleared and a certificate confirming this has been obtained from Local Municipality/Local Body.

10. Progress and Site Photographs

- A. The Contractor shall arrange to obtain a photographic record of the site before the start of the works by taking photographs from positions agreed with the Engineer. Two number 125 x 90 mm prints of each photograph should be developed and handed to the Engineer within 7 days of the photographs being taken.
- B. For progress photographs, the Contractor shall take 18 number colour photographs for each 500-meter stretch from positions agreed with the Engineer. Two number 125 x 90 mm prints should be developed and handed to the Engineer within 7 days of the photographs being taken. The soft copy of the same shall also be submitted every month.

- C. The Contractor will supply to the Engineer, two number photographic albums duly mounting all site and progress photographs after completing the works.
- D. For site photographs, the Contractor shall provide a 35mm automatic digital camera for the exclusive use of the Engineers' Representative. The camera is to be returned to the Contractor on completion of the Contract.
- E. All photographic prints and soft copies shall be the property of the Engineer and shall not be used for any purpose whatsoever without the Engineers approval. The copyright of all photographs shall belong to the WBSEDCL and the Contractor shall not use the photographs for any purpose whatsoever without the Engineer's approval.
- F. The Contractor shall take video film of the work-in-progress at the end of every month. The video film shall not extend beyond 15 minutes, and shall be clear and comprehensive enough to provide a fair idea on the progress of development. The video film shall show the date of filming and the description of the works. Two sets of DVDs in good condition shall be supplied to the Engineer every month. If the video film is not clear or does not provide an idea of the work progress, the Engineer shall direct the Contractor to remake the video film.
- G. Photographs and video film on or about the site shall not be taken without prior approval and written permission, and any such photography or video film shall not be used for publicity purposes without the express written approval of the WBSEDCL.
- H. The contractor shall take care not to photograph / video of sensitive establishments, protected areas and shall not use the permission given to take photographs / video encroaching on the privacy of public. If it is found that this activity is done, necessary action as per law will be initiated by the concerned against the Contractor. WBSEDCL will not be responsible for such acts of Contractor.

11. Method Statements

- A. The Contractor shall submit for approval as and when required by the Engineer written statements with appropriate sketches of the methods of construction he intends to use. The statements shall be submitted to the Engineer in ample time for proper consideration to be given to them before the operation described is started and no work is to be done without approval having been obtained in writing. The acceptance by the Engineer of a method statement shall not relieve the Contractor of any of his obligations under the Contract. The required documents shall be submitted for approval 10 days prior to taking up work in a particular area.

12. As-Built Record Drawings, Survey Drawings and Data

- A. The Contractor shall prepare 'as built' record and survey drawings of the works detailing all works installed under the contract including utilities, services and all finished alignments and levels. The drawings shall be accompanied by maintenance manuals, service literature and lists of spare parts where applicable.
- B. As built record drawings, operations manuals and maintenance manuals and any other literature pertaining to and required for the efficient operation of the completed works shall be supplied by the Contractor to the Engineer free of charge. The drawings pertaining to the record drawings and operations and maintenance manuals shall be on

- clear white polyester film or other durable and easily reproducible medium approved by the Engineer.
- C. Where any permanent feature has been added, changed or removed the Contractor shall conduct a topographical survey. The survey shall be undertaken by approved survey company. The as built survey shall be delivered to the Engineer for approval.
 - D. Six copies(in digital version also) of the as built drawings and documentation shall be submitted to the Engineer within 30 days of issue of work completion certificate as stated in the Contract. One copy of all documents and drawings shall be specifically marked for archival storage in the Regional office/any alternate location specified by WBSEDCL. The Maintenance Certificate (FCC) will not be signed by the Engineer until all as built drawings and accompanying documents and service literature is submitted, approved and a certificate has been issued by the Engineer to this effect. The Contract shall not be considered complete until the Contractor submits to the Engineer all as built drawings and the documentation and obtains the Engineer's written approval.

13. Digital Data

- A. As part of the implementation of computer aided design systems and the development of GIS, the Contractor shall, upon completion of construction, provide the Engineer with two digital copies of the as built drawings, maintenance manuals of all equipments supplied under the contract.
- B. It is the Contractors responsibility to ensure that the digital data compiled by the approved survey company is comprehensive and complete. The Contractor shall at all times during construction maintain a comprehensive record of all setting out details and data; for chainage, offsets, levels and of all sub-surface elements, including pipe work, ducts, cables and any other installation required under the contract. These records shall be verified by the Engineer. The records shall be incorporated into the as built survey undertaken by the approved survey company to form a fully comprehensive and complete record of the works.
- C. The digital data shall be submitted in the/any of the following formats
 - (i) DXF files for use in AutoCAD shall be created as ASCII text files. File names should have a maximum of eight characters plus the three character extension .DXF.
 - (ii) DWG files for use in AutoCAD should have a maximum of eight characters plus the three character extension DWG.
 - (iii) A Digital Terrain Model, including break lines and contours shall also be supplied in a recognized format; namely ASCII data file, SDR MAP File, MOSS GENIO file or as otherwise agreed with the Engineer.
 - (iv) Alternatively any other format provided by WBSEDCL for specific customized application based use may also be utilized.

- D. The scale used shall be one-to-one scale.
- E. The precision shall be double precision.
- F. Feature accuracy shall be at least ± 0.01 meters.
- G. Each layer shall contain only one feature type. If necessary, text may be added to a separate layer to explain the feature type. Colors and line types of features shall be specified by layer and not individual entities or blocks. Features shall not be duplicated across layers. The Contractor shall obtain from the Engineer the most current specification detailing colour and line type conventions.
- H. Features should not be represented with user defined symbols. The following representation shall be applied:
 - i) Polygons must comprise of lines to form closed areas where possible.
 - ii) Line entities must be continuous, not a series of consecutive segments.
 - iii) Arc entities must be continuous radius, not a series of consecutive segments
 - iv) Block entities are not allowed.
 - v) User defined symbols, fonts, or line types must not be used on any layer.
- I. Layer names should be general descriptions of features (e.g., road centre line, kerb, walls, and bollards). A list of all layers and associated descriptions shall be provided in the submittal, the list shall be stored in an ASCII text file called; "layers.txt". Layer names should have up to 16 characters only and shall be restricted to letters and digits with the first character of the name being a letter. Names shall not contain special characters such as: \$, -, #. The Contractor shall obtain from the Engineer the most current specification detailing naming conventions. Where the files exceed the capacity of a single disk the files may be compressed using ZIP files and span disks as approved. The ZIP file should be converted to an executable "exe" file, or the UNZIP programme included to ensure the files are recoverable.

14. GIS Survey and Network Integration

A. Background

- The existing overhead infrastructure is to be replaced with underground infrastructure right up to the consumer meter apart from providing additional distribution transformer, RMU, LT feeder panels.

B. Detailed Scope

- The contractor shall survey the area taking the sketches provided as a reference.
- The contractor shall have to prepare afresh/update the same by carrying out the DGPS GIS survey (Sub-meter accuracy) & mapping of the newly erected infrastructure and consumer indexing using latest GPS technology & equipments to get accurate results at the time of execution for conversion to underground infrastructure.
- DGPS GIS survey is to be carried out on the approved format, and which will be checked/ validated by WBSEDCL to the 100% accuracy limit and to hand over the

same to WBSEDCL to integrate with the existing RAPDRP system –Contractor will provide survey data only.

- The mapping must be done with +/- one-meter location accuracy with differential corrections.
- Coordinate system (Universal Mercator system-UTM) provided, should allow superimposition on any standard mapping environment and platform like Google Earth.
- Network and asset survey work shall be carried out Substation wise and feeder wise. All the features mentioned as per data model shall be surveyed using DGPS Equipments, attributes to be collected and marked on the maps.
- It is also required to correct the location of the existing Network if the positions are incorrect on the hardcopy maps.
- All above captured data shall be updated in system using Licensed GIS software. Contractor has to ensure that exact location of assets, topology, and accurate consumer indexing. Contractor shall abide by instructions of WBSEDCL IT cell for successful mapping of consumers where the project is being done.
- Contractor shall ensure the complete data management with data backup management.
- The contractor shall overlay the network map on the base map and make final quality checks to ensure the perfect match : As per instruction of WBSEDCL IT cell.
- It is also required to get the approval from CCC/Division in-charge/RM about correctness of captured data.
- All software, hardware infrastructure, to carry out work as mentioned shall be arranged by Contractor.

C. O&M Work

- Delta changes in infrastructure (other than the project being implemented) during the course of the execution will be communicated to the contractor to carry out the DGPS survey and to hand over the same to WBSEDCL to integrate with existing RAPDRP

D. Deliverables

- Contractor shall submit preliminary drawing to engineer in-charge during execution of work. After the completion of work, as built drawing shall be submitted after incorporating all the suggestions given by engineer in-charge. In the drawing at one end, title block shall be provided. Legends of symbols used shall also be provided in the drawing and drawings/maps shall be published by contractor in mutually agreed format only. The soft and hard copies of as built drawings (in pdf& AutoCAD both) shall be given by the contractor.

- The drawings/maps to be prepared using specific utility symbols, with colour coding, legible fonts and easy to understand, eliminating need to refer back to legends. The special line types developed for utilities should be standardized for all reports enabling data integration.

15. Other Services Authorities

The Contractor shall make due allowance for carrying out the Works, whilst Service Authorities are working on the site, during the Contract period.

16. Access

The Contractor shall at all times during the Contract maintain safe and proper access to and from adjacent buildings and properties.

17. Maintenance of Traffic Flow

- A. The Contractor shall allow for the construction of temporary diversions to permit all existing traffic movements for the duration of the contract period.
- B. All diversions shall be constructed in accordance to the Indian Road Congress standards (IRC:SP:55-2014) and shall be approved prior to their implementation by both the Engineer and Traffic Police. It is the Contractor's responsibility to ensure that any traffic diversion required is properly signed, demarcated, illuminated, controlled and maintained at all times.

18. Liaison with the Public Utilities and Other Contractors

- A. The Contractor shall liaise with all Public Utilities for water, electricity supply, telephones, etc. and shall:-
 - i) Provide Public Utilities with storage areas where applicable.
 - ii) Assist in unloading of stores and equipment.
 - iii) Ensure that all services or diversions of services are installed under the carriageway and footways before they are surfaced.
 - iv) Work out an overall programme for any works to be carried out by Public Utilities and ensure that this programme is maintained;
 - v) Keep Public utilities informed of the Contractor's own progress;
 - vi) Arrange for supplies of services for temporary accommodation for the duration for the Contract;
 - vii) Give the appropriate Public Utility adequate notice in writing that he intends to install dry ducts so that a representative of the Utility concerned may attend the installation and record the location of the ducts together with the Contractor.
- B. The Contractor shall make due allowance for carrying out the Works, whilst Public Utility Authorities are working on the Site, during, the Contract period. This due allowance shall include programming of the works to suit the programmes of the Public Utility Authorities.
- C. The Main Contractor shall at all times be responsible for the compliance with these requirements by his sub-Contractors.

- D. Before final surfacing of any carriageways or footways takes place, the Contractor is responsible for ascertaining from all Public Utility Authorities that their underground works have been completed. In the event that the Contractor fails to carry out this obligation to the satisfaction of the Engineer and completed surfacing is subsequently disturbed, the Engineer may instruct the Contractor to carry out work at his own expense.

19. Government Survey Control Points

- A. The Contractor shall protect all Government Survey Control Points within the limits of the site from any damage whatsoever, during the construction of the Works.
- B. All Control Points shall be clearly marked on Site by the Contractor and any necessary temporary protection works shall be installed as directed by the Engineer.
- A. Should any Control Point be damaged during the course of the Works, its replacement and any other costs incurred (such as resurveying) shall be borne by the Contractor.

20. DEMOLITIONS AND ALTERATIONS

Removal of Existing Services

The following additional Clause shall be part of the scope whether specified elsewhere or not - Workmanship:

- a. When directed by the Engineer and/or after a new service installation has been commissioned, existing and disused service installations shall be removed.
- b. Excavation to locate the disused service and backfill after the removal of the service installation shall be in accordance with various other specifications.
- c. All surplus or unsuitable material shall be removed to an approved tip off s

NOTE:

- 11KV feeder wise operational acceptance will be issued. After completion of 11KV feeder wise erection and testing, the commissioning works are to be taken up. The work shall be taken over by the employer after successful commissioning.
- Based on the necessity and feasibility, the cable trench is to be excavated on both sides of the road.
- separate contracts will be provided for supply and erection.
- If there are any charges to be paid towards obtaining permissions from the concerned local statutory authorities, then they will be reimbursed on production of original documentary evidence of payment.
- Employer will not supply any material to the contractor.
- Acquisition of land is not required for this work.

ENVIRONMENT MANAGEMENT PLAN

The Contractor is advised to go through the below specifications/environment, health and safety requirements and price his bid accordingly. The Contractor shall include for the requirements of this clause in his Programme of Works and his Bill of Quantities. All items shall be deemed incidental to work unless otherwise provided for in the price schedule.

1. Site clean-up and removal of all waste materials/debris lying within each 2.5 metre wide and 500 metre long operational area /cable laying segment.
2. Ensure roadside drain chutes are cleared on both upstream and downstream sides of operational area, prior to commencement of cable laying operations and these drains are to be periodically cleaned throughout the cable laying phase, followed by final cleanup just prior to opening the operational area(s) for traffic. Also, ensure no water logging occurs along barricaded operational area during rainy days/season.
3. Stacking of sand bags in polypropylene (used cement) bags, along inner side of barricades as required, preventing seepage /water logging of cable trenches in wet season/rainy days. In case of excess water logging, trenches shall be emptied using dewatering pump, as may be required.
4. Ensure all tipper trucks are loaded only up to permitted capacities and adequately covered with wetted cloth, so that en-route dust and spills avoided. Alternatively, water resistant tarpaulins can also be used to cover trucks. In such case, the top surface of loaded material(s) viz. excavated soil or bitumen chunks or debris shall be wetted, prior to covering with tarpaulins.
5. Provision of safe and adequate temporary intermediate access (fabricated MS planks of adequate size, strength, build and with hand rails) for adjacent building occupants/users as per requirements.
6. Ensure utmost care is taken that no underground utilities are damaged during trench excavation. In case of damage to any utilities like water/sewer/sanitary lines as a consequence of trench excavation works, same is to be restored with least down time through deployment of dedicated on-site crew group comprising mason, plumber, carpenter and sheet metal fabricator stationed at operational areas with all required tools and equipment. The onsite crew shall be provided with mobile van (MUV type) for ease of movement across operational areas within the package. The number of crew group(s) deployed shall commensurate with number of active operational areas so as to ensure no unwarranted/undue delay in restoration of damaged utilities due to inadequate crew group(s).
7. During all excavation operations, regular sprinkling of water with pressurized fine spray shall be carried out to contain/limit dust levels within Andhra Pradesh Pollution Control Board norms as may be required.

8. After the completion of underground cable laying works and prior to opening up of operational area for traffic, the site has to be cleaned and all waste materials/debris are to be removed and disposed at pre-approved designated locations/sites.
9. All types of excavated materials from operational areas are to be transported either to work camp sites for reuse and /or to approved locations for safe disposal.
10. All vehicles/equipment deployed at operational areas shall be in good working condition and mandatorily have valid Pollution under control certificates, while being deployed on this project.
11. Establishing work camp sites for macadam mix plants, hot mix plants and stacking of inventories for cable laying operations and restoring it to previous state, in all respects.
12. No workforce camps shall be set up at any of the operational areas. All work force are to be provided with suitable type of rented accommodation, if required or can return to normal places of residence. Pooled transportation facilities as may be required, shall be provided by contractor.
13. All traffic diversion plans (specific site/stretch wise) wherever required are to be prepared by contractor, shall be prepared in consultation with Engineer/WBSEDCL and requisite approvals from traffic police shall be sought well in advance (at least 7 days). Approved traffic diversion plans are to be implemented by the contractor during entire duration of cable laying operations, at a specific site/stretch. This will include provision of warning and informatory signboards, delineators, cones etc.
14. All road cutting permissions shall be obtained at least 7 days in advance from Local Municipality/local body and no excavation shall be commenced without requisite permission and approvals and intimation to PIU.
15. All operational areas shall be access controlled with fixed entry and exit points and shall have watch and ward facilities at all times. All workforce shall be provided with identity cards.
16. After dismantling of overhead infrastructure, the places shall be restored to match with surrounding places viz, when a pole has been dismantled, the pole location shall be restored to match with surrounding place, including filling up the foundation pit of the pole with sand/cement concrete and finishing to match with surrounding surfaces as may be required.
17. First aid facilities and free emergency care shall be provided to all workforce and third party and no cost shall be recovered from them on this account . The contractor shall have CAR policy to cover both Contactor and WBSEDCL.
18. Transit mixers with delivery hoses shall be used for backing filling of trenches with sand, to minimize space requirements at operational areas and avoid double handling of materials.

All supervisory staff shall be provided with mobile phones for better communication across all operational areas, in case of emergency or otherwise.

19. The Contractor as per prevalent rules will carry out negotiations with the landowners for obtaining their consent for temporary use of land for construction camp etc.
20. Hot Mix plant will be sited sufficiently away from settlements. Such plant will be located at least 800 m away from the nearest settlement preferably in the downwind direction. Consent to Establish and Consent to Operate from State Pollution Control Board will be obtained before establishment and operation of such a plant.
21. All vehicles, equipment and machinery to be procured for construction/protection work will confirm to the relevant Bureau of Indian Standard (BIS) norms/CPCB standards. The discharge standards promulgated under the Environment Protection Act, 1986 and Motor Vehicles Act, 1988 will be strictly adhered to.
22. Information Disclosure Boards showing the name of work, project cost, duration, date of commencement, date of completion, executing agency and contract telephone numbers of endorsing grievance etc. will be displayed at project sites.
23. Measures will be taken-up to minimize the construction works during night and accordingly public to be informed through message, leaflets and other media.
24. There shall be adequate and sufficient lighting arrangements during work at night.
25. Proper moving guards will be provided at all moving machines, like motors & pulleys.
26. All three phase motors, electrical panels and electrical machines, DG set etc. will be provided double earthing with proper earth pits as per applicable IS code.
27. Electrical cables and wires will be properly arranged with proper electrical safety. Loose electrical connections will not be allowed at the plant and other work sites.
28. Red danger sign with bone & skull will be displayed as per the Electrical Rules at three phase motors, electrical panels and electrical machines, DG set, etc.
29. Used oil generated from vehicles/workshop/DG set at plant/camp site will be collected in close containers and sold to MOEF&CC/SPCB approved used oil recyclers. Oil interceptor will be provided at the workshop.
30. Housekeeping will be maintained properly. Daily sweeping and cleaning will be done at site.
31. Solid wastes generated at the plant & camp sites, will be collected in covered waste bins and segregated as biodegradable (food waste, paper, etc) and non-biodegradable (plastic, polyethylene bag, etc) wastes. Polyethylene/plastic wastes will be stored in empty cement bags and to be sent for recycling through scrap dealer. Biodegradable (food waste, paper,

etc) solid waste will be disposed in compost pit or at sites approved/used by Local Municipality.

32. Safety awareness signage and posters will be provided at the work sites.
33. All power transmission lines whether claded or sufficiently covered are potential hazardous at construction sites. The Contractor shall take all required precautions to prevent danger from electrical cables, wires and equipment and ensure that:
 - No construction material will be stacked or placed below/near power transmission lines, wires and equipment, which can be potential danger to any road user, workman or public.
 - All such electrical installations and wirings shall be barricaded in manner that ensure safety of the road users, workers, operating vehicles/equipment (such as cranes, excavators, loaders fabricating units).
 - Necessary fencing, illumination and proper insulation of the electrical lines shall be ensured by the contractor for safety and security of the general public, road users and workers.
 - The Contractor shall ensure proper maintenance of electrical supply lines/ points.
 - All such electrical operating units shall be switched off before operation is closed every day or night as the case may be.
34. The contractor will take every precaution to reduce the level of dust and gaseous pollution from work sites. The Contractor will take every precaution to reduce the level of dust (PM 2.5 and PM 10) and make arrangements to minimize dust pollution through provision of wind screens/barriers, water sprinkling/mist spray unit, and encapsulation of dust source, as required shall be made.
35. The contractor will procure the construction plant and machinery, which will conform to the pollution control norms specified by the MoEF&CC/CPCB/SPCB.
36. All construction plant and equipment used in construction will strictly confirm to the MoEF&CC/CPCB noise standards.
37. The contractor will ensure that all vehicles, equipment and machinery used for construction works are regularly maintained and confirm that pollution emissions levels comply with the relevant requirements of CPCB and/Motor Vehicles Rules. The contractor will submit PUC certificates for all vehicles/ equipment/machinery used for the project.
38. The unloading of construction materials at construction sites will be limited to day time only. Screens of hessian cloth, agro-net and such other barricading materials will be erected along dumped and stock piled sites, so that generation of the dust in the vicinity of such locations can be minimized to a great extent.

39. Servicing of all construction vehicles and machineries will be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective, these shall be replaced.
40. Only acoustic enclosures fitted DG set will be allowed at the construction sites and hot mix plant/camp site.
41. Construction Safety Plan prepared by the Contractor will identify necessary actions in the event of an emergency.
42. The Contractor shall provide and ensure enforcement with zero tolerance on the following:
 - Safety vests will be used by workers when on road construction site.
 - Hard hat or helmets to all workers, supervising staff and inspecting official entering work site, plant area, and engaged in loading/unloading operations.
 - Protective footwear, protective goggles and nose masks (as required) will be provided to the workers employed. Safety shoes and goggles to all workers employed for handling of asphalt materials, cement, mortar, concrete and crusher operations.
 - During reinforcement/fabrication, safety appliances like: spectacles, helmets, gum boots, hand gloves shall be provided to labourers at work site.
 - Welder's protective eye-shields will be provided to workers who are engaged in welding works.
 - Earplugs will be provided to the workers exposed to high noise levels.
 - Ear plugs to workers exposed to high noise levels.
 - Nettings below and on the sides of overhead construction and excavation work to prevent mishaps due to accidental fall of workman and debris.
43. The Contractor will arrange for:
 - A readily available first aid box including an adequate supply of sterilized dressing materials and appliances as per rules shall be provided in work zones.
 - Emergency numbers will be displayed at camp, plant and construction sites
 - Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital. Designated vehicles, which can be used as ambulance, which will be available at construction sites as per requirement.
 - Trained First Aid personal with First Aid box will be available at the construction site.

- Periodic health checks for workers will be ensured.
44. The contractor will make required arrangements so that in case of any mishap on the road construction site, all necessary steps can be taken for prompt first aid treatment.
45. Labour Camp Management
- The location, layout and basic facility provision of labour camp will be submitted to Engineer/PIU prior to their construction.
 - The Contractor will maintain necessary living accommodation and ancillary facilities in functional and hygienic manner.
 - Fans and proper ventilation (turbine type ventilators) will provided in labour accommodation.
 - Regular cleaning and sweeping will be ensured at the labour camp site.
 - Fuel wood will not be allowed for cooking at labour camps. LPG cylinders will be provided at labour camp by the contractor.
 - Necessary HIV/AIDS prevention measures and awareness programme will be put into place.
46. The contractor will construct and maintain all labour accommodation in such a fashion that uncontaminated clean water is available for drinking, cooking, bathing and washing. The Contractor will also provide potable water facilities at road construction sites and culvert construction sites in an accessible place, as per standards set by the Building and other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996.
47. The Contractor will ensure that :
- The sewage system for the camp will be designed, built and operated in such a manner that no health hazard occurs and no pollution to the air, ground water or adjacent water courses take place,
 - Separate toilets/bathrooms, wherever required, will be provided for men and women, marked in vernacular language.
 - Toilets will be provided with septic tank followed by soak pit.
 - Adequate water supply is to be provided in all toilets and urinals,
 - Night soil can be disposed of with the help of local municipal extractor.
 - The contractor will provide garbage bins in the camp and construction sites and it will be ensured that these are regularly emptied and disposed off in a hygienic manner as per the Solid Waste Management Plan as per Solid Wastes (Handling and

Management) Rule 2016.

- Burning of wastes will not be allowed.
 - Solid wastes generated at the construction site, plant & camp sites, will be collected in covered wasted bins and segregated as biodegradable (food waste, paper, etc) and non-biodegradable (plastic, polyethylene bag, etc) wastes. Polyethylene/plastic wastes will be stored in empty cement bags and to be sent for recycling through scrap dealer. Biodegradable (food waste, paper, etc) solid waste will be disposed in compost pit.
48. The contractor will prepare site restoration and demobilization plan, which will be approved by the Engineer/Environmental Expert of PIU. The clean-up and restoration operation are to be implemented by the contractor prior to demobilization. The Contractor will clear all temporary structures; dispose all garbage, night soils and POL (Petroleum, Oil and Lubricants) wastes in environmental sound manner.
49. All disposal pits or trenches will be filled in and effectively sealed off.
50. All construction zones including camp, and any other area used/affected due to the project operations will be left clean and tidy at the contractor's expense to the entire satisfaction to the PIU.

Other environment, health, safety and associated requirements to be followed during the construction stage are given below:

1	Regulatory Compliances	<ul style="list-style-type: none"> • Consent to Establish and Consent to Operate (CTE & CTO) shall be obtained for macadam mix plants and hot bitumen mix plants. All consent conditions stipulated by WBPCB are to be compiled.
2	Establishing work camp sites and material stacking yards	<ul style="list-style-type: none"> • Under no circumstances, contractor shall use the cable laying route alignments as an interim stack yard for materials of any kind /type even for limited durations of less than a day. • Essentially, barren lands or uncultivable lands and those away from human settlements shall be the given selected for establishing work camp sites. • The selected land shall not warrant significant change in land forms or terrain, to make it suitable for establishing work camp sites. • In case, land had been earlier used for establishing work camp site and meets the above requirements, same shall be given preference.

		<ul style="list-style-type: none"> • The ambient air and noise levels within the work camps sites shall be monitored, once in month and corrective measures if any required shall be taken in order be complaint with National Ambient Air Quality and Noise Standards. • All stipulated consent conditions by WBPCB shall be strictly adhered and complied by contractor. • The work camp sites shall be access controlled with fixed entry and exit points. • The dust levels at the work camps sites is to be controlled through regular sprinkling of water through similar mobile tankers deployed at operational areas for cable laying • Bitumen mix plants, deployed for the project shall conform to regulatory norms/requirements • The site shall be cleared from all remnants of construction and debris and site restored to its previous state, after completion of the works. • Surplus soil available from excavation of cable trenches (sub-base and base layers) can be used to grade the site, as well as to restore the site after works completion, if required.
3	Site Clearance and preparation	<ul style="list-style-type: none"> • Cable route, cable trench of 1.0 metre width as well as 2.5 metre wide operational area is to be demarcated on ground with yellow paint (7.5 cm wide minimum). The location of inspection chambers (size 2.0x2.5x2.0 metres deep or as per requirement) at every 250 metres interval along cable route, also to be marked on ground with yellow paint. • While demarcating the cable route and cable trench, shall avoid removal/shifting of any of over ground road side infrastructure like poles (all types and sizes) and trees (all types and sizes), with exception of ramps, steps which are extending onto road. • Ensure centreline of 1.0 metre wide cable trench coincides with centreline of 2.5 metre wide operational area, with 750mm wide working space availability on both sides of cable trench. • Requisite approvals from traffic police shall be obtained at least 7 days in advance prior to start of site clearance operations. • Details of information about cable laying operations, scheduled work completion time in such specific stretches shall be shared

		<p>with all such institutions/occupants of buildings at least 7 days in advance, prior to commencement of works. Their requirements with respect to access or traffic diversions or any other concerns shall be considered in operations planning and scheduling of work and adhered to without any lapses on any account.</p> <ul style="list-style-type: none"> • The occupants of other buildings/establishments along operational areas to be barricaded shall be informed 7 days in advance about cable laying operations, scheduled work completion time, restriction in access for limited time and their specific requirements, if any with respect to temporary access and arrangements shall be discussed and finalised prior to barricading and commencement of trench excavation • Prior to commencement of excavation works, carry out minor repairs to footpaths (including making good all uneven surfaces along 500 metre cable route segment) adjacent to barricaded area (wherever applicable) to ensure pedestrian safety as a result of reduced walkway due to barricading on the road side. • All noisy operations shall be restricted to only day hours in residential areas. Only in case of commercial areas, which are most unlikely to disturb residential pockets, the operations, can be carried out at night hours with adequate floodlit arrangements and ensure operations are not a hazard to night traffic. • At any given point of time, only 500 metre length operational area shall be opened up for cable laying operations at a particular location and a maximum one such operational areas per substation zone. Prior to moving on to next 500 metre segment, all works in the previous segment shall be completed in all respects including road restoration (excluding bituminous layers) and worksite shall be completely cleared, prior to opening to traffic. The laying of the bituminous layer is to be subsequently taken up immediately after the natural compaction, expected to take place within 3-4 weeks or as determined based on site conditions. • Prior to commencement of excavation operations, permission for road cutting from Local municipality/Local body and approvals from traffic police, wherever required shall be obtained in advance. The telecom department shall be informed about the cable laying operations. • Once required permissions from Local municipality/Local body and traffic police are in place, barricade(s) shall be placed on either side of the 2.5 metre demarcated operational area. • Sand/earth filled polypropylene bags (used cement bags) are to be placed along inner side of both barricades, to prevent seepage
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		<p>and water logging of cable trenches during rainy days. Seepage and water logging will not only prolong cable laying operations but will also prolong inconvenience to public and vehicular traffic as a result of barricaded operational area for extended period.</p> <ul style="list-style-type: none"> • The barricades shall be provided with energy efficient LED strip lighting system (on only roadside) as a hazard safety for traffic moving at nights and late nights. The LED lighting system shall be switched on between sunset and sunrise hours mandatorily, for the entire duration of cable laying operations in any segment. • All work force deployed for cable laying operations shall be mandatorily provided induction training, which shall include awareness about the safety practices at work places, safe distances to be maintained around moving equipment like excavators etc, health and safety issues with particular emphasis on public safety and on-site sanitation practices at worksite during cable laying operations. • Every 500 metre segmental operations area shall be stationed with one mobile water tanker of 6000 litres capacity to meet all operational area water requirements. The water tanker shall be fitted with arrangements for a pressurized fine spray and a hose reel of 600 metre length. Typically, water shall be used for dust suppression during site preparation, excavation, consolidation of backfilling layers and wetting of cloth covered over tipper trucks, prior to their dispatch from operations site and site clean up after completion of cable laying • All workforce deployed at site irrespective of level, shall mandatorily wear personnel protective equipment (PPE) like safety helmets, face masks, ear plugs, protective gear with reflective jackets and safety shoes. • Use of well-maintained and less than 5-year old earth excavators/moving equipment shall be ensured to limit the noise levels. • At some locations like busy roads with commercial complexes and particularly near or ahead of junctions, location specific traffic diversion plans are to be planned and implemented to ensure smooth passage of traffic and avoid congestion. Same may be finalised in consultation/approval of traffic police, well in advance of at least 7 days. • Diversion notice boards, or caution notice boards for both pedestrian as well as vehicular traffic at all appropriate required locations, both on upstream and downstream both sides of the barricaded area shall be installed, so that approaching traffic can
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		<p>move with caution. All boards shall be as per code of practice for road signs IRC: 67-2012 and IRC SP: 52.</p> <ul style="list-style-type: none"> • Trained traffic wardens with reflective hand held batons and jackets, helmets and safety shoes are to be deployed at places, wherever barricaded operation areas are near to road junctions/intersections in order to ensure smooth movement of traffic. • One crew group comprising mason, plumber and carpenter/sheet metal fabricator (with required labour assistants) shall be assigned with two 500 metre long segment operation areas within same substation areas to rectify the damages to underground utilities like water supply pipelines, sewer lines, drainage and/or sanitary connections or provide temporary access during excavation. The crew shall be provided with all resources by contractor to restore damaged utilities with least down time. The same crew group shall be deployed to restore the damaged steps, ramps during trench excavation works to ensure proper drainage alongside barricaded operational area during and after rains. • Every 500 metre segment operation area shall be stationed with one mobile toilet and parked at a suitable place within a maximum distance of 100 metres from the operational area. The mobile toilet shall have at least 1000 litres capacity overhead water tank and replenished regularly. The toilet shall be well maintained and in usable condition at all times. The bottom tanks shall be emptied on a regular basis. • The workforce shall be instructed to use the mobile toilets, specially provided under the project and not to use any other public/open places or public toilets. • Every 500 metre operational area shall be stationed with one drinking water kiosk with minimum 300 litres capacity, replenished regularly. The kiosk shall be placed at a suitable place within 100 metres from operational area. • The operational area shall display/maintain list of nearby hospitals for attending to any injury/ fatalities either to workforce and/or to public as a result of cable laying activities. The site shall also have a first aid kit and field level supervisory staff shall have undergone first aid training/orientation. • Since the work is being carried out along roads in commercial as well as residential areas, utmost attention shall be exercised to swiftly complete all operations including cable trench backfilling, prior to opening up the barricaded area for public use with shortest possible time.
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4	Cable Pullout and Laying	<ul style="list-style-type: none"> • Cable trenches are to be properly graded to ensure an even surface all through and devoid of any sharp objects/metal pieces/protruding stores at trench bottom/sides, to rule out damages to cables, while laying or at a later date. • Once the trench excavation is completed to required dimensions, cables (as per required sizes and configuration) need to be pulled out from cable coils through mini excavators used for trench excavation fitted with required additional accessories. • To the extent possible, cable pull out and lowering operations shall be limited to barricaded operational area and manual operations are avoided • During cable pull out and lowering operations, the work site shall have water proof transparent tarpaulins to cover cable trenches to prevent seepage or water logging of trenches due to rains (seasonal or unseasonal), as a contingency measure. Any slippages on this account will not only delay cable laying operations, but as a consequence will further prolong the work completion time, thereby inconvenience to both public and vehicular movement gets extended. • The transparent tarpaulins can be hung across 2.5 metre wide barricaded operational area (in small lengths), which will facilitate work even during rainy/cloudy days. • The work sites during cable lowering and backfilling shall be completely access controlled to prevent theft and vandalism of cables. The barricaded operational areas are to be mandatorily access controlled and barred for entry by un-authorized persons from public safety point of view as well. • The cable pull out, lowering operations can pose safety concerns and therefore all work force deployed in operations are to be properly trained to keep safe distances and provided with all required PPEs like safety helmets, face masks, ear plugs, protective gear with reflective jackets and safety shoes mandatorily • All cables in the lower tier (11 and 33KV cables in Trench Type 1 and 2) shall be drawn through cable conduits (of any suitable type and material); having a minimum of 40% extra space and conduit ends are embedded in the walls of the inspection chambers on either side. This will facilitate attending to cable fault at places other than joints, without resorting to opening up entire cable stretch and gain easy access to cables in lower tier. • In case of any faults in such lower tier cables, which are in conduits, cables can be pulled out for repairs outside and pushed
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		back into conduits and joints can be redone at both ends, all of which require least effort.
5	Trench Backfilling Operations with Sand and other back filling layers as required	<ul style="list-style-type: none"> • In order to avoid on-site space requirements and pace up sand filling operations, sand back filling is to be carried out using transit mixers, normally used to transport and pour ready mix concrete. • Use of transit mixers fitted with flexible hoses for delivery of fine sand directly into cable trenches will enable to swiftly complete a uniform sand back filling operations and with minimal manual labour • The marginal increase in dust levels due to fine sand can be limited through use of pressurized fine spray of water. All work sites will be stationed with one water tanker (6000 litres cap.) fitted with arrangements for pressurized fine spray with 600 metres of hose reel. • In order to limit off-site impacts, fine sand is to be mandatorily sourced from sand mining operators, licensed and approved by the Department of Mines, Government of West Bengal. A copy of the license for sand mining has to be submitted to PIU-EHS, prior to procurement. • The sand backfilling operation, brought to site in tipper trucks is normally carried out through manual means; which is time consuming and will involve double handling of materials at site with additional space requirement and therefore shall be avoided, the extent possible. • Backfilling operations, particularly WMM shall be carried out in layers not exceeding 15 cm along with required level of consolidation and compaction at optimum moisture content to achieve maximum density • Proper compaction at optimum moisture content (OMC) will enable a firm base and sub base and prevents cracking of upper bitumen pavement layers and increase life and smooth riding surface, benefitting road users • Mechanical compactors with vibratory rollers (width of sub 1 metre) are available, which can work effectively for trench backfilling operations shall be deployed for better results.
6	Construction of Inspection of Chambers	<ul style="list-style-type: none"> • Location of inspection chambers are to be pre-determined during on-site marking of cable route itself during site preparation activity itself and demarcated on road with yellow paint (7.5 cm wide strips) • Location of inspection chambers shall not foul with any other underground utilities, sewer manholes and/or chambers of telecom department and shall be at least 3 m away from any other

		<p>similar appurtenants. Accordingly, location of inspection chambers can be marginally adjusted to avoid fouling with other pre-existing utilities.</p> <ul style="list-style-type: none"> • Construction of inspection chambers is to be commenced, concurrently with cable in (500 metre segment) laying operations, so as to complete both inspection chamber and cable laying works in the estimated 21 days. This will avoid lag in cable laying and construction of inspection chambers and cable jointing works as well. Moreover, this will also facilitate complete road restoration in one go and opening up of fully restored road to public in all respects. • The top level of inspection chamber is to be finished to be at least 40mm below the existing road level, so that 40mm thick bituminous concrete as part of road restoration can be laid over inspection chamber as well (excluding manhole cover), so that only the manhole cover is visible after road restoration is completed • Under no circumstances, top level of inspection chamber shall be finished above the existing road level and thus pose hazard to pedestrian as well as vehicular traffic, after cable laying operations. • Inspection chambers shall be provided with one 560mm extra duty manhole cover to withstand heavy traffic and shall avoid ingress of water into inspection chamber during rains. • Ready mix concrete for inspection chambers shall be sourced from concrete plants having valid consents and authorization of WBPCB.
7	Cable Jointing at Inspection Chambers	<ul style="list-style-type: none"> • All cable jointing works are to be carried out as per recommended procedures/specifications by the manufacturer with genuine cable jointing materials. • All cable jointing works are to be carried out in dry conditions and during clear days, with no possibility of rains. In case of unseasonal rains, water proof tarpaulins shall be used to cover the work site at inspection chamber. • No cable jointing work is to be carried out during rains or under wet conditions. The inspection chamber shall be in dry condition, before cable jointing work is resumed. • The cable joints within the inspection chamber shall be supported on steel portals on either side of the cable trench, so that the no cable or joint within the chamber remain in hanging position for more than 0.45m at a stretch.

		<ul style="list-style-type: none"> The inspection chamber frame and manhole cover shall fit together well and further joints are sealed with water proof cement mortar (1 cement: 4 cement fine sand) to avoid ingress of water into inspection chambers during rains and/or storm water blockages on the road at a later stage
8	Road Restoration and cleanup operations	<ul style="list-style-type: none"> Road restoration, particularly bituminous layers shall be taken up only after 3-4 weeks of cable trench backfilling to allow for natural compaction or as determined based on site conditions.(Except for areas where road restoration will be done by municipality on chargeable basis,and there patch work has to be done by contractor except bituminous top as per instruction of site engineer)Patch work includes the following : Road has to be restored in usable condition for safe movement of goods and vehicles and soil top to be rammed and hardened (except providing bituminous layer) as per instruction of site engineer In order to limit off-site impacts, sand is to be mandatorily sourced from sand mining operators, licensed and approved by the Department of Mines, Government of West Bengal. The increase in dust levels due to fine sand can be contained through use of pressurized fine spray of water. All work sites will be stationed with one water tanker (6000 litres cap.) fitted with arrangements for pressurized fine spray with 600 metres of hose reel. The noise levels during this operation shall be controlled through deployment of well-maintained vehicles and equipment and conducting operations in a regulated and planned manner The traffic is to be regulated during the road restoration operations, in order to ensure smooth traffic movement and avoid congestion as a consequence of road restoration works In case of restoration of concrete roads, ready mix concrete shall be used, brought to the site through transit mixer(s) from a ready mix plant (RMC) located elsewhere. However, concrete will be sourced only from RMC plants having valid consents and permission or authorization of WBPCB. Also, care shall be taken to match the levels of old and newly restored surfaces, so as to have an even surface after restoration All damaged ramps, steps and other structures, within operational area are to be restored to its previous state per requirements and in consultation with respective building owners. The operational area is to be thoroughly cleaned for all debris, either un-unusable materials or all unwanted materials are to be collected and disposed in approved locations by Local municipality/Local body.

		<ul style="list-style-type: none"> • All drainage outlets into storm drains along barricaded area are to be checked for blockages, if any and cleared. • The barricaded area shall be opened up only after ensuring these measures and site cleanup, prior to moving on to next 500 metre cable route segment. • All Costs to be borne by contractor, except road restoration charges payable to local municipality subject to submission of valid receipts.
9	Construction vehicles, equipment and machinery	<ul style="list-style-type: none"> • All vehicles, equipment, and machinery deployed for cable laying operations shall be in good condition, maintained and preferably not less than 5 years old. • The Contractor shall ensure that all vehicles, equipment and machinery used for construction are regularly maintained and meet emission limits set by WBPCB and Motor Vehicles Acts & Rules. • The Contractor shall keep a record of the PUC certificates for all vehicles/equipment/machinery used for the Project and will be made available to PIU.
10	Water requirement	<ul style="list-style-type: none"> • Water requirements of project are to be met from only existing tube wells, with the approval of concerned authority and PIU.
11	Workforce for cable laying operations stockyards	<ul style="list-style-type: none"> • All work force shall be subjected to an orientation program, which familiarize them with work requirements, safety practices at work, safe distances to keep from earth moving equipment, first aid facilities, emergency response, on-site sanitation facilities and practices to be adopted, rights and privileges of workforce among others. Orientation shall also include concern for safety of public around operational areas as well. • All work force deployed in operational areas shall be provided with PPEs like safety helmets, face masks, gloves, protective gear with reflective jackets and safety shoes. It shall be mandatory to wear them at work site. The PPEs shall be provided at no cost to workforce and shall be replaced once in six months. • Visitors/officials to worksite are to be provided with PPEs (hard hats and safety boots & safety jackets) and shall be briefed ongoing operations on that specific time and related safety requirement at work site including safe distances to keep, while at site visit. • Work force shall be subjected only to standard work shifts/hours. Overtime allowances shall be paid with ceiling limits. Working beyond such ceiling limits shall be discouraged, even if, so desired workforce or contractor. • All workforce deployed shall be governed by Building and Other Construction Workers (Regulation of Employment and

		<p>Conditions of Service) Act, 1996, with regards to safety and welfare measures (including equal wages for men and women) for workers employed at building and other construction sites.</p> <ul style="list-style-type: none"> • One mobile toilet of 2 seater capacity (1 men and 1 women with separate entrances) shall be stationed at a suitable place within 100 metres from each operational area of 500 m long segment. The mobile toilet shall have at least 1000 litres overhead water storage, well maintained and in usable condition at all times. Bottom tanks shall be regularly cleaned and overhead tank replenished as per requirement. Work force shall be oriented to use mobile toilets and avoid using public toilets and/or nearby open places/parks. • Every operational area shall be provided with one mobile drinking water kiosk having a storage of 300 litres and placed at a suitable place within 100 metres from work site. • The operational work site shall have first aid kits and details of major/nearby hospitals displayed prominently in local language, in case of emergency and/fatalities to work force and/or public, as a consequence of operations. • The supervisory staff shall be provided with wireless communication system supplemented with mobile phones for better communication at operational area and also with other operational area within same substation area, in case of emergency or otherwise. • The work sites being within project city limits, the project will provide skilled and unskilled employment opportunities largely to the local people. All work force is expected to return to their places of residence after work shift hours. For out station workforce if any, contractor shall provide rented residential accommodation with water, sanitation and allied facilities for comfortable stay. Pooled transportation facilities wherever required shall be provided to workforce as a welfare measure.
12	Transport of Materials to Operational areas	<ul style="list-style-type: none"> • Public safety has to be ensured at all times during transportation and protruding of materials outside the body line of the trucks/vehicles shall be strictly prohibited and suitable size of trailers shall be used in such cases. • Contractor shall only deploy well-maintained and less than 5-year old vehicles for transportation of construction materials, cable coils etc, to ensure reduced noise levels and vehicular emissions.
13	Strom Water Drainage Management at	<ul style="list-style-type: none"> • EPC Contractor shall ensure that no construction materials like earth, stone, or are disposed off in a manner that can block the flow of drainage in and around the operational areas.

	Operational areas	<ul style="list-style-type: none"> All road side drain chutes on either side of the barricaded operational area (longitudinally) shall be checked and cleared for any blockages, so as to ensure free flow of storm water and prevent stagnation of water near or after the barricaded operational area and inconvenience thereof to vehicular as well as pedestrian traffic.
14	Potential water pollution from use of fuel, lubricants, and their storage/handling areas at material stock yards	<ul style="list-style-type: none"> The Contractor shall take pre-cautionary measures to ensure that no water pollution occurs through surface runoff from construction vehicle parking areas, fuel/lubricants storage sites, vehicle, and machinery/equipment maintenance sites. The Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refuelling shall be carried out in such a manner that spillage of fuel and lubricants do not contaminate soil, surface and groundwater. Areas used for handling of fuel and lubricants, wherever applicable shall be lined with impermeable material to prevent groundwater and soil contamination in the event of accidental spills.
15	Potential increase of dust level at work sites	<ul style="list-style-type: none"> The Contractor shall take every precaution to reduce the level of dust from operational areas thorough regular sprinkling water through water tankers fitted with pressurized fine spray system and stationed at all operational areas. The frequency of water sprinkling shall be determined based on site-specific requirements to contain dust generated from cable laying activities.
16	Construction debris and waste disposal	<ul style="list-style-type: none"> All construction waste materials shall be disposed of at locations approved by Local municipality/Local body and PIU. All vehicles carrying such waste materials for disposal shall be covered with cloth and wetted prior to dispatch to avoid en-route spillages on roads, causing inconvenience and visual impacts to local population. Alternatively, tarpaulins can be used. In such cases, top surface of loaded materials is to be wetted and then covered with tarpaulins. All tipper trucks shall be loaded only to their designated capacities and no over loading shall be allowed
17	Clean-up operations, restoration and rehabilitation	<ul style="list-style-type: none"> The Contractor shall undertake site clean-up of operations as approved by PIU. The clean-up operations by the Contractor prior to demobilization and shall include removal of construction debris, unused/waste materials, etc. and disposal of same at approved locations by Local municipality/Local body /PIU.
18	Environmental monitoring at construction sites	<ul style="list-style-type: none"> Monthly monitoring of ambient air quality, noise level, at selected sampling locations across package area representing different categories like residential, commercial, sensitive areas along cable routes, work camp sites and during different stages

		<p>of cable laying operations shall be undertaken through an external laboratory approved by WBPCB. This item shall be operated by PIU/PMU/any other representative nominated by WBSEDCL. The Contractor shall only provide required assistance at site and facilitate monitoring activities and further take any corrective measures required to main ambient air and noise levels at operational areas, if any required and as may be determined by PIU/PMU/any other representative nominated by WBSEDCL.</p>
19	Communication with Public and Grievance Redressal	<ul style="list-style-type: none"> • Communication channel will be kept open with local people around and along operational areas to ensure that cable laying activities are not causing undue inconvenience to the local people. • All grievance(s) related to disruption of services/utilities/damaged structures due to the project be attended and resolved with least downtime as per Grievance Redressal Mechanism laid out for the project and records shall be maintained.
20	Excavation of Cable Trenches (Asphalt/ Bitumen Layers)	<ul style="list-style-type: none"> • Mechanical excavations are to be essentially supplemented by manual excavation at some stretches in order to manoeuvre minor obstacles within the barricaded operational area like kerb/road side small trees/saplings, telephone/electric poles, which will otherwise require shifting or removal for movement of excavators, if mechanical means of excavation is to be adhered all through the alignment. • The excavated material from sub base and base layers is to be tested and if found to be useful for reusing as wet mixed macadam (WMM), then it needs to be transported to a central WMM mix plant, to make it suitable for reuse as WMM as per required gradation requirements in accordance with IRC guidelines or MoRTH (Ministry of Road Transport and Highways). • The excavated material (base and sub base layers) is almost akin to natural soil, can be beneficially used in embankment construction or filling low lying areas and/ or can be sourced to other area development projects, commanding commercial value. Therefore, options for deploying these excavated material, to the extent of nearly 70,000 cum needs to be explored. • The tipper trucks, which carry the pavement cut materials or the sub base and base materials, are to be covered with net cloth and wetted by water sprinkling by pressurized system prior to dispatch at all times. Alternatively, top surface of the loaded material can also be wetted through water sprinkling and covered with water proof tarpaulins to avoid enroute spills and dust. All tipper trucks shall be mandatorily loaded only up to designated capacities.

		<ul style="list-style-type: none"> • The excavation at some specific locations along operational area may warrant partial removal of unauthorized ramps/steps along cable routes. At all such locations, temporary access across barricaded area are to be provided as an interim measure to avoid/minimize inconvenience to occupants of the buildings along cable route. • All work force involved in excavation operations are to be sensitised to keep safe distances from moving equipment and provided with PPEs like safety helmets, safety shoes, face masks, ear plugs, and protective gear with reflective jackets mandatorily. All personnel exposed to noise levels for prolonged duration will be provided with one additional break in pre and post lunch session breaks, so as to limit their exposures. • In order to suppress dust levels during trench excavation, periodical sprinkling of water through tankers fitted with pressurized fine spray has to be carried out, through mobile water tankers fitted with pressurized spray system with hose reel.
21	Shifting of existing overhead utilities and handling of transformer oil	<ul style="list-style-type: none"> • Once the project is commissioned, the existing overhead electrical distribution infrastructure shall be dismantled. • All reusable equipment as determined by PIU shall be stacked in Divisional store/approved locations in the manner as decided by PIU for redeployment in non-cyclone affected areas as determined by WBSedCL. • All disposable equipment as determined by PIU shall be stacked in approved locations in the manner as decided by PIU. • Contractor shall ensure public safety as well as safety of work force during the dismantling of the existing overhead electrical distribution infrastructure as well as its transport to approved locations. • Trained and experienced work force shall be deployed for dismantling OH infrastructure. The work force shall be provided with all required safety gears for working at height and other PPEs like safety boots, reflective jackets, hard hats, among others • After dismantling of overhead infrastructure, the places shall be restored to match with surrounding places viz, when a pole has been dismantled, the pole location shall be restored to match with surrounding place, including filling up the foundation pit of the pole with sand/cement concrete and finishing to match with surrounding surfaces as may be required. • The serviceable materials like transformers, which have pollution potential due to leakage of oils/lubes, shall be stored on impermeable surfaces areas within store yards prior to redeployment or disposal as scarp, as the case may be. All such impermeable surfaces shall be covered. • All other disposables and/or debris (after scavenging for scarp

		valuables) shall be disposed off at approved waste disposal sites.
22	Cable Faults during Operation Stage	<ul style="list-style-type: none"> • Cables shall be subjected to stringent quality checks at various levels viz testing at factory prior to dispatch, testing at storage yards, at work site prior to pull out and lowering and finally after lowering and before back filling of trenches, to rule out damages to cables due to handling at each stage • Extreme care shall be taken not to over load the cables beyond its design load capacity, even more importantly for prolonged periods • Adequate supervisory checks during cable jointing work and adhering to manufacturer's specifications/procedures as per relevant Indian Electricity Regulation, 1956, and latest amendments thereof. • In the event of cable faults at joints, the area around the man hole of inspection chamber (about 1.2mX1.2m), shall be barricaded and caution boards shall be put up for the public/vehicular traffic. Work shall be planned and swiftly completed. The work site around chamber shall be restored to its previous state. All waste materials from work site shall be removed with no trace any debris. The uneven surfaces, if any surrounding inspection chamber due to opening up of chamber cover shall also be rectified with rich cement mortar, as may be required, suitably. • In case of faults in cables at locations other than joints, which are laid in upper tiers (11 KV and LT cables in trench type 1 and 2), the area around cable fault location (about 1.2mX1.5m), shall be barricaded and caution boards shall be put up for the public/vehicular traffic. The cable trench shall be opened up at fault location for rectification of cable, followed by restoration of all intermediate layers including road restoration as per project design. Work shall be swiftly completed and work site shall be restored to its previous state. All waste materials from work site shall be removed with no trace any debris. The uneven surfaces, if any surrounding the opened up area shall also be restored to its previous state, suitably • In case of faults in cables at locations other than joints, particularly. which are laid in lower tiers (11 KV and LT cables in trench type 1 and 2), the cable faults cannot be rectified by just opening up a small area at road surface, which is followed for cables laid in upper tiers. The faults in cables of lower tiers, may even require opening up of trench between two inspection chambers (250 metres), to replace the cable or open up a wide and longer stretch of the cable trench at fault location to gain access to lower tier, all of which requires tremendous effort, time,

		<p>increased downtime and inconvenience to public leading to resentments.</p> <ul style="list-style-type: none">• Therefore, all cables in the lower tier (11 and 33KV cables in Trench Type 1 & 2 are drawn through cable conduits (of any suitable type and material); having a minimum of 40% extra space and conduit ends are embedded in the walls of the inspection chambers on either side. In case of any faults in such lower tier cables, which are in conduits, cables can be pulled out for repairs outside and pushed back into conduits and joints can be redone at both ends, all of which require least effort, compared to the present configuration of cables in lower tier. However, this requires additional investment for drawing all 11 and 33KV cables in lower tier through a conduit.
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LIST OF ACTIVITIES, QUANTIFICATION AND BROAD SCOPE OF WORK (AQS)

- A. SCOPE OF WORK FOR LAYING of NEW 33 KV & 11 kV UNDERGROUND CABLE & CONVERSION OF EXISTING OVERHEAD 33 KV & 11 KV CABLE TO UNDERGROUND CABLE AFTER DISMANTLING WORK

A. 1.0 BROAD SCOPE OF WORK

Broad Scope of Work under the package includes Pre-scoping visits/ Study, Design, Engineering, Manufacturing, Testing, Commissioning of various equipment along with associated civil work for laying of underground 33KV & 11 KV cables including dismantling work pertaining to the existing 33KV & 11 KV overhead line that exists in various parts of the town.

1.1 Scope of work

- 1.1 New 11 kV underground Cable for newly installed DTRs & Feeder Bifurcation by following arrangement:

- B. 11 KV Armoured 3c x 300 sqmm XLPE Cable
- C. 11 KV Armoured 3c x 95 sqmm XLPE Cable
- D. And

New 33 KV underground cable laying for new line/conversion with 33 KV 3cX400 sq mm XLPE will be considered with dismantling of OH line (as per site authority)

- 1.2 Dismantling of existing 11 kV O/H Line followed by new construction of 11 kV underground Feeder by following arrangement:

- A. 11 KV Armoured 3c x 300 sqmm XLPE Cable
- B. 11 KV Armoured 3c x 95 sqmm XLPE Cable

- 1.3 Installation of following equipment in strategic locations of 11 kV Network for Service Reliability & to feed the DTRs of Town:

- A. 11 kV Ring Main Unit

2.0 Activity involved for successful Bidders (Envisaged but not limited to)

2.1 3KV & 11 kV Underground Feeders

2.1.1 Detailed route survey for laying of 33KV & 11 kV(E) grade underground cable between locations identified by WBSEDCL as per approved route plan.

2.1.2 Way Leave shall be arranged by WBSEDCL subject to prior intimation given to the Divisional Manager at least 7 days in advance. However cost if any to be borne by Contractor Agency..

2.1.3 Provisional route plan will be supplied / shown by WBSEDCL. Final survey shall be carried out by the Contractor and then trial holes are to be excavated for finalization of cable route as per specification and direction of the Divisional Manager. The Contractor shall have to prepare route plan in triplicate incorporating therein actual cable route with X-ings, the clearances from the other utility services, proposed cable joint locations etc. One such copy, duly approved, shall be returned to the Contractor by WBSEDCL.

2.1.4 Estimating the quantum of work involved in excavation, road cutting, filling, resurfacing of road, boring work for laying of pipe/conduit under Railway track crossing (as per Indian Railways Norms of crossing), crossing involving National or State Highways etc.

Proper planning shall need to be chalked out with close coordination with WBSEDCL Authority for dismantling work involved in the case of existing overhead feeders getting replaced by underground feeders.

2.1.5 Assessing the requirement of all materials like cable joints, CI/RCC/GI/HDPE pipe, sand, Kiln burnt bricks, connectors and other materials and submission of list of materials required to WBSEDCL Engineers for approval.

2.1.6 Transport of all materials required for execution of work to the designated locations & subsequent neat stacking at the store. The Contractor shall be responsible for the safe custody of all materials till handing over of the project.

2.1.7 The Contractor shall have to excavate trenches of sizes as per approved drawing. Any deviation, if necessary, will be intimated by Divisional Manager. Care must be taken so as not to damage any existing underground utility services. The Contractor shall be liable to pay or make good any losses caused to any property due to the Contractor's negligence.

Trench less boring shall be adopted in some stretches of the cable run without disturbing the railway traffic or the vehicular traffic above.

2.1.8 Long stretches cable trenches shall not be kept open at a time exceeding 7 days without prior permission of the Divisional Manager.

- 2.1.9 Prior approval of the Divisional Manager will be necessary in case of some pits required for bailing out water manually or by pump. Bending of the cables must be made as per permissible bending radius specified by the manufacturer. During excavation, if necessary, site shall have to be shored up with timbering and shuttering.
- 2.1.10 Supply and installation of CI/RCC/GI/HDPE pipe, Kiln burnt bricks having proper shape and size for cable protection, sand filling, laying and dressing of 33KV & 11 kV(E) grade XLPE cable in excavated cable trenches, making of straight through joint (suitable for above cable) including marking of jointing pit, putting RCC protective covers on top and beneath of joint, making of termination joint (both Indoor and Outdoor type wherever applicable), supply and installation of M.S. pipe for cable protection, supply and erection of cast iron cable marker on concrete foundation blocks for straight run (at feasible intervals along the route), road crossing and joint locations. The Contractor should mend good any damages done during excavation.
- 2.1.11 Permanent Cable Record : The Contractor shall have to prepare and submit necessary Permanent Records w.r.t the cable Installations as mentioned in specifications.
- 2.1.12 Preparation of route map with proper geo-orientation, drawn to scale indicating location of joints, size of cable, distances etc and submission of the same to WBSEDCL.
- 2.1.13 The materials to be dismantled pertaining to the existing overhead network like poles, conductors, iron materials, insulators etc shall be transported and handed over to the nearest WBSEDCL Store with Hand Delivery Note.
- 2.1.14 Submission of Completion and Commissioning Report to WBSEDCL for approval.
- 2.1.15 The Contractor is required to document and submit photographs of major equipment erected during the execution of projects.
- 2.1.16 The Contractor shall give prior written intimation of fifteen (15) days to the Engineer in charge for any shut down of equipment/ lines required for execution of above mentioned job.
- 2.2 Installation of Ring Main Unit in strategic locations of 11 kV Network for enhancement in Service Reliability & to feed the Town DTRs
 - 2.2.1 Detail survey for identifying the locations where RMUs are to be installed with close coordination with WBSEDCL Authorities.

- 2.2.2 The location of Feeder RMU(for 11 KV only) shall consider branching out, Tee junction at close proximity of the two feeders and for greater flexibility by utilizing ring bus supply for back feeding of feeders.

The feeding of DTR loops shall be arranged through installation of RMUs at the main or spur line locations. The number of RMU indicated is provisional and shall ultimately depend upon detail location survey for area wise supply reliability.

- 2.2.3 The RMUs shall be installed on RCC pedestal/H Beam Pole (7.03mtrs long) structure at suitable locations on footpath or on road side corners as per instruction of site engineer of WBSEDCL.
- 2.2.4 The Contractor shall submit completion & commissioning report to WBSEDCL for all the abovementioned jobs. Prior written intimation of fifteen (15) days to the WBSEDCL engineer is needed to be furnished for any shut down of equipments/ lines required to execute the above work.

3.0 Activity Support from WBSEDCL (Envisaged but not limited to)

- 3.1 Identification of locations for 11 kV new line to enable the Contractor to conduct the detailed survey and proceed with the work.
- 3.2 According approval for the route of 11 kV new feeder & the locational suitability of RMU placement to enable the Contractor to commence the work.
- 3.3 Arranging for shut downs at either the 33/11 kV Substation end or at any intermediate network location, whenever necessary, with prior intimation from the Contractor.
- 3.4 According approval for Site lay out, Structural lay out, foundation details and route line diagram upon submission by the Contractor.
- 3.5 Providing LT 3-phase power supply at Contractor's cost wherever it is available and at the 33/11 kV sub-station site.
- 3.6 Close liaison and monitoring for proper implementation of the Work Schedule and to conduct Statutory Inspection before Commissioning of all equipment.
- 3.7 Witnessing all the pre-commissioning tests conducted by the contractor.
- 3.8 Witnessing commissioning work of the new line and to certify the same.
- 3.9 Approval of Monthly Progress Report submitted by the Contractor as found appropriate .

B. SCOPE OF WORK FOR INSTALLATION OF NEW DISTRIBUTION TRANSFORMER, & REPLACEMENT OF EXISTING DISTRIBUTION TRANSFORMERS

1.0 BROAD SCOPE OF WORK

1.1 Installation of New 11 kV/ 0.433 kV Distribution Transformer

Pre-scoping visit, Design, Engineering, Manufacture, Assembly, Inspection, Testing at Manufacturer's works before Dispatch, Packing, Supply, Delivery at site, subsequent Storage, Erection, Testing and Commissioning at site; including Insurance during Transit & Storage of all Equipments/ Materials for Conventional type Copper/Aluminium wound Distribution Transformers up to 315 KVA/160 KVA at WBSEDCL identified locations along with components and accessories on LT & HT side of DT as per Technical Specification. The components and accessories shall include but not be limited to the following :

- 1.1.1 7.03Mtr. H-Beam (ISMB-250) (37.3 kg. /mtr.) structure with all fittings for Distribution Substation. All new DT structure on Double Pole intended for installation of 315 kVA and/or 160 kVA.
- 1.1.2 12 kV Gapless LA, 11 kV fuse set etc as applicable.
- 1.1.3 LT Feeder Pillar Box (consisting of Incoming & Outgoing NH strip type DINHRC Fuses, Street Light Fuses, Bus bar arrangement, provision for termination of incoming/outgoing LT XLPE cables & provision for pad-lock arrangement)
- 1.1.4 LT XLPE Power Cables with termination accessories through double compression cable gland from DT secondary terminals to plinth mounted LT Feeder Pillar Box. Plastic tapes should be used after cable lugging with phase identification colour.
- 1.1.5 Earthing of all equipment by using earth spike /electrode : GI medium duty perforated 3 mtr long earth electrode and GI 1853 mm long spike have been considered for DTR earthing. No inspection pit with RCC/CI cover has been envisaged in DTR earthing. A homogeneous layer of coke, charcoal, salt/bentonide and sand shall be filled into the excavated hole meant for spike/electrode. The electrodes/spikes shall be buried at a mutual separation equal to the driven depth and shall preferably encircle the DTR DP if space permits. In case of space constraints, the electrodes/spikes may have to be driven in a straight line along side the DTR DP with equal number on both sides. The electrodes/spikes shall be connected to each other to form parallel network and 6 nos. of risers shall be raised from the buried earth grid to connect pole mounted equipment/accessories. These include DTR

body, Isolator, HT Fuse assembly, LT capacitor panel, LTDB & LA (For existing DTRs not considered for replacement). Each of the DTR neutrals shall be specifically earthed using requisite quantities of 50x6 mm GI strip connected to one number of GI pipe electrode buried at a depth of 0.5 m below the ground level (refer Drg for neutral earthing). Where the top layers of the soil dry out quickly, deeper burial of the electrodes are necessary to reach layers of reasonable resistivity such that value of electrode resistance remains stable in dry seasons. The number of electrodes/spikes are indicative only. The numbers may be required to be increased if situation demands so.

- 1.1.6 Fixing of stay set as per site requirement.
- 1.1.7 Fixing of barbed wire to prevent unauthorized access to the installation.
- 1.1.8 All the poles along with pole structures should be painted with one coat of red oxide paint and two coats of anti corrosive Aluminium paint with ISI mark. The embedded portion of the newly erected pole shall be painted with black anti corrosive paint. (In case of H-Beam, painting should be as per approved BOQ and approved TS)
- 1.1.9 Co-ordination with the client/their consultant and local authorities.
- 1.1.10 The job shall include all Civil work like providing pole base concrete pad, concrete foundation as well as coping upto the height of 0.3 mtr from the ground. Necessary clamps, connectors and other associated materials shall be supplied to complete the entire job.
- 1.1.11 Testing and Commissioning of DT along with all above auxiliaries & accessories and submitting Testing and Commissioning Report to WBSEDCL (please refer Annexure B).
- 1.2 Replacement of existing DT (250, 160, 100, 63 & 25 kVA) by 11/ 0.433 kV, 315 & 160 kVA DTs
 - 1.2.1 Joint Inspection of the Distribution Transformer (proposed for replacement) at existing location as well as new locations along with WBSEDCL.
 - 1.2.2 Dismantling of existing Transformer, damaged/ unserviceable equipment e.g. Lightning Arrestor, Isolator, and Fuse set, insulators, structures, Cables etc. from existing DT.
 - 1.2.3 Dismantling of existing LT kiosk (if any) with associated cable.

- 1.2.4 Transportation & handing over of dismantled equipment to WBSEDCL identified stores/ sites with hand delivery note.
- 1.2.5 The Contractor shall check the adequacy, condition & suitability of existing foundation/structural support members for new Transformer to fit in the existing system.
- 1.2.6 Carrying out Civil work, modification to the plinth/ foundation, earthing etc., if necessary.
- 1.2.7 Listing out of materials (as per schedule 3A) required for complete replacement of existing DT by new DT (existing as well as new locations) and submission to WBSEDCL's Engineer for obtaining approval.
- 1.2.8 Supply, Erection, Testing, Commissioning and handing-over of new DT along with electrical equipment and accessories on HT & LT side of DT for complete replacement of existing DTR at the old as well as new location as per Technical Specification.
- 1.2.9 Installation of pole, pole structure & all other accessories related to the installation of new DT at existing location as well as new locations and all other structural members as required for mounting of equipments.
- 1.2.10 ACSR Rabbit Conductor shall be used to connect to the 11 kV incoming/outgoing cables terminating at the DT structure and to DT HT side with proper connectors, support insulators, clamps etc to bind it properly and securely.
- 1.2.11 12 kV Gapless LA, 11 kV fuse set etc as applicable.
- 1.2.12 LT Feeder Pillar Box (consisting of Incoming &Outgoing NH strip type DINHRC Fuses, Street Light Fuses, Bus bar arrangement, provision for termination of incoming/outgoing LT XLPE cables& provision for pad-lock arrangement)
- 1.2.13 LT XLPE Power Cables with termination accessories through double compression cable gland from DT secondary terminals to incoming MCCB of LT Distribution Box and from LT Distribution Box outgoing MCCB to plinth mounted LT Feeder Pillar Box. Plastic tapes should be used after cable lugging with phase identification colour.
- 1.2.14 Earthing of all equipment by using earth spike /electrode : GI medium duty perforated 3 mtr long earth electrode and GI 1853 mm long spike have been considered for DTR earthing. No inspection pit with

RCC/CI cover has been envisaged in DTR earthing. A homogeneous layer of coke, charcoal, salt and sand with bentonide (as per BOQ) shall be filled into the excavated hole meant for spike/electrode. The electrodes/spikes shall be buried at a mutual separation equal to the driven depth and shall preferably encircle the DTR DP if space permits. In case of space constraints, the electrodes/spikes may have to be driven in a straight line along side the DTR DP with equal number on both sides. The electrodes/spikes shall be connected to each other to form parallel network and 4 to 6 nos. of risers shall be raised from the buried earth grid to connect pole mounted equipment/accessories. These include DTR body, Isolator, HT Fuse assembly, LT capacitor panel, LTDB & LA(For existing DTRs not considered for replacement). Each of the DTR neutrals shall be specifically earthed using requisite quantities of 50x6 mm GI strip connected to one number of GI pipe electrode buried at a depth of 0.5 m below the ground level (refer Drg no. A for neutral earthing). Where the top layers of the soil dry out quickly, deeper burial of the electrodes are necessary to reach layers of reasonable resistivity such that value of electrode resistance remains stable in dry seasons. The number of electrodes/spikes are indicative only. The numbers may be required to be increased if situation demands so.

- 1.2.15 All poles along with pole structure should be painted with one coat of red oxide paint and two coats of anti corrosive Aluminium paint with ISI mark. The embedded portion of the newly erected pole shall be painted with black anti corrosive paint(In case of H-Beam, painting should be as per approved BOQ and approved TS)
- 1.2.16 Fixing of stay set as per site requirement.
- 1.2.17 Fixing of barbed wire to prevent unauthorized access to the installation.
- 1.2.18 Co-ordination with the client/ their consultant and local authorities.
- 1.2.19 The job shall include all Civil work like making of foundations, providing clamps, connectors and other associated materials as required to complete the entire job. The DTR installations shall be numbered with lettering by black paint on yellow paint surface at a height of 1.5 mtr from the ground level.
- 1.2.20 Testing and Commission of DT along with all above auxiliaries & accessories and submitting Testing and Commissioning Report to WBSEDCL.

2.0 Activity Support from WBSEDCL (Envisaged but not limited to)

- 2.1 Erection of New Distribution Transformers with connected HT and LT underground cabling and renovation work w.r.to existing Distribution Transformer installations
 - 2.1.1 Identification of locations/ load center, where the new Distribution Transformers are to be erected for fulfillment of the requirement of HVDS and load growth.

For replacement of existing DT by new one, WBSEDCL need to point out the quantum of dismantling job needed to be undertaken by the Contractor. Renovation/ replacement of DT accessories shall be pointed out to the Contractor for system improvement &upgradation.
 - 2.1.2 Identification of 11 kV feeder and tapping point for connecting to the new Distribution transformers.
 - 2.1.3 Care should be taken to see that the length of LT feeder line from feeder pillar preferably does not exceed 0.5 Km in any case for successful Implementation of Ug project .
 - 2.1.4 Identification of numbers of LT feeder for each transformer. A minimum 2 numbers of LT feeders are to be proposed for each of 100 kVA DTR.
 - 2.1.5 Certifying Installation & Commissioning Report submitted by the Contractor after proper check of commissioning test data in line with prevailing National Norms.

**C. SCOPE OF WORK FOR LAYING OF NEW LT UNDERGROUND CABLE
& CONVERSION OF EXISTING OVERHEAD LT NETWORK TO
UNDERGROUND NETWORK AFTER DISMANTLING WORK**

1.0 BROAD SCOPE OF WORK

Broad Scope of Work under the package includes Pre-scoping visits/ Study, Design, Engineering, Manufacturing, Testing, Commissioning of various equipment along with associated civil work for laying of underground 415 V cable network including dismantling work pertaining to the existing overhead LT lines that exist in various parts of the town. It also includes returning of all existing overhead poles, structures, insulators, conductors etc. to WBSEDCL identified locations after replacement of the same with new one as per approved drawing /BOQ.

1.1 LT, 3 Phase Line for New Feeder & Feeder Bifurcation by following arrangements:

- A. 1.1 KV 1c x 400 sqmm, armoured XLPE cable for power network and 1.1 KV 4c x 16 sqmm. armoured XLPE cable for Street Lighting buried in soil or in conduit for crossing locations

- 1.2 Existing LT Feeder Augmentation / Renovation & conversion to underground cabling
 - A. 1.1 KV 4c x 300/185/120 sqmm. armoured XLPE cable for power network and 1.1 KV 4c x 16 sqmm. armoured XLPE cable for Street Lighting buried in soil or in conduit for crossing locations
 - B. 1.1 KV 4c x 50 sqmm. armoured XLPE cable for power network and 1.1 KV 4c x 16 sqmm. armoured XLPE cable for Street Lighting buried in soil or in conduit for crossing locations
- 1.3 Installation of following equipment in DTR locations and other strategic locations of LT Network for supply to consumers of the Town :
 - A. Plinth mounted/ H-Beam pole structure outdoor LT Feeder Pillar Box
 - B. Plinth mounted/ H-Beam pole structure outdoor LT Junction Box
- 1.4 Replacement of existing overhead service connections by the following through underground installations :
 - A. 1.1 KV 4c x 50 sqmm. armoured XLPE cable
 - B. 1.1 KV 4c x 25 sqmm. armoured XLPE cable
 - C. 1.1 KV 2c x 6 sqmm. armoured XLPE cable
- 2.0 Activity Involved for Successful Bidders (envisaged but not limited to)
 - 2.1 The Contractors are required to facilitate visit by WBSEDCL representatives to the sites of procurement of various equipment as relevant, for witnessing/inspection of the equipment/ tests etc.
 - 2.2 NewLT, 3 Phase Underground cabling work & conversion of existing LT overhead lines to underground cabling
 - 2.2.1 Detailed route survey for laying of 1.1 kV grade underground XLPE cable between locations identified by WBSEDCL as per approved route plan. While measuring the actual route length, possible diversions due to unforeseen conditions and extra cable length that may be required at terminations should be considered.

- 2.2.2 Estimating the quantum of work involved in excavation, road cutting, filling, resurfacing of road, boring work for laying of pipe/conduit under National, State Highways, busy roads etc.
- 2.2.3 Transport of all materials required for execution of the work to designated locations & subsequent neat stacking at store. The contractor shall be responsible for the safe custody of the same till handing over of the project.
- 2.2.4 Proper planning shall need to be chalked out with close coordination with WBSEDCL Authority for dismantling work involved in the case of existing overhead LT feeders getting replaced by underground feeders.
Existing LT Poles having street lights installed in them should not be dismantled. Care should be taken so that existing street light luminaries do not get damaged in the process of renovation work. The luminaries should be reinstalled properly in case they are required to be dismantled.
- 2.2.5 Assessing the requirement of all materials like cable joints, CI/RCC/GI/HDPE pipe, sand, Kiln burnt bricks, connectors and other materials and submission of list of materials required to WBSEDCL Engineers for approval.
- 2.2.6 The Contractor shall have to excavate trenches of sizes as per approved drawing. Any deviation, if necessary, will be intimated by Divisional Manager. Care must be taken so as not to damage any existing underground utility services. The Contractor shall be liable to pay or make good any losses caused to any property due to the Contractor's negligence.

Trench less boring shall be adopted in some stretches of the cable run without disturbing the railway traffic or the vehicular traffic above.
- 2.2.7 Long stretches cable trenches shall not be kept open at a time exceeding 7 days without prior permission of the Divisional Manager.
- 2.2.8 Prior approval of the Divisional Manager will be necessary in case of some pits required for bailing out water manually or by pump. Bending of the cables must be made as per permissible bending radius specified by the manufacturer. During excavation, if necessary, site shall have to be shored up with timbering and shuttering.
- 2.2.9 Supply and installation of CI/RCC/GI/HDPE pipe, Kiln burnt bricks having proper shape and size for cable protection, sand filling, laying and dressing of LT XLPE cable in excavated cable trenches, making of straight through joint, putting RCC protective covers on top and beneath of joint, making of termination joint (both Indoor and Outdoor type wherever applicable), supply and installation of M.S. pipe for cable protection.. The Contractor should mend good any damages done during excavation.

- 2.2.10 Permanent Cable Record : The Contractor shall have to prepare and submit necessary Permanent Records w.r.t the cable Installations as mentioned in specifications.
- 2.2.11 Preparation of route map with proper geo-orientation, drawn to scale indicating location of joints, size of cable, distances etc and submission of the same to WBSEDCL.
- 2.2.12 The materials to be dismantled pertaining to the existing overhead network like poles, conductors, iron materials, insulators etc shall be transported and handed over to the nearest WBSEDCL Store with Hand Delivery Note.
- 2.2.13 The existing street lights shall be connected to the newly laid underground cable for power supply with proper earthing.
- 2.2.14 Submission of Completion and Commissioning Report to WBSEDCL.
- 2.2.15 The Bidders are required to document and submit feeder wise pre and post photographs of major equipments erected during the execution of projects.
- 2.3 Replacement & New Service connections
 - 2.3.1 Estimating the requisite quantities of T joints, lugs, tags, other consumables etc along with proper estimation of cable to complete the job. Prospect of future consumers should be kept in mind while finalizing the locations of Junction Boxes.
 - 2.3.2 Dismantling of existing service connection prior to the execution of the work after taking approval from the concerned Engineer.
 - 2.3.3 Transport of all materials required for execution of the work to designated locations & subsequent neat stacking at store. The contractor shall be responsible for the safe custody of the same till handing over of the project.
 - 2.3.4 Prompt re-fixing of service connection has to be carried out in a staggered manner with due care about maintaining supply to the other consumers.
 - 2.3.5 Providing earthing with G.I wire & earth spike for connection as per norms.
 - 2.3.6 Submission of completion & commission report to WBSEDCL.
 - 2.3.7 The Contractor shall give prior written intimation of fifteen (15) days to the engineer for any shut down of equipments/ lines required to execute the above mentioned work.
- D . Conversion/Augmentation / Renovation of Existing LT Line (by AB Cable)

- 1.01 Detailed Route survey for identifying the feeders or the portions of the feeders which need to be re-conducted with the help of WBSEDCL and submit the route plan for obtaining approval from WBSEDCL.
- 1.02 Assessing the requirements of replacement of damaged Poles, Stay sets etc. & newly required additional pole, hardware, clamps (suspension, dead end, anchor clamp etc.), AB Cable, brackets, connectors, jointing kits, termination kits, other materials required to complete the entire work and submit list of required materials to WBSEDCL engineers for approval after detailed survey.
- 1.03 Dismantling of line accessories, iron members, other materials, damaged Pole & existing line conductor which need to be renovated, stacking, transportation & handing over the same to the WBSEDCL identified store with hand delivery note.
- 1.04 Dismantling of existing service connection prior to the execution of the work after taking approval from the concerned Engineer.
- 1.05 Transport of all materials required for execution of the work to designated locations & subsequent neat stacking at store. The Contractor shall be responsible for the safe custody of the same till handing over of the project.
- 1.06 Erection of new 8 mtrs. PCC poles with base concreting pad to replace the existing damaged pole. The pole pit shall be well rammed with earth mix and brick ballast. The PCC Pole shall be properly earthed and provided with stay set, wherever required.
- 1.07 Erection of additional Pole/ DP structure, pole top iron members & stay sets required for strengthening of line as per approved drawing.
- 1.08 All the clamping support including iron members should be painted with one coat of red oxide paint & two coats of anti corrosive Aluminum paint of ISI mark after proper cleaning.
- 1.09 Single suspension clamp should be used for straight run and upto 600 line deviation. Anchor clamp should be used in cases involving more than 600 line deviation.
- 1.10 Fixing of clamps (suspension, dead end, anchor clamp etc.), brackets, connectors, hoisting of AB Cable, stringing and tensioning.

- 1.11 Termination & jointing of AB cable, wherever required, by suitable type of kits. Suitable sectionalizing arrangement shall be done at strategic locations for maintenance/breakdown service. Strain clamp, LT AB cable termination kit with phase break outs and proper bolting arrangement shall be done at the sectionalizing pole. All the joints shall be properly taped to avoid undue faults.
- 1.12 Fixing of suitable rating of Junction Box / Distribution Box required for providing service connection including connection between main cable to junction box with same size of AB cable through suitable insulation piercing connector along with proper termination. Satellite connector (multiple types) may be erected in a staggered fashion for providing service connection directly from AB Cable as per suitability to the site condition. Junction Box/ Distribution Box should be properly earthed.
- 1.13 Prompt re-fixing of service connection has to be carried out in the working span at the JB end after execution of the work. During reconnection if existing service cable is found to be too damaged to be reconnected or fall short in length due to shifting in service pole location, replacement of service cable shall be immediately carried out for proper restoration of supply to the consumer.
- 1.14 Care should be taken so that existing street light luminaries do not get damaged in the process of renovation work. The luminaries should be reinstalled properly in case they are required to be dismantled. The power service connection to the street light luminaries has to be restored by suitable piercing connectors at the end of renovation job.
- 1.15 Providing earthing with G.I wire & earth spike for each support and messenger wire for AB Cable.
- 1.16 Submission of completion & commission report to WBSSEDCL.
- 1.17 The Contractor shall give prior written intimation of (15) fifteen days to the engineer for any shut down of equipments/lines required to execute the above mentioned work.

2.0 Augmentation & Phase Conversion of Existing LT Line (by AB Cable)

- 2.01 Detailed Route survey for identifying the feeders or the portions of the feeders where phase conversion need to be done with the help of WBSSEDCL and submit the route plan for obtaining approval from WBSSEDCL.

- 2.02 Assessing the requirements of replacement of damaged Poles, Stay sets etc. & newly required additional pole, hardware, clamps (suspension, dead end, anchor clamp etc.), AB Cable, brackets, connectors, jointing kits, termination kits, other materials required to complete the entire work and submit list of required materials to WBSEDCL engineers for approval after detailed route survey.
- 2.03 Dismantling of line accessories, iron members, other materials, damaged Pole & existing line conductor where phase conversion need to be carried out, stacking, transportation & handing over the same to the WBSEDCL identified store with Hand delivery note.
- 2.04 Dismantling of existing service connection prior to the execution of the work after taking approval from the concerned Engineer.
- 2.05 Transport of all materials required for execution of the work to designated locations & subsequent neat stacking at store. The contractor shall be responsible for the safe custody of the same till handing over of the project.
- 2.06 Erection of new 8 mtrs. PCC poles with base concreting pad to replace the existing damaged pole. The pole pit shall be well rammed with earth mix and brick ballast. The PCC Pole shall be properly earthed and provided with stay set, wherever required.
- 2.07 Erection of additional Pole/ DP structure, with pole top iron members & stay sets required for strengthening of line as per approved drawing.
- 2.08 All the clamping support including iron members should be painted with one coat of red oxide paint & two coats of anti corrosive aluminum paint of ISI mark after proper cleaning.
- 2.09 Single suspension clamp should be used for straight run and upto 600 line deviation. Anchor clamp should be used in cases involving more than 600 line deviation.
- 2.10 Fixing of clamps (suspension, dead end, anchor clamp etc.), brackets, connectors, hoisting of AB Cable, stringing and tensioning.

- 2.11 Termination & jointing of AB Cable wherever required by suitable type of kits. Suitable sectionalizing arrangement shall be done at strategic locations for maintenance/breakdown service. Strain clamp, LT AB cable termination kit with phase break outs and proper bolting arrangement shall be done at the sectionalizing pole. All the joints shall be properly taped to avoid undue faults.
- 2.12 Fixing of suitable rating of Junction Box / Distribution Box required for providing service connection including connection between main cable to junction box with same size of AB cable through suitable insulation piercing connector along with proper termination. Satellite connector (multiple types) may be erected in staggered fashion for providing service connection directly from AB Cable as per suitability of the site condition. Junction Box/ Distribution Box should be properly earthed.
- 2.13 Prompt re-fixing of service connection has to be carried out in the working span at the JB end after execution of the work. During reconnection if existing service cable is found to be too damaged to be reconnected or fall short in length due to shifting in service pole location, replacement of service cable shall be immediately carried out for proper restoration of supply to the consumer end.
- 2.14 Care should be taken so that existing street light luminaries do not get damaged in the process of renovation work. The luminaries should be reinstalled properly in case they are required to be dismantled. The power service connection to the street light luminaries has to be restored by suitable piercing connectors at the end of renovation job.
- 2.15 Providing earthing with G.I wire & earth spike for each pole & pole structure.
- 2.16 Submission of completion & commission report to WBS&EDCL.
- 2.17 The Contractor shall give prior written intimation of fifteen (15) days to the engineer for any shut down of equipments/ lines required to execute the above mentioned work.

E . Laying of Optical Fibre cable network with all termination and accessories-

- 1.01 Suppling PLB HDPE Pipe as per IS 9938 for provision of laying Optical Fibres. Cables to be laid in the pipe to be buried along the excavated trench as per the approved design. The PLB HDPE pipe to be complete with collors, bends, tee-offs etc. other accessories for complete work. The following are the sizes.

1.02 40 mm Diameter HDPE Pipe

1.03 Supplying of Unarmoured Fibre Optical cable of 24 core (Type of Fibre-G.652D) for SCADA Communication as per tech. spec. (TS.-SEC.-XX) .

1.04 Laying of PLB HDPE Pipe as per IS 9938 for provision of laying Optical Fibres. Cables shall be laid in the pipe to be buried along the excavated trench as per the approved design. The PLB HDPE pipe laying job shall be complete with collors, bends, tee-offs, joints etc. other accessories for complete work.

1.05 Laying with testing commissioning of 40 mm diam. PLB HDPE Pipe as per instruction of Site Engineer and site condition for provision of laying Optical Fibre for SCADA as per IS: 4984-1995 along with hire & labour charges of men & machineries, materials including preparation and submission of drawing for such cable laying. Cables shall be laid in the pipe to be buried along the excavated trench/or microtunneling as per site requirement as per the approved design with all works complete including joints, terminations, tee offs and necessary connections suitable for satisfactory commercial use with supply of all accessories .

ANNEXURE - A**E. COMPLETION REPORT FOR NEW FEEDER/
FEEDER RENOVATION**

1	Name of Division	
2	Name of Feeder	
3	Location Details	
4	Length & Size of new 11 kV Feeder Installed	Cable: Conductor:
5	Length & Size of cable/conductor used for 11 kV Feeder Bifurcation	Cable: Conductor:
6	Length & Size of conductor installed for 11 kV Feeder Renovation	Cable : Conductor :
7	IR Value measured with 2500 V Insulation Tester	
8	a) Line to Line	
	b) Line to Earth	
	Continuity Checking for each Phase	
9	Pole Earthing Checking at every 10th Pole	
10	Brief description of Work:	

Tested by: Signature & Contractor's Agent: Name of Contractor: Seal	Counter signed by: Signature of WBSEDCL Representative: Name and Designation: Seal
---	--

ANNEXURE - B**TESTING & COMMISSIONING REPORT**
(for New DTs)

1	Date of Commissioning	
2	Location Details	
3	Name of HT Feeders connected	
4	Name of Sub-station	
5	Name Plate Details of Distribution Transformer	
	Make	
	Capacity in kVA	
	c) Makers Sl. No.	
	Voltage Ratio	
	e) Rated Current - HT : _____ LT : _____	
	f) Vector Group	
	g) % impedance	
	Purchase Order No.	
6	IR Values of DT measured with 2500 V Insulation Tester	
	a) HT Phase to Phase	
	b) HT Phase to Body	
7	IR Value of DT measured with 500 V/ 1000 V Insulation Tester	
	a) LT to Body	
	b) HT to LT	
8	Polarity Test	
9	No Load Voltage Test (LT)	
	a) R Phase to Neutral Voltage	
	b) Y Phase to Neutral Voltage	
	c) B Phase to Neutral Voltage	
	d) R Phase to Y Phase	
	e) B Phase to R Phase	
	f) Y Phase to B Phase	
10	LT Distribution Box	
	a) Make, Capacity, Makers Sl. No. & Purchase Order Reference	
	b) IR Values with 500 V Insulator Tester	
11	Earthing Resistance Value with	
	a) Individual Earth Electrode/ Spike	
	b) Earth Grid	

Tested by: Signature & Contractor's Agent: Name of Contractor: Seal	Counter signed by: Signature of WBSEDCL Representative: Name and Designation: Seal
---	--

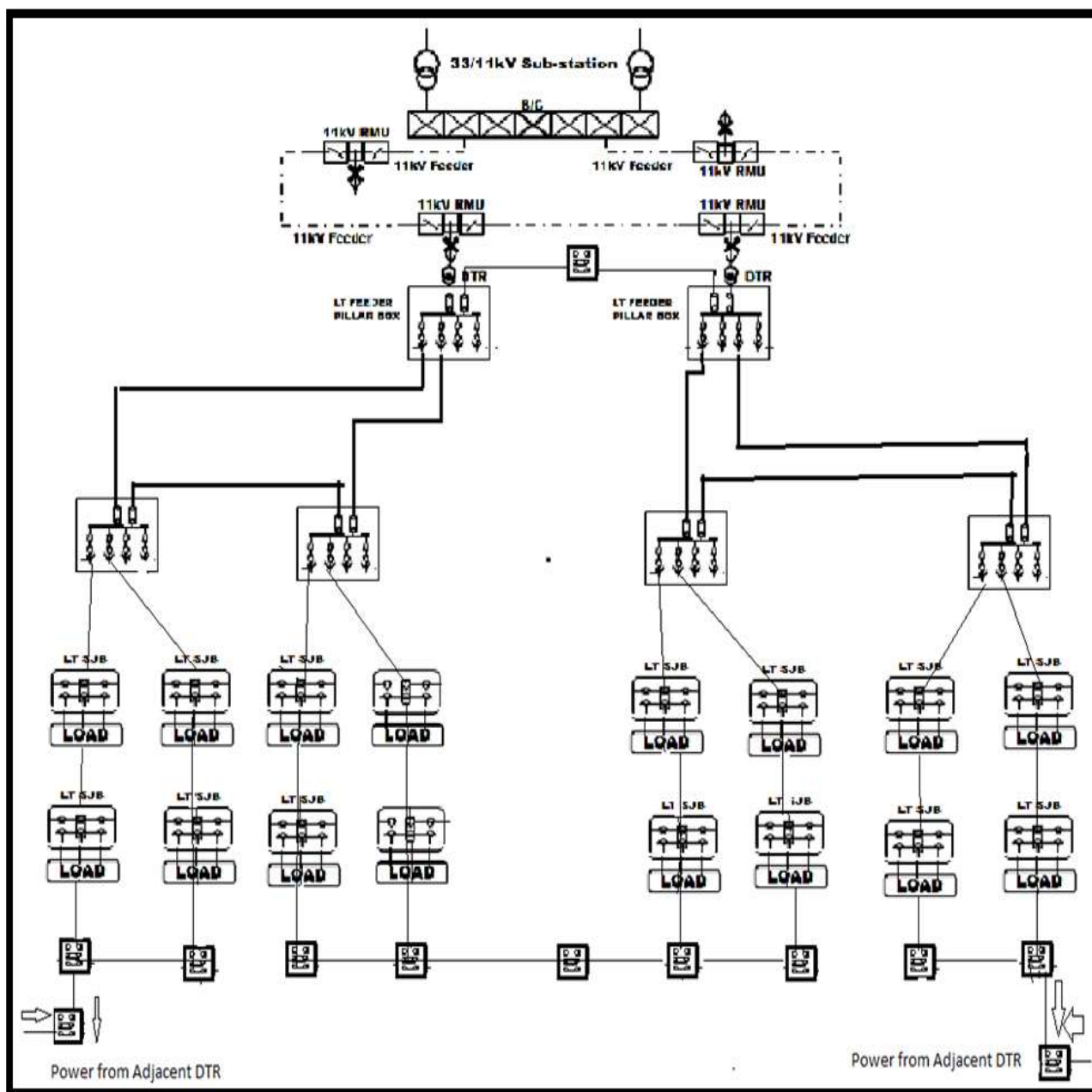
F.

ANNEXURE - C**G.****H. COMPLETION REPORT FOR NEW LT FEEDER**

1	Name of Division	
2	Name of Feeder	
3	Location Details	
4	Length & Size of new LT Feeder Installed	Cable: Conductor:
5	IR Value measured with 500V Insulation Tester	
	a) Line to Line	
	b) Line to Earth	
6	Brief description of Work:	

Tested by: Signature & Contractor's Agent: Name of Contractor: Seal	Counter signed by: Signature of WBSEDCL Representative: Name and Designation: Seal
---	--

SCHEMATIC LAYOUT OF DIST. NETWORK WITH RMU



Forms and Procedures

Form of Completion Certificate

Date: _____

Loan/Credit N°: _____

RFB N°: _____

To: _____

Dear Ladies and/or Gentlemen,

Pursuant to GCC Clause 24 (Completion of the Facilities) of the General Conditions of the Contract entered into between yourselves and the Employer dated _____, relating to the _____, we hereby notify you that the following part(s) of the Facilities was (were) complete on the date specified below, and that, in accordance with the terms of the Contract, the Employer hereby takes over the said part(s) of the Facilities, together with the responsibility for care and custody and the risk of loss thereof on the date mentioned below.

1. Description of the Facilities or part thereof: _____

2. Date of Completion: _____

However, you are required to complete the outstanding items listed in the attachment hereto as soon as practicable.

This letter does not relieve you of your obligation to complete the execution of the Facilities in accordance with the Contract nor of your obligations during the Defect Liability Period.

Very truly yours,

Title

(Project Manager)

Form of Operational Acceptance Certificate

Date: _____

Loan/Credit N°: _____

RFB N°: _____

To: _____

Dear Ladies and/or Gentlemen,

Pursuant to GCC Sub-Clause 25.3 (Operational Acceptance) of the General Conditions of the Contract entered into between yourselves and the Employer dated _____, relating to the _____, we hereby notify you that the Functional Guarantees of the following part(s) of the Facilities were satisfactorily attained on the date specified below.

1. Description of the Facilities or part thereof: _____
2. Date of Operational Acceptance: _____

This letter does not relieve you of your obligation to complete the execution of the Facilities in accordance with the Contract nor of your obligations during the Defect Liability Period.

Very truly yours,

Title

(Project Manager)

Change Order Procedure and Forms

Date: _____

Loan/Credit N°: _____

RFB N°: _____

CONTENTS

1. General
2. Change Order Log
3. References for Changes

ANNEXES

- Annex 1 Request for Change Proposal
- Annex 2 Estimate for Change Proposal
- Annex 3 Acceptance of Estimate
- Annex 4 Change Proposal
- Annex 5 Change Order
- Annex 6 Pending Agreement Change Order
- Annex 7 Application for Change Proposal

Change Order Procedure

1. General

This section provides samples of procedures and forms for implementing changes in the Facilities during the performance of the Contract in accordance with GCC Clause 39 (Change in the Facilities) of the General Conditions.

2. Change Order Log

The Contractor shall keep an up-to-date Change Order Log to show the current status of Requests for Change and Changes authorized or pending, as Annex 8. Entries of the Changes in the Change Order Log shall be made to ensure that the log is up-to-date. The Contractor shall attach a copy of the current Change Order Log in the monthly progress report to be submitted to the Employer.

3. References for Changes

- (1) Request for Change as referred to in GCC Clause 39 shall be serially numbered CR-X-nnn.
- (2) Estimate for Change Proposal as referred to in GCC Clause 39 shall be serially numbered CN-X-nnn.
- (3) Acceptance of Estimate as referred to in GCC Clause 39 shall be serially numbered CA-X-nnn.
- (4) Change Proposal as referred to in GCC Clause 39 shall be serially numbered CP-X-nnn.
- (5) Change Order as referred to in GCC Clause 39 shall be serially numbered CO-X-nnn.

Note: (a) Requests for Change issued from the Employer's Home Office and the Site representatives of the Employer shall have the following respective references:

Home Office	CR-H-nnn
Site	CR-S-nnn

- (b) The above number "nnn" is the same for Request for Change, Estimate for Change Proposal, Acceptance of Estimate, Change Proposal and Change Order.

Annex 1. Request for Change Proposal

(Employer's Letterhead)

To: _____

Date: _____

Attention: _____

Contract Name: _____

Contract Number: _____

Dear Ladies and/or Gentlemen:

With reference to the captioned Contract, you are requested to prepare and submit a Change Proposal for the Change noted below in accordance with the following instructions within _____ days of the date of this letter_____.

1. Title of Change: _____
2. Change Request No. _____
3. Originator of Change: Employer: _____
Contractor (by Application for Change Proposal No. _____¹⁵:
4. Brief Description of Change: _____
5. Facilities and/or Item No. of equipment related to the requested Change: _____
6. Reference drawings and/or technical documents for the request of Change: _____

<u>Drawing No./Document No.</u>	<u>Description</u>
---------------------------------	--------------------

7. Detailed conditions or special requirements on the requested Change: _____

8. General Terms and Conditions:

- (a) Please submit your estimate to us showing what effect the requested Change will have on the Contract Price.
- (b) Your estimate shall include your claim for the additional time, if any, for completion of the requested Change.
- (c) If you have any opinion negative to the adoption of the requested Change in connection with the conformability to the other provisions of the Contract or the safety of the Plant or Facilities, please inform us of your opinion in your proposal of revised provisions.
- (d) Any increase or decrease in the work of the Contractor relating to the services of its personnel shall be calculated.
- (e) You shall not proceed with the execution of the work for the requested Change until we have accepted and confirmed the amount and nature in writing.

(Employer's Name)

(Signature)

(Name of signatory)

(Title of signatory)

Annex 2. Estimate for Change Proposal

(Contractor's Letterhead)

To: _____

Date: _____

Attention: _____

Contract Name: _____

Contract Number: _____

Dear Ladies and/or Gentlemen:

With reference to your Request for Change Proposal, we are pleased to notify you of the approximate cost of preparing the below-referenced Change Proposal in accordance with GCC Sub-Clause 39.2.1 of the General Conditions. We acknowledge that your agreement to the cost of preparing the Change Proposal, in accordance with GCC Sub-Clause 39.2.2, is required before estimating the cost for change work.

1. Title of Change: _____
2. Change Request No./Rev.: _____
3. Brief Description of Change: _____
4. Scheduled Impact of Change: _____
5. Cost for Preparation of Change Proposal: _____¹⁶

(a)	Engineering	(Amount)
	(i) Engineer	_____ hrs x _____ rate/hr = _____
	(ii) Draftsperson	_____ hrs x _____ rate/hr = _____
	Sub-total	_____ hrs _____
	Total Engineering Cost	_____
(b)	Other Cost	_____
	Total Cost (a) + (b)	_____

¹⁶ Costs shall be in Rs.

(Contractor's Name)

(Signature)

(Name of signatory)

(Title of signatory)

Annex 3. Acceptance of Estimate

(Employer's Letterhead)

To: _____

Date: _____

Attention: _____ *[Name and title]*

Contract Name: _____

Contract Number: _____

Dear Ladies and/or Gentlemen:

We hereby accept your Estimate for Change Proposal and agree that you should proceed with the preparation of the Change Proposal.

1. Title of Change: _____

2. Change Request No./Rev.: _____

3. Estimate for Change Proposal No./Rev.: _____

4. Acceptance of Estimate No./Rev.: _____

5. Brief Description of Change: _____

6. Other Terms and Conditions: In the event that we decide not to order the Change accepted, you shall be entitled to compensation for the cost of preparation of Change Proposal described in your Estimate for Change Proposal mentioned in para. 3 above in accordance with GCC Clause 39 of the General Conditions.

(Employer's Name)

(Signature)

(Name and Title of signatory)

Annex 4. Change Proposal

(Contractor's Letterhead)

To: _____ *[Employer's name and address]* Date: _____

Attention: _____ *[Name and title]*

Contract Name: _____

Contract Number: _____

Dear Ladies and/or Gentlemen:

In response to your Request for Change Proposal No. _____, we hereby submit our proposal as follows:

1. Title of Change: _____
2. Change Proposal No./Rev.: _____
3. Originator of Change: Employer: / _____
Contractor: _____
4. Brief Description of Change: _____
5. Reasons for Change: _____
6. Facilities and/or Item No. of Equipment related to the requested Change:

7. Reference drawings and/or technical documents for the requested Change:

<u>Drawing/Document No.</u>	<u>Description</u>
8. Estimate of increase/decrease to the Contract Price resulting from Change Proposal:¹⁷

(Amount)

¹⁷ Costs shall be in Rs.

- (a) Direct material _____
- (b) Major construction equipment _____
- (c) Direct field labor (Total _____ hrs) _____
- (d) Subcontracts _____
- (e) Indirect material and labor _____
- (f) Site supervision _____
- (g) Head office technical staff salaries

Process engineer	_____ hrs @ _____ rate/hr	_____
Project engineer	_____ hrs @ _____ rate/hr	_____
Equipment engineer	_____ hrs @ _____ rate/hr	_____
Procurement	_____ hrs @ _____ rate/hr	_____
Draftsperson	_____ hrs @ _____ rate/hr	_____
Total	_____ hrs	_____

- (h) Extraordinary costs (computer, travel, etc.) _____
- (i) Fee for general administration, _____ % of Items _____
- (j) Taxes and duties _____
- Total lump sum cost of Change Proposal _____

(Sum of items (a) to (j))

Cost to prepare Estimate for Change Proposal _____

(Amount payable if Change is not accepted)

9. Additional time for Completion required due to Change Proposal
10. Effect on the Functional Guarantees
11. Effect on the other terms and conditions of the Contract
12. Validity of this Proposal: within [Number] days after receipt of this Proposal by the Employer
13. Other terms and conditions of this Change Proposal:

- (a) You are requested to notify us of your acceptance, comments or rejection of this detailed Change Proposal within _____ days from your receipt of this Proposal.
- (b) The amount of any increase and/or decrease shall be taken into account in the adjustment of the Contract Price.
- (c) Contractor's cost for preparation of this Change Proposal:²

(Contractor's Name)

(Signature)

(Name of signatory)

(Title of signatory)

² Specify where necessary.

Annex 5. Change Order

(Employer's Letterhead)

To: _____ [*Contractor's name and address*] Date: _____Attention: _____ [*Name and title*]

Contract Name: _____

Contract Number: _____

Dear Ladies and/or Gentlemen:

We approve the Change Order for the work specified in the Change Proposal (No. _____), and agree to adjust the Contract Price, Time for Completion and/or other conditions of the Contract in accordance with GCC Clause 39 of the General Conditions.

1. Title of Change: _____
2. Change Request No./Rev.: _____
3. Change Order No./Rev.: _____
4. Originator of Change: Employer: _____
Contractor: _____
5. Authorized Price:
Ref. No.: _____ Date: _____
Rs. _____
6. Adjustment of Time for Completion
None Increase _____ days Decrease _____ days
7. Other effects, if any

Authorized by: _____ Date: _____
(Employer)

Accepted by: _____ Date: _____
(Contractor)

Annex 6. Pending Agreement Change Order

(Employer's Letterhead)

To: _____ [*Contractor's name and address*] Date: _____Attention: _____ [*Name and title*]

Contract Name: _____

Contract Number: _____

Dear Ladies and/or Gentlemen:

We instruct you to carry out the work in the Change Order detailed below in accordance with GCC Clause 39 of the General Conditions.

1. Title of Change: _____
2. Employer's Request for Change Proposal No./Rev.:
_____ dated: _____
3. Contractor's Change Proposal No./Rev.: _____ dated:

4. Brief Description of Change: _____
5. Facilities and/or Item No. of equipment related to the requested Change:

6. Reference Drawings and/or technical documents for the requested Change:

<u>Drawing/Document No.</u>	<u>Description</u>
7. Adjustment of Time for Completion:
8. Other change in the Contract terms:
9. Other terms and conditions:

(Employer's Name)

(Signature)

(Name of signatory)

(Title of signatory)

Annex 7. Application for Change Proposal

(Contractor's Letterhead)

To: _____ *[Employer's name and address]* Date: _____Attention: _____ *[Name and title]*

Contract Name: _____

Contract Number: _____

Dear Ladies and/or Gentlemen:

We hereby propose that the below-mentioned work be treated as a Change in the Facilities.

1. Title of Change: _____
 2. Application for Change Proposal No./Rev.: _____ dated:

 3. Brief Description of Change: _____
 4. Reasons for Change:
 5. Order of Magnitude Estimation (Rs.):
 6. Scheduled Impact of Change:
 7. Effect on Functional Guarantees, if any:
 8. Appendix:
-

(Contractor's Name)

(Signature)

(Name of signatory)

(Title of signatory)

Technical Specification & Drawings

As per WBSEDCL Specifications & Drawing

(As per enclosed annexure-TS. However, if any specification & drawings are not covered, then latest uploaded specification & Drawings at WBSEDCL official website (www.wbsedcl.in) may be followed. Besides above, decision of WBSEDCL authority shall be final for above & any other item required for the concerned packages.

Detail drawing and technical specifications are separately attached as

Additional Technical Specifications Part A and B with Bid document as attachment.

PART 3 – Conditions of Contract and Contract Forms

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Section VIII - General Conditions of Contract

A. Contract and Interpretation

1. Definitions

1.1 The following words and expressions shall have the meanings hereby assigned to them:

“Contract” means the Contract Agreement entered into between the Employer and the Contractor, together with the Contract Documents referred to therein; they shall constitute the Contract, and the term “the Contract” shall in all such documents be construed accordingly.

“Contract Documents” means the documents listed in Article 1.1 (Contract Documents) of the Contract Agreement (including any amendments thereto).

“GCC” means the General Conditions of Contract hereof.

“PCC” means the Particular Conditions of Contract.

“day” means calendar day.

“year” means 365 days.

“month” means calendar month.

“Party” means the Employer or the Contractor, as the context requires, and “Parties” means both of them.

“Employer” means the person **named as such in the PCC** and includes the legal successors or permitted assigns of the Employer.

“Project Manager” means the person appointed by the Employer in the manner provided in GCC Sub-Clause 17.1 (Project Manager) hereof and **named as such in the PCC** to perform the duties delegated by the Employer.

“Contractor” means the person(s) whose Bid to perform the Contract has been accepted by the Employer and is named as Contractor in the Contract Agreement, and includes the legal successors or permitted assigns of the Contractor.

“Contractor’s Representative” means any person nominated by the Contractor and approved by the Employer in the manner provided in GCC Sub-Clause 17.2 (Contractor’s Representative and Construction Manager) hereof to perform the duties delegated by the Contractor.

“Construction Manager” means the person appointed by the Contractor’s Representative in the manner provided in GCC Sub-Clause 17.2.4.

“Subcontractor,” including manufacturers, means any person to whom execution of any part of the Facilities, including preparation of any design or supply of any Plant, is sub-contracted directly or indirectly by the Contractor, and includes its legal successors or permitted assigns.

“The Adjudicator” is the person appointed jointly by the Employer and the Contractor to resolve disputes in the first instance, as provided for in GCC 46

“The Bank” means the financing institution **named in the PCC**.

“Contract Price” means the sum specified in Article 2.1 (Contract Price) of the Contract Agreement, subject to such additions and adjustments thereto or deductions therefrom, as may be made pursuant to the Contract.

“Facilities” means the Plant to be supplied and installed, as well as all the Installation Services to be carried out by the Contractor under the Contract.

“Plant” means permanent plant, equipment, machinery, apparatus, materials, articles and things of all kinds to be provided and incorporated in the Facilities by the Contractor under the Contract (including the spare parts to be supplied by the Contractor under GCC Sub-Clause 7.3 hereof), but does not include Contractor’s Equipment.

“Installation Services” means all those services ancillary to the supply of the Plant for the Facilities, to be provided by the Contractor under the Contract, **such as transportation** and provision of marine or other similar insurance, inspection, expediting, site preparation works (including the provision and use of Contractor’s Equipment and the supply of all construction materials required), installation, testing, precommissioning, commissioning, operations, maintenance, the provision of operations and maintenance manuals, training, etc... as the case may require.

“Contractor’s Equipment” means all facilities, equipment, machinery, tools, apparatus, appliances or things of every kind required in or for installation, completion and maintenance of Facilities that are to be provided by the Contractor, but does not include Plant, or other things intended to form or forming part of the Facilities.

“Country of Origin” means the countries and territories eligible under the rules of the Bank as further **elaborated in the PCC**.

“Site” means the land and other places upon which the Facilities are to be installed, and such other land or places as may be specified in the Contract as forming part of the Site.

“Effective Date” means the date of fulfillment of all conditions stated in Article 3 (Effective Date) of the Contract Agreement, from which the Time for Completion shall be counted.

“Time for Completion” means the time within which Completion of the Facilities as a whole (or of a part of the Facilities where a separate Time for Completion of such part has been prescribed) is to be attained, as referred to in GCC Clause 8 and in accordance with the relevant provisions of the Contract.

“Completion” means that the Facilities (or a specific part thereof where specific parts are specified in the Contract) have been completed operationally and structurally and put in a tight and clean condition, that all work in respect of Precommissioning of the Facilities or such specific part thereof has been completed, and that the Facilities or specific part thereof are ready for Commissioning as provided in GCC Clause 24 (Completion) hereof.

“Precommissioning” means the testing, checking and other requirements specified in the Employer’s Requirements that are to be carried out by the Contractor in preparation for Commissioning as provided in GCC Clause 24 (Completion) hereof.

“Commissioning” means operation of the Facilities or any part thereof by the Contractor following Completion, which operation is to be carried out by the Contractor as provided in GCC Sub-Clause 25.1 (Commissioning) hereof, for the purpose of carrying out Guarantee Test(s).

“Guarantee Test(s)” means the test(s) specified in the Employer’s Requirements to be carried out to ascertain whether the Facilities or a specified part thereof is able to attain the Functional Guarantees specified in the Appendix to the Contract Agreement titled Functional Guarantees, in accordance with the provisions of GCC Sub-Clause 25.2 (Guarantee Test) hereof.

“Operational Acceptance” means the acceptance by the Employer of the Facilities (or any part of the Facilities where the Contract provides for acceptance of the Facilities in parts), which certifies

the Contractor's fulfillment of the Contract in respect of Functional Guarantees of the Facilities (or the relevant part thereof) in accordance with the provisions of GCC Clause 28 (Functional Guarantees) hereof and shall include deemed acceptance in accordance with GCC Clause 25 (Commissioning and Operational Acceptance) hereof.

"Defect Liability Period" means the period of validity of the warranties given by the Contractor commencing at Completion of the Facilities or a part thereof, during which the Contractor is responsible for defects with respect to the Facilities (or the relevant part thereof) as provided in GCC Clause 27 (Defect Liability) hereof.

2. Contract Documents

2.1 Subject to Article 1.2 (Order of Precedence) of the Contract Agreement, all documents forming part of the Contract (and all parts thereof) are intended to be correlative, complementary and mutually explanatory. The Contract shall be read as a whole.

3. Interpretation

3.1 In the Contract, except where the context requires otherwise:

- (a) words indicating one gender include all genders;
- (b) words indicating the singular also include the plural and words indicating the plural also include the singular;
- (c) provisions including the word "agree," "agreed," or "agreement" require the agreement to be recorded in writing;
- (d) the word "tender" is synonymous with "Bid," "tenderer," with "Bidder," and "tender documents" with "Bidding Document," and
- (e) "written" or "in writing" means hand-written, type-written, printed or electronically made, and resulting in a permanent record.

The marginal words and other headings shall not be taken into consideration in the interpretation of these Conditions.

3.2 Incoterms

Unless inconsistent with any provision of the Contract, the meaning of any trade term and the rights and obligations of Parties thereunder shall be as prescribed by *Incoterms*.

Incoterms means international rules for interpreting trade terms published by the International Chamber of Commerce (latest edition), 38 Cours Albert 1^{er}, 75008 Paris, France.

3.3 Entire Agreement

Subject to GCC Sub-Clause 16.4 hereof, the Contract constitutes the entire agreement between the Employer and Contractor with respect to the subject matter of Contract and supersedes all communications, negotiations and agreements (whether written or oral) of Parties with respect thereto made prior to the date of Contract.

3.4 Amendment

No amendment or other variation of the Contract shall be effective unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each Party hereto.

3.5 Independent Contractor

The Contractor shall be an independent contractor performing the Contract. The Contract does not create any agency, partnership, joint venture or other joint relationship between the Parties hereto. Subject to the provisions of the Contract, the Contractor shall be solely responsible for the manner in which the Contract is performed. All employees, representatives or Subcontractors engaged by the Contractor in connection with the performance of the Contract shall

be under the complete control of the Contractor and shall not be deemed to be employees of the Employer, and nothing contained in the Contract or in any subcontract awarded by the Contractor shall be construed to create any contractual relationship between any such employees, representatives or Subcontractors and the Employer.

3.6 Non-Waiver

3.6.1 Subject to GCC Sub-Clause 3.6.2 below, no relaxation, forbearance, delay or indulgence by either Party in enforcing any of the terms and conditions of the Contract or the granting of time by either Party to the other shall prejudice, affect or restrict the rights of that Party under the Contract, nor shall any waiver by either Party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract.

3.6.2 Any waiver of a Party's rights, powers or remedies under the Contract must be in writing, must be dated and signed by an authorized representative of the Party granting such waiver, and must specify the right and the extent to which it is being waived.

3.7 Severability

If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.

3.8 Country of Origin

“Origin” means the place where the plant and component parts thereof are mined, grown, produced or manufactured, and from which the services are provided. Plant components are produced when, through manufacturing, processing, or substantial or major assembling of components, a commercially recognized product

results that is substantially in its basic characteristics or in purpose or utility from its components.

4. Communica- tions

4.1 Wherever these Conditions provide for the giving or issuing of approvals, certificates, consents, determinations, notices, requests and discharges, these communications shall be:

- (a) in writing and delivered against receipt; and
- (b) delivered, sent or transmitted to the address for the recipient's communications as stated in the Contract Agreement.

When a certificate is issued to a Party, the certifier shall send a copy to the other Party. When a notice is issued to a Party, by the other Party or the Project Manager, a copy shall be sent to the Project Manager or the other Party, as the case may be.

5. Law and Language

5.1 The Contract shall be governed by and interpreted in accordance with laws of the country **specified in the PCC**.

5.2 The ruling language of the Contract shall be that **stated in the PCC**.

5.3 The language for communications shall be the ruling language unless otherwise **stated in the PCC**.

6. Fraud and Corruption

6.1 The Bank requires compliance with the Bank's Anti-Corruption Guidelines and its prevailing sanctions policies and procedures as set forth in the WBG's Sanctions Framework, as set forth in Appendix B to the GCC.

6.2 The Employer requires the Contractor to disclose any commissions or fees that may have been paid or are to be paid to agents or any other party with respect to the Bidding process or execution of the Contract. The information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee.

B. Subject Matter of Contract

7. Scope of Facilities

- 7.1 Unless otherwise expressly limited in the Employer's Requirements, the Contractor's obligations cover the provision of all Plant and the performance of all Installation Services required for the design, and the manufacture (including procurement, quality assurance, construction, installation, associated civil works, Precommissioning and delivery) of the Plant, and the installation, completion and commissioning of the Facilities in accordance with the plans, procedures, specifications, drawings, codes and any other documents as specified in the Section, Employer's Requirements. Such specifications include, but are not limited to, the provision of supervision and engineering services; the supply of labor, materials, equipment, spare parts (as specified in GCC Sub-Clause 7.3 below) and accessories; Contractor's Equipment; construction utilities and supplies; temporary materials, structures and facilities; transportation (including, without limitation, unloading and hauling to, from and at the Site); and storage, except for those supplies, works and services that will be provided or performed by the Employer, as set forth in the Appendix to the Contract Agreement titled Scope of Works and Supply by the Employer.
- 7.2 The Contractor shall, unless specifically excluded in the Contract, perform all such work and/or supply all such items and materials not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for attaining Completion of the Facilities as if such work and/or items and materials were expressly mentioned in the Contract.
- 7.3 In addition to the supply of Mandatory Spare Parts included in the Contract, the Contractor agrees to supply spare parts required for the operation and maintenance of the Facilities for the period **specified in the PCC** and the provisions, if any, **specified in the PCC**. However, the identity, specifications and quantities of such spare parts and the terms and conditions relating to the supply thereof are to be agreed between the Employer and the Contractor, and the price of such spare parts shall be that given in Price Schedule No. 6, which shall be added to the Contract Price. The price of such spare parts shall include the purchase price therefor and other costs and expenses (including the Contractor's fees) relating to the supply of spare parts.

8. Time for Commencement and Completion

- 8.1 The Contractor shall commence work on the Facilities within the period **specified in the PCC** and without prejudice to GCC Sub-Clause 26.2 hereof, the Contractor shall thereafter proceed with the Facilities in accordance with the time schedule specified in the Appendix to the Contract Agreement titled Time Schedule.
- 8.2 The Contractor shall attain Completion of the Facilities or of a part where a separate time for Completion of such part is specified in the Contract, within the time **stated in the PCC** or within such extended time to which the Contractor shall be entitled under GCC Clause 40 hereof.

9. Contractor's Responsibilities

- 9.1 The Contractor shall design, manufacture including associated purchases and/or subcontracting, install and complete the Facilities in accordance with the Contract. When completed, the Facilities should be fit for the purposes for which they are intended as defined in the Contract.
- 9.2 The Contractor confirms that it has entered into this Contract on the basis of a proper examination of the data relating to the Facilities including any data as to boring tests provided by the Employer, and on the basis of information that the Contractor could have obtained from a visual inspection of the Site if access thereto was available and of other data readily available to it relating to the Facilities as of the date twenty-eight (28) days prior to Bid submission. The Contractor acknowledges that any failure to acquaint itself with all such data and information shall not relieve its responsibility for properly estimating the difficulty or cost of successfully performing the Facilities.
- 9.3 The Contractor shall acquire and pay for all permits, approvals and/or licenses from all local, state or national government authorities or public service undertakings in the country where the Site is located which such authorities or undertakings require the Contractor to obtain in its name and which are necessary for the performance of the Contract, including, without limitation, visas for the Contractor's and Subcontractor's personnel and entry permits for all imported Contractor's Equipment. The Contractor shall acquire all other permits, approvals and/or licenses that are not the responsibility of the Employer under GCC Sub-Clause

10.3 hereof and that are necessary for the performance of the Contract.

- 9.4 The Contractor shall comply with all laws in force in the country where the Facilities are to be implemented. The laws will include all local, state, national or other laws that affect the performance of the Contract and bind upon the Contractor. The Contractor shall indemnify and hold harmless the Employer from and against any and all liabilities, damages, claims, fines, penalties and expenses of whatever nature arising or resulting from the violation of such laws by the Contractor or its personnel, including the Subcontractors and their personnel, but without prejudice to GCC Sub-Clause 10.1 hereof.
- 9.5 Any Plant and Installation Services that will be incorporated in or be required for the Facilities and other supplies shall have their origin as specified under GCC Clause 1 (Country of Origin). Any subcontractors retained by the Contractor shall be from a country as specified in GCC Clause 1 (Country of Origin).
- 9.6 If the Contractor is a joint venture, or association (JV) of two or more persons, all such persons shall be jointly and severally bound to the Employer for the fulfillment of the provisions of the Contract, and shall designate one of such persons to act as a leader with authority to bind the JV. The composition or the constitution of the JV shall not be altered without the prior consent of the Employer.
- 9.7 Pursuant to paragraph 2.2 e. of Appendix B to the General Conditions the Contractor shall permit and shall cause its subcontractors and sub-consultants to permit, the Bank and/or persons appointed by the Bank to inspect the Site and/or the accounts and records relating to the procurement process, selection and/or contract execution, and to have such accounts and records audited by auditors appointed by the Bank if requested by the Bank. The Contractor's and its Subcontractors' and sub-consultants' attention is drawn to Sub-Clause 6.1 which provides, inter alia, that acts intended to materially impede the exercise of the Bank's inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Bank's prevailing sanctions procedures).

- 9.8 The Contractor shall comply with the specified Environmental, Social, Health, and Safety requirements, including ESHS Code of Conduct that will apply to its employees and subcontractors.
- 10. Employer's Responsibilities**
- 10.1 All information and/or data to be supplied by the Employer as described in the Appendix to the Contract Agreement titled Scope of Works and Supply by the Employer, shall be deemed to be accurate, except when the Employer expressly states otherwise.
- 10.2 The Employer shall be responsible for acquiring and providing legal and physical possession of the Site and access thereto, and for providing possession of and access to all other areas reasonably required for the proper execution of the Contract, including all requisite rights of way, as specified in the Appendix to the Contract Agreement titled Scope of Works and Supply by the Employer. The Employer shall give full possession of and accord all rights of access thereto on or before the date(s) specified in that Appendix.
- 10.3 The Employer shall acquire and pay for all permits, approvals and/or licenses from all local, state or national government authorities or public service undertakings in the country where the Site is located which (a) such authorities or undertakings require the Employer to obtain in the Employer's name, (b) are necessary for the execution of the Contract, including those required for the performance by both the Contractor and the Employer of their respective obligations under the Contract, and (c) are specified in the Appendix (Scope of Works and Supply by the Employer).
- 10.4 If requested by the Contractor, the Employer shall use its best endeavors to assist the Contractor in obtaining in a timely and expeditious manner all permits, approvals and/or licenses necessary for the execution of the Contract from all local, state or national government authorities or public service undertakings that such authorities or undertakings require the Contractor or Subcontractors or the personnel of the Contractor or Subcontractors, as the case may be, to obtain.
- 10.5 Unless otherwise specified in the Contract or agreed upon by the Employer and the Contractor, the Employer shall provide sufficient, properly qualified operating and maintenance

personnel; shall supply and make available all raw materials, utilities, lubricants, chemicals, catalysts, other materials and facilities; and shall perform all work and services of whatsoever nature, including those required by the Contractor to properly carry out Precommissioning, Commissioning and Guarantee Tests, all in accordance with the provisions of the Appendix to the Contract Agreement titled Scope of Works and Supply by the Employer, at or before the time specified in the program furnished by the Contractor under GCC Sub-Clause 18.2 hereof and in the manner thereupon specified or as otherwise agreed upon by the Employer and the Contractor.

- 10.6 The Employer shall be responsible for the continued operation of the Facilities after Completion, in accordance with GCC Sub-Clause 24.8, and shall be responsible for facilitating the Guarantee Test(s) for the Facilities, in accordance with GCC Sub-Clause 25.2.
- 10.7 All costs and expenses involved in the performance of the obligations under this GCC Clause 10 shall be the responsibility of the Employer, save those to be incurred by the Contractor with respect to the performance of Guarantee Tests, in accordance with GCC Sub-Clause 25.2.
- 10.8 In the event that the Employer shall be in breach of any of his obligations under this Clause, **the additional cost** incurred by the Contractor in consequence thereof shall be determined by the Project Manager and **added to the Contract Price**.

C. Payment

- 11. Contract Price**
- 11.1 The Contract Price shall be as specified in Article 2 (Contract Price and Terms of Payment) of the Contract Agreement.
- 11.2 Unless an adjustment clause is **provided for in the PCC**, the Contract Price shall be a firm lump sum not subject to any alteration, except in the event of a Change in the Facilities or as otherwise provided in the Contract.
- 11.3 Subject to GCC Sub-Clauses 9.2, 10.1 and 35 hereof, the Contractor shall be deemed to have satisfied itself as to the correctness and sufficiency of the Contract Price, which shall, except as otherwise provided for in the Contract, cover all its obligations under the Contract.
- 12. Terms of Payment**
- 12.1 The Contract Price shall be paid as specified in Article 2 (Contract Price and Terms of Payment) of the Contract Agreement and in the Appendix to the Contract Agreement titled Terms and Procedures of Payment, which also outlines the procedures to be followed in making application for and processing payments.
- 12.2 No payment made by the Employer herein shall be deemed to constitute acceptance by the Employer of the Facilities or any part(s) thereof.
- 12.3 In the event that the Employer fails to make any payment by its respective due date or within the period set forth in the Contract, the Employer shall pay to the Contractor interest on the amount of such delayed payment at the rate(s) shown in the Appendix to the Contract Agreement titled Terms and Procedures of Payment, for the period of delay until payment has been made in full, whether before or after judgment or arbitration award. 12.4 The currency or currencies in which payments are made to the Contractor under this Contract shall be specified in the Appendix to the Contract Agreement titled Terms and Procedures of Payment, subject to the general principle that payments will be made in the currency or currencies in which the Contract Price has been stated in the Contractor's Bid.

13. Securities

13.1 Issuance of Securities

The Contractor shall provide the securities specified below in favor of the Employer at the times, and in the amount, manner and form specified below.

13.2 Advance Payment Security

13.2.1 The Contractor shall, within twenty-eight (28) days of the notification of contract award, provide a security in an amount equal to the advance payment calculated in accordance with the Appendix to the Contract Agreement titled Terms and Procedures of Payment, and in the same currency or currencies.

13.2.2 The security shall be in the form provided in the Bidding documents. The amount of the security shall be reduced in proportion to the value of the Facilities executed by and paid to the Contractor from time to time, and shall automatically become null and void when the full amount of the advance payment has been recovered by the Employer. The security shall be returned to the Contractor immediately after its expiration.

13.3 Performance Security

13.3.1 The Contractor shall, within twenty-eight (28) days of the notification of contract award, provide a security for the due performance of the Contract in the amount **specified in the PCC**.

13.3.2 The Performance Security shall be denominated in the currency or currencies of the Contract, or in a freely convertible currency acceptable to the Employer, and shall be in the form provided in Section X, Contract Forms, corresponding to the type of bank guarantee stipulated by the Employer in the PCC.

13.3.3 Unless otherwise specified in the PCC, the security shall be reduced by half on the date of the Operational Acceptance. The Security shall become null and void, or shall be reduced pro rata to the Contract Price of a part of the Facilities for which a separate Time for Completion is provided, five hundred and forty (540) days after Completion of the Facilities or three hundred and sixty five (365) days after Operational Acceptance of the Facilities, whichever occurs first; provided, however, that if the Defects Liability Period has been extended on any part of the Facilities pursuant to GCC Sub-Clause 27.8 hereof, the Contractor shall issue an additional security in an amount proportionate to the Contract Price of that part. The security shall be returned to the Contractor immediately after its expiration, provided, however, that if the Contractor, pursuant to GCC Sub-Clause 27.10, is liable for an extended defect liability obligation, the Performance Security shall be extended for the period specified in the PCC pursuant to GCC Sub-Clause 27.10 and up to the amount specified in the PCC.

13.3.4 The Employer shall not make a claim under the Performance Security, except for amounts to which the Employer is entitled under the Contract. The Employer shall indemnify and hold the Contractor harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from a claim under the Performance Security to the extent to which the Employer was not entitled to make the claim.

14. Taxes and Duties

14.1 Except as otherwise specifically provided in the Contract, the Contractor shall bear and pay all taxes, duties, levies and charges assessed on the Contractor, its Subcontractors or their employees by all municipal, state or national government authorities in connection with the Facilities in and outside of the country where the Site is located.

14.2 Notwithstanding GCC Sub-Clause 14.1 above, the Employer shall bear and promptly pay

- (a) all customs and import duties for the Plant specified in Price Schedule No. 1; and
 - (b) other domestic taxes such as, sales tax and value added tax (VAT) on the Plant specified in Price Schedules No. 1 and No. 2 and that is to be incorporated into the Facilities, and on the finished goods, imposed by the law of the country where the Site is located.
- 14.3 If any tax exemptions, reductions, allowances or privileges may be available to the Contractor in the country where the Site is located, the Employer shall use its best endeavors to enable the Contractor to benefit from any such tax savings to the maximum allowable extent.
- 14.4 For the purpose of the Contract, it is agreed that the Contract Price specified in Article 2 (Contract Price and Terms of Payment) of the Contract Agreement is based on the taxes, duties, levies and charges prevailing at the date twenty-eight (28) days prior to the date of Bid submission in the country where the Site is located (hereinafter called “Tax” in this GCC Sub-Clause 14.4). If any rates of Tax are increased or decreased, a new Tax is introduced, an existing Tax is abolished, or any change in interpretation or application of any Tax occurs in the course of the performance of Contract, which was or will be assessed on the Contractor, Subcontractors or their employees in connection with performance of the Contract, an equitable adjustment of the Contract Price shall be made to fully take into account any such change by addition to the Contract Price or deduction therefrom, as the case may be, in accordance with GCC Clause 36 hereof.

D. Intellectual Property

- 15. License/Use of Technical Information**
- 15.1 For the operation and maintenance of the Plant, the Contractor hereby grants a non-exclusive and non-transferable license (without the right to sub-license) to the Employer under the patents, utility models or other industrial property rights owned by the Contractor or by a third Party from whom the Contractor has received the right to grant licenses thereunder, and shall also grant to the Employer a non-exclusive and non-transferable right (without the right to sub-license) to use the know-how and other technical information disclosed to the Employer under the Contract. Nothing contained herein shall be construed as transferring ownership of any patent, utility model, trademark, design, copyright, know-how or other intellectual property right from the Contractor or any third Party to the Employer.
- 15.2 The copyright in all drawings, documents and other materials containing data and information furnished to the Employer by the Contractor herein shall remain vested in the Contractor or, if they are furnished to the Employer directly or through the Contractor by any third Party, including suppliers of materials, the copyright in such materials shall remain vested in such third Party.
- 16. Confidential Information**
- 16.1 The Employer and the Contractor shall keep confidential and shall not, without the written consent of the other Party hereto, divulge to any third Party any documents, data or other information furnished directly or indirectly by the other Party hereto in connection with the Contract, whether such information has been furnished prior to, during or following termination of the Contract. Notwithstanding the above, the Contractor may furnish to its Subcontractor(s) such documents, data and other information it receives from the Employer to the extent required for the Subcontractor(s) to perform its work under the Contract, in which event the Contractor shall obtain from such Subcontractor(s) an undertaking of confidentiality similar to that imposed on the Contractor under this GCC Clause 16.
- 16.2 The Employer shall not use such documents, data and other information received from the Contractor for any purpose other than the operation and maintenance of the Facilities. Similarly, the Contractor shall not use such documents, data and other information received from the Employer for any purpose other than the design,

procurement of Plant, construction or such other work and services as are required for the performance of the Contract.

16.3 The obligation of a Party under GCC Sub-Clauses 16.1 and 16.2 above, however, shall not apply to that information which

- (a) now or hereafter enters the public domain through no fault of that Party
- (b) can be proven to have been possessed by that Party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other Party hereto
- (c) otherwise lawfully becomes available to that Party from a third Party that has no obligation of confidentiality.

16.4 The above provisions of this GCC Clause 16 shall not in any way modify any undertaking of confidentiality given by either of the Parties hereto prior to the date of the Contract in respect of the Facilities or any part thereof.

16.5 The provisions of this GCC Clause 16 shall survive termination, for whatever reason, of the Contract.

E. Execution of the Facilities

17. Representatives

17.1 Project Manager

If the Project Manager is not named in the Contract, then within fourteen (14) days of the Effective Date, the Employer shall appoint and notify the Contractor in writing of the name of the Project Manager. The Employer may from time to time appoint some other person as the Project Manager in place of the person previously so appointed, and shall give a notice of the name of such other person to the Contractor without delay. No such appointment shall be made at such a time or in such a manner as to impede the progress of work on the Facilities. Such appointment shall only take effect upon receipt of

such notice by the Contractor. The Project Manager shall represent and act for the Employer at all times during the performance of the Contract. All notices, instructions, orders, certificates, approvals and all other communications under the Contract shall be given by the Project Manager, except as herein otherwise provided.

All notices, instructions, information and other communications given by the Contractor to the Employer under the Contract shall be given to the Project Manager, except as herein otherwise provided.

17.2 Contractor's Representative & Construction Manager

17.2.1 If the Contractor's Representative is not named in the Contract, then within fourteen (14) days of the Effective Date, the Contractor shall appoint the Contractor's Representative and shall request the Employer in writing to approve the person so appointed. If the Employer makes no objection to the appointment within fourteen (14) days, the Contractor's Representative shall be deemed to have been approved. If the Employer objects to the appointment within fourteen (14) days giving the reason therefor, then the Contractor shall appoint a replacement within fourteen (14) days of such objection, and the foregoing provisions of this GCC Sub-Clause 17.2.1 shall apply thereto.

17.2.2 The Contractor's Representative shall represent and act for the Contractor at all times during the performance of the Contract and shall give to the Project Manager all the Contractor's notices, instructions, information and all other communications under the Contract.

All notices, instructions, information and all other communications given by the Employer or the Project Manager to the Contractor under the Contract shall be given to the Contractor's Representative or, in its absence, its deputy, except as herein otherwise provided.

The Contractor shall not revoke the appointment of the Contractor's Representative without the Employer's prior written consent, which shall not be unreasonably withheld. If the Employer consents thereto, the Contractor shall appoint some other person as the Contractor's

Representative, pursuant to the procedure set out in GCC Sub-Clause 17.2.1.

- 17.2.3 The Contractor's Representative may, subject to the approval of the Employer which shall not be unreasonably withheld, at any time delegate to any person any of the powers, functions and authorities vested in him or her. Any such delegation may be revoked at any time. Any such delegation or revocation shall be subject to a prior notice signed by the Contractor's Representative, and shall specify the powers, functions and authorities thereby delegated or revoked. No such delegation or revocation shall take effect unless and until a copy thereof has been delivered to the Employer and the Project Manager.

Any act or exercise by any person of powers, functions and authorities so delegated to him or her in accordance with this GCC Sub-Clause 17.2.3 shall be deemed to be an act or exercise by the Contractor's Representative.

- 17.2.4 From the commencement of installation of the Facilities at the Site until Completion, the Contractor's Representative shall appoint a suitable person as the Construction Manager. The Construction Manager shall supervise all work done at the Site by the Contractor and shall be present at the Site throughout normal working hours except when on leave, sick or absent for reasons connected with the proper performance of the Contract. Whenever the Construction Manager is absent from the Site, a suitable person shall be appointed to act as the Construction Manager's deputy.

- 17.2.5 The Employer may by notice to the Contractor object to any representative or person employed by the Contractor in the execution of the Contract who, in the reasonable opinion of the Employer, may behave inappropriately, may be incompetent or negligent, or may commit a serious breach of the Site regulations provided under GCC Sub-Clause 22.4. The Employer shall provide evidence of the same, whereupon the Contractor shall remove such person from the Facilities.

- 17.2.6 If any representative or person employed by the Contractor is removed in accordance with GCC Sub-Clause 17.2.5, the Contractor shall, where required, promptly appoint a replacement.

**18. Work
Program****18.1 Contractor's Organization**

The Contractor shall supply to the Employer and the Project Manager a chart showing the proposed organization to be established by the Contractor for carrying out work on the Facilities within twenty-one (21) days of the Effective Date. The chart shall include the identities of the key personnel and the curricula vitae of such key personnel to be employed shall be supplied together with the chart. The Contractor shall promptly inform the Employer and the Project Manager in writing of any revision or alteration of such an organization chart.

18.2 Program of Performance

Within twenty-eight (28) days after the Effective Date, the Contractor shall submit to the Project Manager a detailed program of performance of the Contract, made in a form acceptable to the Project Manager and showing the sequence in which it proposes to design, manufacture, transport, assemble, install and precommission the Facilities, as well as the date by which the Contractor reasonably requires that the Employer shall have fulfilled its obligations under the Contract so as to enable the Contractor to execute the Contract in accordance with the program and to achieve Completion, Commissioning and Acceptance of the Facilities in accordance with the Contract. The program so submitted by the Contractor shall accord with the Time Schedule included in the Appendix to the Contract Agreement titled Time Schedule, and any other dates and periods specified in the Contract. The Contractor shall update and revise the program as and when appropriate or when required by the Project Manager, but without modification in the Times for Completion specified in the PCC pursuant to Sub-Clause 8.2 and any extension granted in accordance with GCC Clause 40, and shall submit all such revisions to the Project Manager.

18.3 Progress Report

The Contractor shall monitor progress of all the activities specified in the program referred to in GCC Sub-Clause 18.2 above, and supply a progress report to the Project Manager every month.

The progress report shall be in a form acceptable to the Project Manager and shall indicate: (a) percentage completion achieved compared with the planned percentage completion for each activity; and (b) where any activity is behind the program, giving comments and likely consequences and stating the corrective action being taken.

18.4 Progress of Performance

If at any time the Contractor's actual progress falls behind the program referred to in GCC Sub-Clause 18.2, or it becomes apparent that it will so fall behind, the Contractor shall, at the request of the Employer or the Project Manager, prepare and submit to the Project Manager a revised program, taking into account the prevailing circumstances, and shall notify the Project Manager of the steps being taken to expedite progress so as to attain Completion of the Facilities within the Time for Completion under GCC Sub-Clause 8.2, any extension thereof entitled under GCC Sub-Clause 40.1, or any extended period as may otherwise be agreed upon between the Employer and the Contractor.

18.5 Procedures

The Contract shall be executed in accordance with the Contract Documents including the procedures given in the Forms and Procedures of the Employer's Requirements.

The Contractor may execute the Contract in accordance with its own standard project execution plans and procedures to the extent that they do not conflict with the provisions contained in the Contract.

- 19.Subcontracting** 19.1 The Appendix to the Contract Agreement titled List of Major Items of Plant and Installation Services and List of Approved Subcontractors, specifies major items of supply or services and a list of approved Subcontractors against each item, including manufacturers. Insofar as no Subcontractors are listed against any such item, the Contractor shall prepare a list of Subcontractors for such item for inclusion in such list. The Contractor may from time to time propose any addition to or deletion from any such list. The Contractor shall submit any such list or any modification thereto to the Employer for its approval in sufficient time so as not to impede the progress of work on the

Facilities. Such approval by the Employer for any of the Subcontractors shall not relieve the Contractor from any of its obligations, duties or responsibilities under the Contract.

- 19.2 The Contractor shall select and employ its Subcontractors for such major items from those listed in the lists referred to in GCC Sub-Clause 19.1.
- 19.3 For items or parts of the Facilities not specified in the Appendix to the Contract Agreement titled List of Major Items of Plant and Installation Services and List of Approved Subcontractors, the Contractor may employ such Subcontractors as it may select, at its discretion.
- 19.4 Each sub-contract shall include provisions which would entitle the Employer to require the sub-contract to be assigned to the Employer under GCC 19.5 (if and when applicable), or in event of termination by the Employer under GCC 42.2.
- 19.5 If a subcontractor's obligations extend beyond the expiry date of the relevant Defects Liability Period and the Project Manager, prior to that date, instructs the Contractor to assign the benefits of such obligations to the Employer, then the Contractor shall do so.

20. Design and Engineering

20.1 Specifications and Drawings

- 20.1.1 The Contractor shall execute the basic and detailed design and the engineering work in compliance with the provisions of the Contract, or where not so specified, in accordance with good engineering practice.

The Contractor shall be responsible for any discrepancies, errors or omissions in the specifications, drawings and other technical documents that it has prepared, whether such specifications, drawings and other documents have been approved by the Project Manager or not, provided that such discrepancies, errors or omissions are not because of inaccurate information furnished in writing to the Contractor by or on behalf of the Employer.

20.1.2 The Contractor shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designated by or on behalf of the Employer, by giving a notice of such disclaimer to the Project Manager.

20.2 Codes and Standards

Wherever references are made in the Contract to codes and standards in accordance with which the Contract shall be executed, the edition or the revised version of such codes and standards current at the date twenty-eight (28) days prior to date of Bid submission shall apply unless otherwise specified. During Contract execution, any changes in such codes and standards shall be applied subject to approval by the Employer and shall be treated in accordance with GCC Clause 39.

20.3 Approval/Review of Technical Documents by Project Manager

20.3.1 The Contractor shall prepare or cause its Subcontractors to prepare, and furnish to the Project Manager the documents listed in the Appendix to the Contract Agreement titled List of Documents for Approval or Review, for its approval or review as specified and in accordance with the requirements of GCC Sub-Clause 18.2 (Program of Performance).

Any part of the Facilities covered by or related to the documents to be approved by the Project Manager shall be executed only after the Project Manager's approval thereof.

GCC Sub-Clauses 20.3.2 through 20.3.7 shall apply to those documents requiring the Project Manager's approval, but not to those furnished to the Project Manager for its review only.

20.3.2 Within fourteen (14) days after receipt by the Project Manager of any document requiring the Project Manager's approval in accordance with GCC Sub-Clause 20.3.1, the Project Manager shall either return one copy thereof to the Contractor with its approval endorsed thereon or shall notify the Contractor in

writing of its disapproval thereof and the reasons therefor and the modifications that the Project Manager proposes.

If the Project Manager fails to take such action within the said fourteen (14) days, then the said document shall be deemed to have been approved by the Project Manager.

20.3.3 The Project Manager shall not disapprove any document, except on the grounds that the document does not comply with the Contract or that it is contrary to good engineering practice.

20.3.4 If the Project Manager disapproves the document, the Contractor shall modify the document and resubmit it for the Project Manager's approval in accordance with GCC Sub-Clause 20.3.2. If the Project Manager approves the document subject to modification(s), the Contractor shall make the required modification(s), whereupon the document shall be deemed to have been approved.

20.3.5 If any dispute or difference occurs between the Employer and the Contractor in connection with or arising out of the disapproval by the Project Manager of any document and/or any modification(s) thereto that cannot be settled between the Parties within a reasonable period, then such dispute or difference may be referred to an Adjudicator for determination in accordance with GCC Sub-Clause 46.3 hereof. If such dispute or difference is referred to an Adjudicator, the Project Manager shall give instructions as to whether and if so, how, performance of the Contract is to proceed.

20.3.6 The Project Manager's approval, with or without modification of the document furnished by the Contractor, shall not relieve the Contractor of any responsibility or liability imposed upon it by any provisions of the Contract except to the extent that any subsequent failure results from modifications required by the Project Manager.

20.3.7 The Contractor shall not depart from any approved document unless the Contractor has first submitted to the Project Manager an amended document and obtained the Project

Manager's approval thereof, pursuant to the provisions of this GCC Sub-Clause 20.3.

If the Project Manager requests any change in any already approved document and/or in any document based thereon, the provisions of GCC Clause 39 shall apply to such request.

21. Procurement

21.1 Plant

Subject to GCC Sub-Clause 14.2, the Contractor shall procure and transport all Plant in an expeditious and orderly manner to the Site.

21.2 Employer-Supplied Plant

If the Appendix to the Contract Agreement titled Scope of Works and Supply by the Employer, provides that the Employer shall furnish any specific items to the Contractor, the following provisions shall apply:

21.2.1 The Employer shall, at its own risk and expense, transport each item to the place on or near the Site as agreed upon by the Parties and make such item available to the Contractor at the time specified in the program furnished by the Contractor, pursuant to GCC Sub-Clause 18.2, unless otherwise mutually agreed.

21.2.2 Upon receipt of such item, the Contractor shall inspect the same visually and notify the Project Manager of any detected shortage, defect or default. The Employer shall immediately remedy any shortage, defect or default, or the Contractor shall, if practicable and possible, at the request of the Employer, remedy such shortage, defect or default at the Employer's cost and expense. After inspection, such item shall fall under the care, custody and control of the Contractor. The provision of this GCC Sub-Clause 21.2.2 shall apply to any item supplied to remedy any such shortage or default or to substitute for any defective item, or shall apply to defective items that have been repaired.

21.2.3 The foregoing responsibilities of the Contractor and its obligations of care, custody and control shall not relieve the Employer of liability for

any undetected shortage, defect or default, nor place the Contractor under any liability for any such shortage, defect or default whether under GCC Clause 27 or under any other provision of Contract.

21.3 Transportation

21.3.1 The Contractor shall at its own risk and expense transport all the materials and the Contractor's Equipment to the Site by the mode of transport that the Contractor judges most suitable under all the circumstances.

21.3.2 Unless otherwise provided in the Contract, the Contractor shall be entitled to select any safe mode of transport operated by any person to carry the materials and the Contractor's Equipment.

21.3.3 Upon dispatch of each shipment of materials and the Contractor's Equipment, the Contractor shall notify the Employer by telex, cable, facsimile or electronic means, of the description of the materials and of the Contractor's Equipment, the point and means of dispatch, and the estimated time and point of arrival in the country where the Site is located, if applicable, and at the Site. The Contractor shall furnish the Employer with relevant shipping documents to be agreed upon between the Parties.

21.3.4 The Contractor shall be responsible for obtaining, if necessary, approvals from the authorities for transportation of the materials and the Contractor's Equipment to the Site. The Employer shall use its best endeavors in a timely and expeditious manner to assist the Contractor in obtaining such approvals, if requested by the Contractor. The Contractor shall indemnify and hold harmless the Employer from and against any claim for damage to roads, bridges or any other traffic facilities that may be caused by the transport of the materials and the Contractor's Equipment to the Site.

21.4 Customs Clearance

The Contractor, if it requires, shall at its own expense, handle all imported materials and Contractor's Equipment at the point(s) of import and shall handle any formalities for customs clearance.

22. Installation

22.1 Setting Out/Supervision

22.1.1 Bench Mark: The Contractor shall be responsible for the true and proper setting-out of the Facilities in relation to bench marks, reference marks and lines provided to it in writing by or on behalf of the Employer.

If, at any time during the progress of installation of the Facilities, any error shall appear in the position, level or alignment of the Facilities, the Contractor shall forthwith notify the Project Manager of such error and, at its own expense, immediately rectify such error to the reasonable satisfaction of the Project Manager. If such error is based on incorrect data provided in writing by or on behalf of the Employer, the expense of rectifying the same shall be borne by the Employer.

22.1.2 Contractor's Supervision: The Contractor shall give or provide all necessary superintendence during the installation of the Facilities, and the Construction Manager or its deputy shall be constantly on the Site to provide full-time superintendence of the installation. The Contractor shall provide and employ only technical personnel who are skilled and experienced in their respective callings and supervisory staff who are competent to adequately supervise the work at hand.

22.2 Labor:

22.2.1 Engagement of Staff and Labor

Except as otherwise stated in the Specification, the Contractor shall make arrangements for the engagement of all staff and labor, local or otherwise, and for their payment, housing, feeding and transport.

The Contractor shall provide and employ on the Site in the installation of the Facilities such skilled, semi-skilled and unskilled labor as is necessary for the proper and timely execution of the Contract. The Contractor is encouraged to use local labor that has the necessary skills.

The Contractor shall be responsible for obtaining all necessary permit(s) and/or visa(s) from the appropriate authorities for the entry of all labor and personnel to be employed on the Site into the country where the Site is located. The Employer will, if requested by the Contractor, use his best endeavors in a timely and expeditious manner to assist the Contractor in obtaining any local, state, national or government permission required for bringing in the Contractor's personnel.

The Contractor shall at its own expense provide the means of repatriation to all of its and its Subcontractor's personnel employed on the Contract at the Site to the place where they were recruited or to their domicile. It shall also provide suitable temporary maintenance of all such persons from the cessation of their employment on the Contract to the date programmed for their departure. In the event that the Contractor defaults in providing such means of transportation and temporary maintenance, the Employer may provide the same to such personnel and recover the cost of doing so from the Contractor.

22.2.2 Persons in the Service of Employer

The Contractor shall not recruit, or attempt to recruit, staff and labor from amongst the Employer's Personnel.

22.2.3 Labor Laws

The Contractor shall comply with all the relevant labor Laws applicable to the Contractor's Personnel, including Laws relating to their employment, health, safety, welfare, immigration and emigration, and shall allow them all their legal rights.

The Contractor shall at all times during the progress of the Contract use its best endeavors to prevent any unlawful, riotous or disorderly conduct or behavior by or amongst its employees and the labor of its Subcontractors.

The Contractor shall, in all dealings with its labor and the labor of its Subcontractors currently employed on or connected with the Contract, pay due regard to all recognized festivals, official holidays, religious or other customs and all local laws and regulations pertaining to the employment of labor.

Salient features of major labour and other laws that are applicable to construction industry in India are given as Appendix C to these General Conditions of Contract.

22.2.4 Rates of Wages and Conditions of Labor

The Contractor shall pay rates of wages, and observe conditions of labor, which are not lower than those established for the trade or industry where the work is carried out. If no established rates or conditions are applicable, the Contractor shall pay rates of wages and observe conditions which are not lower than the general level of wages and conditions observed locally by employers whose trade or industry is similar to that of the Contractor.

The Contractor shall inform the Contractor's Personnel about their liability to pay personal income taxes in the Country in respect of such of their salaries, wages and allowances as are chargeable under the Laws for the time being in force, and the Contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such Laws.

22.2.5 Working Hours

No work shall be carried out on the Site on locally recognized days of rest, or outside the normal working hours **stated in the PCC**, unless:

- (a) otherwise stated in the Contract,
- (b) the Project Manager gives consent, or
- (c) the work is unavoidable, or necessary for the protection of life or property or for the safety of the Works, in which case the Contractor shall immediately advise the Project Manager.

If and when the Contractor considers it necessary to carry out work at night or on public holidays so as to meet the Time for Completion and requests the Project Manager's consent thereto, the Project Manager shall not unreasonably withhold such consent.

This Sub-Clause shall not apply to any work which is customarily carried out by rotary or double-shifts.

22.2.6 Facilities for Staff and Labor

Except as otherwise stated in the Specification, the Contractor shall provide and maintain all necessary accommodation and welfare facilities for the Contractor's Personnel. The Contractor shall also provide facilities for the Employer's Personnel as stated in the Specification.

The Contractor shall not permit any of the Contractor's Personnel to maintain any temporary or permanent living quarters within the structures forming part of the Permanent Works.

22.2.7 Health and Safety

The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor's Personnel. In collaboration with local health authorities, the Contractor shall ensure that medical staff, first aid facilities, sick bay and ambulance service are available at all times at the Site and at any accommodation for Contractor's and Employer's Personnel, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.

The Contractor shall appoint an accident prevention officer at the Site, responsible for maintaining safety and protection against accidents. This person shall be qualified for this responsibility, and shall have the authority to issue instructions and take protective measures to prevent accidents. Throughout the performance of the Contract, the Contractor shall provide whatever is required by this person to exercise this responsibility and authority.

The Contractor shall send to the Project Manager, details of any accident as soon as practicable after its occurrence. The Contractor shall maintain records and make reports concerning health, safety and welfare of persons, and damage to property, as the Project Manager may reasonably require.

The Contractor shall throughout the contract (including the Defects Notification Period): (i) conduct Information, Education and Consultation Communication (IEC) campaigns, at least every other month, addressed to all the Site staff and labor (including all the Contractor's employees, all Subcontractors and Employer's and Project Manager's' employees, and all truck drivers and crew making deliveries to Site for construction activities) and to the immediate local communities, concerning the risks, dangers and impact, and appropriate avoidance behavior with respect to of Sexually Transmitted Diseases (STD)—or Sexually Transmitted Infections (STI) in general and HIV/AIDS in particular; (ii) provide male or female condoms for all Site staff and labor as appropriate; and (iii) provide for STI and HIV/AIDS screening, diagnosis, counseling and referral to a dedicated national STI and HIV/AIDS program, (unless otherwise agreed) of all Site staff and labor.

The Contractor shall include in the program to be submitted for the execution of the Facilities under Sub-Clause 18.2 an alleviation program for Site staff and labor and their families in respect of Sexually Transmitted Infections (STI) and Sexually Transmitted Diseases (STD) including HIV/AIDS. The STI, STD and HIV/AIDS alleviation program shall indicate when, how and at what cost the Contractor plans to satisfy the requirements of this Sub-Clause and the related specification. For each component, the program shall detail the resources to be provided or utilized and any related sub-contracting proposed. The program shall also include provision of a detailed cost estimate with supporting documentation. Payment to the Contractor for preparation and implementation this program shall not exceed the Provisional Sum dedicated for this purpose.

22.2.8 Funeral Arrangements

In the event of the death of any of the Contractor's personnel or accompanying members of their families, the Contractor shall be responsible for making the appropriate arrangements for their return or burial, unless otherwise **specified in the PCC**.

22.2.9 Records of Contractor's Personnel

The Contractor shall keep accurate records of the Contractor's personnel, including the number of each class of Contractor's Personnel on the Site and the names, ages, genders, hours worked and wages paid to all workers. These records shall be summarized on a monthly basis in a form approved by the Project Manager and shall be available for inspection by the Project Manager until the Contractor has completed all work.

22.2.10 Supply of Foodstuffs

The Contractor shall arrange for the provision of a sufficient supply of suitable food as may be stated in the Specification at reasonable prices for the Contractor's Personnel for the purposes of or in connection with the Contract.

22.2.11 Supply of Water

The Contractor shall, having regard to local conditions, provide on the Site an adequate supply of drinking and other water for the use of the Contractor's Personnel.

22.2.12 Measures against Insect and Pest Nuisance

The Contractor shall at all times take the necessary precautions to protect the Contractor's Personnel employed on the Site from insect and pest nuisance, and to reduce their danger to health. The Contractor shall comply with all the regulations of the local health authorities, including use of appropriate insecticide.

22.2.13 Alcoholic Liquor or Drugs

The Contractor shall not, otherwise than in accordance with the Laws of the Country, import, sell, give barter or otherwise dispose of any alcoholic liquor or drugs, or permit or allow importation, sale, gift barter or disposal by Contractor's Personnel.

22.2.14 Arms and Ammunition

The Contractor shall not give, barter, or otherwise dispose of, to any person, any arms or ammunition of any kind, or allow Contractor's Personnel to do so.

22.2.15 Prohibition of All Forms of Forced or Compulsory Labor

The contractor shall not employ "forced or compulsory labor" in any form. "Forced or compulsory labor" consists of all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.

22.2.16 Prohibition of Harmful Child Labor

The Contractor shall not employ any child to perform any work that is economically exploitative, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development.

22.3 Contractor's Equipment

22.3.1 All Contractor's Equipment brought by the Contractor onto the Site shall be deemed to be intended to be used exclusively for the execution of the Contract. The Contractor shall not remove the same from the Site without the Project Manager's consent that such Contractor's Equipment is no longer required for the execution of the Contract.

22.3.2 Unless otherwise specified in the Contract, upon completion of the Facilities, the Contractor shall remove from the Site all Equipment brought by the Contractor onto the Site and any surplus materials remaining thereon.

22.3.3 The Employer will, if requested, use its best endeavors to assist the Contractor in obtaining any local, state or national government permission required by the Contractor for the export of the Contractor's Equipment imported by the Contractor for use in the execution of the Contract that is no longer required for the execution of the Contract.

22.4 Site Regulations and Safety

The Employer and the Contractor shall establish Site regulations setting out the rules to be observed in the execution of the Contract at the Site and shall comply therewith. The Contractor shall prepare and submit to the Employer, with a copy to the Project Manager, proposed Site regulations for the Employer's approval, which approval shall not be unreasonably withheld.

Such Site regulations shall include, but shall not be limited to, rules in respect of security, safety of the Facilities, gate control, sanitation, medical care, and fire prevention.

22.5 Opportunities for Other Contractors

22.5.1 The Contractor shall, upon written request from the Employer or the Project Manager, give all reasonable opportunities for carrying out the work to any other contractors employed by the Employer on or near the Site.

22.5.2 If the Contractor, upon written request from the Employer or the Project Manager, makes available to other contractors any roads or ways the maintenance for which the Contractor is responsible, permits the use by such other contractors of the Contractor's Equipment, or provides any other service of whatsoever nature for such other contractors, the Employer shall fully compensate the Contractor for any loss or damage caused or occasioned by such other contractors in respect of any such use or service, and shall pay to the Contractor reasonable remuneration for the use of such equipment or the provision of such services.

22.5.3 The Contractor shall also so arrange to perform its work as to minimize, to the extent possible, interference with the work of other contractors. The Project Manager shall determine the resolution of any difference or conflict that may arise between the Contractor and other contractors and the workers of the Employer in regard to their work.

22.5.4 The Contractor shall notify the Project Manager promptly of any defects in the other contractors' work that come to its notice, and that could affect the Contractor's work. The Project Manager shall determine the corrective measures, if any, required to rectify the situation after inspection of the Facilities. Decisions made by the Project Manager shall be binding on the Contractor.

22.6 Emergency Work

If, by reason of an emergency arising in connection with and during the execution of the Contract, any protective or remedial work is necessary as a matter of urgency to prevent damage to the Facilities, the Contractor shall immediately carry out such work.

If the Contractor is unable or unwilling to do such work immediately, the Employer may do or cause such work to be done as the Employer may determine is necessary in order to prevent damage to the Facilities. In such event the Employer shall, as soon as practicable after the occurrence of any such emergency, notify the Contractor in writing of such emergency, the work done and the reasons therefor. If the work done or caused to be done by the Employer is work that the Contractor was liable to do at its own expense under the Contract, the reasonable costs incurred by the Employer in connection therewith shall be paid by the Contractor to the Employer. Otherwise, the cost of such remedial work shall be borne by the Employer.

22.7 Site Clearance

22.7.1 Site Clearance in Course of Performance: In the course of carrying out the Contract, the Contractor shall keep the Site reasonably free from all unnecessary obstruction, store or remove any surplus materials, clear away any wreckage, rubbish or temporary works from the Site, and remove any Contractor's Equipment no longer required for execution of the Contract.

22.7.2 Clearance of Site after Completion: After Completion of all parts of the Facilities, the Contractor shall clear away and remove all wreckage, rubbish and debris of any kind from the Site, and shall leave the Site and Facilities in a clean and safe condition.

22.8 Watching and Lighting

The Contractor shall provide and maintain at its own expense all lighting, fencing, and watching when and where necessary for the proper execution and the protection of the Facilities, or for the safety of the owners and occupiers of adjacent property and for the safety of the public.

23. Test and Inspection

23.1 The Contractor shall at its own expense carry out at the place of manufacture and/or on the Site all such tests and/or inspections of the Plant and any part of the Facilities as are specified in the Contract.

23.2 The Employer and the Project Manager or their designated representatives shall be entitled to attend the aforesaid test and/or inspection, provided that the Employer shall bear all costs and expenses incurred in connection with such attendance including, but not limited to, all traveling and board and lodging expenses.

23.3 Whenever the Contractor is ready to carry out any such test and/or inspection, the Contractor shall give a reasonable advance notice of such test and/or inspection and of the place and time thereof to the Project Manager. The Contractor shall obtain from any relevant third Party or manufacturer any necessary permission or consent to enable the Employer and the Project Manager or their designated representatives to attend the test and/or inspection.

23.4 The Contractor shall provide the Project Manager with a certified report of the results of any such test and/or inspection.

If the Employer or Project Manager or their designated representatives fails to attend the test and/or inspection, or if it is agreed between the Parties that such persons shall not do so, then the Contractor may proceed with the test and/or inspection in the absence of such persons, and may provide the Project Manager with a certified report of the results thereof.

23.5 The Project Manager may require the Contractor to carry out any test and/or inspection not required by the Contract, provided that the Contractor's reasonable costs and expenses incurred in the carrying out of such test and/or inspection shall be added to the Contract Price. Further, if such test and/or inspection impede the progress of work on

the Facilities and/or the Contractor's performance of its other obligations under the Contract, due allowance will be made in respect of the Time for Completion and the other obligations so affected.

- 23.6 If any Plant or any part of the Facilities fails to pass any test and/or inspection, the Contractor shall either rectify or replace such Plant or part of the Facilities and shall repeat the test and/or inspection upon giving a notice under GCC Sub-Clause 23.3.
- 23.7 If any dispute or difference of opinion shall arise between the Parties in connection with or arising out of the test and/or inspection of the Plant or part of the Facilities that cannot be settled between the Parties within a reasonable period of time, it may be referred to an Adjudicator for determination in accordance with GCC Sub-Clause 46.3.
- 23.8 The Contractor shall afford the Employer and the Project Manager, at the Employer's expense, access at any reasonable time to any place where the Plant are being manufactured or the Facilities are being installed, in order to inspect the progress and the manner of manufacture or installation, provided that the Project Manager shall give the Contractor a reasonable prior notice.
- 23.9 The Contractor agrees that neither the execution of a test and/or inspection of Plant or any part of the Facilities, nor the attendance by the Employer or the Project Manager, nor the issue of any test certificate pursuant to GCC Sub-Clause 23.4, shall release the Contractor from any other responsibilities under the Contract.
- 23.10 No part of the Facilities or foundations shall be covered up on the Site without the Contractor carrying out any test and/or inspection required under the Contract. The Contractor shall give a reasonable notice to the Project Manager whenever any such parts of the Facilities or foundations are ready or about to be ready for test and/or inspection; such test and/or inspection and notice thereof shall be subject to the requirements of the Contract.
- 23.11 The Contractor shall uncover any part of the Facilities or foundations, or shall make openings in or through the same as the Project Manager

may from time to time require at the Site, and shall reinstate and make good such part or parts.

If any parts of the Facilities or foundations have been covered up at the Site after compliance with the requirement of GCC Sub-Clause 23.10 and are found to be executed in accordance with the Contract, the expenses of uncovering, making openings in or through, reinstating, and making good the same shall be borne by the Employer, and the Time for Completion shall be reasonably adjusted to the extent that the Contractor has thereby been delayed or impeded in the performance of any of its obligations under the Contract.

**24. Completion
of the
Facilities**

24.1 As soon as the Facilities or any part thereof has, in the opinion of the Contractor, been completed operationally and structurally and put in a tight and clean condition as specified in the Employer's Requirements, excluding minor items not materially affecting the operation or safety of the Facilities, the Contractor shall so notify the Employer in writing.

24.2 Within seven (7) days after receipt of the notice from the Contractor under GCC Sub-Clause 24.1, the Employer shall supply the operating and maintenance personnel specified in the Appendix to the Contract Agreement titled Scope of Works and Supply by the Employer for Precommissioning of the Facilities or any part thereof.

Pursuant to the Appendix to the Contract Agreement titled Scope of Works and Supply by the Employer, the Employer shall also provide, within the said seven (7) day period, the raw materials, utilities, lubricants, chemicals, catalysts, facilities, services and other matters required for Precommissioning of the Facilities or any part thereof.

24.3 As soon as reasonably practicable after the operating and maintenance personnel have been supplied by the Employer and the raw materials, utilities, lubricants, chemicals, catalysts, facilities, services and other matters have been provided by the Employer in accordance with GCC Sub-Clause 24.2, the Contractor shall commence Precommissioning of the Facilities or the relevant part thereof in preparation for Commissioning, subject to GCC Sub-Clause 25.5.

24.4 As soon as all works in respect of Precommissioning are completed and, in the opinion of the Contractor, the Facilities or any part thereof

is ready for Commissioning, the Contractor shall so notify the Project Manager in writing.

- 24.5 The Project Manager shall, within fourteen (14) days after receipt of the Contractor's notice under GCC Sub-Clause 24.4, either issue a Completion Certificate in the form specified in the Employer's Requirements (Forms and Procedures), stating that the Facilities or that part thereof have reached Completion as of the date of the Contractor's notice under GCC Sub-Clause 24.4, or notify the Contractor in writing of any defects and/or deficiencies.

If the Project Manager notifies the Contractor of any defects and/or deficiencies, the Contractor shall then correct such defects and/or deficiencies, and shall repeat the procedure described in GCC Sub-Clause 24.4.

If the Project Manager is satisfied that the Facilities or that part thereof have reached Completion, the Project Manager shall, within seven (7) days after receipt of the Contractor's repeated notice, issue a Completion Certificate stating that the Facilities or that part thereof have reached Completion as of the date of the Contractor's repeated notice.

If the Project Manager is not so satisfied, then it shall notify the Contractor in writing of any defects and/or deficiencies within seven (7) days after receipt of the Contractor's repeated notice, and the above procedure shall be repeated.

- 24.6 If the Project Manager fails to issue the Completion Certificate and fails to inform the Contractor of any defects and/or deficiencies within fourteen (14) days after receipt of the Contractor's notice under GCC Sub-Clause 24.4 or within seven (7) days after receipt of the Contractor's repeated notice under GCC Sub-Clause 24.5, or if the Employer makes use of the Facilities or part thereof, then the Facilities or that part thereof shall be deemed to have reached Completion as of the date of the Contractor's notice or repeated notice, or as of the Employer's use of the Facilities, as the case may be.
- 24.7 As soon as possible after Completion, the Contractor shall complete all outstanding minor items so that the Facilities are fully in accordance

with the requirements of the Contract, failing which the Employer will undertake such completion and deduct the costs thereof from any monies owing to the Contractor.

- 24.8 Upon Completion, the Employer shall be responsible for the care and custody of the Facilities or the relevant part thereof, together with the risk of loss or damage thereto, and shall thereafter take over the Facilities or the relevant part thereof.

25. Commissioning and Operational Acceptance

25.1 Commissioning

25.1.1 Commissioning of the Facilities or any part thereof shall be commenced by the Contractor immediately after issue of the Completion Certificate by the Project Manager, pursuant to GCC Sub-Clause 24.5, or immediately after the date of the deemed Completion, under GCC Sub-Clause 24.6.

25.1.2 The Employer shall supply the operating and maintenance personnel and all raw materials, utilities, lubricants, chemicals, catalysts, facilities, services and other matters required for Commissioning.

25.1.3 In accordance with the requirements of the Contract, the Contractor's and Project Manager's advisory personnel shall attend the Commissioning, including the Guarantee Test, and shall advise and assist the Employer.

25.2 Guarantee Test

25.2.1 Subject to GCC Sub-Clause 25.5, the Guarantee Test and repeats thereof shall be conducted by the Contractor during Commissioning of the Facilities or the relevant part thereof to ascertain whether the Facilities or the relevant part can attain the Functional Guarantees specified in the Appendix to the Contract Agreement titled Functional Guarantees. The Employer shall promptly provide the Contractor with such information as the Contractor may reasonably require in

relation to the conduct and results of the Guarantee Test and any repeats thereof.

25.2.2 If for reasons not attributable to the Contractor, the Guarantee Test of the Facilities or the relevant part thereof cannot be successfully completed within the period from the date of Completion **specified in the PCC** or any other period agreed upon by the Employer and the Contractor, the Contractor shall be deemed to have fulfilled its obligations with respect to the Functional Guarantees, and GCC Sub-Clauses 28.2 and 28.3 shall not apply.

25.3 Operational Acceptance

25.3.1 Subject to GCC Sub-Clause 25.4 below, Operational Acceptance shall occur in respect of the Facilities or any part thereof when

- (a) the Guarantee Test has been successfully completed and the Functional Guarantees are met; or
- (b) the Guarantee Test has not been successfully completed or has not been carried out for reasons not attributable to the Contractor within the period from the date of Completion specified in the PCC pursuant to GCC Sub-Clause 25.2.2 above or any other period agreed upon by the Employer and the Contractor; or
- (c) the Contractor has paid the liquidated damages specified in GCC Sub-Clause 28.3 hereof; and
- (d) any minor items mentioned in GCC Sub-Clause 24.7 hereof relevant to the Facilities or that part thereof have been completed.

25.3.2 At any time after any of the events set out in GCC Sub-Clause 25.3.1 have occurred, the Contractor may give a notice to the Project Manager requesting the issue of an Operational Acceptance Certificate in the form provided in the Employer's Requirements (Forms and Procedures) in respect of the

Facilities or the part thereof specified in such notice as of the date of such notice.

25.3.3 The Project Manager shall, after consultation with the Employer, and within seven (7) days after receipt of the Contractor's notice, issue an Operational Acceptance Certificate.

25.3.4 If within seven (7) days after receipt of the Contractor's notice, the Project Manager fails to issue the Operational Acceptance Certificate or fails to inform the Contractor in writing of the justifiable reasons why the Project Manager has not issued the Operational Acceptance Certificate, the Facilities or the relevant part thereof shall be deemed to have been accepted as of the date of the Contractor's said notice.

25.4 Partial Acceptance

25.4.1 If the Contract specifies that Completion and Commissioning shall be carried out in respect of parts of the Facilities, the provisions relating to Completion and Commissioning including the Guarantee Test shall apply to each such part of the Facilities individually, and the Operational Acceptance Certificate shall be issued accordingly for each such part of the Facilities.

25.4.2 If a part of the Facilities comprises facilities such as buildings, for which no Commissioning or Guarantee Test is required, then the Project Manager shall issue the Operational Acceptance Certificate for such facility when it attains Completion, provided that the Contractor shall thereafter complete any outstanding minor items that are listed in the Operational Acceptance Certificate.

25.5 Delayed Precommissioning and/or Guarantee Test

25.5.1 In the event that the Contractor is unable to proceed with the Precommissioning of the Facilities pursuant to Sub-Clause 24.3, or with the Guarantee Test pursuant to Sub-Clause 25.2,

for reasons attributable to the Employer either on account of non availability of other facilities under the responsibilities of other contractor(s), or for reasons beyond the Contractor's control, the provisions leading to "deemed" completion of activities such as Completion, pursuant to GCC Sub-Clause 24.6, and Operational Acceptance, pursuant to GCC Sub-Clause 25.3.4, and Contractor's obligations regarding Defect Liability Period, pursuant to GCC Sub-Clause 27.2, Functional Guarantee, pursuant to GCC Clause 28, and Care of Facilities, pursuant to GCC Clause 32, and GCC Clause 41.1, Suspension, shall not apply. In this case, the following provisions shall apply.

25.5.2 When the Contractor is notified by the Project Manager that he will be unable to proceed with the activities and obligations pursuant to above Sub-Clause 25.5.1, the Contractor shall be entitled to the following:

- (a) the Time of Completion shall be extended for the period of suspension without imposition of liquidated damages pursuant to GCC Sub-Clause 26.2;
- (b) payments due to the Contractor in accordance with the provision specified in the Appendix to the Contract Agreement titled Terms and Procedures of Payment, which would not have been payable in normal circumstances due to non-completion of the subject activities, shall be released to the Contractor against submission of a security in the form of a bank guarantee of equivalent amount acceptable to the Employer, and which shall become null and void when the Contractor will have complied with its obligations regarding those payments, subject to the provision of Sub-Clause 25.5.3 below;
- (c) the expenses towards the above security and extension of other securities under the contract, of which validity needs to be extended, shall be reimbursed to the Contractor by the Employer;

- (d) the additional charges towards the care of the Facilities pursuant to GCC Sub-Clause 32.1 shall be reimbursed to the Contractor by the Employer for the period between the notification mentioned above and the notification mentioned in Sub-Clause 25.5.4 below. The provision of GCC Sub-Clause 33.2 shall apply to the Facilities during the same period.

25.5.3 In the event that the period of suspension under above Sub-Clause 25.5.1 actually exceeds one hundred eighty (180) days, the Employer and Contractor shall mutually agree to any additional compensation payable to the Contractor.

25.5.4 When the Contractor is notified by the Project Manager that the plant is ready for Precommissioning, the Contractor shall proceed without delay in performing Precommissioning in accordance with Clause 24.

F. Guarantees and Liabilities

26. Completion Time Guarantee

- 26.1 The Contractor guarantees that it shall attain Completion of the Facilities (or a part for which a separate time for completion is specified) within the Time for Completion specified in the PCC pursuant to GCC Sub-Clause 8.2, or within such extended time to which the Contractor shall be entitled under GCC Clause 40 hereof.
- 26.2 If the Contractor fails to attain Completion of the Facilities or any part thereof within the Time for Completion or any extension thereof under GCC Clause 40, the Contractor shall pay to the Employer liquidated damages in the amount **specified in the PCC** as a percentage rate of the Contract Price or the relevant part thereof. The aggregate amount of such liquidated damages shall in no event exceed the amount **specified as “Maximum” in the PCC** as a percentage rate of the Contract Price. Once the “Maximum” is reached, the Employer may consider termination of the Contract, pursuant to GCC Sub-Clause 42.2.2.

Such payment shall completely satisfy the Contractor's obligation to attain Completion of the Facilities or the relevant part thereof within the Time for Completion or any extension thereof under GCC Clause 40. The Contractor shall have no further liability whatsoever to the Employer in respect thereof.

However, the payment of liquidated damages shall not in any way relieve the Contractor from any of its obligations to complete the Facilities or from any other obligations and liabilities of the Contractor under the Contract.

Save for liquidated damages payable under this GCC Sub-Clause 26.2, the failure by the Contractor to attain any milestone or other act, matter or thing by any date specified in the Appendix to the Contract Agreement titled Time Schedule, and/or other program of work prepared pursuant to GCC Sub-Clause 18.2 shall not render the Contractor liable for any loss or damage thereby suffered by the Employer.

- 26.3 If the Contractor attains Completion of the Facilities or any part thereof before the Time for Completion or any extension thereof under GCC Clause 40, the Employer shall pay to the Contractor a bonus in the amount **specified in the PCC**. The aggregate amount of such bonus shall in no event exceed the amount **specified as "Maximum" in the PCC**.

27. Defect Liability

- 27.1 The Contractor warrants that the Facilities or any part thereof shall be free from defects in the design, engineering, materials and workmanship of the Plant supplied and of the work executed.
- 27.2 The Defect Liability Period shall be five hundred and forty (540) days from the date of Completion of the Facilities (or any part thereof) or one year from the date of Operational Acceptance of the Facilities (or any part thereof), whichever first occurs, unless specified otherwise in the PCC pursuant to GCC Sub-Clause 27.10.

If during the Defect Liability Period any defect should be found in the design, engineering, materials and workmanship of the

Plant supplied or of the work executed by the Contractor, the Contractor shall promptly, in consultation and agreement with the Employer regarding appropriate remedying of the defects, and at its cost, repair, replace or otherwise make good as the Contractor shall determine at its discretion, such defect as well as any damage to the Facilities caused by such defect. The Contractor shall not be responsible for the repair, replacement or making good of any defect or of any damage to the Facilities arising out of or resulting from any of the following causes:

- (a) improper operation or maintenance of the Facilities by the Employer;
- (b) operation of the Facilities outside specifications provided in the Contract; or
- (c) normal wear and tear.

27.3 The Contractor's obligations under this GCC Clause 27 shall not apply to:

- (a) any materials that are supplied by the Employer under GCC Sub-Clause 21.2, are normally consumed in operation, or have a normal life shorter than the Defect Liability Period stated herein;
- (b) any designs, specifications or other data designed, supplied or specified by or on behalf of the Employer or any matters for which the Contractor has disclaimed responsibility herein; or
- (c) any other materials supplied or any other work executed by or on behalf of the Employer, except for the work executed by the Employer under GCC Sub-Clause 27.7.

27.4 The Employer shall give the Contractor a notice stating the nature of any such defect together with all available evidence thereof, promptly following the discovery thereof. The Employer shall

afford all reasonable opportunity for the Contractor to inspect any such defect.

- 27.5 The Employer shall afford the Contractor all necessary access to the Facilities and the Site to enable the Contractor to perform its obligations under this GCC Clause 27.

The Contractor may, with the consent of the Employer, remove from the Site any Plant or any part of the Facilities that are defective if the nature of the defect, and/or any damage to the Facilities caused by the defect, is such that repairs cannot be expeditiously carried out at the Site.

- 27.6 If the repair, replacement or making good is of such a character that it may affect the efficiency of the Facilities or any part thereof, the Employer may give to the Contractor a notice requiring that tests of the defective part of the Facilities shall be made by the Contractor immediately upon completion of such remedial work, whereupon the Contractor shall carry out such tests.

If such part fails the tests, the Contractor shall carry out further repair, replacement or making good, as the case may be, until that part of the Facilities passes such tests. The tests shall be agreed upon by the Employer and the Contractor.

- 27.7 If the Contractor fails to commence the work necessary to remedy such defect or any damage to the Facilities caused by such defect within a reasonable time (which shall in no event be considered to be less than fifteen (15) days), the Employer may, following notice to the Contractor, proceed to do such work, and the reasonable costs incurred by the Employer in connection therewith shall be paid to the Employer by the Contractor or may be deducted by the Employer from any monies due the Contractor or claimed under the Performance Security.

- 27.8 If the Facilities or any part thereof cannot be used by reason of such defect and/or making good of such defect, the Defect Liability Period of the Facilities or such part, as the case may be, shall be extended by a period equal to the period during which the

Facilities or such part cannot be used by the Employer because of any of the aforesaid reasons.

27.9 Except as provided in GCC Clauses 27 and 33, the Contractor shall be under no liability whatsoever and howsoever arising, and whether under the Contract or at law, in respect of defects in the Facilities or any part thereof, the Plant, design or engineering or work executed that appear after Completion of the Facilities or any part thereof, except where such defects are the result of the gross negligence, fraud, or criminal or willful action of the Contractor.

27.10 In addition, any such component of the Facilities, and during the period of time as may be **specified in the PCC**, shall be subject to an extended defect liability period. Such obligation of the Contractor shall be in addition to the defect liability period specified under GCC Sub-Clause 27.2.

28. Functional Guarantees

28.1 The Contractor guarantees that during the Guarantee Test, the Facilities and all parts thereof shall attain the Functional Guarantees specified in the Appendix to the Contract Agreement titled Functional Guarantees, subject to and upon the conditions therein specified.

28.2 If, for reasons attributable to the Contractor, the minimum level of the Functional Guarantees specified in the Appendix to the Contract Agreement titled Functional Guarantees, are not met either in whole or in part, the Contractor shall at its cost and expense make such changes, modifications and/or additions to the Plant or any part thereof as may be necessary to meet at least the minimum level of such Guarantees. The Contractor shall notify the Employer upon completion of the necessary changes, modifications and/or additions, and shall request the Employer to repeat the Guarantee Test until the minimum level of the Guarantees has been met. If the Contractor eventually fails to meet the minimum level of Functional Guarantees, the Employer may consider termination of the Contract, pursuant to GCC Sub-Clause 42.2.2.

28.3 If, for reasons attributable to the Contractor, the Functional Guarantees specified in the Appendix to the Contract Agreement titled Functional Guarantees, are not attained either in whole or in part, but the minimum level of the Functional Guarantees specified in the said Appendix to the Contract Agreement is met, the Contractor shall, at the Contractor's option, either

- (a) make such changes, modifications and/or additions to the Facilities or any part thereof that are necessary to attain the Functional Guarantees at its cost and expense, and shall request the Employer to repeat the Guarantee Test or
- (b) pay liquidated damages to the Employer in respect of the failure to meet the Functional Guarantees in accordance with the provisions in the Appendix to the Contract Agreement titled Functional Guarantees.

28.4 The payment of liquidated damages under GCC Sub-Clause 28.3, up to the limitation of liability specified in the Appendix to the Contract Agreement titled Functional Guarantees, shall completely satisfy the Contractor's guarantees under GCC Sub-Clause 28.3, and the Contractor shall have no further liability whatsoever to the Employer in respect thereof. Upon the payment of such liquidated damages by the Contractor, the Project Manager shall issue the Operational Acceptance Certificate for the Facilities or any part thereof in respect of which the liquidated damages have been so paid.

29. Patent Indemnity

29.1 The Contractor shall, subject to the Employer's compliance with GCC Sub-Clause 29.2, indemnify and hold harmless the Employer and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, which the Employer may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright or other intellectual property right registered or otherwise existing at the date of the Contract by reason of: (a) the installation of the Facilities by the Contractor or the use of the

Facilities in the country where the Site is located; and (b) the sale of the products produced by the Facilities in any country.

Such indemnity shall not cover any use of the Facilities or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Contract, any infringement resulting from the use of the Facilities or any part thereof, or any products produced thereby in association or combination with any other equipment, plant or materials not supplied by the Contractor, pursuant to the Contract Agreement.

- 29.2 If any proceedings are brought or any claim is made against the Employer arising out of the matters referred to in GCC Sub-Clause 29.1, the Employer shall promptly give the Contractor a notice thereof, and the Contractor may at its own expense and in the Employer's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.

If the Contractor fails to notify the Employer within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Employer shall be free to conduct the same on its own behalf. Unless the Contractor has so failed to notify the Employer within the twenty-eight (28) day period, the Employer shall make no admission that may be prejudicial to the defense of any such proceedings or claim.

The Employer shall, at the Contractor's request, afford all available assistance to the Contractor in conducting such proceedings or claim, and shall be reimbursed by the Contractor for all reasonable expenses incurred in so doing.

- 29.3 The Employer shall indemnify and hold harmless the Contractor and its employees, officers and Subcontractors from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, which the Contractor may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright or other intellectual property right registered or otherwise existing at the date of the Contract arising out of or

in connection with any design, data, drawing, specification, or other documents or materials provided or designed by or on behalf of the Employer.

30. Limitation of Liability

30.1 Except in cases of criminal negligence or willful misconduct,

- (a) neither Party shall be liable to the other Party, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, which may be suffered by the other Party in connection with the Contract, other than specifically provided as any obligation of the Party in the Contract, and
- (b) the aggregate liability of the Contractor to the Employer, whether under the Contract, in tort or otherwise, shall not exceed the amount resulting from the application of the multiplier specified in the PCC, to the Contract Price or, if a multiplier is not so specified, the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the Contractor to indemnify the Employer with respect to patent infringement.

G. Risk Distribution

31. Transfer of Ownership

31.1 Ownership of the Plant (including spare parts) to be imported into the country where the Site is located shall be transferred to the Employer upon loading on to the mode of transport to be used to convey the Plant from the country of origin to that country.

31.2 Ownership of the Plant (including spare parts) procured in the country where the Site is located shall be transferred to the Employer when the Plant are brought on to the Site.

31.3 Ownership of the Contractor's Equipment used by the Contractor and its Subcontractors in connection with the Contract shall remain with the Contractor or its Subcontractors.

31.4 Ownership of any Plant in excess of the requirements for the Facilities shall revert to the Contractor upon Completion of the Facilities or at such earlier time when the Employer and the Contractor agree that the Plant in question are no longer required for the Facilities.

31.5 Notwithstanding the transfer of ownership of the Plant, the responsibility for care and custody thereof together with the risk of loss or damage thereto shall remain with the Contractor pursuant to GCC Clause 32 (Care of Facilities) hereof until Completion of the Facilities or the part thereof in which such Plant are incorporated.

**32. Care of
Facilities**

32.1 The Contractor shall be responsible for the care and custody of the Facilities or any part thereof until the date of Completion of the Facilities pursuant to GCC Clause 24 or, where the Contract provides for Completion of the Facilities in parts, until the date of Completion of the relevant part, and shall make good at its own cost any loss or damage that may occur to the Facilities or the relevant part thereof from any cause whatsoever during such period. The Contractor shall also be responsible for any loss or damage to the Facilities caused by the Contractor or its Subcontractors in the course of any work carried out, pursuant to GCC Clause 27. Notwithstanding the foregoing, the Contractor shall not be liable for any loss or damage to the Facilities or that part thereof caused by reason of any of the matters specified or referred to in paragraphs (a), (b) and (c) of GCC Sub-Clauses 32.2 and 38.1.

32.2 If any loss or damage occurs to the Facilities or any part thereof or to the Contractor's temporary facilities by reason of

- (a) insofar as they relate to the country where the Site is located, nuclear reaction, nuclear radiation, radioactive contamination, pressure wave caused by aircraft or other aerial objects, or any other occurrences that an experienced contractor could not reasonably foresee, or if reasonably foreseeable could not reasonably make provision for or insure against, insofar as such risks are not normally insurable on the insurance market and are mentioned in the general exclusions of the policy of

insurance, including War Risks and Political Risks, taken out under GCC Clause 34 hereof; or

- (b) any use or occupation by the Employer or any third Party other than a Subcontractor, authorized by the Employer of any part of the Facilities; or
- (c) any use of or reliance upon any design, data or specification provided or designated by or on behalf of the Employer, or any such matter for which the Contractor has disclaimed responsibility herein,

the Employer shall pay to the Contractor all sums payable in respect of the Facilities executed, notwithstanding that the same be lost, destroyed or damaged, and will pay to the Contractor the replacement value of all temporary facilities and all parts thereof lost, destroyed or damaged. If the Employer requests the Contractor in writing to make good any loss or damage to the Facilities thereby occasioned, the Contractor shall make good the same at the cost of the Employer in accordance with GCC Clause 39. If the Employer does not request the Contractor in writing to make good any loss or damage to the Facilities thereby occasioned, the Employer shall either request a change in accordance with GCC Clause 39, excluding the performance of that part of the Facilities thereby lost, destroyed or damaged, or, where the loss or damage affects a substantial part of the Facilities, the Employer shall terminate the Contract pursuant to GCC Sub-Clause 42.1 hereof.

32.3 The Contractor shall be liable for any loss of or damage to any Contractor's Equipment, or any other property of the Contractor used or intended to be used for purposes of the Facilities, except (i) as mentioned in GCC Sub-Clause 32.2 with respect to the Contractor's temporary facilities, and (ii) where such loss or damage arises by reason of any of the matters specified in GCC Sub-Clauses 32.2 (b) and (c) and 38.1.

32.4 With respect to any loss or damage caused to the Facilities or any part thereof or to the Contractor's Equipment by reason of any of

the matters specified in GCC Sub-Clause 38.1, the provisions of GCC Sub-Clause 38.3 shall apply.

**33. Loss of or
Damage to
Property;
Accident or
Injury to
Workers;
Indemnifica-
tion**

33.1 Subject to GCC Sub-Clause 33.3, the Contractor shall indemnify and hold harmless the Employer and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, in respect of the death or injury of any person or loss of or damage to any property other than the Facilities whether accepted or not, arising in connection with the supply and installation of the Facilities and by reason of the negligence of the Contractor or its Subcontractors, or their employees, officers or agents, except any injury, death or property damage caused by the negligence of the Employer, its contractors, employees, officers or agents.

33.2 If any proceedings are brought or any claim is made against the Employer that might subject the Contractor to liability under GCC Sub-Clause 33.1, the Employer shall promptly give the Contractor a notice thereof and the Contractor may at its own expense and in the Employer's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.

If the Contractor fails to notify the Employer within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Employer shall be free to conduct the same on its own behalf. Unless the Contractor has so failed to notify the Employer within the twenty-eight (28) day period, the Employer shall make no admission that may be prejudicial to the defence of any such proceedings or claim.

The Employer shall, at the Contractor's request, afford all available assistance to the Contractor in conducting such proceedings or claim, and shall be reimbursed by the Contractor for all reasonable expenses incurred in so doing.

33.3 The Employer shall indemnify and hold harmless the Contractor and its employees, officers and Subcontractors from any liability for loss of or damage to property of the Employer, other than the

Facilities not yet taken over, that is caused by fire, explosion or any other perils, in excess of the amount recoverable from insurances procured under GCC Clause 34, provided that such fire, explosion or other perils were not caused by any act or failure of the Contractor.

- 33.4 The Party entitled to the benefit of an indemnity under this GCC Clause 33 shall take all reasonable measures to mitigate any loss or damage which has occurred. If the Party fails to take such measures, the other Party's liabilities shall be correspondingly reduced.

34. Insurance

- 34.1 To the extent specified in the Appendix to the Contract Agreement titled Insurance Requirements, the Contractor shall at its expense take out and maintain in effect, or cause to be taken out and maintained in effect, during the performance of the Contract, the insurances set forth below in the sums and with the deductibles and other conditions specified in the said Appendix. The identity of the insurers and the form of the policies shall be subject to the approval of the Employer, who should not unreasonably withhold such approval.

(a) Cargo Insurance During Transport

Covering loss or damage occurring while in transit from the Contractor's or Subcontractor's works or stores until arrival at the Site, to the Plant (including spare parts therefor) and to the Contractor's Equipment.

(b) Installation All Risks Insurance

Covering physical loss or damage to the Facilities at the Site, occurring prior to Completion of the Facilities, with an extended maintenance coverage for the Contractor's liability in respect of any loss or damage occurring during the Defect Liability Period while the Contractor is on the Site for the purpose of performing its obligations during the Defect Liability Period.

(c) Third Party Liability Insurance

Covering bodily injury or death suffered by third Parties including the Employer's personnel, and loss of or damage to property occurring in connection with the supply and installation of the Facilities.

(d) Automobile Liability Insurance

Covering use of all vehicles used by the Contractor or its Subcontractors, whether or not owned by them, in connection with the execution of the Contract.

(e) Workers' Compensation

In accordance with the statutory requirements applicable in any country where the Contract or any part thereof is executed.

(f) Employer's Liability

In accordance with the statutory requirements applicable in any country where the Contract or any part thereof is executed.

(g) Other Insurances

Such other insurances as may be specifically agreed upon by the Parties hereto as listed in the Appendix to the Contract Agreement titled Insurance Requirements.

34.2 The Employer shall be named as co-insured under all insurance policies taken out by the Contractor pursuant to GCC Sub-Clause 34.1, except for the Third Party Liability, Workers' Compensation and Employer's Liability Insurances, and the Contractor's Subcontractors shall be named as co-insureds under all insurance

policies taken out by the Contractor pursuant to GCC Sub-Clause 34.1 except for the Cargo Insurance During Transport, Workers' Compensation and Employer's Liability Insurances. All insurer's rights of subrogation against such co-insureds for losses or claims arising out of the performance of the Contract shall be waived under such policies.

- 34.3 The Contractor shall, in accordance with the provisions of the Appendix to the Contract Agreement titled Insurance Requirements, deliver to the Employer certificates of insurance or copies of the insurance policies as evidence that the required policies are in full force and effect. The certificates shall provide that no less than twenty-one (21) days' notice shall be given to the Employer by insurers prior to cancellation or material modification of a policy.
- 34.4 The Contractor shall ensure that, where applicable, its Subcontractor(s) shall take out and maintain in effect adequate insurance policies for their personnel and vehicles and for work executed by them under the Contract, unless such Subcontractors are covered by the policies taken out by the Contractor.
- 34.5 The Employer shall at its expense take out and maintain in effect during the performance of the Contract those insurances specified in the Appendix to the Contract Agreement titled Insurance Requirements, in the sums and with the deductibles and other conditions specified in the said Appendix. The Contractor and the Contractor's Subcontractors shall be named as co-insureds under all such policies. All insurers' rights of subrogation against such co-insureds for losses or claims arising out of the performance of the Contract shall be waived under such policies. The Employer shall deliver to the Contractor satisfactory evidence that the required insurances are in full force and effect. The policies shall provide that not less than twenty-one (21) days' notice shall be given to the Contractor by all insurers prior to any cancellation or material modification of the policies. If so requested by the Contractor, the Employer shall provide copies of the policies taken out by the Employer under this GCC Sub-Clause 34.5.
- 34.6 If the Contractor fails to take out and/or maintain in effect the insurances referred to in GCC Sub-Clause 34.1, the Employer

may take out and maintain in effect any such insurances and may from time to time deduct from any amount due the Contractor under the Contract any premium that the Employer shall have paid to the insurer, or may otherwise recover such amount as a debt due from the Contractor. If the Employer fails to take out and/or maintain in effect the insurances referred to in GCC 34.5, the Contractor may take out and maintain in effect any such insurances and may from time to time deduct from any amount due the Employer under the Contract any premium that the Contractor shall have paid to the insurer, or may otherwise recover such amount as a debt due from the Employer. If the Contractor fails to or is unable to take out and maintain in effect any such insurances, the Contractor shall nevertheless have no liability or responsibility towards the Employer, and the Contractor shall have full recourse against the Employer for any and all liabilities of the Employer herein.

34.7 Unless otherwise provided in the Contract, the Contractor shall prepare and conduct all and any claims made under the policies effected by it pursuant to this GCC Clause 34, and all monies payable by any insurers shall be paid to the Contractor. The Employer shall give to the Contractor all such reasonable assistance as may be required by the Contractor. With respect to insurance claims in which the Employer's interest is involved, the Contractor shall not give any release or make any compromise with the insurer without the prior written consent of the Employer. With respect to insurance claims in which the Contractor's interest is involved, the Employer shall not give any release or make any compromise with the insurer without the prior written consent of the Contractor.

**35. Unforeseen
Conditions**

35.1 If, during the execution of the Contract, the Contractor shall encounter on the Site any physical conditions other than climatic conditions, or artificial obstructions that could not have been reasonably foreseen prior to the date of the Contract Agreement by an experienced contractor on the basis of reasonable examination of the data relating to the Facilities including any data as to boring tests, provided by the Employer, and on the basis of information that it could have obtained from a visual inspection of the Site if access thereto was available, or other data readily available to it relating to the Facilities, and if the Contractor determines that it will in consequence of such conditions or obstructions incur additional cost and expense or require

additional time to perform its obligations under the Contract that would not have been required if such physical conditions or artificial obstructions had not been encountered, the Contractor shall promptly, and before performing additional work or using additional Plant or Contractor's Equipment, notify the Project Manager in writing of

- (a) the physical conditions or artificial obstructions on the Site that could not have been reasonably foreseen;
- (b) the additional work and/or Plant and/or Contractor's Equipment required, including the steps which the Contractor will or proposes to take to overcome such conditions or obstructions;
- (c) the extent of the anticipated delay; and
- (d) the additional cost and expense that the Contractor is likely to incur.

On receiving any notice from the Contractor under this GCC Sub-Clause 35.1, the Project Manager shall promptly consult with the Employer and Contractor and decide upon the actions to be taken to overcome the physical conditions or artificial obstructions encountered. Following such consultations, the Project Manager shall instruct the Contractor, with a copy to the Employer, of the actions to be taken.

- 35.2 Any reasonable additional cost and expense incurred by the Contractor in following the instructions from the Project Manager to overcome such physical conditions or artificial obstructions referred to in GCC Sub-Clause 35.1 shall be paid by the Employer to the Contractor as an addition to the Contract Price.

If the Contractor is delayed or impeded in the performance of the Contract because of any such physical conditions or artificial obstructions referred to in GCC Sub-Clause 35.1, the Time for Completion shall be extended in accordance with GCC Clause 40.

**36. Change in
Laws and
Regulations**

36.1 If, after the date twenty-eight (28) days prior to the date of Bid submission, in the country where the Site is located, any law, regulation, ordinance, order or by-law having the force of law is enacted, promulgated, abrogated or changed which shall be deemed to include any change in interpretation or application by the competent authorities, that subsequently affects the costs and expenses of the Contractor and/or the Time for Completion, the Contract Price shall be correspondingly increased or decreased, and/or the Time for Completion shall be reasonably adjusted to the extent that the Contractor has thereby been affected in the performance of any of its obligations under the Contract. Notwithstanding the foregoing, such additional or reduced costs shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable, in accordance with the PCC pursuant to GCC Sub-Clause 11.2.

**37. Force
Majeure**

37.1 “Force Majeure” shall mean any event beyond the reasonable control of the Employer or of the Contractor, as the case may be, and which is unavoidable notwithstanding the reasonable care of the Party affected, and shall include, without limitation, the following:

- (a) war, hostilities or warlike operations whether a state of war be declared or not, invasion, act of foreign enemy and civil war
- (b) rebellion, revolution, insurrection, mutiny, usurpation of civil or military government, conspiracy, riot, civil commotion and terrorist acts
- (c) confiscation, nationalization, mobilization, commandeering or requisition by or under the order of any government or de jure or de facto authority or ruler or any other act or failure to act of any local state or national government authority
- (d) strike, sabotage, lockout, embargo, import restriction, port congestion, lack of usual means of public transportation and communication, industrial dispute, shipwreck, shortage or

restriction of power supply, epidemics, quarantine and plague

- (e) earthquake, landslide, volcanic activity, fire, flood or inundation, tidal wave, typhoon or cyclone, hurricane, storm, lightning, or other inclement weather condition, nuclear and pressure waves or other natural or physical disaster
- (f) shortage of labor, materials or utilities where caused by circumstances that are themselves Force Majeure.

37.2 If either Party is prevented, hindered or delayed from or in performing any of its obligations under the Contract by an event of Force Majeure, then it shall notify the other in writing of the occurrence of such event and the circumstances thereof within fourteen (14) days after the occurrence of such event.

37.3 The Party who has given such notice shall be excused from the performance or punctual performance of its obligations under the Contract for so long as the relevant event of Force Majeure continues and to the extent that such Party's performance is prevented, hindered or delayed. The Time for Completion shall be extended in accordance with GCC Clause 40.

37.4 The Party or Parties affected by the event of Force Majeure shall use reasonable efforts to mitigate the effect thereof upon its or their performance of the Contract and to fulfill its or their obligations under the Contract, but without prejudice to either Party's right to terminate the Contract under GCC Sub-Clauses 37.6 and 38.5.

37.5 No delay or nonperformance by either Party hereto caused by the occurrence of any event of Force Majeure shall

- (a) constitute a default or breach of the Contract, or

- (b) give rise to any claim for damages or additional cost or expense occasioned thereby, subject to GCC Sub-Clauses 32.2, 38.3 and 38.4

if and to the extent that such delay or nonperformance is caused by the occurrence of an event of Force Majeure.

37.6 If the performance of the Contract is substantially prevented, hindered or delayed for a single period of more than sixty (60) days or an aggregate period of more than one hundred and twenty (120) days on account of one or more events of Force Majeure during the currency of the Contract, the Parties will attempt to develop a mutually satisfactory solution, failing which either Party may terminate the Contract by giving a notice to the other, but without prejudice to either Party's right to terminate the Contract under GCC Sub-Clause 38.5.

37.7 In the event of termination pursuant to GCC Sub-Clause 37.6, the rights and obligations of the Employer and the Contractor shall be as specified in GCC Sub-Clauses 42.1.2 and 42.1.3.

37.8 Notwithstanding GCC Sub-Clause 37.5, Force Majeure shall not apply to any obligation of the Employer to make payments to the Contractor herein.

38. War Risks

38.1 "War Risks" shall mean any event specified in paragraphs (a) and (b) of GCC Sub-Clause 37.1 and any explosion or impact of any mine, bomb, shell, grenade or other projectile, missile, munitions or explosive of war, occurring or existing in or near the country (or countries) where the Site is located.

38.2 Notwithstanding anything contained in the Contract, the Contractor shall have no liability whatsoever for or with respect to

- (a) destruction of or damage to Facilities, Plant, or any part thereof;

(b) destruction of or damage to property of the Employer or any third Party; or

(c) injury or loss of life

if such destruction, damage, injury or loss of life is caused by any War Risks, and the Employer shall indemnify and hold the Contractor harmless from and against any and all claims, liabilities, actions, lawsuits, damages, costs, charges or expenses arising in consequence of or in connection with the same.

38.3 If the Facilities or any Plant or Contractor's Equipment or any other property of the Contractor used or intended to be used for the purposes of the Facilities shall sustain destruction or damage by reason of any War Risks, the Employer shall pay the Contractor for

(a) any part of the Facilities or the Plant so destroyed or damaged to the extent not already paid for by the Employer

and so far as may be required by the Employer, and as may be necessary for completion of the Facilities

(b) replacing or making good any Contractor's Equipment or other property of the Contractor so destroyed or damaged

(c) replacing or making good any such destruction or damage to the Facilities or the Plant or any part thereof.

If the Employer does not require the Contractor to replace or make good any such destruction or damage to the Facilities, the Employer shall either request a change in accordance with GCC Clause 39, excluding the performance of that part of the Facilities thereby destroyed or damaged or, where the loss, destruction or damage affects a substantial part of the Facilities, shall terminate the Contract, pursuant to GCC Sub-Clause 42.1.

If the Employer requires the Contractor to replace or make good on any such destruction or damage to the Facilities, the Time for Completion shall be extended in accordance with GCC 40.

- 38.4 Notwithstanding anything contained in the Contract, the Employer shall pay the Contractor for any increased costs or incidentals to the execution of the Contract that are in any way attributable to, consequent on, resulting from, or in any way connected with any War Risks, provided that the Contractor shall as soon as practicable notify the Employer in writing of any such increased cost.
- 38.5 If during the performance of the Contract any War Risks shall occur that financially or otherwise materially affect the execution of the Contract by the Contractor, the Contractor shall use its reasonable efforts to execute the Contract with due and proper consideration given to the safety of its and its Subcontractors' personnel engaged in the work on the Facilities, provided, however, that if the execution of the work on the Facilities becomes impossible or is substantially prevented for a single period of more than sixty (60) days or an aggregate period of more than one hundred and twenty (120) days on account of any War Risks, the Parties will attempt to develop a mutually satisfactory solution, failing which either Party may terminate the Contract by giving a notice to the other.
- 38.6 In the event of termination pursuant to GCC Sub-Clauses 38.3 or 38.5, the rights and obligations of the Employer and the Contractor shall be specified in GCC Sub-Clauses 42.1.2 and 42.1.3.

H. Change in Contract Elements

39. Change in the Facilities

39.1 Introducing a Change

- 39.1.1 Subject to GCC Sub-Clauses 39.2.5 and 39.2.7, the Employer shall have the right to propose, and subsequently require, that the Project Manager order the Contractor from time to time during the performance of the Contract to make

any change, modification, addition or deletion to, in or from the Facilities hereinafter called “Change”, provided that such Change falls within the general scope of the Facilities and does not constitute unrelated work and that it is technically practicable, taking into account both the state of advancement of the Facilities and the technical compatibility of the Change envisaged with the nature of the Facilities as specified in the Contract.

39.1.2 Value Engineering: The Contractor may prepare, at its own cost, a value engineering proposal at any time during the performance of the contract. The value engineering proposal shall, at a minimum, include the following;

- (a) the proposed change(s), and a description of the difference to the existing contract requirements;
- (b) a full cost/benefit analysis of the proposed change(s) including a description and estimate of costs (including life cycle costs) the Employer may incur in implementing the value engineering proposal; and
- (c) a description of any effect(s) of the change on performance/functionality.

The Employer may accept the value engineering proposal if the proposal demonstrates benefits that:

- (a) accelerates the delivery period; or
- (b) reduces the Contract Price or the life cycle costs to the Employer; or
- (c) improves the quality, efficiency, safety or sustainability of the Facilities; or
- (d) yields any other benefits to the Employer,

without compromising the necessary functions of the Facilities.

If the value engineering proposal is approved by the Employer and results in:

(a) a reduction of the Contract Price; the amount to be paid to the Contractor shall be the percentage specified in the PCC of the reduction in the Contract Price; or

(b) an increase in the Contract Price; but results in a reduction in life cycle costs due to any benefit described in (a) to (d) above, the amount to be paid to the Contractor shall be the full increase in the Contract Price.

39.1.3 Notwithstanding GCC Sub-Clauses 39.1.1 and 39.1.2, no change made necessary because of any default of the Contractor in the performance of its obligations under the Contract shall be deemed to be a Change, and such change shall not result in any adjustment of the Contract Price or the Time for Completion.

39.1.4 The procedure on how to proceed with and execute Changes is specified in GCC Sub-Clauses 39.2 and 39.3, and further details and forms are provided in the Employer's Requirements (Forms and Procedures).

39.2 Changes Originating from Employer

39.2.1 If the Employer proposes a Change pursuant to GCC Sub-Clause 39.1.1, it shall send to the Contractor a "Request for Change Proposal," requiring the Contractor to prepare and furnish to the Project Manager as soon as reasonably practicable a "Change Proposal," which shall include the following:

- (a) brief description of the Change
- (b) effect on the Time for Completion
- (c) estimated cost of the Change
- (d) effect on Functional Guarantees (if any)
- (e) effect on the Facilities
- (f) effect on any other provisions of the Contract.

39.2.2 Prior to preparing and submitting the “Change Proposal,” the Contractor shall submit to the Project Manager an “Estimate for Change Proposal,” which shall be an estimate of the cost of preparing and submitting the Change Proposal.

Upon receipt of the Contractor’s Estimate for Change Proposal, the Employer shall do one of the following:

- (a) accept the Contractor’s estimate with instructions to the Contractor to proceed with the preparation of the Change Proposal
- (b) advise the Contractor of any part of its Estimate for Change Proposal that is unacceptable and request the Contractor to review its estimate
- (c) advise the Contractor that the Employer does not intend to proceed with the Change.

39.2.3 Upon receipt of the Employer’s instruction to proceed under GCC Sub-Clause 39.2.2 (a), the Contractor shall, with proper expedition, proceed with the preparation of the

Change Proposal, in accordance with GCC Sub-Clause 39.2.1.

39.2.4 The pricing of any Change shall, as far as practicable, be calculated in accordance with the rates and prices included in the Contract. **If such rates and prices are inequitable, the Parties thereto shall agree on specific rates for the valuation of the Change.**

39.2.5 If before or during the preparation of the Change Proposal it becomes apparent that the aggregate effect of compliance therewith and with all other Change Orders that have already become binding upon the Contractor under this GCC Clause 39 would be to **increase or decrease the Contract Price as originally set forth in Article 2 (Contract Price) of the Contract Agreement by more than fifteen percent (15%)**, the Contractor may give a written notice of objection thereto prior to furnishing the Change Proposal as aforesaid. If the Employer accepts the Contractor's objection, the Employer shall withdraw the proposed Change and shall notify the Contractor in writing thereof.

The Contractor's failure to so object shall neither affect its right to object to any subsequent requested Changes or Change Orders herein, nor affect its right to take into account, when making such subsequent objection, the percentage increase or decrease in the Contract Price that any Change not objected to by the Contractor represents.

39.2.6 Upon receipt of the Change Proposal, the Employer and the Contractor shall mutually agree upon all matters therein contained. Within fourteen (14) days after such agreement, the Employer shall, if it intends to proceed with the Change, issue the Contractor with a Change Order.

If the Employer is unable to reach a decision within fourteen (14) days, it shall notify the Contractor with details of when the Contractor can expect a decision.

If the Employer decides not to proceed with the Change for whatever reason, it shall, within the said period of fourteen (14) days, notify the Contractor accordingly. Under such circumstances, the Contractor shall be entitled to reimbursement of all costs reasonably incurred by it in the preparation of the Change Proposal, provided that these do not exceed the amount given by the Contractor in its Estimate for Change Proposal submitted in accordance with GCC Sub-Clause 39.2.2.

39.2.7 If the Employer and the Contractor cannot reach agreement on the price for the Change, an equitable adjustment to the Time for Completion, or any other matters identified in the Change Proposal, the Employer may nevertheless instruct the Contractor to proceed with the Change by issue of a “Pending Agreement Change Order.”

Upon receipt of a Pending Agreement Change Order, the Contractor shall immediately proceed with effecting the Changes covered by such Order. The Parties shall thereafter attempt to reach agreement on the outstanding issues under the Change Proposal.

If the Parties cannot reach agreement within sixty (60) days from the date of issue of the Pending Agreement Change Order, then the matter may be referred to the Adjudicator in accordance with the provisions of GCC Sub-Clause 46.3.

39.3 Changes Originating from Contractor

39.3.1 If the Contractor proposes a Change pursuant to GCC Sub-Clause 39.1.2, the Contractor shall submit to the Project Manager a written “Application for Change Proposal,” giving reasons for the proposed Change and including the information specified in GCC Sub-Clause 39.1.2.

Upon receipt of the Application for Change Proposal, the Parties shall follow the procedures outlined in GCC Sub-Clauses 39.2.6 and 39.2.7. However, the Contractor shall not be entitled to recover the costs of preparing the Application for Change Proposal.

40. Extension of Time for Completion

40.1 The Time(s) for Completion specified in the PCC pursuant to GCC Sub-Clause 8.2 shall be extended if the Contractor is delayed or impeded in the performance of any of its obligations under the Contract by reason of any of the following:

- (a) any Change in the Facilities as provided in GCC Clause 39
- (b) any occurrence of Force Majeure as provided in GCC Clause 37, unforeseen conditions as provided in GCC Clause 35, or other occurrence of any of the matters specified or referred to in paragraphs (a), (b) and (c) of GCC Sub-Clause 32.2
- (c) any suspension order given by the Employer under GCC Clause 41 hereof or reduction in the rate of progress pursuant to GCC Sub-Clause 41.2 or
- (d) any changes in laws and regulations as provided in GCC Clause 36 or
- (e) any default or breach of the Contract by the Employer, Appendix to the Contract Agreement titled, or any activity, act or omission of the Employer, or the Project Manager, or any other contractors employed by the Employer, or
- (f) any delay on the part of a Subcontractor, provided such delay is due to a cause for which the Contractor himself would have been entitled to an extension of time under this sub-clause, or

(g) delays attributable to the Employer or caused by customs, or

(h) any other matter specifically mentioned in the Contract

by such period as shall be fair and reasonable in all the circumstances and as shall fairly reflect the delay or impediment sustained by the Contractor.

40.2 Except where otherwise specifically provided in the Contract, the Contractor shall submit to the Project Manager a notice of a claim for an extension of the Time for Completion, together with particulars of the event or circumstance justifying such extension as soon as reasonably practicable after the commencement of such event or circumstance. As soon as reasonably practicable after receipt of such notice and supporting particulars of the claim, the Employer and the Contractor shall agree upon the period of such extension. In the event that the Contractor does not accept the Employer's estimate of a fair and reasonable time extension, the Contractor shall be entitled to refer the matter to an Adjudicator, pursuant to GCC Sub-Clause 46.3.

40.3 The Contractor shall at all times use its reasonable efforts to minimize any delay in the performance of its obligations under the Contract.

40.4 In all cases where the Contractor has given a notice of a claim for an extension of time under GCC 40.2, the Contractor shall consult with the Project Manager in order to determine the steps (if any) which can be taken to overcome or minimize the actual or anticipated delay. The Contractor shall thereafter comply with all reasonable instructions which the Project Manager shall give in order to minimize such delay. If compliance with such instructions shall cause the Contractor to incur extra costs and the Contractor is entitled to an extension of time under GCC 40.1, the amount of such extra costs shall be added to the Contract Price.

41. Suspension

41.1 The Employer may request the Project Manager, by notice to the Contractor, to order the Contractor to suspend performance of any

or all of its obligations under the Contract. Such notice shall specify the obligation of which performance is to be suspended, the effective date of the suspension and the reasons therefor. The Contractor shall thereupon suspend performance of such obligation, except those obligations necessary for the care or preservation of the Facilities, until ordered in writing to resume such performance by the Project Manager.

If, by virtue of a suspension order given by the Project Manager, other than by reason of the Contractor's default or breach of the Contract, the Contractor's performance of any of its obligations is suspended for an aggregate period of more than ninety (90) days, then at any time thereafter and provided that at that time such performance is still suspended, the Contractor may give a notice to the Project Manager requiring that the Employer shall, within twenty-eight (28) days of receipt of the notice, order the resumption of such performance or request and subsequently order a change in accordance with GCC Clause 39, excluding the performance of the suspended obligations from the Contract.

If the Employer fails to do so within such period, the Contractor may, by a further notice to the Project Manager, elect to treat the suspension, where it affects a part only of the Facilities, as a deletion of such part in accordance with GCC Clause 39 or, where it affects the whole of the Facilities, as termination of the Contract under GCC Sub-Clause 42.1.

41.2 If

- (a) the Employer has failed to pay the Contractor any sum due under the Contract within the specified period, has failed to approve any invoice or supporting documents without just cause pursuant to the Appendix to the Contract Agreement titled Terms and Procedures of Payment, or commits a substantial breach of the Contract, the Contractor may give a notice to the Employer that requires payment of such sum, with interest thereon as stipulated in GCC Sub-Clause 12.3, requires approval of such invoice or supporting documents, or specifies the breach and requires the Employer to remedy the same, as the case may be. If the Employer fails to pay such sum together with such interest, fails to approve such

invoice or supporting documents or give its reasons for withholding such approval, or fails to remedy the breach or take steps to remedy the breach within fourteen (14) days after receipt of the Contractor's notice or

- (b) the Contractor is unable to carry out any of its obligations under the Contract for any reason attributable to the Employer, including but not limited to the Employer's failure to provide possession of or access to the Site or other areas in accordance with GCC Sub-Clause 10.2, or failure to obtain any governmental permit necessary for the execution and/or completion of the Facilities,

then the Contractor may by fourteen (14) days' notice to the Employer suspend performance of all or any of its obligations under the Contract, or reduce the rate of progress.

41.3 If the Contractor's performance of its obligations is suspended or the rate of progress is reduced pursuant to this GCC Clause 41, then the Time for Completion shall be extended in accordance with GCC Sub-Clause 40.1, and any and all additional costs or expenses incurred by the Contractor as a result of such suspension or reduction shall be paid by the Employer to the Contractor in addition to the Contract Price, except in the case of suspension order or reduction in the rate of progress by reason of the Contractor's default or breach of the Contract.

41.4 During the period of suspension, the Contractor shall not remove from the Site any Plant, any part of the Facilities or any Contractor's Equipment, without the prior written consent of the Employer.

42. Termination

42.1 Termination for Employer's Convenience

42.1.1 The Employer may at any time terminate the Contract for any reason by giving the Contractor a notice of termination that refers to this GCC Sub-Clause 42.1.

42.1.2 Upon receipt of the notice of termination under GCC Sub-Clause 42.1.1, the Contractor shall either immediately or upon the date specified in the notice of termination

- (a) cease all further work, except for such work as the Employer may specify in the notice of termination for the sole purpose of protecting that part of the Facilities already executed, or any work required to leave the Site in a clean and safe condition
- (b) terminate all subcontracts, except those to be assigned to the Employer pursuant to paragraph (d) (ii) below
- (c) remove all Contractor's Equipment from the Site, repatriate the Contractor's and its Subcontractors' personnel from the Site, remove from the Site any wreckage, rubbish and debris of any kind, and leave the whole of the Site in a clean and safe condition, and
- (d) subject to the payment specified in GCC Sub-Clause 42.1.3,
 - (i) deliver to the Employer the parts of the Facilities executed by the Contractor up to the date of termination
 - (ii) to the extent legally possible, assign to the Employer all right, title and benefit of the Contractor to the Facilities and to the Plant as of the date of termination, and, as may be required by the Employer, in any subcontracts concluded between the Contractor and its Subcontractors; and
 - (iii) deliver to the Employer all non-proprietary drawings, specifications and other documents prepared by the Contractor or its Subcontractors

as at the date of termination in connection with the Facilities.

42.1.3 In the event of termination of the Contract under GCC Sub-Clause 42.1.1, the Employer shall pay to the Contractor the following amounts:

- (a) the Contract Price, properly attributable to the parts of the Facilities executed by the Contractor as of the date of termination
- (b) the costs reasonably incurred by the Contractor in the removal of the Contractor's Equipment from the Site and in the repatriation of the Contractor's and its Subcontractors' personnel
- (c) any amounts to be paid by the Contractor to its Subcontractors in connection with the termination of any subcontracts, including any cancellation charges
- (d) costs incurred by the Contractor in protecting the Facilities and leaving the Site in a clean and safe condition pursuant to paragraph (a) of GCC Sub-Clause 42.1.2
- (e) the cost of satisfying all other obligations, commitments and claims that the Contractor may in good faith have undertaken with third Parties in connection with the Contract and that are not covered by paragraphs (a) through (d) above.

42.2 Termination for Contractor's Default

42.2.1 The Employer, without prejudice to any other rights or remedies it may possess, may terminate the Contract forthwith in the following circumstances by giving a notice

of termination and its reasons therefor to the Contractor, referring to this GCC Sub-Clause 42.2:

- (a) if the Contractor becomes bankrupt or insolvent, has a receiving order issued against it, compounds with its creditors, or, if the Contractor is a corporation, a resolution is passed or order is made for its winding up, other than a voluntary liquidation for the purposes of amalgamation or reconstruction, a receiver is appointed over any part of its undertaking or assets, or if the Contractor takes or suffers any other analogous action in consequence of debt
- (b) if the Contractor assigns or transfers the Contract or any right or interest therein in violation of the provision of GCC Clause 43.
- (c) if the Contractor, in the judgment of the Employer has engaged in Fraud and Corruption, as defined in paragraph 2.2 a. of Appendix B to the GCC, in competing for or in executing the Contract.

42.2.2 If the Contractor

- (a) has abandoned or repudiated the Contract
- (b) has without valid reason failed to commence work on the Facilities promptly or has suspended, other than pursuant to GCC Sub-Clause 41.2, the progress of Contract performance for more than twenty-eight (28) days after receiving a written instruction from the Employer to proceed
- (c) persistently fails to execute the Contract in accordance with the Contract or persistently neglects to carry out its obligations under the Contract without just cause

- (d) refuses or is unable to provide sufficient materials, services or labor to execute and complete the Facilities in the manner specified in the program furnished under GCC Sub-Clause 18.2 at rates of progress that give reasonable assurance to the Employer that the Contractor can attain Completion of the Facilities by the Time for Completion as extended,

then the Employer may, without prejudice to any other rights it may possess under the Contract, give a notice to the Contractor stating the nature of the default and requiring the Contractor to remedy the same. If the Contractor fails to remedy or to take steps to remedy the same within fourteen (14) days of its receipt of such notice, then the Employer may terminate the Contract forthwith by giving a notice of termination to the Contractor that refers to this GCC Sub-Clause 42.2.

42.2.3 Upon receipt of the notice of termination under GCC Sub-Clauses 42.2.1 or 42.2.2, the Contractor shall, either immediately or upon such date as is specified in the notice of termination,

- (a) cease all further work, except for such work as the Employer may specify in the notice of termination for the sole purpose of protecting that part of the Facilities already executed, or any work required to leave the Site in a clean and safe condition
- (b) terminate all subcontracts, except those to be assigned to the Employer pursuant to paragraph (d) below
- (c) deliver to the Employer the parts of the Facilities executed by the Contractor up to the date of termination
- (d) to the extent legally possible, assign to the Employer all right, title and benefit of the Contractor to the

Facilities and to the Plant as of the date of termination, and, as may be required by the Employer, in any subcontracts concluded between the Contractor and its Subcontractors

- (e) deliver to the Employer all drawings, specifications and other documents prepared by the Contractor or its Subcontractors as of the date of termination in connection with the Facilities.

42.2.4 The Employer may enter upon the Site, expel the Contractor, and complete the Facilities itself or by employing any third Party. The Employer may, to the exclusion of any right of the Contractor over the same, take over and use with the payment of a fair rental rate to the Contractor, with all the maintenance costs to the account of the Employer and with an indemnification by the Employer for all liability including damage or injury to persons arising out of the Employer's use of such equipment, any Contractor's Equipment owned by the Contractor and on the Site in connection with the Facilities for such reasonable period as the Employer considers expedient for the supply and installation of the Facilities.

Upon completion of the Facilities or at such earlier date as the Employer thinks appropriate, the Employer shall give notice to the Contractor that such Contractor's Equipment will be returned to the Contractor at or near the Site and shall return such Contractor's Equipment to the Contractor in accordance with such notice. The Contractor shall thereafter without delay and at its cost remove or arrange removal of the same from the Site.

42.2.5 Subject to GCC Sub-Clause 42.2.6, the Contractor shall be entitled to be paid the Contract Price attributable to the Facilities executed as of the date of termination, the value of any unused or partially used Plant on the Site, and the costs, if any, incurred in protecting the Facilities and in leaving the Site in a clean and safe condition pursuant to paragraph (a) of GCC Sub-Clause 42.2.3. Any sums due the Employer from the Contractor accruing prior to the date

of termination shall be deducted from the amount to be paid to the Contractor under this Contract.

42.2.6 If the Employer completes the Facilities, the cost of completing the Facilities by the Employer shall be determined.

If the sum that the Contractor is entitled to be paid, pursuant to GCC Sub-Clause 42.2.5, plus the reasonable costs incurred by the Employer in completing the Facilities, exceeds the Contract Price, the Contractor shall be liable for such excess.

If such excess is greater than the sums due the Contractor under GCC Sub-Clause 42.2.5, the Contractor shall pay the balance to the Employer, and if such excess is less than the sums due the Contractor under GCC Sub-Clause 42.2.5, the Employer shall pay the balance to the Contractor.

The Employer and the Contractor shall agree, in writing, on the computation described above and the manner in which any sums shall be paid.

42.3 Termination by the Contractor

42.3.1 If

- (a) the Employer has failed to pay the Contractor any sum due under the Contract within the specified period, has failed to approve any invoice or supporting documents without just cause pursuant to the Appendix to the Contract Agreement titled Terms and Procedures of Payment, or commits a substantial breach of the Contract, the Contractor may give a notice to the Employer that requires payment of such sum, with interest thereon as stipulated in GCC Sub-Clause 12.3, requires approval of such invoice or supporting documents, or specifies the breach and requires the Employer to

remedy the same, as the case may be. If the Employer fails to pay such sum together with such interest, fails to approve such invoice or supporting documents or give its reasons for withholding such approval, fails to remedy the breach or take steps to remedy the breach within fourteen (14) days after receipt of the Contractor's notice, or

- (b) the Contractor is unable to carry out any of its obligations under the Contract for any reason attributable to the Employer, including but not limited to the Employer's failure to provide possession of or access to the Site or other areas or failure to obtain any governmental permit necessary for the execution and/or completion of the Facilities,

then the Contractor may give a notice to the Employer thereof, and if the Employer has failed to pay the outstanding sum, to approve the invoice or supporting documents, to give its reasons for withholding such approval, or to remedy the breach within twenty-eight (28) days of such notice, or if the Contractor is still unable to carry out any of its obligations under the Contract for any reason attributable to the Employer within twenty-eight (28) days of the said notice, the Contractor may by a further notice to the Employer referring to this GCC Sub-Clause 42.3.1, forthwith terminate the Contract.

- 42.3.2 The Contractor may terminate the Contract forthwith by giving a notice to the Employer to that effect, referring to this GCC Sub-Clause 42.3.2, if the Employer becomes bankrupt or insolvent, has a receiving order issued against it, compounds with its creditors, or, being a corporation, if a resolution is passed or order is made for its winding up (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), a receiver is appointed over any part of its undertaking or assets, or if the Employer takes or suffers any other analogous action in consequence of debt.

42.3.3 If the Contract is terminated under GCC Sub-Clauses 42.3.1 or 42.3.2, then the Contractor shall immediately

- (a) cease all further work, except for such work as may be necessary for the purpose of protecting that part of the Facilities already executed, or any work required to leave the Site in a clean and safe condition
- (b) terminate all subcontracts, except those to be assigned to the Employer pursuant to paragraph (d)
 - (ii)
- (c) remove all Contractor's Equipment from the Site and repatriate the Contractor's and its Subcontractors' personnel from the Site, and
- (d) subject to the payment specified in GCC Sub-Clause 42.3.4,
 - (i) deliver to the Employer the parts of the Facilities executed by the Contractor up to the date of termination
 - (ii) to the extent legally possible, assign to the Employer all right, title and benefit of the Contractor to the Facilities and to the Plant as of the date of termination, and, as may be required by the Employer, in any subcontracts concluded between the Contractor and its Subcontractors, and
 - (iii) deliver to the Employer all drawings, specifications and other documents prepared by the Contractor or its Subcontractors as of the date of termination in connection with the Facilities.

42.3.4 If the Contract is terminated under GCC Sub-Clauses 42.3.1 or 42.3.2, the Employer shall pay to the Contractor all payments specified in GCC Sub-Clause 42.1.3, and reasonable compensation for all loss, except for loss of profit, or damage sustained by the Contractor arising out of, in connection with or in consequence of such termination.

42.3.5 Termination by the Contractor pursuant to this GCC Sub-Clause 42.3 is without prejudice to any other rights or remedies of the Contractor that may be exercised in lieu of or in addition to rights conferred by GCC Sub-Clause 42.3.

42.4 In this GCC Clause 42, the expression “Facilities executed” shall include all work executed, Installation Services provided, and all Plant acquired, or subject to a legally binding obligation to purchase, by the Contractor and used or intended to be used for the purpose of the Facilities, up to and including the date of termination.

42.5 In this GCC Clause 42, in calculating any monies due from the Employer to the Contractor, account shall be taken of any sum previously paid by the Employer to the Contractor under the Contract, including any advance payment paid pursuant to the Appendix to the Contract Agreement titled Terms and Procedures of Payment.

43. Assignment

43.1 Neither the Employer nor the Contractor shall, without the express prior written consent of the other Party, which consent shall not be unreasonably withheld, assign to any third Party the Contract or any part thereof, or any right, benefit, obligation or interest therein or thereunder, except that the Contractor shall be entitled to assign either absolutely or by way of charge any monies due and payable to it or that may become due and payable to it under the Contract.

44. Export Restrictions

44.1 Deleted.

I. Claims, Disputes and Arbitration

45. Contractor's Claims

- 45.1 If the Contractor considers himself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall submit a notice to the Project Manager, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 28 days after the Contractor became aware, or should have become aware, of the event or circumstance.

If the Contractor fails to give notice of a claim within such period of 28 days, the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Employer shall be discharged from all liability in connection with the claim. Otherwise, the following provisions of this Sub-Clause shall apply.

The Contractor shall also submit any other notices which are required by the Contract, and supporting particulars for the claim, all as relevant to such event or circumstance.

The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at another location acceptable to the Project Manager. Without admitting the Employer's liability, the Project Manager may, after receiving any notice under this Sub-Clause, monitor the record-keeping and/or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Project Manager to inspect all these records, and shall (if instructed) submit copies to the Project Manager.

Within 42 days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Project Manager, the Contractor shall send to the Project Manager a fully detailed claim which includes full supporting particulars of the basis of the claim and of the extension of time and/or additional payment claimed. If the event or circumstance giving rise to the claim has a continuing effect:

- (a) this fully detailed claim shall be considered as interim;
- (b) the Contractor shall send further interim claims at monthly intervals, giving the accumulated delay and/or amount claimed, and such further particulars as the Project Manager may reasonably require; and
- (c) the Contractor shall send a final claim within 28 days after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the Contractor and approved by the Project Manager.

Within 42 days after receiving a claim or any further particulars supporting a previous claim, or within such other period as may be proposed by the Project Manager and approved by the Contractor, the Project Manager shall respond with approval, or with disapproval and detailed comments. He may also request any necessary further particulars, but shall nevertheless give his response on the principles of the claim within such time.

Each Payment Certificate shall include such amounts for any claim as have been reasonably substantiated as due under the relevant provision of the Contract. Unless and until the particulars supplied are sufficient to substantiate the whole of the claim, the Contractor shall only be entitled to payment for such part of the claim as he has been able to substantiate.

The Project Manager shall agree with the Contractor or estimate:
(i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with GCC Clause 40, and/or (ii) the additional payment (if any) to which the Contractor is entitled under the Contract.

The requirements of this Sub-Clause are in addition to those of any other Sub-Clause which may apply to a claim. If the Contractor fails to comply with this or another Sub-Clause in relation to any claim, any extension of time and/or additional payment shall take account of the extent (if any) to which the failure has prevented or

prejudiced proper investigation of the claim, unless the claim is excluded under the second paragraph of this Sub-Clause.

In the event that the Contractor does not agree on any matter relating to a claim, it may refer the matter to the Adjudicator pursuant to GCC 46 hereof.

46. Disputes and Arbitration

46.1 Appointment of the Adjudicator:

The Adjudicator shall be appointed jointly by the Employer and the Contractor, at the time of the Employer's issuance of the Letter of Acceptance. If, in the Letter of Acceptance, the Employer does not agree on the appointment of the Adjudicator, the Employer will request the Appointing Authority **designated in the PCC**, to appoint the Adjudicator within 14 days of receipt of such request.

The Adjudicator should be in position before "notice to proceed with work" is issued to the Contractor and an agreement should be signed with the Adjudicator jointly by the Employer and the Contractor in the form attached – Appendix A.

46.2 Should the Adjudicator resign or die, or should the Employer and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract, a new Adjudicator shall be jointly appointed by the Employer and the Contractor. In case of disagreement between the Employer and the Contractor, within 30 days, the Adjudicator shall be designated by the Appointing Authority **designated in the PCC** at the request of either party, within 14 days of receipt of such request.

46.3 If the Contractor believes that a decision taken by the Project Manager was either outside the authority given to the Project Manager by the Contract or that the decision was wrongly taken, the decision shall be referred to the Adjudicator within 14 days of the notification of the Project Manager's decision.

46.4 The Adjudicator shall give a decision in writing within 28 days of receipt of a notification of a dispute.

The Adjudicator shall be paid daily at the rate **specified in the PCC**, together with reimbursable expenses of the types **specified in the PCC**, and the cost shall be divided equally between the Employer and the Contractor. Whatever decision is reached by the Adjudicator, either party may refer a decision of the Adjudicator to an Arbitrator within 28 days of the Adjudicator's written decision. If neither party refers the dispute to arbitration within the above 28 days, the Adjudicator's decision shall be final and binding.

46.5 Arbitration

The arbitration shall be conducted in accordance with the arbitration procedures published by the institution named and in the place **specified in the PCC**.

The Arbitrator(s) shall give a decision in writing within 120 days of start of the proceedings unless otherwise agreed to by the Parties. The Arbitrators shall entertain only those issues which have been earlier referred to the Adjudicator and either party is dissatisfied with the decision given by the Adjudicator.

APPENDIX A¹⁸

Appointment of Adjudicator

Suggested Draft of **Letter of Appointment of Adjudicators** in civil works contracts

Sub: _____ (Name of the Contract)

To

Name and address of the Adjudicator

We hereby confirm your appointment as Adjudicator for the above contract to carry out the assignment specified in this Letter of Appointment.

For administrative purpose _____ (*name of the officer representing the Employer*) has been assigned to administer the assignment and to provide the Adjudicator with all relevant information needed to carry out the assignment on behalf of both the employer and the contractor. The services will be required during the period of contract for the work of (Name of the Contract). _____.

The Adjudicator shall visit the worksite once in 3 (three) months till the completion of the work indicated above or as specifically requested by Employer/ Contractor for the period upto the end of defects liability period with prior intimation to the Employer and the contractor.

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If ITB 51 makes provision of an Adjudicator from list provided by an institution, kindly modify Appendix A to state that the fee and reimbursable payable to the adjudicator shall be as per the rules of the Institution.

The duration of each visit shall ordinarily be for one day only. These durations are approximate and (*Name of the employer and Name of the Contractor*) may find it necessary to postpone or cancel the assignment and/or shorten or extend the duration.

The appointment will become effective upon confirmation of letter by you. The appointment of Adjudicator shall be liable for termination under a 30 (thirty) days written notice from the date of issue of the notice, if both Employer and the Contractor so desire. Also the appointment shall automatically stand terminated 14 days after the defect notice / correction period as stated in Clauses 23 and 24 of the Conditions of Contract is over.

The Adjudicator will be paid a fee of Rs. _____ (Rupees _____ only) per each day of visit at the worksite. The actual expenses for boarding and traveling in connection with the assignment will be reimbursed to the Adjudicator. The Adjudicator will submit a pre-receipted bill in triplicate to the employer indicating the date of the visit, fees for the visit and a proof in support of the actual expenditure [only for items valued above Rs. 200 each] incurred by him against boarding, lodging and traveling expenses after performing the visit on each occasion. The Employer will make the admissible payment (both the Employer's and the Contractor's share) to the Adjudicator within 30 days of the receipt of the bill. The Contractor's share on this account (half the paid amount) will be recovered by the Employer from the Contractor's bills against the work.

In accepting this assignment, the Adjudicator should understand and agree that he is responsible for any liabilities and costs arising out of risks associated with travel to and from the place of emergency repatriation, loss or damage to personal/professional effects and property. The Adjudicator is advised to effect personal insurance cover in respect of such risks if he does not already have such cover in place. In this regard, the Adjudicator shall maintain appropriate medical, travel, accident and third-party liability insurance. The obligation under this paragraph will survive till termination of this appointment.

Procedures for resolution of disputes by the Adjudicator is described in the contract of _____ (name of the contract) between the employer and the contractor vide clause no.24 of the General Conditions of Contract. Your recommendation should be given in the format attached, within 28 days of receipt of a notification of dispute.

The Adjudicator will carry out the assignment in accordance with the highest standard of professional and ethical competence and integrity, having due regard to the nature and purpose of the assignment, and will conduct himself in a manner consistent herewith. After visiting the worksite, the Adjudicator will discuss the matter with the Employer and if necessary with the Contractor before arriving at any decision.

The Adjudicator will agree that all knowledge and information not within the public domain, which may be acquired while carrying out this service shall be all time and for all purpose, regarded as strictly confidential and held in confidence, and shall not be directly or indirectly disclosed to any party whatsoever, except with the permission of the employer and the

contractor. The Adjudicator's decision should be communicated in the form of a speaking order specifying the reasons.

The Adjudicator will agree that any manufacturing or construction firm with which he might be associated with, will not be eligible to participate in bidding for any goods or works resulting from or associated with the project of which this consulting assignment forms a part

Read and Agreed

Name of Adjudicator

Signature

Place:

Date:

Name of Employer

Signature of authorized representative of Employer

Name of the Contractor

Signature of authorized representative of Contractor

Attachment: Copy of contract document between the employer and contractor and format for recommendation.

SUMMARY OF ADJUDICATOR'S RESPONSIBILITIES

The Adjudicator has the following principal responsibilities:

1. Visit the site periodically.
2. Keep abreast of job activities and developments.
3. Encourage the resolution of disputes by the parties.
4. When a dispute is referred to it, conduct a hearing (no legal presentation), complete its deliberations, and prepare a recommendations in a professional and timely manner (as per sample format)

Sample Format of Adjudicator's Recommendation

[Project Name] Recommendation of Adjudicator

Dispute No. XX [NAME OF DISPUTE]

Hearing Date: _____

Dispute

Description of dispute. A one or two sentence summation of the dispute.

Contractor's Position

A short summation of the contractor's position as understood by the Adjudicator.

Employer's Position

A short summation of the Employer's position as understood by the Adjudicator.

Recommendation

The Adjudicator's specific recommendation for settlement of the dispute. (*The recommended course is consistent with the explanation*).

Explanation

(*This section could also be called Considerations, Rationale, Findings, Discussion, and so on.*)

The Adjudicator's description of how each recommendation was reached.

Respectfully submitted,

Date : _____

Date : _____

Date : _____

APPENDIX B

Fraud and Corruption

(Text in this Appendix shall not be modified)

1. Purpose

1.1 The Bank's Anti-Corruption Guidelines and this annex apply with respect to procurement under Bank Investment Project Financing operations.

2. Requirements

2.3 The Bank requires that Borrowers (including beneficiaries of Bank financing); bidders (applicants/proposers), consultants, contractors and suppliers; any sub-contractors, sub-consultants, service providers or suppliers; any agents (whether declared or not); and any of their personnel, observe the highest standard of ethics during the procurement process, selection and contract execution of Bank-financed contracts, and refrain from Fraud and Corruption.

2.4 To this end, the Bank:

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

- i. "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
- ii. "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
- iii. "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
- iv. "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
- v. "obstructive practice" is:
 - (a) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
 - (b) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under paragraph 2.2 e. below.

- b. Rejects a proposal for award if the Bank determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
- c. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring misprocurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;
- d. Pursuant to the Bank's Anti- Corruption Guidelines and in accordance with the Bank's prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or otherwise benefit from a Bank-financed contract, financially or in any other manner;¹⁹ (ii) to be a nominated²⁰ sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract; and (iii) to receive the proceeds of any loan made by the Bank or otherwise to participate further in the preparation or implementation of any Bank-financed project;
- e. Requires that a clause be included in bidding/request for proposals documents and in contracts financed by a Bank loan, requiring (i) bidders (applicants/proposers), consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents personnel, permit the Bank to inspect²¹ all accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the Bank.

¹⁹ For the avoidance of doubt, a sanctioned party's ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and bidding, either directly or as a nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract.

²⁰ A nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider (different names are used depending on the particular bidding document) is one which has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower.

²¹ Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Bank or persons appointed by the Bank to address specific matters related to investigations/audits, such as evaluating the veracity of an allegation of possible Fraud and Corruption, through the appropriate mechanisms. Such activity includes but is not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data and information (whether in hard copy or electronic format) deemed relevant for the investigation/audit, and making copies thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information.

Appendix C

Salient Features of Labour & Environment Protection Laws²²

SALIENT FEATURES OF SOME MAJOR LABOUR LAWS
APPLICABLE TO ESTABLISHMENTS ENGAGED IN BUILDING AND
OTHER CONSTRUCTION WORK

- (a) Employees Compensation Act 1923: The Act provides for compensation in case of injury, disease or death arising out of and during the course of employment.

- (b) Payment of Gratuity Act 1972: gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years' service or more or on death at the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees.

- (c) Employees P.F. and Miscellaneous Provision Act 1952 (since amended): The Act provides for monthly contribution by the employer plus workers @ 10% or 8.33%. The benefits payable under the Act are:
 - (i) Pension or family pension on retirement or death, as the case may be.
 - (ii) Deposit linked insurance on the death in harness of the worker.
 - (iii) Payment of P.F. accumulation on retirement/death etc.

- (d) Maternity Benefit Act 1961: The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.

- (e) Sexual Harassment of Women at the Workplace (Prevention, Prohibition and Redressal) Act, 2013: This Act defines sexual harassment in the workplace, provides for an enquiry procedure in case of complaints and mandates the setting up of an Internal Complaints Committee or a Local Complaints Committee

²² This list is only illustrative and not exhaustive. Bidders and Contractors are responsible for checking the correctness and completeness of the list. The law as current on the date of bid opening will apply.

- (f) Contract Labour (Regulation & Abolition) Act 1970: The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by law. The Principal Employer is required to take Certificate of Registration and the Contractor is required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer if they employ 20 or more contract labour.
- (g) Minimum Wages Act 1948: The Employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Construction of Buildings, Roads, Runways are scheduled employments.
- (h) Payment of Wages Act 1936: It lays down the mode, manner and by what date the wages are to be paid, what deductions can be made from the wages of the workers.
- (i) Equal Remuneration Act 1976: The Act provides for payment of equal wages for work of equal nature to male and female workers and for not making discrimination against Female employees in the matters of transfers, training and promotions etc.
- (j) Payment of Bonus Act 1965: The Act is applicable to all establishments employing 20 or more employees. Some of the State Governments have reduced this requirement from 20 to 10. The Act provides for payments of annual bonus subject to a minimum of 8.33% of the wages drawn in the relevant year. It applies to skilled or unskilled manual, supervisory, managerial, administrative, technical or clerical work for hire or reward to employees who draw a salary of Rs. 10,000/- per month or less. To be eligible for bonus, the employee should have worked in the establishment for not less than 30 working days in the relevant year. The Act does not apply to certain establishments.
- (k) Industrial Disputes Act 1947: the Act lays down the machinery and procedure for resolution of Industrial disputes, in what situations, a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.
- (l) Trade Unions Act 1926: The Act lays down the procedure for registration of trade unions of workmen and employers. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.
- (m) Child Labour (Prohibition & Regulation) Act 1986: The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes.

Employment of Child Labour is prohibited in the Building and Construction Industry.

- (n) Inter-State Migrant workmen's (Regulation of Employment & Conditions of Service) Act 1979: The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, traveling expenses from home upto the establishment and back, etc.
- (o) The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act 1996 and the Building and Other Construction Workers Welfare Cess Act, 1996 (BOCWW Cess Act): All the establishments who carry on any building or other construction work and employ 10 or more workers are covered under these Acts. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be notified by the Government. The Employer of the establishment is required to provide safety measures at the building or construction work and other welfare measures, such as Canteens, First – Aid facilities, Ambulance, Housing accommodations for workers near the work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government. 1% Cess applicable for Labour Cess on cost of Construction (i.e. on Supply and Erection both schedules).
- (p) Factories Act 1948: the Act lays down the procedure for approval of plans before setting up a factory engaged in manufacturing processes, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing 10 persons or more with aid of power or 20 or more persons without the aid of power.
- (q) Weekly Holidays Act -1942
- (r) Bonded Labour System (Abolition) Act, 1976: The Act provides for the abolition of bonded labour system with a view to preventing the economic and physical exploitation of weaker sections of society. Bonded labour covers all forms of forced labour, including that arising out of a loan, debt or advance.
- (s) Employer's Liability Act, 1938: This Act protects workmen who bring suits for damages against employers in case of injuries endured in the course of employment. Such injuries could be on account of negligence on the part of the

employer or persons employed by them in maintenance of all machinery, equipment etc. in healthy and sound condition.

(t) Employees State Insurance Act 1948: The Act provides for certain benefits to insured employees and their families in case of sickness, maternity and disablement arising out of an employment injury. The Act applies to all employees in factories (as defined) or establishments which may be so notified by the appropriate Government. The Act provides for the setting up of an Employees' State Insurance Fund, which is to be administered by the Employees State Insurance Corporation. Contributions to the Fund are paid by the employer and the employee at rates as prescribed by the Central Government. The Act also provides for benefits to dependents of insured persons in case of death as a result of an employment injury.

(u) The Personal Injuries (Compensation Insurance) Act, 1963: This Act provides for the employer's liability and responsibility to pay compensation to employees where workmen sustain personal injuries in the course of employment.

(v) Industrial Employment (Standing Order) Act 1946: It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the States and Central Government to 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get the same certified by the designated Authority.

SALIENT FEATURES OF SOME OF THE MAJOR LAWS THAT ARE APPLICABLE FOR PROTECTION OF ENVIRONMENT.

1. The Environment (Protection) Act, 1986 and as amended: This provides for the protection and improvement of environment and for matters connected therewith, and the prevention of hazards to human beings, other living creatures, plants and property. 'Environment' includes water, air and land and the inter-relationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property.
2. The Forest Conservation Act, 1980, as amended, and Forest (Conservation) Rules, 1981 as amended: These provides for protection of forests by restricting conversion of forested areas into non- forested areas and prevention of deforestation, and stipulates the procedures for cutting any trees that might be required by the applicable rules. Permissions under the Act also stipulates the norms and compliance requirements of the employer and any contractor on behalf of the employer.

3. State Tree Preservation Acts as may be in force: These provide for protection of trees of important species. Contractors will be required to obtain prior permission for full or partial cutting, uprooting, or pruning of any such trees.
4. The Wildlife (Protection) Act, 1972, and as amended: This provides for protection of wildlife through notifying National Parks and Sanctuaries and buffer areas around these zones; and to protect individuals of nationally important species listed in the Annex of the Act.
5. The Biological Diversity Act, 2002: This provides for conservation of biological diversity, sustainable use of components of biological diversity, and fair and equitable sharing of the benefits arising out of the use of biological resources, knowledge and for matters connected therewith or incidental thereto.
6. The Public Liability Insurance Act, 1991 as amended and The Public Liability Insurance Rules, 1991 as amended: These provide for public liability insurance for the purpose of providing immediate relief to the persons affected by accident occurring while handling hazardous substances and for matters connected herewith or incidental thereto. Hazardous substance means any substance or preparation which is defined as hazardous substance under the Environment (Protection) Act 1986, and exceeding such quantity as may be specified by notification by the Central Government.
7. The Ancient Monuments and Archaeological Sites and Remains Act, 1958 and the Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act, 2010, the Ancient Monuments and Archaeological Sites and Remains Rules, 1959 amended 2011, the National Monuments Authority Rules, 2011 and the similar State Acts: These provide for conservation of cultural and historical remains found in India. Accordingly, area within the radii of 100m and 300m from the “protected property” are designated as “protected area” and “controlled area” respectively. No development activity (including building, mining, excavating, blasting) is permitted in the “protected area” and development activities likely to damage the protected property is not permitted in the “controlled area” without prior permission of the Archaeological Survey of India (ASI) or the State Departments of Art and Culture or Archaeology as applicable.
8. The Environmental Impact Assessment Notification, 2006 and as amended: This provides for prior environmental clearance for new, modernization and expansion projects listed in Schedule 1 of the Notification. Contractors will be required to ensure that no work starts until applicable clearances under the Notification is not available. Contractors will be responsible for implementation of any environmental management plan stipulated as per the permission under this Notification; and will be required to prepare and submit to the employer and compliance report stipulated in the permission under the Notification.
9. The Water (Prevention and Control of Pollution) Act, 1974 as amended, and the Water (Prevention and Control of Pollution) Rules, 1975 as amended: These provide for the prevention and control of water pollution and the maintaining and restoring of wholesomeness of water. ‘Pollution’ means such contamination of water or such alteration of the physical, chemical or biological properties of water or such discharge of any sewage or trade effluent

or of any other liquid, gaseous or solid substance into water(whether directly or indirectly) as may, or is likely to, create a nuisance or render such water harmful or injurious to public health or safety, or to domestic, commercial, industrial, agricultural or other legitimate uses, or to the life and health of animals or plants or of aquatic organisms. Contractors will need to obtain consent for establishment and consent for operation of any item of work or installation of equipment that generates waste water, and observe the required standards of establishment and operation of these items of work or installations; as well as install and operate all required waste water treatment facilities.

10. The Water (Prevention and Control of Pollution) Cess Act, 1977 and The Water (Prevention and Control of Pollution) Cess Rules, 1978: These provide for the levy and collection of a cess on water consumed by persons carrying on certain industries and by local authorities, with a view to augment the resources of the Central Board and the State Boards for the prevention and control of water pollution under the Water (Prevention and Control of Pollution) Act, 1974.
11. The Air (Prevention and Control of Pollution) Act, 1981 as amended, and the Air (Prevention and Control of Pollution) Rules, 1982: These provides for prevention, control and abatement of air pollution. 'Air Pollution' means the presence in the atmosphere of any 'air pollutant', which means any solid, liquid or gaseous substance (including noise) present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment. Contractors will need to obtain consent for establishment and consent for operation of any item of work or installation of equipment that generates air pollution such as batching plants, hot mix plants, power generators, backup power generation, material handling processes, and observe the required standards of establishment and operation of these items of work or installations.
12. Noise Pollution (Control and Regulation) Rules, 2000, and as amended: This provides for standards for noise for day and night for various land uses and specifies special standards in and around sensitive receptors of noise such as schools and hospitals. Contractors will need to ensure compliance to the applicable standards, and install and operate all required noise control devices as may be required for all plants and work processes.
13. Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996: This provides for Requirement of preparation of on-site and off-site Disaster Management Plans for accident-prone areas.
14. The Explosives Act 1884 and the Explosives Rules, 2008: These provide for safe manufacture, possession, sale, use, transportation and import of explosive materials such as diesel, Oil and lubricants etc.; and also for regulating the use of any explosives used in blasting and/or demolition. All applicable provisions will need compliance by the contractors.
15. The Petroleum Rules, 2002: This provides for safe use and storage of petroleum products, and will need to be complied by the contractors.

16. The Gas Cylinder Rules 2004 and amendments: This provides for regulations related to storage of gas, and possession of gas cylinder more than the exempted quantity. Contractors should comply with all the requirements of this Rule.
17. Manufacture, Storage and Import of Hazardous Chemical Rules of 1989 and as amended: These provide for use and storage of hazardous material such as highly inflammable liquids like HSD/LPG. Contractors will need to ensure compliance to the Rules; and in the event where the storage quantity exceeds the regulated threshold limit, the contractors will be responsible for regular safety audits and other reporting requirements as prescribed in the Rules.
18. Hazardous & Other Wastes (Management and Transboundary Movement) Rules, 2016: These provide for protection of general public from improper handling storage and disposal of hazardous waste. The rules prescribe the management requirement of hazardous wastes from its generation to final disposal. Contractors will need to obtain permission from the State Pollution Control Boards and other designated authorities for storage and handling of any hazardous material; and will to ensure full compliance to these rules and any conditions imposed in the permit.
19. The Bio Medical Waste Management Rules, 2016: This provides for control, storage, transportation and disposal of bio-medical wastes. As and where the contractor has any first aid facility and dispensaries, established in either temporary or permanent manner, compliance to these Rules are mandatory.
20. Construction and Demolition Waste Management Rules, 2016: This provides for management of construction and demolition waste (such as building materials possible to be reused, rubble and debris or the like); and applies to all those waste resulting from construction, re-modelling, repair or demolition of any civil structure. Contractor will need to prepare a waste disposal plan and obtain required approval from local authorities, if waste generation is more than 20 tons in any day or 300 tons in any month during the contract period; and ensure full compliance to these rules and any conditions imposed in the regulatory approval.
21. The E-Waste (Management) Rules, 2016: This provides for management of E-wastes (but not covering lead acid batteries and radio-active wastes) aiming to enable the recovery and/or reuse of useful material from e-waste, thereby reducing the hazardous wastes destined for disposal and to ensure the environmentally sound management of all types of waste of electrical and electronic equipment. This Rule applies to every manufacturer, producer, consumer, bulk consumer, collection centers, dealers, e-retailer, refurbisher, dismantler and recycler involved in manufacture, sale, transfer, purchase, collection, storage and processing of e-waste or electrical and electronic equipment listed in Schedule I, including their components, consumables, parts and spares which make the product operational.
22. Plastic waste Management Rules, 2016: This provides for control and management of the plastic waste generated from any activity. Contractors will ensure compliance to this Rule.
23. The Batteries (Management and Handling) Rules 2001: This provides for ensuring safe disposal and recycling of discarded lead acid batteries likely to be used in any equipment

during construction and operation stage. Rules require proper control and record keeping on the sale or import of lead acid batteries and recollection of the used batteries by registered recyclers to ensure environmentally sound recycling of used batteries. Contractors will ensure compliance to this Rule.

24. The Ozone Depleting Substances (Regulation and Control) Rules, 2000 and as amended: This provides for regulation of production and consumption of ozone depleting substances in the country, and specifically prohibits export to or import from countries not specified in the Rules, and prohibits unless specifically permitted, any use of ozone depleting substance.
25. The Coastal Regulation Zone Notifications, 1991 and as amended: This provides for regulation of development activities within the 500m of high tide line in coastal zone and 100m of stretches of rivers and estuaries influenced by tides. Contractors will be required to ensure that no work starts until applicable clearances under the Notification is not available. Contractors will be responsible for implementation of any plan stipulated as per the permission under this Notification; and will be required to prepare and submit to the employer and compliance report stipulated in the permission under the Notification.
26. The Motor Vehicle Act 1988 as amended (and State Motor Vehicle Acts as may be in force) and the Motor Vehicle Rules, 1989, and as amended (and State Motor Vehicle Rules as may be in force): To minimize the road accidents, penalizing the guilty, provision of compensation to victim and family and check vehicular air and noise pollution. Contractors will be required to ensure full compliance to these rules.
27. Easement Act, 1882: This provides for the rights of landowners on groundwater. Contractors will need to ensure that other landowners' rights under the Act is not affected by any groundwater abstraction by the contractors.
28. State Groundwater Acts and Rules as may be in force and the Guidelines for Groundwater Abstraction for drinking and domestic purposes in Notified Areas and Industry/Infrastructure project proposals in Non-Notified areas, 2012: These provide for regulating extraction of ground water for construction/industrial and drinking and domestic purposes. Contractors will need to obtain permission from Central/State Groundwater Boards prior to groundwater abstraction through digging any bore well or through any other means; and will to ensure full compliance to these rules and any conditions imposed in the permit.
29. The Mines Act, 1952 as amended; the Minor Mineral and concession Rules as amended; and the State Mineral (Rights and Taxation) Acts as may be in force: These provide for for safe and sound mining activity. The contractors will procure aggregates and other building materials from quarries and borrow areas approved under such Acts. In the event the contractors open any new quarry and/or borrow areas, appropriate prior permission from the State Departments of Minerals and Geology will need to be obtained. Contractors will also need to ensure full compliance to these rules and any conditions imposed in the permit.
30. The Insecticides Act, 1968 and Insecticides Rules, 1971 and as amended: These provide for regulates the manufacture, sale, transport, distribution, export, import and use of pesticides to prevent risk to human beings or animals, and for matters connected therewith. No one

should import or manufacture; sell, stock or exhibit for sale; distribute, transport, use: (i) any misbranded insecticides, (ii) any insecticide the sale, distribution or use of which is for the time being prohibited under the Act; and (iii) any insecticide except in accordance with the condition on which it was registered under the Act.

31. National Building Codes of India, 2005 and as amended: This provides guidelines for regulating the building construction activities in India. The code mainly contains administrative regulations, development control rules and general building requirements; stipulations regarding materials, structural design and construction; and building and plumbing services. Contractors will be required to comply with all Bureau of Indian Standards Codes dealing with: (i) use and disposal of asbestos containing materials in construction; (ii) paints containing lead; (iii) permanent and temporary ventilations in workplace; (iv) safety, and hygiene at the workplace; (v) prevention of fire; (vi) prevention of accidents from faulty electrical gadgets, equipment and accessories; and all other such codes incidental to the Contract.

APPENDIX D

Environmental and Social(ES)Metrics for Progress Reports

[Note to Employer: the following metrics may be amended to reflect the specifics of the Contract. The Employer shall ensure that the metrics provided are appropriate for the Works and impacts/key issues identified in the environmental and social assessment]

Metrics for regular reporting:

- a. *environmental incidents or non-compliances with contract requirements,;*
- b. *health and safety incidents, accidents, injuries that require treatment and all fatalities;*
- c. *status of all permits and agreements, as applicable:*
 - i. *work permits: number required, number received, actions taken for those not received;*
- d. *health and safety supervision:*
 - i. *safety officer: number days worked, number of full inspections & partial inspections, reports to construction/project management;*
 - ii. *number of new workers inducted, number receiving induction training, dates of induction training*
 - iii. *Flag personnel training*
 - iv. *number of workers receiving training on Code of Conduct for Contractor's Personnel (in the reporting period and in the past*
 - v. *number of toolbox talks and training programs, number of workers receiving Occupational Health and Safety (OHS), environmental and social training*
 - vi. *number of workers, work hours, metric of PPE use (percentage of workers with full personal protection equipment (PPE), partial, etc.), worker violations observed (by type of violation, PPE or otherwise), warnings given, repeat warnings given, follow-up actions taken (if any);*
- e. *worker accommodations:*
 - i. *number of workers housed in on-site accommodations;*
 - ii. *date of last inspection, and highlights of inspection including status of accommodations' compliance with national and local law and good practice, including sanitation, space, gender segregated toilets etc.;*

- iii. actions taken to recommend/require improved conditions, or to improve conditions.
- f. *Health services: provider of health services, information and/or training, location of clinic, number of non-safety disease or illness treatments and diagnoses (no names to be provided);*
- g. *gender (for migrant and locals separately): number of female workers, percentage of workforce, gender issues raised and dealt with (cross-reference grievances or other sections as needed);*
- h. *environmental and social supervision:*
 - i. environmental/Safety expert: days worked, areas inspected and numbers of inspections of each (work section, work camp, accommodations, material storage locations, etc.), highlights of activities/findings (including violations of environmental and/or social best practices, actions taken), reports to /site management;
 - ii. sociologist: days worked, number of partial and full site inspections (by area: road section, work camp, accommodations, quarries, borrow areas, spoil areas, clinic, HIV/AIDS center, community centers, etc.), highlights of activities (including violations of environmental and/or social requirements observed, actions taken), reports to environmental and/or social specialist/construction/site management; and
 - iii. community liaison person(s): days worked (hours community center open), number of people met, highlights of activities (issues raised, etc.), reports to environmental and/or social specialist /construction/site management.
- i. *Grievances: list new grievances (e.g. number of allegations of SEA and SH) received in the reporting period and number of unresolved past grievances by date received, complainant's age and sex, how received, to whom referred to for action, resolution and date (if completed), data resolution reported to complainant, any required follow-up (Cross-reference other sections as needed):*
 - i. Worker grievances;
 - ii. Community grievances
- j. *Traffic, road safety and vehicles/equipment:*
 - i. traffic and road safety incidents and accidents involving project vehicles & equipment: provide date, location, damage, cause, follow-up;
 - ii. traffic and road safety incidents and accidents involving non-project vehicles or property (also reported under immediate metrics): provide date, location, damage, cause, follow-up;

- iii. overall condition of vehicles/equipment (subjective judgment by environmentalist); non-routine repairs and maintenance needed to improve safety and/or environmental performance (to control smoke, etc.).
- k. *Environmental mitigations and issues (what has been done):*
 - i. dust: number of working bowzers, number of waterings/day, number of complaints, actions taken to resolve;
 - ii. borrow areas, spoil areas, batch plants: identify major activities undertaken in the reporting period at each, and highlights of environmental and social protection: land clearing, boundary marking, topsoil salvage, traffic management,;
 - iii. blasting, if required: number of blasts (and locations), status of implementation of blasting plan (including notices, evacuations, etc.), incidents of off-site damage or complaints (cross-reference other sections as needed);
 - iv. spill clean-ups, if any: material spilled, location, amount, actions taken, material disposal (report all spills that result in water or soil contamination);
 - v. waste management: types and quantities generated and managed, including amount taken offsite (and by whom) or reused/recycled/disposed on-site;
 - vi. details of tree plantings and other mitigations required undertaken in the reporting period;
 - vii. details of water and swamp protection mitigations required undertaken in the reporting period.
- l. *compliance:*
 - i. compliance status for conditions of all relevant consents/permits, for the Work,.);;
 - ii. compliance status of C-ESMP/ESIP requirements: statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance
 - iii. compliance status of SEAand SH prevention and response action plan: statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance
 - iv. compliance status of Health and Safety Management Plan re: statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance
 - v. other unresolved issues from previous reporting periods related to environmental and social: cCross-reference other sections as needed.

Section IX - Particular Conditions of Contract

The following Particular Conditions of Contract shall supplement the General Conditions of Contract in Section VIII. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions.

Particular Conditions of Contract (PCC)

The following Particular Conditions (PCC) shall supplement the General Conditions (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC. The clause number of the PCC is the corresponding clause number of the GCC.

PCC 1. Definitions	<p>The Employer is: <i>WBSEDCL (West Bengal State Electricity Distribution Company Limited)</i></p> <p>The Project Manager is: Regional Manager, North24 Parganas Region</p> <p>The Bank is: The International Bank for Reconstruction and Development</p> <p>Country of Origin: all countries and territories as indicated in Section V of the bidding document, Eligible Countries.</p>
	<p>Following definitions are added:</p> <p>“Contractor’s Personnel” refers to all personnel whom the Contractor utilizes on the Site or other places where the Works are carried out, including the staff, labor and other employees of each Subcontractor.</p> <p>“Key Personnel” means the positions (if any) of the Contractor’s personnel that are stated in the Specification.</p> <p>“ES” means Environmental and Social (including Sexual Exploitation and Abuse (SEA), and Sexual Harassment (SH)).</p> <p>“Sexual Exploitation and Abuse” “(SEA)” means the following:</p> <p>Sexual Exploitation is defined as any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another;</p> <p>Sexual Abuse is defined as the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions.</p> <p>“Sexual Harassment” “(SH)” is defined as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature by the Contractor’s Personnel with other Contractor’s or Employer’s Personnel; and</p>

	<p>“Employer’s Personnel” refers to the Project Manager and all other staff, labor and other employees (if any) of the Project Manager and of the Employer engaged in fulfilling the Employer’s obligations under the Contract; and any other personnel identified as Employer’s Personnel, by a notice from the Employer or the Project Manager to the Contractor.</p>
PCC 5. Law and Language	<p>PCC 5.1 The Contract shall be interpreted in accordance with the laws of: Union of India.</p> <p>PCC 5.2 The ruling language is: English</p> <p>PCC 5.3 The language for communications is: English</p>
PCC 7. Scope of Facilities [Spare Parts] (GCC Clause 7)	<p>PCC 7.3 The Contractor agrees to supply spare parts for a period of years: 5 (Five) years.</p> <p>The Contractor shall carry sufficient inventories to ensure an ex-stock supply of consumable spares for the Plant. Other spare parts and components shall be supplied as promptly as possible, but at the most within six (6) months of placing the order and opening the letter of credit. In addition, in the event of termination of the production of spare parts, advance notification will be made to the Employer of the pending termination, with sufficient time to permit the Employer to procure the needed requirement. Following such termination, the Contractor will furnish to the extent possible and at no cost to the Employer the blueprints, drawings and specifications of the spare parts, if requested. The contractor should supply spare parts for operation and maintenance of DTRs,UGcable,AB cable and RMUs for a period of 5(five) years.</p>
PCC 8. Time for Commencement and Completion	<p>PCC 8.1 The Contractor shall commence work on the Facilities from the Effective Date for determining Time for Completion as specified in the Contract Agreement.</p> <p>PCC 8.2 The Time for Completion of the whole of the Facilities shall be 24 months from the Effective Date as described in the Contract Agreement.</p>
PCC 10.8 for GCC 10.8	<p>In the event that the Employer shall be in breach of any of his obligations under this Clause, the loss would be determined by the Employer and the contractor and would be compensated, as the same may be.</p>
PCC 11. Contract Price	<p>PCC 11.2 The Contract Price shall be adjusted in accordance with the provisions of the Appendix to the Contract Agreement titled Adjustment Clause.</p>

PCC 12. Terms of Payment	PCC 12.4 The currency in which payments are made to the Contractor under this Contract shall be Indian Rupees (Rs.)
PCC 13. Securities	<p>PCC 13.2.2 Addition of the following para in the end</p> <p>BG to be submitted for 100% of advance amount initially. Mobilisation advance to be paid @5% each in two tranche for <u>Supply& Erection</u>. On utilisation of 1st tranche and certificate from the controlling officer only, 2nd tranche mobilisation advance can be paid for both Supply and Erection Contracts.</p> <p>PCC 13.3.1 The amount of Performance Security, as a percentage of the Contract Price for the Facility or for the part of the Facility for which a separate Time for Completion is provided, shall be 10 (Ten) %. This performance security includes the contractor's performance on specified ESMF & ESIA arrangements under the contract</p> <p>PCC 13.3.2 The Performance Security shall be in the form of the bank guarantee attached hereto in Section X, Contract Forms.</p> <p>PCC 13.3.3 The Performance Security shall not be reduced on the date of the Operational Acceptance.</p> <p>PCC 13.3.3 The Performance Security shall be reduced to ten percent (10%) of the value of the component covered by the extended defect liability to cover the Contractor's extended defect liability in accordance with the provision in the PCC, pursuant to GCC Sub-Clause 27.10.</p> <p>Compliance of ESMF & ESIA in full satisfaction of the Employer will be a condition for release of the Performance Security.</p> <p>PCC 13.3.4 Deleted.</p> <p>PCC 13.3.5 The claim for invocation of BG can also be made at any local branch of the Scheduled Bank in Kolkata</p>
PCC 14 Taxes and Duties	<p>GCC 14.2 - replace it with the following:</p> <p>GCC 14.2 – “The Employer shall bear and pay/reimburse to the Contractor domestic taxes such as Goods and Services Tax (GST), in respect of transaction between the Employer and the Contractor imposed upon, on the Plant and Equipment and mandatory spare parts specified in Price Schedule No.2 to be incorporated into the Facilities, by the Laws of Union of India”.</p> <p>GCC 14.3 - Add the following at the end of the Sub-Clause:</p> <p>“The above will not apply to deemed export benefits”.</p> <p>GCC 14.4 – Add the following at the end of the Sub-Clause:</p>

	<p>“However, these adjustments would be restricted to transactions between the Employer and the Contractor and not on procurement of raw materials, intermediary components etc. by the Contractor. Further, no adjustment of the Contract Price shall be made on account of variation in deemed export benefits.”</p>
	<p>GCC 18.4.1 – Add a new sub-clause after 18.4:</p> <p>18.4.1 Unless otherwise stated in the Specifications, each progress report shall include the Environmental and Social (ES) metrics set out in Appendix D to the GCC. In addition to the progress reports, the Contractor shall inform the Project Manager immediately of any allegation, incident or accident in the Site, which has or is likely to have a significant adverse effect on the environment, the affected communities, the public, Employer’s Personnel, Project Manager’s personnel or Contractor’s Personnel. This includes, but is not limited to, any incident or accident causing fatality or serious injury; significant adverse effects or damage to private property; or any allegation of SEA and/or SH. In case of SEA and/or SH, while maintaining confidentiality as appropriate, the type of allegation (sexual exploitation, sexual abuse or sexual harassment), gender and age of the person who experienced the alleged incident should be included in the information.</p> <p>The Contractor, upon becoming aware of the allegation, incident or accident, shall also immediately inform the Project Manager of any such incident or accident on the Subcontractors’ or suppliers’ premises relating to the Works which has or is likely to have a significant adverse effect on the environment, the affected communities, the public, Employer’s Personnel, or Contractor’s, its Subcontractors’ and suppliers’ personnel. The notification shall provide sufficient detail regarding such incidents or accidents. The Contractor shall provide full details of such incidents or accidents to the Project Manager within the timeframe agreed with the Project Manager.</p> <p>The Contractor shall require its Subcontractors and suppliers (other than Subcontractors) to immediately notify the Contractor of any incidents or accidents referred to in this Subclause.</p>
PCC 20 Design and Engineering	<p>GCC 20.3.4 - Add the following at the end of the Sub-Clause:</p> <p>“The procedure for submission of the documents by the Contractor and their approval by the Project manager shall be discussed and finalized with the Contractor”.</p>
PCC 22 Installation	<p>PCC22.2.5 Working Hours</p> <p>Normal working hours are: 10.00 AM to 5.30 PM</p>

PCC 23.4	<p><u>Replace Para-2 of PCC 23,4 with the following</u></p> <p>If the Employer or Project Manager or their designated representatives fails to attend the test and/or inspection, and if it is agreed between the Parties that such persons shall not do so and another date may be scheduled. In case of again failure to attend test or Inspection then the Contractor may proceed with the test and/or inspection in the absence of such persons on request from the Employer, and may provide the Project Manager with a certified report of the results thereof</p>
PCC 23.11	<p>GCC Cl 23.4 : This para is deleted “If any parts of the Facilities or foundations have been covered up at the Site after compliance with the requirement of GCC Sub-Clause 23.10 and are found to be executed in accordance with the Contract, the expenses of uncovering, making openings in or through, reinstating, and making good the same shall be borne by the Employer, and the Time for Completion shall be reasonably adjusted to the extent that the Contractor has thereby been delayed or impeded in the performance of any of its obligations under the Contract.”</p>
PCC 24.2 & 24.3	<p>GCC 24.2 and 24.3 deleted</p>
PCC 24.4	<p>Add para in the start of 24.4</p> <p>All raw materials, utilities, lubricants, chemicals, catalysts, facilities, services and other matters required for Precommissioning of the Facilities or any part thereof shall be the responsibility of the Contractor</p>
PCC 25.1.1	<p>Add para in the last of 25.1.1</p> <p>All raw materials, utilities, lubricants, chemicals, catalysts, facilities, services and other matters required for Precommissioning of the Facilities or any part thereof shall be the responsibility of the Contractor</p>
PCC 25.1.2	<p>GCC 25.1.2 deleted</p>
PCC 25. Commissioning and Operational Acceptance	<p>PCC 25.2.2 The Guarantee Test of the Facilities shall be successfully completed within 28 days from the date of Completion.</p> <p>.</p>

PCC 25.5.2(c)	GCC 25.5.2(c) Deleted
PCC 26. Completion Time Guarantee	<p>PCC 26.2</p> <p>Applicable rate for liquidated damages: 0.5% of contract price per week or part thereof, subject to maximum 10% of the contract price.</p> <p>The above rate applies to the price of the part of the Facilities, as quoted in the Price Schedule, for whole of the facilities and not only on that part for which the Contractor fails to achieve Completion within the particular Time for Completion.</p> <p><i>[The above provision may be used where separate Times for Completion have been prescribed for parts of the Facilities].</i></p> <p>Maximum deduction for liquidated damages: 10% of total contract price</p> <p>Employer may, without prejudice to any other method of recovery, deduct the amount of such damages from any money due or to become due to the Contractor. The payment deduction of such damages does not relieve the Contractor from his obligation to complete the Work or from any of his other obligations and liabilities under the Contract.</p> <p>Works will be deemed to have been delivered/completed only when all component parts/all items of Works are also delivered/completed. If certain components/items of Works are not delivered in time, the same will be considered as delayed until such time due missing/incomplete parts/items of works are delivered/completed.</p> <p>In addition to the above, LD for delay under one Contract shall also be applicable to the other Contract under the same divisible Contracts as per cross-fall breach clause i.e. in case of delay under Erection Contract, LD will also be recoverable from the relevant Supply Contract and vice-versa. All the LDs will run concurrently</p> <p>PCC 26.3 No bonus will be given for earlier Completion of the Facilities or part thereof.</p>
PCC 27. Defect Liability	<p>GCC 27.8 - -- Add the following as a new Sub-Clause 27.8.1:</p> <p>“GCC 27.8.1 At the end of the Defect Liability Period, the Contractor’s liability ceases except for latent defects. The Contractor’s liability for latent defects warranty shall be limited to period of three (3) years from the end of Defect Liability Period. For the purpose of this clause, the latent defects shall be the defects inherently lying within the material or arising out of design deficiency which do not manifest themselves during the Defect Liability Period defined in this GCC Clause 27, but later.”</p> <p>However, Contractor shall have to submit an Indemnity Bond for Latent Defect liability period.</p>

	PCC 27.10 The critical components covered under the extended defect liability are <u>RMU, DTR, Cables</u> and the period shall be 5 (Five) years. At the end of the extended Defect Liability Period, the Contractor's liability ceases except for latent defects. The Contractor's liability for latent defects warranty shall be limited to period of Three (3) years from the end of extended Defect Liability Period. For the purpose of this clause, the latent defects shall be the defects inherently lying within the material or arising out of design deficiency which do not manifest themselves during the Defect Liability Period, but later. The Contractor shall have to submit an Indemnity Bond for Latent Defect liability period
PCC 30. Limitation of Liability	Sample Clause PCC 30.1 (b) The multiplier of the Contract Price is: <i>One</i>
PCC 36 Change in Laws and Regulation	GCC 36.1 - Add the following before the last sentence of the Sub-Clause: “However, these adjustments would be restricted to transactions between the Employer and the Contractor and not on procurement of raw materials, intermediary components etc. by the Contractor. Further, no adjustment of the Contract price shall be made on account of variation in deemed export benefits.”
PCC 39. Value Engineering	PCC 39.1.2 Provisions related to Value Engineering do not apply.
PCC 39.2.4 Rate of Change	Civil and Electrical activities which are not covered in scope/BPS (Bid Proposal Sheet), but are required to complete the job, shall be paid as per published PWD of WB Schedule of rates and rate contract of WBSEDCL or otherwise rationally derived rate, respectively as effective on the date of Bid Opening.
PCC 46. Disputes and Arbitration	PCC 46.1 and PCC 46.2 Name of the agreed Adjudicator (<i>insert name before signing contract</i>). Appointing Authority for the Adjudicator: [<i>insert name of Authority</i>].
	PCC 46.4

	Daily rate and types of reimbursable expenses to be paid to Adjudicator:
	<p>PCC 46.5</p> <p>The procedure for adhoc arbitration will be as follows:</p> <ul style="list-style-type: none"> (a) In case of Dispute or difference arising between the Employer and a Contractor relating to any matter arising out of or connected with this contract, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996. The arbitral tribunal shall consist of 3 Arbitrators one each to be appointed by the Employer and the Contractor. The third Arbitrator shall be chosen by the two Arbitrators so appointed by the Parties and shall act as Presiding Arbitrator. In case of failure of the two Arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the Arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed by the Indian Council of Arbitration/ President of the Institution of Engineers (India). (b) If one of the parties fails to appoint its Arbitrator in pursuance of sub-clause (a) above within 30 days after receipt of the notice of the appointment of its Arbitrator by the other party, then the Indian Council of Arbitration/ President of the Institution of Engineers (India), shall appoint the Arbitrator. A certified copy of the order of the Indian Council of Arbitration/ President of the Institution of Engineers (India), making such an appointment shall be furnished to each of the parties. (c) Arbitration proceedings shall be held at Kolkata, India, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English. (d) The decision of the majority of Arbitrators shall be final and binding upon both parties. The cost and expenses of Arbitration proceedings will be paid as determined by the arbitral tribunal. However, the expenses incurred by each party in connection with the preparation, presentation, etc. of its proceedings as also the fees and expenses paid to the Arbitrator appointed by such party or on its behalf shall be borne by each party itself.

	<p>(e) The Arbitrator should give final award within 120 days of starting of the proceedings, unless otherwise agreed to by the Parties.</p> <p>(f) Performance under the contract shall continue during the arbitration proceedings and payments due to the Contractor by the Employer shall not be withheld, unless they are the subject matter of the arbitration proceedings.</p>
PCC 47	<p>Addition of a new clause GCC 47</p> <p>47. Closure Procedure:-</p> <p>Contract Closing:</p> <p>On completion of handing over formality and successfully completion of defect liability / guarantee period, the contract shall be closed on completion of following formality:</p> <ol style="list-style-type: none"> I. Material reconciliation II. Payment reconciliations, submission and verifications that reconciliation of payment toward statutory provisions like GST CST/VAT/Entry Tax/Excise Duty, any other dues etc. Reconciliation statement shall be verified and vetted by chartered accountant. III. Approval for extension of Completion period, with or without compensation, as required. IV. Certification from agency regarding payment of dues to its <ol style="list-style-type: none"> i. Sub-vendors ii. Workers/ contract Labourers, iii. Payment of statutory dues toward Provident Funds, wages etc.as required. v. Certification of Project Manager & agency to the effect that erection, testing and commissioning of the equipment have been completed as per specifications laid down in the contract and defects noted at the time of commissioning and notified to the agency have been liquidated to the satisfaction of Employer.

	<ul style="list-style-type: none"> VI. Removal of construction meant for site stores, hutment, labour colony etc. in the premises of EMPLOYER. VII. Certificate from Project Manager in charge regarding final amendment of drawings and detailed of such amendments, VIII. Drawing receipt certificate by the Project Manager, IX. Receipt of compliance report on Quality Assurance Mechanism along with photograph, Assurance documents by Project Manager X. Shortfall in equipment / Line performance Certificate issued by Project Manager, XI. No demand certificate issued by contractor, XII. Certificate about completion of Defect Liability Period of the package by Project Manager, XIII. Certificate regarding return of Performance Security& ES performance security / Indemnity Bond by Project Manager/Employer XIV. Compliance report of ESMF & ESIA to be submitted.
<p>PCC 48: Permission/Licence Charge towards</p> <p>Road restoration charges</p>	<p>Addition of a new clause GCC 48: Cost of permission charges payable, if any, to Municipality/local body towards excavation & restoration of soil for laying of Cable Trench shall be reimbursed at actual on submission of Money Receipt issued by the concerned Local Bodies. (Municipality/Municipal Corporation etc) if not included in Bid schedule</p>

Section X - Contract Forms

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Notification of Award - Letter of Acceptance

To: _____

This is to notify you that your Bid dated _____ for execution of the _____ for the Contract Price in the aggregate of _____, as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by our Agency.

You are requested to furnish the Performance Security within 28 days in accordance with the Conditions of Contract, using for that purpose one of the Performance Security Forms included in Section X - Contract Forms, of the bidding document.

Authorized Signature: _____

Name and Title of Signatory: _____

Name of Agency: _____

Attachment: Contract Agreement

Contract Agreement

THIS AGREEMENT is made the _____ day of _____, _____,
BETWEEN

(1) _____ [*Name of Employer*], a corporation incorporated under the laws of _____ and having its principal place of business at _____ [*address of Employer*] (hereinafter called “the Employer”), and (2) _____ [*name of Contractor*], a corporation incorporated under the laws of _____ [*country of Contractor*] and having its principal place of business at _____ [*address of Contractor*] (hereinafter called “the Contractor”).

WHEREAS the Employer desires to engage the Contractor to design, manufacture, test, deliver, install, complete and commission certain Facilities, viz. _____ [*list of facilities*] (“the Facilities”), and the Contractor has agreed to such engagement upon and subject to the terms and conditions hereinafter appearing.

NOW IT IS HEREBY AGREED as follows:

Article 1. Contract Documents

1.1 Contract Documents (Reference GCC Clause 2)

The following documents shall constitute the Contract between the Employer and the Contractor, and each shall be read and construed as an integral part of the Contract:

- (a) This Contract Agreement and the Appendices hereto
- (b) Letter of Bid and Price Schedules submitted by the Contractor
- (c) Particular Conditions
- (d) General Conditions
- (e) Specification
- (f) Drawings
- (g) Other completed Bidding forms submitted with the Bid
- (h) Any other documents forming part of the Employer’s Requirements
- (i) Code of Conduct for Contractor’s personnel signed by the contractor (as per format attached herewith) and

Contractor's Environment & Social Management plan (C-ESMP)

- i. Environment and Social Management Plan (ESMP) under the Environment and Social Impact Assessment for the UG works in the town covered (issued with the bid invitation)
- (j) Any other documents shall be added here

1.2 Order of Precedence (Reference GCC Clause 2)

In the event of any ambiguity or conflict between the Contract Documents listed above, the order of precedence shall be the order in which the Contract Documents are listed in Article 1.1 (Contract Documents) above.

1.3 Definitions (Reference GCC Clause 1)

Capitalized words and phrases used herein shall have the same meanings as are ascribed to them in the General Conditions.

Article 2. Contract Price and Terms of Payment

2.1 Contract Price (Reference GCC Clause 11)

The Employer hereby agrees to pay to the Contractor the Contract Price in consideration of the performance by the Contractor of its obligations hereunder. The Contract Price shall be: _____, _____ [*amount of Rs. in words*], [*amount in figures*], as specified in Price Schedule No. 5 (Grand Summary), or such other sums as may be determined in accordance with the terms and conditions of the Contract.

2.2 Terms of Payment (Reference GCC Clause 12)

The terms and procedures of payment according to which the Employer will reimburse the Contractor are given in the Appendix (Terms and Procedures of Payment) hereto.

Article 3. Effective Date 3.1 Effective Date (Reference GCC Clause 1)

The Effective Date from which the Time for Completion of the Facilities shall be counted is the date of placement of Notification of Award (Letter of Intent).

Each party shall use its best efforts to fulfill the above conditions for which it is responsible as soon as practicable.

- 3.2 If the conditions listed under 3.1 are not fulfilled within two (2) months from the date of this Contract notification because of reasons not attributable to the Contractor, the Parties shall discuss and agree on an equitable adjustment to the Contract Price and the Time for Completion and/or other relevant conditions of the Contract.

**Article 4.
Communications**

- 4.1 The address of the Employer for notice purposes, pursuant to GCC 4.1 is: Chief Engineer, Distribution Project III Department, VidyutBhawan, 2nd Floor, Salt Lake City, Kolkata-700091

- 4.2 The address of the Contractor for notice purposes, pursuant to GCC 4.1 is: _____.

**Article 5.
Appendices**

- 5.1 The Appendices listed in the attached List of Appendices shall be deemed to form an integral part of this Contract Agreement.
- 5.2 Reference in the Contract to any Appendix shall mean the Appendices attached hereto, and the Contract shall be read and construed accordingly.

IN WITNESS WHEREOF the Employer and the Contractor have caused this Agreement to be duly executed by their duly authorized representatives the day and year first above written.

Signed by, for and on behalf of the Employer

Chief Engineer, _____

[Signature]

[Title]

in the presence of _____

Signed by, for and on behalf of the Contractor

[Signature]

[Title]

in the presence of _____

APPENDICES

- Appendix 1 Terms and Procedures of Payment
- Appendix 2 Price Adjustment
- Appendix 3 Insurance Requirements
- Appendix 4 Time Schedule
- Appendix 5 List of Major Items of Plant and Installation Services and List of Approved Subcontractors
- Appendix 6 Scope of Works and Supply by the Employer
- Appendix 7 List of Documents for Approval or Review
- Appendix 8 Functional Guarantees

[Note: Sample Forms of Appendices 1 to 8 are provided herein. However, since the provisions of Appendices 1 through 8 would be contract specific, these may be finalized by the Employer on a case-to-case basis.]

Appendix 1. Terms and Procedures of Payment

In accordance with the provisions of GCC Clause 12 (Terms of Payment), the Employer shall pay the Contractor in the following manner and at the following times, on the basis of the Price Breakdown given in the section on Price Schedules. Payments will be made in Rs, unless otherwise agreed between the Parties. Applications for payment in respect of part deliveries may be made by the Contractor as work proceeds.

TERMS OF PAYMENT

Schedule No. 1. Plant and Equipment Supplied from Abroad – **Not used.**

Schedule No. 2. Plant and Equipment (including Mandatory Spare Parts)

In respect of plant and equipment (including Mandatory Spare Parts), the payments shall be made in Rs. in the following manner.

Ten percent (10%) of the total EXW amount as an **Interest free** advance payment against receipt of invoice, and an irrevocable advance payment security for the equivalent amount made out in favor of the Employer. The advance payment will be made in two parts - Five percent (5%) shall be paid against signing of contract and the remaining five percent (5%) shall be paid after furnishing an utilization certificate of first part. Equivalent Invoice against previous mobilisation advance amount or documents regarding receipt of materials at site for equivalent amount for that package may be considered as utilization for the project. . The advance payment security may be reduced in proportion to the value of the plant and equipment delivered to the site, as evidenced by shipping and delivery documents.

Seventy percent (70%) of the total or pro rata EXW amount upon Incoterm “Ex-Works,” upon receipt at site, within sixty (60) days after receipt of invoice and on submission of following documents:

- i) 6 copies of supplier invoice showing contract no., goods description, quantity, unit price and total amount.
- iii) 6 copies of Detailed Packing list identify contents of each package.
- iv) Insurance Policy/Certificate.
- v) Manufacturer’s/supplier’s warranty certificate.
- vi) Factory inspection report issued by the Employer in the form of Dispatch Authorization.
- vii) Certificate of origin.
- viii) Proof of GST payment and e-way bill along with invoice.

ix) Certificate from the Project Manager on the specified format indicating that the material is required sequential to related erection and civil activities.

x) F & I components to be submitted along with Ex-works bills

Fifteen percent (15%) of the total or pro rata EXW amount upon issue of the Completion Certificate, within sixty (60) days after receipt of invoice.

Five percent (5%) of the total or pro rata EXW amount upon issue of the Operational Acceptance Certificate, within sixty (60) days after receipt of invoice.

Schedule No. 3. Design Services - Not Applicable

Schedule No. 4. Installation Services

In respect of installation services, payments shall be made in Rs. in the following manner:

Ten percent (10%) of the total installation services amount as an **Interest Free** advance payment against receipt of invoice, and an irrevocable advance payment security for the equivalent amount made out in favor of the Employer. The advance payment shall be made in two equal tranches – five percent (5%) shall be paid against contract signing and remaining five percent (5%) shall be paid after commencement of site activities as evidenced by opening of site office, deployment of contractor's personnel at site and commencement of site survey. The advance security may be reduced in proportion to the value of work performed by the Contractor as evidenced by the invoices for installation services.

Eighty percent (80%) of the measured value of work performed by the Contractor, as identified in the said Program of Performance, during the preceding month, as evidenced by the Employer's authorization of the Contractor's application, will be made monthly within sixty (60) days after receipt of invoice.

Five percent (5%) of the total or pro rata value of installation services performed by the Contractor as evidenced by the Employer's authorization of the Contractor's monthly applications, upon issue of the Completion Certificate, within sixty (60) days after receipt of invoice.

Five percent (5%) of the total or pro rata value of installation services performed by the Contractor as evidenced by the Employer's authorization of the Contractor's monthly applications, upon issue of the Operational Acceptance Certificate, within sixty (60) days after receipt of invoice.

100% of Taxes and Duties will be reimbursed on submission of bill with documentary evidence of payment within sixty [60] days of receipt of documents.

In the event that the Employer fails to make any payment on duly certified and complete bills in every respect on its respective due date (60 days after the date of submission of complete bills with all documents and duly Certification by Controlling Officer except under Force Majeure Situation), the Employer shall pay to the Contractor interest on the amount of such delayed payment at the rate equal to 3% per annum for period of delay until payment has been made in full.

PAYMENT PROCEDURES

The procedures to be followed in applying for certification and making payments shall be as follows:

a) The Employer shall make payments promptly within sixty (60) days of submission of an invoice/claim by the Contractor. All the payment shall be released to the Contractor directly.

b) The payments of price adjustment and taxes & duties etc. shall be made as follows:

- ***Payment of price adjustment: -***

Ninety Percent (90%) of the calculated price variation will be made within sixty (60) days after receipt of invoice.

Five percent (5%) of the calculated price variation will be made upon issue of the Completion Certificate, within sixty (60) days after receipt of invoice.

Five percent (5%) of the calculated price variation will be made upon issue of the Operational Acceptance Certificate, within sixty (60) days after receipt of invoice.

- ***Taxes and Duties:***

Taxes & Duties in respect of transaction between Employer and the Contractor and any other tax as applicable for destination site/state on all items of supply including bought-out finished items (as identified in the Contract), which shall be dispatched directly from the Vendor/sub-vendor's works to the Employer's site (sale-in-transit) will be paid after each shipment against documentary evidence. This payment shall be released by Employer directly to the Contractor against invoices to be submitted by the Contractor.

Note: *The bid price for (i) the items for which quantities have been indicated as lump sum or lot or set and/or (ii) where the quantities are to be estimated by the Contractor shall remain constant unless there is change made in the Scope of Work by Employer and/or for price variation relating to price adjustment provisions. The quantities and unit prices (i) subsequently arrived while approving the Bill of Quantities (BOQ) /Billing breakup of lump sum quantities/lot/Set and/or (ii) estimated by the Contractor shall be for on account payment purpose only. In case additional quantities, over and above the quantities BOQ/billing breakup and /or estimated by the Contractor, are required for successful completion of the scope of work as per Technical Specification, the Contractor shall execute additional quantities of these items for which no additional payment shall be made over and above the lump sum bid price. In case quantities of these items supplied at site are in excess of that required for successful completion of scope of work, such additional quantities shall be the property of the Contractors and they shall be allowed to take back the same from the site for which no deduction from the lump sum bid price shall be made. Further, in case actual requirement of quantities for successful completion of scope of work is less than the quantities identified in the approved BOQ /billing breakup and/or estimated by the Contractor, the lump sum bid price shall remain unchanged and no deduction shall be made from the lump sum price due to such reduction of quantities*

Appendix 2. Price Adjustment

Price Adjustment Formula

$$P_1 = P_0 \times \{0.15 + a \times (A_1/A_0) + b \times (B_1/B_0) + c \times (C_1/C_0) + l \times (L_1/L_0)\} - P_0$$

Where,

P_1 = Price adjustment amount, shipment-wise (if it works out negative, that would mean the amount to be recovered by the Employer from the Supplier).

P_0 = Ex-works price of Conductor.

A, B & L are the indices for materials and labour as below:

A = Monthly Average of “Aluminum LME SELLER Settlement Price including Premium of AL Ingots and Customs duty converted in Rs./MT” as published by IEEMA/ Nationally recognized published Price Index for EC Grade Aluminum Ingots acceptable to the Employer, in case index is not published by IEEMA .

B = Nationally recognized published Price Index for High Carbon Steel, acceptable to the Employer.

C = Nationally recognized published Price Index for High Grade Electrolytic Zinc acceptable to the Employer.

L = Indian field labour index – namely All India average consumer price index for Industrial Workers (monthly) (Base: 2001= 100), as published by Labour Bureau, Shimla, Government of India (www.labourbureau.nic.in).

a = Co-efficient for EC Grade Aluminium Ingots, which shall be 0.65.

b* = Co-efficient for High Carbon Steel, which shall be 0.13.

c* = Co-efficient for High Grade Electrolytic Zinc, which shall be 0.02.

l = Co-efficient for labour component, which shall be 0.05.

(*) For bidders who intend to quote their prices based on High Tensile Galvanised Steel wire, the coefficient for the same (i.e. coefficient 'b' for High Tensile Galvanised Steel wire) shall be 0.15 and coefficient 'c' shall not be applicable. In such a case,

B= Monthly Price exclusive of all duties of “High Tensile Galvanized Steel Wire (FE)” in Rs./MT as published by IEEMA/ Nationally recognized published Price index for High Tensile Galvanized Steel Wire acceptable to the Employer, in case index is not published by IEEMA.

- i) Subscript '0' refers to indices as on Calendar month preceding the month of opening of Bids, for material &labour.
 - ii) Subscript '1' refers to indices as applicable on Calendar month preceding the month of shipment, for material &labour.
- 2.1 The total price adjustment of Conductors shall not be subject to any ceiling whatsoever.- Not Applicable
- 3.0 The Bidders are required to estimate and indicate the values of different coefficients for each of the items in the price variation formulae within the specified range such that their summation is as specified in the Bidding Documents. Where no value or '-' or 'shall be furnished later' is specified against the coefficient, the same will be deemed to be zero and the fixed component would be suitably adjusted. If the values of all coefficients in price variation formulae indicated by the Bidder are within the specified range but their sum exceeds the summation specified in the Bidding Documents, the values of the coefficients shall be pro-rata adjusted such that the summation remains as per the provisions of the Bidding Documents. If the values of all coefficients indicated by the Bidder are within the specified range but their summation is less than the value specified in the Bidding Documents, the values of the coefficients as indicated by the Bidder shall be considered as such and the fixed component in the price variation formulae would be suitably adjusted. Further, if any of values of the coefficients indicated by the Bidder is out of the range specified in the Bidding Documents, the lower of the values, as indicated by the Bidder vis-à-vis lower value of the range for that coefficient specified in the Bidding Documents, shall be considered and the fixed component would be suitably adjusted.
- 4.0 The above price adjustment provision shall be invoked by either party subject to the following further conditions:
 - a) In case IEEMA does not publish any of the price indices, as mentioned above, the Bidder shall indicate any nationally recognised published index for respective items and the source of the same shall be furnished in the Bid.
 - c) In case of non-publication of applicable indices on a particular date, which happens to be the applicable date for Price Adjustment purposes, the published indices prevailing immediately prior to the particular date shall be applicable.
 - d) If the Price Adjustment amount works out to be positive, the same is payable to the Contractor by the Employer and if it works out to be negative, the same is to be recovered by the Employer from the Contractor.
 - e) The Contractor shall promptly submit price adjustment invoices for the supplies made/work done, positively within three (3) months from the date of shipment/work done, whether it is positive or negative.

**PRICE VARIATION CLAUSE FOR ALUMINIUM WOUND DISTRIBUTION TRANSFORMERS
COMPLETE WITH ALL ACCESSORIES AND COMPONENTS
(BEE/energy efficiency levels as per IS-1180 (part-1):2014)
(for Single & Three phase of ratings up to 2,500 KVA and voltage up to 33 KV)
supplied against domestic contracts**

This price variation clause is applicable for Single & Three phase 'Aluminium Wound Distribution Transformers', for BEE/energy efficiency levels as per IS-1180 (part-1):2014 of rating up to 2,500 KVA and voltages up to 33 KV; supplied against domestic contracts. A separate price variation clause IEEMA/PVC/STAR_DIST-AL/DE/2015 (R-1) has been evolved for above types of Transformers supplied against export/deemed export contracts under special imprest licensing scheme.

The price quoted/confirmed is based on the input cost of raw materials/components and labour cost as on the date of quotation and the same is deemed to be related to prices of raw materials and all India average consumer price index number for industrial workers as specified in the price variation clause given below. In case of any variation in these prices/indices, the price payable shall be subject to adjustment, up or down in accordance with the following formula:

$$P = \frac{P_0}{100} \left(10 + 19 \frac{AL}{AL_0} + 30 \frac{ES}{ES_0} + 13 \frac{IS}{IS_0} + 4 \frac{IM}{IM_0} + 11 \frac{TO}{TO_0} + 13 \frac{W}{W_0} \right)$$

Wherein,

- P** = Price payable as adjusted in accordance with the above formula.
- P₀** = Price quoted/confirmed.
- AL₀** = Price of EC Grade Aluminium rods (Properzi rods) or LME CSP Average of Aluminium (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.
- ES₀** = Price of CRGO Electrical Steel Lamination (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.
- IS₀** = Price of HR Coil of 3.15 mm thickness (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.
- IM₀** = Price of Insulating Materials (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.
- TO₀** = Price of Transformer Oil (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.

W_0 = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base: 2001 = 100)
This index number is as applicable on the first working day of the month, three months prior to the date of tendering.

For example, if date of tendering falls in December 2015, applicable prices of Aluminium (AL_0), Transformer Oil (TO_0), CRGO Steel Sheets (ES_0), HR Coil (IS_0) and Insulating material (IM_0) should be as on 1st November 2015 and all India average consumer price index no. (W_0) should be for the month of September 2015.

The above prices and indices are as published by IEEMA vide circular reference number IEEMA(PVC)/DIST_PWR_TRF / / one month prior to the date of tendering.

AL = Price of EC Grade Aluminium rods (Properzi rods) or LME CSP Average of Aluminium (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of delivery.

ES = Price of CRGO Electrical Steel Lamination (refer notes)
This price is as applicable on the 1st working day for the month, one month prior to the date of delivery.

IS = Price of HR Coil of 3.15 mm thickness (refer notes)
This price is as applicable on the 1st working day for the month, one month prior to the date of delivery.

IM = Price of Insulating Materials (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of delivery.

TO = Price of Transformer Oil (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of delivery.

W = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base: 2001 = 100)
This index number is as applicable on the first working day of the month, three months prior to the date of delivery.

For example, if date of delivery in terms of clause given below falls in December 2015, applicable prices of Aluminium (AL), Transformer Oil (TO), CRGO Steel Sheets (ES), HR Coil (IS) and Insulating material (IM) should be as on 1st November 2015 and all India average consumer price index number (W) should be for the month of September 2015.

The above prices and indices are as published by IEEMA vide circular reference number IEEMA(PVC)/DIST_PWR_TRF / / one month prior to the date of delivery.

The date of delivery is the date on which the transformer is notified as being ready for inspection/despatch (in the absence of such notification, the date of manufacturer's despatch note is to be considered as the date of delivery) or the contracted delivery date (including any agreed extension thereto), whichever is earlier.

**PRICE VARIATION CLAUSE FOR COPPER WOUND DISTRIBUTION TRANSFORMERS
COMPLETE WITH ALL ACCESSORIES AND COMPONENTS
(BEE/Energy efficiency levels as per IS-1180 (part-1):2014)
(for Single & Three Phase of ratings up to 2,500 KVA and voltage up to 33 KV)
supplied against domestic contracts**

This price variation clause is applicable for Single & Three phase 'Copper Wound Distribution Transformers', for BEE/energy efficiency levels as per IS-1180 (part-1):2014 of rating up to 2,500 KVA and voltages up to 33 KV; supplied against domestic contracts. A separate price variation clause IEEMA/PVC/STAR_DIST-CU/DE/2015 (R-1) has been evolved for above types of Transformers supplied against export/deemed export contracts under special imprest licensing scheme.

The price quoted/confirmed is based on the input cost of raw materials/components and labour cost as on the date of quotation and the same is deemed to be related to prices of raw materials and all India average consumer price index number for industrial workers as specified in the price variation clause given below. In case of any variation in these prices/indices, the price payable shall be subject to adjustment, up or down in accordance with the following formula:

$$P = \frac{P_0}{100} \left(10 + 33 \frac{C}{C_0} + 24 \frac{ES}{ES_0} + 9 \frac{IS}{IS_0} + 4 \frac{IM}{IM_0} + 5 \frac{TO}{TO_0} + 15 \frac{W}{W_0} \right)$$

Wherein,

- P** = Price payable as adjusted in accordance with the above formula.
- P₀** = Price quoted/confirmed.
- C₀** = Average LME settlement price of copper wire bars (refer notes)
This price is as applicable for the month, one month prior to the date of tendering.
- ES₀** = Price of CRGO Electrical Steel Lamination (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.
- IS₀** = Price of HR Coil of 3.15 mm thickness (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.
- IM₀** = Price of Insulating Materials (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.
- TO₀** = Price of Transformer Oil (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.

W_0 = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base: 2001 = 100)
This index number is as applicable on the first working day of the month, three months prior to the date of tendering.

For example, if date of tendering falls in December 2015, applicable prices of Copper (C_0), Transformer Oil (TO_0), CRGO Steel Sheets (ES_0), HR Coil (IS_0) and Insulating material (IM_0) should be as on 1st November 2015 and all India average consumer price index no. (W_0) should be for the month of September 2015.

The above prices and indices are as published by IEEMA vide circular reference number IEEMA(PVC)/DIST_PWR_TRF / / one month prior to the date of tendering.

C = Average LME settlement price of copper wire bars (refer notes)
This price is as applicable for the month, one month prior to the date of delivery.

ES = Price of CRGO Electrical Steel Lamination (refer notes)
This price is as applicable on the 1st working day for the month, one month prior to the date of delivery.

IS = Price of HR Coil of 3.15 mm thickness (refer notes)
This price is as applicable on the 1st working day for the month, one month prior to the date of delivery.

IM = Price of Insulating Materials (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of delivery.

TO = Price of Transformer Oil (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of delivery.

W = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base: 2001 = 100)
This index number is as applicable on the first working day of the month, three months prior to the date of delivery.

For example, if date of delivery in terms of clause given below falls in December 2015, applicable prices of Copper (C), Transformer Oil (TO), CRGO Steel Sheets (ES), HR Coil (IS) and Insulating material (IM) should be as on 1st November 2015 and all India average consumer price index number (W) should be for the month of September 2015.

The above prices and indices are as published by IEEMA vide circular reference number IEEMA(PVC)/DIST_PWR_TRF / / one month prior to the date of delivery.

The date of delivery is the date on which the transformer is notified as being ready for inspection/despatch (in the absence of such notification, the date of manufacturer's despatch note is to be considered as the date of delivery) or the contracted delivery date (including any agreed extension thereto), whichever is earlier.

**PRICE VARIATION CLAUSE FOR ALUMINIUM WOUND DISTRIBUTION TRANSFORMERS
COMPLETE WITH ALL ACCESSORIES AND COMPONENTS
(Non-BEE & energy efficiency levels not as per IS-1180 (part-1):2014)
(for Single & Three phase of ratings up to 2,500 KVA and voltage up to 33 KV)
supplied against domestic contracts**

This price variation clause is applicable for Single & Three phase 'Aluminium Wound Distribution Transformers' for Non-BEE & energy efficiency levels not as per IS-1180 (part-1):2014 of rating up to 2,500 KVA and voltages up to 33 KV supplied against domestic contracts. A separate price variation clause IEEMA/PVC/DIST-AL/DE/2015 (R-2) has been evolved for above types of Transformers supplied against export/deemed export contracts under special imprest licensing scheme.

The price quoted/confirmed is based on the input cost of raw materials/components and labour cost as on the date of quotation and the same is deemed to be related to prices of raw materials and all India average consumer price index number for industrial workers as specified in the price variation clause given below. In case of any variation in these prices/indices, the price payable shall be subject to adjustment, up or down in accordance with the following formula:

$$P = \frac{P_0}{100} \left(10 + 20 \frac{AL}{AL_0} + 27 \frac{ES}{ES_0} + 14 \frac{IS}{IS_0} + 4 \frac{IM}{IM_0} + 11 \frac{TO}{TO_0} + 14 \frac{W}{W_0} \right)$$

Wherein,

P = Price payable as adjusted in accordance with the above formula.

P₀ = Price quoted/confirmed.

AL₀ = Price of EC Grade Aluminium rods (Properzi rods) or LME CSP Average of Aluminium (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.

ES₀ = Price of CRGO Electrical Steel Lamination (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.

IS₀ = Price of HR Coil of 3.15 mm thickness (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.

IM₀ = Price of Insulating Materials (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.

TO₀ = Price of Transformer Oil (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.

W₀ = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base: 2001 = 100)
This index number is as applicable on the first working day of the month, three months prior to the date of tendering.

For example, if date of tendering falls in December 2015, applicable prices of Aluminium (AL₀), Transformer Oil (TO₀), CRGO Steel Sheets (ES₀), HR Coil (IS₀) and Insulating material (IM₀) should be as on 1st November 2015 and all India average consumer price index no. (W₀) should be for the month of September 2015.

The above prices and indices are as published by IEEMA vide circular reference number IEEMA(PVC)/DIST_PWR_TRF / / one month prior to the date of tendering.

AL = Price of EC Grade Aluminium rods (Properzi rods) or LME CSP Average of Aluminium (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of delivery.

ES = Price of CRGO Electrical Steel Lamination (refer notes)
This price is as applicable on the 1st working day for the month, one month prior to the date of delivery.

IS = Price of HR Coil of 3.15 mm thickness (refer notes)
This price is as applicable on the 1st working day for the month, one month prior to the date of delivery.

IM = Price of Insulating Materials (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of delivery.

TO = Price of Transformer Oil (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of delivery.

W = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base: 2001 = 100)
This index number is as applicable on the first working day of the month, three months prior to the date of delivery.

For example, if date of delivery in terms of clause given below falls in December 2015, applicable prices of Aluminium (AL), Transformer Oil (TO), CRGO Steel Sheets (ES), HR Coil (IS) and Insulating material (IM) should be as on 1st November 2015 and all India average consumer price index number (W) should be for the month of September 2015.

The above prices and indices are as published by IEEMA vide circular reference number IEEMA(PVC)/DIST_PWR_TRF / / one month prior to the date of delivery.

The date of delivery is the date on which the transformer is notified as being ready for inspection/despatch (in the absence of such notification, the date of manufacturer's despatch note is to be considered as the date of delivery) or the contracted delivery date (including any agreed extension thereto), whichever is earlier.

**PRICE VARIATION CLAUSE FOR COPPER WOUND DISTRIBUTION TRANSFORMERS
COMPLETE WITH ALL ACCESSORIES AND COMPONENTS
(Non-BEE & energy efficiency levels not as per IS-1180 (part-1):2014)
(for Single & Three phase of ratings up to 2500 KVA and voltage up to 33 KV)
supplied against domestic contracts**

This price variation clause is applicable for Single & Three phase 'Copper Wound Distribution Transformers', for Non-BEE & energy efficiency levels not as per IS-1180 (part-1):2014 of rating up to 2,500 KVA and voltages up to 33 KV; supplied against domestic contracts. A separate price variation clause IEEMA/PVC/DIST-CU/DE/2015 (R-2) has been evolved for above types of Transformers supplied against export/deemed export contracts under special imprest licensing scheme.

The price quoted/confirmed is based on the input cost of raw materials/components and labour cost as on the date of quotation and the same is deemed to be related to prices of raw materials and all India average consumer price index number for industrial workers as specified in the price variation clause given below. In case of any variation in these prices/indices, the price payable shall be subject to adjustment, up or down in accordance with the following formula:

$$P = \frac{P_0}{100} \left(10 + 33 \frac{C}{C_0} + 21 \frac{ES}{ES_0} + 11 \frac{IS}{IS_0} + 5 \frac{IM}{IM_0} + 6 \frac{TO}{TO_0} + 14 \frac{W}{W_0} \right)$$

Wherein,

- P = Price payable as adjusted in accordance with the above formula.
- P_0 = Price quoted/confirmed.
- C_0 = Average LME settlement price of copper wire bars (refer notes)
This price is as applicable for the month, one month prior to the date of tendering.
- ES_0 = Price of CRGO Electrical Steel Lamination (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.
- IS_0 = Price of HR Coil of 3.15 mm thickness (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.
- IM_0 = Price of Insulating Materials (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.
- TO_0 = Price of Transformer Oil (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.

W_0 = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base: 2001 = 100)
This index number is as applicable on the first working day of the month, three months prior to the date of tendering.

For example, if date of tendering falls in December 2015, applicable prices of Copper (C_0), Transformer Oil (TO_0), CRGO Steel Sheets (ES_0), HR Coil (IS_0) and Insulating material (IM_0) should be as on 1st November 2015 and all India average consumer price index no. (W_0) should be for the month of September 2015.

The above prices and indices are as published by IEEMA vide circular reference number IEEMA(PVC)/DIST_PWR_TRF / / one month prior to the date of tendering.

C = Average LME settlement price of copper wire bars (refer notes)
This price is as applicable for the month, one month prior to the date of delivery.

ES = Price of CRGO Electrical Steel Lamination (refer notes)
This price is as applicable on the 1st working day for the month, one month prior to the date of delivery.

IS = Price of HR Coil of 3.15 mm thickness (refer notes)
This price is as applicable on the 1st working day for the month, one month prior to the date of delivery.

IM = Price of Insulating Materials (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of delivery.

TO = Price of Transformer Oil (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of delivery.

W = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base: 2001 = 100)
This index number is as applicable on the first working day of the month, three months prior to the date of delivery.

For example, if date of delivery in terms of clause given below falls in December 2015, applicable prices of Copper (C), Transformer Oil (TO), CRGO Steel Sheets (ES), HR Coil (IS) and Insulating material (IM) should be as on 1st November 2015 and all India average consumer price index number (W) should be for the month of September 2015.

The above prices and indices are as published by IEEMA vide circular reference number IEEMA(PVC)/DIST_PWR_TRF / / one month prior to the date of delivery.

The date of delivery is the date on which the transformer is notified as being ready for inspection/despatch (in the absence of such notification, the date of manufacturer's despatch note is to be considered as the date of delivery) or the contracted delivery date (including any agreed extension thereto), whichever is earlier.

**PRICE VARIATION CLAUSE FOR COPPER WOUND DISTRIBUTION TRANSFORMERS
COMPLETE WITH ALL ACCESSORIES AND COMPONENTS
(For Single and Three phase of ratings above 2,500 KVA up to 10 MVA and voltage up to 33 KV)
supplied against domestic contracts**

This price variation clause is applicable for 'Copper Wound Distribution Transformers', with rating above 2,500 KVA up to 10 MVA and voltages up to 33 KV; supplied against domestic contracts. A separate price variation clause IEEMA/PVC/DIST-CU_2.5-33KV/DE/2015 has been evolved for above types of Transformers supplied against export/deemed export contracts under special imprest licensing scheme.

The price quoted/confirmed is based on the input cost of raw materials/components and labour cost as on the date of quotation and the same is deemed to be related to prices of raw materials and all India average consumer price index number for industrial workers as specified in the price variation clause given below. In case of any variation in these prices/indices, the price payable shall be subject to adjustment, up or down in accordance with the following formula:

$$P = \frac{P_0}{100} \left(10 + 33 \frac{C}{C_0} + 24 \frac{ES}{ES_0} + 8 \frac{IS}{IS_0} + 4 \frac{IM}{IM_0} + 6 \frac{TQ}{TQ_0} + 15 \frac{W}{W_0} \right)$$

Wherein,

- P = Price payable as adjusted in accordance with the above formula.
- P_0 = Price quoted/confirmed.
- C_0 = Average LME settlement price of copper wire bars (refer notes)
This price is as applicable for the month, one month prior to the date of tendering.
- ES_0 = Price of CRGO Electrical Steel Lamination (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.
- IS_0 = Price of MS Plate of 6 mm thickness (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.
- IM_0 = Price of Insulating Materials (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.
- TQ_0 = Price of Transformer Oil (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.

W_0 = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base: 2001 = 100)
This index number is as applicable on the first working day of the month, three months prior to the date of tendering.

For example, if date of tendering falls in December 2015, applicable prices of Copper (C_0), Transformer Oil (TO_0), CRGO Steel Sheets (ES_0), MS Sheet (IS_0) and Insulating material (IM_0) should be as on 1st November 2015 and all India average consumer price index no. (W_0) should be for the month of September 2015.

The above prices and indices are as published by IEEMA vide circular reference number IEEMA(PVC)/DIST_PWR_TRF / / one month prior to the date of tendering.

C = Average LME settlement price of copper wire bars (refer notes)
This price is as applicable for the month, one month prior to the date of delivery.

ES = Price of CRGO Electrical Steel Lamination (refer notes)
This price is as applicable on the 1st working day for the month, one month prior to the date of delivery.

IS = Price of MS Plate of 6 mm thickness (refer notes)
This price is as applicable on the 1st working day for the month, one month prior to the date of delivery.

IM = Price of Insulating Materials (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of delivery.

TO = Price of Transformer Oil (refer notes)
This price is as applicable on the 1st working day of the month, one month prior to the date of delivery.

W = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base: 2001 = 100)
This index number is as applicable on the first working day of the month, three months prior to the date of delivery.

For example, if date of delivery in terms of clause given below falls in December 2015, applicable prices of Copper (C), Transformer Oil (TO), CRGO Steel Sheets (ES), MS Sheet (IS) and Insulating material (IM) should be as on 1st November 2015 and all India average consumer price index number (W) should be for the month of September 2015.

The above prices and indices are as published by IEEMA vide circular reference number IEEMA(PVC)/DIST_PWR_TRF / / one month prior to the date of delivery.

The date of delivery is the date on which the transformer is notified as being ready for inspection/despatch (in the absence of such notification, the date of manufacturer's despatch note is to be considered as the date of delivery) or the contracted delivery date (including any agreed extension thereto), whichever is earlier.

PRICE VARIATION CLAUSE FOR MV MIS (ABOVE 11000 V AND UPTO AND INCLUDING 36 KV) SWITCHGEAR AND CONTROL GEAR

The price quoted/confirmed is based on the input cost of raw materials/components and labour cost as on the date of quotation and the same is deemed to be related to prices of raw materials and all India average consumer price index number for industrial workers as specified in the price variation clause given below. In case of any variation in these prices and index numbers, the price payable shall be subject to adjustment, up or down in accordance with the following formula-

$$P = P_o / 100 (20 + 28 * IS/ISO + 26 * C/CO + 4 * AL/ALO + 9 * In/I_no + 13 * W/WO)$$

Wherein,

P = Price payable as adjusted in accordance with the above formula

P_o = Price quoted/confirmed (Exclusive of all taxes and duties)

ISo = Wholesale price index for “Manufacture of Basic Metals” (Base:2011-12=100)(refer notes)

Co= Average LME settlement price of copper wire bars(refer notes) This price is applicable on the 1st working day of the month, **one month** prior to the date of tendering

ALO = Price of busbar grade Aluminium (refer notes) This price is applicable on the 1st working day of the month, **one month** prior to the date of tendering

Ino = Price of epoxy resin for indoor circuit breakers and switchgears(refer notes)) This price is applicable on the 1st working day of the month,**one month** prior to the date of tendering OR, Wholesale price index of Insulator for outdoor circuit breakers (VBF and SDB)(refer notes)

This index number is as applicable for the month,**Three** month prior to the date of tendering.

Wo = All India average consumer price index number for industrial workers, as published by the Labour Bureau,Ministry of Labour,Govt of India(Base 2001=100)

The index number is as applicable for the month,**Four** months prior to the date of tendering

For example if the date of tendering of indoor circuit breakers falls in April 2019, applicable prices of copper (Co),Aluminium Bus bar (Alo)and Insulating Material(Ino) should be as on 1st March 2019 and Wholesale price index number for ‘Manufacture of Basic Metals’(So)and all India average consumer price index no(Wo) should be for the month of January 2019

The above prices and indices are as published by IEEMA vide circular ref no. IEEMA(PVC)/SWGR(R-1)/-/-ONE month prior to the date of tendering.

IS = Wholesale price index for Manufacture of Basic Metals(Base 2011-12 = 100)(refer notes)This index number is as applicable for the month,FOUR month prior to the date of delivery.

C= Average LME settlement price wire bars(refer notes)

This price is applicable for the month,**two** month prior to the date of delivery.

AL= Price of busbar AL grade(refer notes)

This price is as applicable on the 1st working day of the month,**TWO**month prior to the date of delivery

In = Price of epoxy resin for indoor circuit breakers and switchgear(refer notes)This price is as applicable on the 1st working day of the month,**TWO** month prior to the date of delivery OR Wholesale price index of Insulator for outdoor circuit breakers(VBF and SDB)(refer notes)The index number is as applicable for the month,**Four**month prior to the date of delivery.

W= All India Average consumer price index number for industrial workers, as published by the Labour Bureau,Ministry of Labour,Govt of India (Base 2001=100)

This index number is applicable for the month, **five**month prior to the date of delivery.

For example, if date of delivery of indoor circuit breakers in terms of clause given below falls in June 2019, applicable prices of Copper(Co),Aluminium Busbar (ALo)and Insulating

Materials (Ino)should be on 1st April 2019 and Wholesale price index number for Manufacture of Basic Metals (SO) and all india average consumer price index no(WO)should be for the month of February 2019.

The date of delivery is the date on which the product is notified as being ready for inspection/despatch (in the absence of such notification,the date of manufacture's despatch note is to be confirmed as the date of delivery)or the contracted delivery date(including any agreed extention thereto),whichever is earlier.

Notes :The prices of raw materials are exclusive of modvatable GST/CV duty amount and exclusive of any other central ,state or local taxes,octroi etc.

Note :1. PV formula for LT AB cable and LT AB cable is provided separately in Additional Technical Specification –Part A

2.PV formula for HT UG cable will be as per latest IEEMA.

3. For 11 KV Switchgear,month to be considered for Wholesale price index ISOis 3 months prior to date of tendering as per IEEMA formula provided.

Material Price Variation Clause For PVC And XLPE Insulated Cables

The Price quoted/confirmed is based on the input cost of raw materials/components as on the date of quotation, and the same is deemed to be related to the prices of raw materials as specified in the price variation clause given below. In case of any variation in these prices, the price payable shall be subject to adjustment up or down in accordance with the formulae provided in this document.

Terms used in price variation formulae:

P Price payable as adjusted in accordance with above appropriate formula (in Rs/Km)

Po Price quoted/confirmed (in Rs/Km)

ALUMINIUM

AIF Variation factor for aluminium

AI Price of Aluminium. This price is as applicable of first working day of the month, one month prior to the date of delivery.

Alo Price of aluminium. This price is as applicable on first working day of the month, one month prior to the date of tendering.

COPPER

CuF Variation factor for copper

Cu Price of CC copper rods. This price is as applicable on first working day of the month, one month prior to the date of delivery.

Cuo Price of CC copper rods. This price is as applicable on first working day of the month, one month prior to the date of tendering.

PVC COMPOUND

PVCc price of PVC compound. This price is as applicable on first working day of the month, one month prior to the date of delivery.

PVCco Price of PVC compound. This price is as applicable on first working day of the month, one month prior to the date of tendering.

CCFAI Variation factor for PVC compound/Polymer for aluminum conductor cable.

CCFCu Variation factor for PVC compound/Polymer for copper conductor cable.

XLPE COMPOUND

Cc price of XLPE compound. This price is as applicable on first working day of the month, one month prior to the date of delivery.

Cco Price of XLPE compound. This price is as applicable on first working day of the month, one month prior to the date of tendering.

XLFAL Variation factor for XLPE compound for aluminum conductor cable.

XLFCU Variation factor for XLPE compound for Copper conductor cable.

STEEL

FeF Variation factor for steel

FeW Variation factor for round wire steel armouring

Fe Price of Steel Strips/steel wire. This price is as applicable on the first working day of the month, one month prior to the date of delivery.

Feo Price of steel strips/steel wire. This price is as applicable on first working day of the month, one month prior to the date of tendering.

The above prices and indices are as published by IEEMA vide Circular reference IEEMA (PVC)/CABLE (R-1)/--/-- prevailing as on 1st working day of the month i.e. one month prior to the date of tendering.

The date of delivery is the date on which the cable is notified as being ready for inspection/dispatch (in the absence of such notification, the date of manufacturer's dispatch note is to be considered as the date of delivery) or the contracted delivery date (including any agreed extension thereto), whichever is earlier.

D. Aluminum conductor XLPE insulated 1.1 kV power cables

$$P = P_o + AIF (AL - ALo) + XLFAL(CC - Cco) + CCFAI (PVCc - PVCco) + FeF (Fe - Feo)$$

For unarmoured multicore cables (without steel armour); FeF = 0

Table References:

ALP	Aluminium conductor in single core unarmoured & multicore cables
P1	Aluminium conductor aluminium armour in single core armoured cables
P2	PVC compound
P3	Steel armour
XL1	XLPE Compound

G. For Aluminium conductor XLPE insulated 3.3 to 33 kV power cables

$$P = P_o + AIF (Al - Al_o) + XLFAL(CC-Cco) + CCFAl (PVCc - PVCco) + FeF (Fe - Fe_o)$$

For unarmoured multicore cables (without steel armour); $FeF = 0$

Table References:

ALP	Aluminium conductor in single core unarmoured & multicore cables
H1	Aluminium conductor + aluminium armour in single core armoured cables
H2	Polymer
H3/H5	Steel armour (Flat/Round)
XL3/XL4	XLPE Compound (Single core /Multicore)

TABLE P1

VARIATION FACTOR FOR ALUMINIUM (AIF)
ALUMINIUM ARMoured SINGLE CORE PVC INSULATED 1.1 KV CABLES

Nominal cross sectional area (in Sq.mm)	Aluminium factor for Aluminium armoured cable with aluminium conductor
4	0.0685
6	0.0795
10	0.1017
16	0.1303
25	0.1693
35	0.2090
50	0.2597
70	0.3360
95	0.4567
120	0.5443
150	0.6427
185	0.7743
240	0.9737
300	1.2582
400	1.5502
500	1.8958
630	2.3650
800	2.9306
1000	3.7666

TABLE ALP

VARIATION FACTOR FOR ALUMINIUM (AIF)
POWER CABLES WITH ALUMINIUM CONDUCTOR
(EXCLUDING SINGLE CORE ARMoured CABLES)

Nominal Cross Sectional Area (in Sq. mm.)	1 core	2 core	3 core	3.5 core	4 core
2.5	0.007	0.014	0.021	-	0.028
4	0.011	0.023	0.034	-	0.046
6	0.017	0.034	0.052	-	0.069
10	0.029	0.053	0.087	-	0.116
16	0.046	0.091	0.137	-	0.183
25/16	0.073	0.146	0.219	0.262	0.292
35/16	0.101	0.202	0.302	0.345	0.404
50/25	0.137	0.273	0.410	0.478	0.547
70/35	0.197	0.395	0.593	0.687	0.791
95/50	0.274	0.548	0.821	0.949	1.095
120/70	0.346	0.691	1.036	1.221	1.382
150/70	0.425	0.853	1.279	1.464	1.706
185/95	0.533	1.070	1.605	1.861	2.140
225/120	0.655	1.310	1.965	2.287	2.620
240/120	0.703	1.400	2.099	2.421	2.799
300/150	0.879	1.757	2.635	3.033	3.514
400/185	1.126	2.249	3.374	3.873	4.498
500	1.418	2.838	4.256	-	5.675
630	1.828	3.663	5.494	-	7.326
800	2.340	4.679	7.018	-	9.357
1000	2.951	5.890	8.834	-	11.779

TABLE XL1
VARIATION FACTOR FOR XLPE COMPOUND (XLFAL/XLFUCU)
 XLPE INSULATED 1.1 KV POWER CABLES WITH COPPER/ALUMINIUM CONDUCTOR

Nominal cross Sectional Area (in Sq. mm)	1 core		2 core		3 core		3.5 core		4 core	
	Unarm	Arm	Unarm	Arm	Unarm	arm	Unarm	Arm	Unarm	arm
2.5	0.007	0.010	0.014	0.014	0.021	0.021			0.028	0.028
4	0.009	0.012	0.018	0.018	0.027	0.027			0.036	0.036
6	0.010	0.015	0.022	0.022	0.033	0.033			0.043	0.043
10	0.013	0.018	0.025	0.025	0.039	0.039			0.053	0.053
16	0.016	0.023	0.034	0.034	0.049	0.049			0.065	0.065
25	0.021	0.030	0.048	0.048	0.070	0.070	0.084	0.084	0.093	0.093
35	0.025	0.035	0.059	0.059	0.084	0.084	0.099	0.099	0.112	0.112
50	0.033	0.044	0.075	0.075	0.108	0.108	0.130	0.130	0.144	0.144
70	0.042	0.054	0.095	0.095	0.137	0.137	0.160	0.160	0.179	0.179
95	0.048	0.062	0.110	0.110	0.160	0.160	0.190	0.190	0.211	0.211
120	0.060	0.076	0.138	0.138	0.200	0.200	0.239	0.239	0.266	0.266
150	0.078	0.095	0.180	0.180	0.259	0.259	0.296	0.296	0.344	0.344
185	0.097	0.116	0.224	0.224	0.324	0.324	0.369	0.369	0.430	0.430
240	0.116	0.137	0.266	0.266	0.388	0.388	0.446	0.446	0.518	0.518
300	0.138	0.164	0.325	0.325	0.467	0.467	0.540	0.540	0.620	0.620
400	0.175	0.214	0.357	0.357	0.536	0.536	0.619	0.619	0.714	0.714
500	0.217	0.260	0.440	0.440	0.660	0.660	0.769	0.769	0.880	0.880
630	0.265	0.318	0.542	0.542	0.814	0.814	0.941	0.941	1.085	1.085
800	0.323	0.389								
1000	0.375	0.444								

TABLE XL3
VARIATION FACTOR FOR XLPE(XLFAL/XLFCU)

SINGLE CORE ARMoured /UNARMoured XLPE INSULATED 3.3 to 33 KV POWER CABLES WITH
 CU / AL CONDUCTOR

Nominal Cross Sectional Area (in Sq. mm.)	XLPE Factor for Armoured/ Unarmoured Cable with AL /CU Conductor					
	3.3 KV	6.6 KV (E)	11 KV (E)/ 6.6 KV (UE)	11 KV (UE)	22 KV (E)	33 KV (E)
25	0.110	0.131	0.170	0.279		
35	0.122	0.137	0.175	0.284	0.317	0.522
50	0.135	0.151	0.191	0.307	0.341	0.563
70	0.155	0.172	0.215	0.342	0.379	0.615
95	0.174	0.193	0.241	0.377	0.417	0.670
120	0.192	0.212	0.262	0.407	0.449	0.713
150	0.209	0.229	0.283	0.437	0.481	0.757
185	0.228	0.250	0.308	0.471	0.518	0.809
240	0.255	0.279	0.343	0.519	0.569	0.883
300	0.280	0.322	0.372	0.560	0.613	0.943
400	0.326	0.392	0.420	0.625	0.683	1.041
500	0.388	0.461	0.469	0.694	0.757	1.142
630	0.467	0.520	0.529	0.777	0.845	1.265
800	0.567	0.593	0.602	0.874	0.949	1.407
1000	0.656	0.665	0.660	0.955	1.036	1.525

Note : XLPE factors include Semicons for Conductor & Insulation screen

TABLE – XL4
VARIATION FACTOR FOR XLPE (CCF1Al / CCF1Cu)

3 CORE XLPE INSULATED 3.3 to 33 KV POWER CABLES WITH COPPER / ALUMINIUM CONDUCTOR

Nominal Cross Sectional Area (in Sq. mm)	3.3 KV ARM	6.6 KV (E) ARM	6.6 KV (UE) / 11 KV (E) ARM	11 KV (UE) ARM	22 KV (E) ARM	33 KV (E) ARM
25	0.315	0.394	0.511	0.838		
35	0.339	0.427	0.545	0.880	0.982	1.638
50	0.378	0.474	0.600	0.957	1.065	1.751
70	0.435	0.541	0.679	1.067	1.183	1.916
95	0.489	0.604	0.755	1.171	1.295	2.071
120	0.537	0.661	0.822	1.265	1.396	2.210
150	0.585	0.719	0.890	1.359	1.497	2.350
185	0.642	0.784	0.968	1.468	1.614	2.513
240	0.717	0.873	1.074	1.615	1.773	2.732
300	0.781	1.006	1.167	1.744	1.928	2.919
400	0.886	1.227	1.314	1.948	2.130	3.229

Note : XLPE factors include Semicons for Conductor & Insulation screen

TABLE H2
VARIATION FACTOR FOR POLYMER (CCFAI / CCFCu)

3 CORE XLPE INSULATED 3.3 to 33 KV POWER CABLES WITH COPPER / ALUMINIUM CONDUCTOR

Nominal Cross Sectional Area (in Sq. mm)	3.3 KV ARM	6.6 KV (E) ARM	6.6 KV (UE) / 11 KV (E) ARM	11 KV (UE) ARM	22 KV (E) ARM	33 KV (E) ARM
35	0.374	0.990	1.142	1.604	1.782	-
50	0.445	1.119	1.260	1.834	2.046	2.864
70	0.547	1.290	1.396	2.011	2.284	3.219
95	0.594	1.440	1.647	2.269	2.428	3.367
120	0.732	1.692	1.877	2.498	2.715	3.646
150	0.812	1.906	2.061	2.767	2.931	3.927
185	0.960	2.086	2.406	3.028	3.180	4.166
240	1.130	2.484	2.744	3.398	3.580	4.589
300	1.219	2.912	3.161	3.840	4.016	5.029
400	1.313	3.530	3.664	4.353	4.666	5.736

Fillers added in PVC consumption

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TABLE - H3
VARIATION FACTOR FOR STEEL (FeW)

XLPE INSULATED 3.3KV TO 33 KV POWER CABLES WITH COPPER / ALUMINIUM CONDUCTOR

Nominal Cross Sectional Area in Sq. mm	3.3/3.3 KV	3.3/6.6 KV	11 KV (E) / 6.6 KV (UE)	11 KV (UE)	22 KV (E)	33 KV (E)
25	1.258	1.457	1.612	2.509	1.503	--
35	1.361	1.569	1.853	2.644	2.797	2.517
50	1.682	1.687	2.321	2.800	2.921	4.569
70	2.033	1.979	2.503	3.219	3.347	4.809
95	2.202	2.507	2.718	4.019	4.200	5.437
120	2.371	2.675	2.882	4.241	4.416	6.713
150	2.870	2.847	3.265	4.447	4.621	6.976
185	3.121	3.309	4.148	4.726	5.289	7.356
240	3.758	4.227	4.442	5.442	6.651	7.718
300	4.099	5.024	5.182	6.994	7.084	8.187
400	5.750	6.572	6.658	7.433	7.657	8.760

TABLE - P2

VARIATION FACTOR FOR STEEL (FeW)

XLPE INSULATED 3.3KV TO 33 KV POWER CABLES WITH COPPER / ALUMINIUM CONDUCTOR

Nominal Cross Sectional Area in Sq. mm	3.3/3.3 KV	3.3/6.6 KV	11 KV (E) / 6.6 KV (UE)	11 KV (UE)	22 KV (E)	33 KV (E)
25	1.258	1.457	1.612	2.509	1.503	--
35	1.361	1.569	1.853	2.644	2.797	2.517
50	1.682	1.687	2.321	2.800	2.921	4.569
70	2.033	1.979	2.503	3.219	3.347	4.809
95	2.202	2.507	2.718	4.019	4.200	5.437
120	2.371	2.675	2.882	4.241	4.416	6.713
150	2.870	2.847	3.265	4.447	4.621	6.976
185	3.121	3.309	4.148	4.726	5.289	7.356
240	3.758	4.227	4.442	5.442	6.651	7.718
300	4.099	5.024	5.182	6.894	7.084	8.187
400	5.750	6.572	6.658	7.433	7.657	8.760

TABLE P3

VARIATION FACTOR FOR STEEL (FeF)

PVC INSULATED 1.1 KV POWER CABLES WITH COPPER/ALUMINIUM CONDUCTOR

Nominal Cross sectional Area (in Sq. mm)	2 core	Shape	3 core	Shape	3 ½ core	Shape	4 core	Shape
4	0.305	W	0.335	W	-	-	0.363	W
6	0.348	W	0.363	W	-	-	0.407	W
10	0.392	W	0.407	W	-	-	0.293	F
16	0.235	F	0.293	F	-	-	0.323	F
25	0.293	F	0.352	F	0.382	F	0.382	F
35	0.323	F	0.382	F	0.411	F	0.440	F
50	0.382	F	0.440	F	0.469	F	0.499	F
70	0.411	F	0.499	F	-	F	0.587	F
95	0.499	F	0.587	F	0.616	F	0.645	F
120	0.528	F	0.616	F	0.675	F	0.731	F
150	0.587	F	0.675	F	0.731	F	0.790	F
185	0.645	F	0.761	F	0.820	F	0.879	F
240	0.731	F	0.879	F	0.937	F	0.996	F
300	0.820	F	0.966	F	1.055	F	1.113	F
400	0.937	F	1.083	F	1.172	F	1.231	F
500	1.055	F	1.231	F	1.348	F	1.406	F
630	1.172	F	-	-	-	-	-	-

TABLE P3 (Additional)

VARIATION FACTOR FOR ROUND WIRE 'W' STEEL (FeF)
PVC INSULATED 1.1 KV POWER CABLES WITH COPPER/ALUMINIUM CONDUCTOR

Nominal Cross Sectional Area (in sq. mm)	2 Core	3 Core	3 .5 Core	4 Core
1.5	0.247	0.259		0.288
2.5	0.273	0.289		0.329
4	0.305	0.335		0.363
6	0.348	0.363		0.407
10	0.392	0.407		0.533
16	0.439	0.523	0.014	0.573
25	0.526	0.625	0.664	0.685
35	0.591	0.685	0.729	0.761
50	0.661	0.790	0.864	1.108
70	0.745	1.122	1.200	1.256
95	1.085	1.286	1.376	1.443
120	1.147	1.386	1.479	1.562
150	1.267	1.526	1.684	2.173
185	1.403	2.090	2.315	2.421
240	1.994	2.397	2.641	2.722
300	2.180	2.642	3.670	3.842
400	2.987	3.728	4.126	4.292
500	3.517	4.226	5.958	6.301
630	4.774	6.018	6.737	7.141

Conditions Applicable To Price Adjustment

The Employer shall specify the weightings for various indices, the appropriate type and source of labor and materials/equipment indices, and the applicable base date.

<u>Item</u>	<u>Source of Indices Used</u>	<u>Base Date Indices</u>
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The base date shall be the date twenty-eight (28) days prior to the Bid closing date.

The date of adjustment shall be the mid-point of the period of manufacture or installation of component or Plant.

The following conditions shall apply:

- (a) No price increase will be allowed beyond the original delivery date unless covered by an extension of time awarded by the Employer under the terms of the Contract. No price increase will be allowed for periods of delay for which the Contractor is responsible. The Employer will, however, be entitled to any price decrease occurring during such periods of delay.
- (b) The total adjustment (plus or minus) shall be subject to a ceiling amount of 20% percent (%) of the Contract price.-Not Applicable for Conductor
- (c) No price adjustment shall be payable on the portion of the Contract price paid to the Contractor as an advance payment.

Note: For complex Plant supply and installation involving several sources of supply and/or a substantial amount of installation works, a family of formulas may be necessary.

Appendix 3. Insurance Requirements

Details to be completed by the Employer prior to issuing the bidding documents. In the event that the Employer provides any insurances under the Contract, appropriate details must be given.

Insurances to be Taken Out by the Contractor

In accordance with the provisions of GCC Clause 34, the Contractor shall at its expense take out and maintain in effect, or cause to be taken out and maintained in effect, during the performance of the Contract, the insurances set forth below in the sums and with the deductibles and other conditions specified. The identity of the insurers and the form of the policies shall be subject to the approval of the Employer, such approval not to be unreasonably withheld.

(a) Cargo Insurance

Covering loss or damage occurring, while in transit from the supplier's or manufacturer's works or stores until arrival at the Site, to the Facilities (including spare parts therefor) and to the construction equipment to be provided by the Contractor or its Subcontractors.

<u>Amount</u>	<u>Deductible limits</u>	<u>Parties insured</u>	<u>From</u>	<u>To</u>
---------------	--------------------------	------------------------	-------------	-----------

(b) Installation All Risks Insurance

Covering physical loss or damage to the Facilities at the Site, occurring prior to completion of the Facilities, with an extended maintenance coverage for the Contractor's liability in respect of any loss or damage occurring during the defect liability period while the Contractor is on the Site for the purpose of performing its obligations during the defect liability period.

<u>Amount</u>	<u>Deductible limits</u>	<u>Parties insured</u>	<u>From</u>	<u>To</u>
---------------	--------------------------	------------------------	-------------	-----------

(c) Third Party Liability Insurance

Covering bodily injury or death suffered by third parties (including the Employer's personnel) and loss of or damage to property (including the Employer's property and any parts of the Facilities that have been accepted by the Employer) occurring in connection with the supply and installation of the Facilities.

<u>Amount</u>	<u>Deductible limits</u>	<u>Parties insured</u>	<u>From</u>	<u>To</u>
---------------	--------------------------	------------------------	-------------	-----------

(d) Automobile Liability Insurance

Covering use of all vehicles used by the Contractor or its Subcontractors (whether or not owned by them) in connection with the supply and installation of the Facilities. Comprehensive insurance in accordance with statutory requirements.

(e) Workers' Compensation

In accordance with the statutory requirements applicable in India.

(f) Employer's Liability

In accordance with the statutory requirements applicable in India.

(g) Other Insurances

The Contractor is also required to take out and maintain at its own cost the following insurances:

Details:

<u>Amount</u>	<u>Deductible limits</u>	<u>Parties insured</u>	<u>From</u>	<u>To</u>
---------------	--------------------------	------------------------	-------------	-----------

The Employer shall be named as co-insured under all insurance policies taken out by the Contractor pursuant to GCC Sub-Clause 34.1, except for the Third Party Liability, Workers' Compensation and Employer's Liability Insurances, and the Contractor's Subcontractors shall be named as co-insureds under all insurance policies taken out by the Contractor pursuant to GCC Sub-Clause 34.1, except for the Cargo, Workers' Compensation and Employer's Liability Insurances. All insurer's rights of subrogation against such co-insureds for losses or claims arising out of the performance of the Contract shall be waived under such policies.

Insurances To Be Taken Out By The Employer

If the Employer is proposing to take out any or all of the above insurances itself, or any other insurances in respect of the Facilities, either in its own name or in the joint names of itself and the Contractor, it shall give details below prior to issuing the bidding documents. Under the terms of the Contract, the Contractor and the Contractor's Subcontractors shall be named as co-insureds under all such policies.

The Employer shall at its expense take out and maintain in effect during the performance of the Contract the following insurances.

Details:

<u>Amount</u>	<u>Deductible limits</u>	<u>Parties insured</u>	<u>From</u>	<u>To</u>
---------------	--------------------------	------------------------	-------------	-----------

Appendix 4. Time Schedule

The Employer should normally provide a Time Schedule to be followed by the Contractor during the performance of the Contract. This schedule should be provided with the bidding documents under this Appendix. All completion times indicated must be in accordance with the information regarding Time(s) for Completion given in the Bid Data Sheet.

Except under exceptional circumstances, the Time Schedule should indicate periods of time (e.g., weeks or months) and not specify calendar dates. All periods should be shown from the Effective Date of the Contract.

Should it become necessary to amend the Time Schedule to reflect any agreements made with the selected Bidder prior to award of Contract, the amended Time Schedule shall replace the original Time Schedule prior to signature of the Contract Agreement.

If the bidding documents contain no Time Schedule, the Bidder shall be required to submit with its bid a detailed program, showing how and the order in which it intends to perform the Contract and showing the key events requiring action or decision by the Employer. In preparing this Program, the Bidder shall adhere to the Time(s) for Completion given in the Bid Data Sheet. The Time Schedule submitted by the selected Bidder and amended as necessary prior to award of Contract shall be included as Appendix to the Contract Agreement before the Contract is signed.

If bidders, pursuant to the provisions of the Instructions to Bidders, are to be permitted to offer an Alternative Bid based on a different Time Schedule, details of this and any resulting reduction in Price from their conforming bid based on the Time Schedule included in the bidding documents shall be submitted as an Attachment to their bid.

Appendix 5. List of Major Items of Plant and Installation Services and List of Approved Subcontractors

Prior to award of Contract, the following details shall be completed, indicating those Subcontractors proposed by the Bidder in the corresponding Attachment to its bid that are approved by the Employer for engagement by the Contractor during the performance of the Contract.

A list of major items of Plant and Installation Services is provided below.

The following Subcontractors and/or manufacturers are approved for carrying out the items of the Facilities indicated below. Where more than one Subcontractor is listed, the Contractor is free to choose between them, but it must notify the Employer of its choice in good time prior to appointing any selected Subcontractor. In accordance with GCC Sub-Clause 19.1, the Contractor is free to submit proposals for Subcontractors for additional items from time to time. No Subcontracts shall be placed with any such Subcontractors for additional items until the Subcontractors have been approved in writing by the Employer and their names have been added to this list of Approved Subcontractors.

Major Items of Plant and Installation Services	Approved Subcontractors/Manufacturers	Nationality

Appendix 6. Scope of Works and Supply by the Employer

Prior to issuing the bidding documents, the Employer shall indicate in this Appendix details of all personnel and Facilities it will provide for use by the Contractor and indicate, where applicable, the charges that it will make in respect of their use.

The Employer shall also identify any part(s) of the facilities it intends to carry out itself (or by other contractors), and any plant, equipment, or materials that it proposes to purchase itself and supply to the Contractor for incorporation in the facilities, indicating, where applicable, the charges that it will make in respect thereof.

The following personnel, facilities, works and supplies will be provided/supplied by the Employer, and the provisions of GCC Clauses 10, 21 and 24 shall apply as appropriate.

All personnel, facilities, works and supplies will be provided by the Employer in good time so as not to delay the performance of the Contractor, in accordance with the approved Time Schedule and Program of Performance pursuant to GCC Sub-Clause 18.2.

Unless otherwise indicated, all personnel, facilities, works and supplies will be provided free of charge to the Contractor.

Personnel

Charge to Contractor (if any)

Facilities

Charge to Contractor (if any)

Works

Charge to Contractor (if any)

Supplies

Charge to Contractor (if any)

Appendix 7. List of Documents for Approval or Review

Pursuant to GCC Sub-Clause 20.3.1, the Contractor shall prepare, or cause its Subcontractor to prepare, and present to the Project Manager in accordance with the requirements of GCC Sub-Clause 18.2 (Program of Performance), the following documents for

A. Approval

1. Drawings
2. GTP
3. Specifications

B. Review

- 1.
- 2.
- 3.

Appendix 8. Functional Guarantees

1. General

This Appendix sets out

- (a) the functional guarantees referred to in GCC Clause 28 (Functional Guarantees)
- (b) the preconditions to the validity of the functional guarantees, either in production and/or consumption, set forth below
- (c) the minimum level of the functional guarantees
- (d) the formula for calculation of liquidated damages for failure to attain the functional guarantees.

2. Preconditions

The Contractor gives the functional guarantees (specified herein) for the facilities, subject to the following preconditions being fully satisfied:

All items should conform to WBSEDCL approved Technical Specifications and Drawings

[List any conditions for the carrying out of the Guarantee Test referred to in GCC Sub-Clause 25.2.]

3. Functional Guarantees

Subject to compliance with the foregoing preconditions, the Contractor guarantees as follows:

3.1 Production Capacity

*[List here the production capacity that the Contractor is to guarantee, **making sure to use, as functional guarantees, the figures offered by the Contractor in its bid.**]*

and/or

3.2 Raw Materials and Utilities Consumption

*[List here the guaranteed items of consumption per unit of production (e.g., kg, tons, kcal, kWh, etc.) that the Contractor is to guarantee, **making sure to use, as functional guarantees, the figures offered by the Contractor in its bid.**]*

4. Failure in Guarantees and Liquidated Damages Not Applicable (or Specify guarantee)

4.1 Failure to Attain Guaranteed Production Capacity

If the production capacity of the facilities attained in the guarantee test, pursuant to GCC Sub-Clause 25.2, is less than the guaranteed figure specified in para. 3.1 above, but the actual production capacity attained in the guarantee test is not less than the minimum level specified in para. 4.3 below, and the Contractor elects to pay liquidated damages to the Employer in lieu of making changes, modifications and/or additions to the Facilities, pursuant to GCC Sub-Clause 28.3, then the Contractor shall pay liquidated damages at the rate of _____ for every complete one percent (1%) of the deficiency in the production capacity of the Facilities, or at a proportionately reduced rate for any deficiency, or part thereof, of less than a complete one percent (1%).

4.2 Raw Materials and Utilities Consumption in Excess of Guaranteed Level -

[To be specified in the appropriate wording for the type of facilities if there are consumption guarantees.]

If the actual measured figure of specified raw materials and utilities consumed per unit (or their average total cost of consumption) exceeds the guaranteed figure specified in para. 3.2 above (or their specified average total cost of consumption), but the actual consumption attained in the guarantee test, pursuant to GCC Sub-Clause 25.2, is not more than the maximum level specified in para. 4.3 below, and the Contractor elects to pay liquidated damages to the Employer in lieu of making changes, modifications and/or additions to the Facilities pursuant to GCC Sub-Clause 28.3, then the Contractor shall pay liquidated damages at the rate of *[amount in Rs.]* for every complete one percent (1%) of the excess consumption of the Facilities, or part thereof, of less than a complete one percent (1%).

4.3 Minimum Levels:

Notwithstanding the provisions of this paragraph, if as a result of the guarantee test(s), the following minimum levels of performance guarantees (and consumption guarantees) are not attained by the Contractor, the Contractor shall at its own cost make good any deficiencies until the Facilities reach any of such minimum performance levels, pursuant to GCC Sub-Clause 28.2:

- (a) production capacity of the Facilities attained in the guarantee test: ninety-five percent (95%) of the guaranteed production capacity (the values offered by the Contractor in its Bid for functional guarantees represents 100%).

and/or

- (b) average total cost of consumption of all the raw materials and utilities of the Facilities: one hundred and five percent (105%) of the guaranteed figures (the figures offered by the Contractor in its Bid for functional guarantees represents 100%).

4.4 Limitation of Liability

Subject to para. 4.3 above, the Contractor's aggregate liability to pay liquidated damages for failure to attain the functional guarantees shall not exceed _____ percent (____ %) of the Contract price.

Performance Security - Bank Guarantee
[including Additional Performance Security for unbalanced bids]
[Guarantor letterhead or SWIFT identifier code]

Performance Guarantee No..... *[insert guarantee reference number]*

Date..... *[insert date of issue of the guarantee]*

To: _____ *[name of Employer]*
 _____ *[address of Employer]*

WHEREAS _____ *[name and address of Contractor²³]*
 (hereinafter called "the Applicant") has undertaken, in pursuance of Contract No. _____ dated
 _____ to execute _____ *[name of Contract and brief description of Facilities]* (hereinafter called "the Contract");

AND WHEREAS it has been stipulated by you in the said Contract that the Applicant shall furnish you with a Bank Guarantee by a recognized bank²⁴ for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Applicant such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Applicant, up to a total of _____ *[amount of guarantee²⁵]*
 _____ *[in words]*, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of

²³ In the case of a JV, insert the name of the Joint Venture

²⁴ The Bank Guarantee from a Scheduled Bank in India is acceptable to the Employer.

²⁵ An amount shall be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract less provisional sums, if any, and denominated in Indian Rupees.

_____ [*amount of guarantee*] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Applicant before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed thereunder or of any of the Contract documents which may be made between you and the Applicant shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall (a) be reduced by half upon our receipt of a copy of the Operational Acceptance Certificate; and (b) expire no later than the earlier of:²⁶ (i) twelve months after our receipt of either (a) above; or (ii) eighteen months after our receipt of a copy of the Completion Certificate; or (iii) the ____ day of ____, 2____.²⁷

Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date. However claim for invocation can also be made at any local branch of Bank in Kolkata at

Signature and seal of the guarantor _____

Name of Bank _____

Address _____

Date _____

²⁶ This text shall be revised as and where necessary to take into account (i) partial acceptance of the Facilities in accordance with Sub-Clause 25.4 of the GCC; and (ii) extension of the performance security when the Contractor is liable for an extended warranty obligation pursuant to Sub-Clause 27.10 of the GCC (although in this latter case the Employer might want to consider an extended warranty security in lieu of the extension of the performance security).

²⁷ Insert the date twenty-eight days after the expected expiration date of the Defect Liability Period. The Employer should note that in the event of an extension of the time for completion of the Contract, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months][one year], in response to the Employer's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."

[Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.]

Advance Payment Security

Demand Guarantee

[Guarantor letterhead or SWIFT identifier code]

Advance Payment Guarantee No..... *[insert guarantee reference number]*

Date..... *[insert date of issue of the guarantee]*

To: _____ *[name of Employer]*
 _____ *[address of Employer]*
 _____ *[name of Contract]*

Gentlemen:

In accordance with the provisions of the Conditions of Contract, Sub-clause 13.2 ("Advance Payment Security") of the above-mentioned Contract, _____ *[name and address of Contractor²⁸]* (hereinafter called "the Applicant") shall deposit with _____ *[name of Employer]* a bank guarantee²⁹ to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of _____ *[amount of guarantee³⁰]* _____ *[in words]*.

We, the _____ *[bank]*, as instructed by the Applicant, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to _____ *[name of Employer]* on his first demand without whatsoever right of objection on our part and without his first claim to the Applicant, in the amount not exceeding _____ *[amount of guarantee]* _____ *[in words]*.

We further agree that no change or addition to or other modification of the terms of the Contract or of work to be performed thereunder or of any of the Contract documents which may be made between

²⁸ In the case of a JV, insert the name of the Joint Venture

²⁹ The Bank Guarantee from a Scheduled Bank in India is acceptable to the Employer.

³⁰ An amount shall be inserted by the bank representing the amount of the Advance Payment, and denominated in Indian Rupees.

_____ *[name of Employer]* and the Applicant, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Applicant as indicated in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until _____ *[name of Employer]* receives full repayment of the same amount from the Applicant. Consequently any demand for payment under this guarantee must be received by us at this office on or before that date.

However claim for invocation can also be made at any local branch of Bank in Kolkata at

Yours truly,

Signature and seal: _____

Name of Bank: _____

Address: _____

Date: _____

[Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.]

*Attachment 1***Amendments for Permitting Standstill Period³¹****(NOT APPLICABLE)****(Refer ITB Clause 44)**

In contracts where it is proposed to permit Standstill Period [*in the case of high risk or specialized/complex contracts only*], the following corrections shall be incorporated in this document

1. Instructions to Bidders & Bid Data Sheet**1.1 Insert ITB 44.1 as under:**

44.1 The Contract shall be awarded not earlier than the expiry of the Standstill Period. The duration of the Standstill Period is **specified in the BDS**. Where only one Bid is submitted, the Standstill Period shall not apply.

1.2 Insert ITB 45.1 as under:

45.1 When a Standstill Period applies, it shall commence when the Employer has transmitted to each Bidder (that has not already been notified that it has been unsuccessful) the Notification of Intention to Award the Contract to the successful Bidder. The Notification of Intention to Award shall contain, at a minimum, the following information:

- (a) the name and address of the Bidder submitting the successful Bid;
- (b) the Contract price of the successful Bid;
- (c) the names of all Bidders who submitted Bids, and their Bid prices as readout, and as evaluated;
- (d) a statement of the reason(s) the Bid (of the unsuccessful Bidder to whom the letter is addressed) was unsuccessful, unless the price information in (c) above already reveals the reason;
- (e) the expiry date of the Standstill Period;
- (f) instructions on how to request a debriefing and/or submit a complaint during the standstill period.

³¹ These are instructions for the Borrower and should be removed from final bid document.

1.3 Substitute ITB 47.1 as under:

47.1 Prior to the expiration of the Bid Validity Period and upon expiry of the Standstill Period, specified in BDS ITB 44.1 or any extension thereof, or upon satisfactorily addressing a complaint that has been filed within the Standstill Period, the Employer shall transmit the Letter of Acceptance to the successful Bidder. The Letter of Acceptance shall specify the sum that the Employer will pay the Contractor in consideration of the execution of the contract (hereinafter and in the Conditions of Contract and Contract Forms called “the Contract Price”).

1.4 Insert ITB 48 as under:**48. Debriefing by the Employer**

48.1 On receipt of the Employer’s Notification of Intention to Award referred to in ITB 45.1, an unsuccessful Bidder has three (3) Business Days to make a written request to the Employer for a debriefing. The Employer shall provide a debriefing to all unsuccessful Bidders whose request is received within this deadline.

48.2 Where a request for debriefing is received within the deadline, the Employer shall provide a debriefing within five (5) Business Days, unless the Employer decides, for justifiable reasons, to provide the debriefing outside this timeframe. In that case, the standstill period shall automatically be extended until five (5) Business Days after such debriefing is provided. If more than one debriefing is so delayed, the standstill period shall not end earlier than five (5) Business Days after the last debriefing takes place. In any case, irrespective of the circumstances, all debriefings shall be completed within 10 business days. The Employer shall promptly inform, by the quickest means available, all Bidders of the extended standstill period.

48.3 Where a request for debriefing is received by the Employer later than the three (3)-Business Day deadline, the Employer should provide the debriefing as soon as practicable, and normally no later than fifteen (15) Business Days from the date of publication of Public Notice of Award of contract. Requests for debriefing received outside the three (3)-day deadline shall not lead to extension of the standstill period.

48.4 Debriefings of unsuccessful Bidders may be done in writing or verbally. The debriefing will cover only the bid of particular bidder requesting the debriefing, and not the bids of the competitors. The Bidder shall bear its own costs of attending such a debriefing meeting.

1.5 Insert ITB 52 as under:**52. Procurement Related Complaint**

52.1 The procedures for making a Procurement-related Complaint are as specified in the BDS.

1.6 Insert BDS ITB 44 as under:**ITB 44 Standstill Period**

The Standstill Period is 10 Business Days [*note: the minimum number of Business Days is ten (10)*] after the date the Employer has transmitted to all Bidders that

submitted a Bid, the Notification of its Intention to Award the Contract to the successful Bidder.

[State ‘No Standstill Period applies to this Bidding process.’ If this Bidding process is in response to an emergency situation recognized by the Bank’]

1.7 Insert BDS ITB 52.1 as under:

.....

ITB 52.1

The procedures for making a Procurement-related Complaint are detailed in the “Procurement Regulations for IPF Borrowers (Annex III).” If a Bidder wishes to make a Procurement-related Complaint, the Bidder should submit its complaint following these procedures, in writing (by the quickest means available, that is either by email or fax), to:

For the attention: *[insert full name of person receiving complaints]*

Title/position: *[insert title/position]*

Employer: *[insert name of Employer]*

Email address: *[insert email address]*

Fax number: *[insert fax number] delete if not used*

In summary, a Procurement-related Complaint may challenge any of the following:

1. the terms of the Bidding Documents; and
2. the Employer’s decision to award the contract.

.....

2. section X - Contract Forms

2.1 Insert the Form ‘Notification of Intention to Award’ as under:

.....

Notification of Intention to Award

(NOT APPLICABLE)

[This Notification of Intention to Award shall be sent to each Bidder that submitted a Bid, unless the Bidder has previously received notice of exclusion from the process at an interim stage of the procurement process.]

[Send this Notification to the Bidder’s Authorized Representative named in the Bidder Information Form]

For the attention of Bidder's Authorized Representative

Name: *[insert Authorized Representative's name]*

Address: *[insert Authorized Representative's Address]*

Telephone/Fax numbers: *[insert Authorized Representative's telephone/fax numbers]*

Email Address: *[insert Authorized Representative's email address]*

[IMPORTANT: insert the date that this Notification is transmitted to Bidders. The Notification must be sent to all Bidders simultaneously. This means on the same date and as close to the same time as possible.]

DATE OF TRANSMISSION: This Notification is sent by: *[email/fax]* on *[date]* (local time)

Notification of Intention to Award

(NOT APPLICABLE)

Employer: *[insert the name of the Employer]*

Project: *[insert name of project]*

Contract title: *[insert the name of the contract]*

Country: *[insert country where RFB is issued]*

Loan No. /Credit No.: *[insert reference number for loan/credit/grant]*

RFB No: *[insert RFB reference number from Procurement Plan]*

This Notification of Intention to Award (Notification) notifies you of our decision to award the above contract. The transmission of this Notification begins the Standstill Period. During the Standstill Period, you may:

- a) request a debriefing in relation to the evaluation of your Bid, and/or
- b) submit a Procurement-related Complaint in relation to the decision to award the contract.

1. The successful Bidder

Name:	<i>[insert name of successful Bidder]</i>
Address:	<i>[insert address of the successful Bidder]</i>

Contract price:	<i>[insert contract price of the successful Bid]</i>
------------------------	--

- 2. Other Bidders** [INSTRUCTIONS: insert names of all Bidders that submitted a Bid. If the Bid's price was evaluated include the evaluated price as well as the Bid price as read out.]

Name of Bidder	Bid price	Evaluated Bid Cost
<i>[insert name]</i>	<i>[insert Bid price]</i>	<i>[insert evaluated cost]</i>
<i>[insert name]</i>	<i>[insert Bid price]</i>	<i>[insert evaluated cost]</i>
<i>[insert name]</i>	<i>[insert Bid price]</i>	<i>[insert evaluated cost]</i>
<i>[insert name]</i>	<i>[insert Bid price]</i>	<i>[insert evaluated cost]</i>
<i>[insert name]</i>	<i>[insert Bid price]</i>	<i>[insert evaluated cost]</i>

- 3. Reason/s why your Bid was unsuccessful**

[INSTRUCTIONS: State the reason/s why this Bidder's Bid was unsuccessful. Do NOT include: (a) a point by point comparison with another Bidder's Bid or (b) information that is marked confidential by the Bidder in its Bid.]

- 4. How to request a debriefing**

DEADLINE: The deadline to request a debriefing expires at midnight on *[insert date]* (local time).

You may request a debriefing in relation to the results of the evaluation of your Bid. If you decide to request a debriefing, your written request must be made within three (3) Business Days of receipt of this Notification of Intention to Award.

Provide the contract name, reference number, name of the Bidder, contact details; and address the request for debriefing as follows:

Attention: *[insert full name of person, if applicable]*

Title/position: *[insert title/position]*

Agency: *[insert name of Employer]*

Email address: *[insert email address]*

Fax number: *[insert fax number] delete if not used*

If your request for a debriefing is received within the 3 Business Days deadline, we will provide the debriefing within five (5) Business Days of receipt of your request. If we are unable to

provide the debriefing within this period, the Standstill Period shall be extended by five (5) Business Days after the date that the debriefing is provided. If this happens, we will notify you and confirm the date that the extended Standstill Period will end.

The debriefing may be in writing, by phone, video conference call or in person. We shall promptly advise you in writing how the debriefing will take place and confirm the date and time.

If the deadline to request a debriefing has expired, you may still request a debriefing. In this case, we will provide the debriefing as soon as practicable, and normally no later than fifteen (15) Business Days from the date of publication of the Contract Award Notice.

5. How to make a complaint

Period: Procurement-related Complaint challenging the decision to award shall be submitted by midnight, [insert date] (local time).

Provide the contract name, reference number, name of the Bidder, contact details; and address the Procurement-related Complaint as follows:

Attention: Smt. Mita Banerjee

Title/position: The Chief Engineer, Distribution Project III Department

Agency: [insert name of Employer] WBSEDCL

Email address: [insert email address] VidyutBhaban, 2nd Floor, Salt Lake City, Kolkata, cep3.wbsedcl@gmail.com **Fax number:** [insert fax number] *delete if not used*

At this point in the procurement process, you may submit a Procurement-related Complaint challenging the decision to award the contract. You do not need to have requested, or received, a debriefing before making this complaint. Your complaint must be submitted within the Standstill Period and received by us before the Standstill Period ends.

Further information:

For more information see the [Procurement Regulations for IPF Borrowers \(Procurement Regulations\)](https://policies.worldbank.org/sites/ppf3/PPFDocuments/Forms/DispPage.aspx?docid=4005) [https://policies.worldbank.org/sites/ppf3/PPFDocuments/Forms/DispPage.aspx?docid=4005] (Annex III). You should read these provisions before preparing and submitting your complaint. In addition, the World Bank's Guidance "[How to make a Procurement-related Complaint](http://www.worldbank.org/en/projects-operations/products-and-services/brief/procurement-new-framework#framework)" [http://www.worldbank.org/en/projects-operations/products-and-services/brief/procurement-new-framework#framework] provides a useful explanation of the process, as well as a sample letter of complaint.

In summary, there are four essential requirements:

1. You must be an 'interested party'. In this case, that means a Bidder who submitted a Bid in this bidding process, and is the recipient of a Notification of Intention to Award.

2. The complaint can only challenge the decision to award the contract.
3. You must submit the complaint within the period stated above.
4. You must include, in your complaint, all of the information required by the Procurement Regulations (as described in Annex III).

6. Standstill Period

DEADLINE: The Standstill Period is due to end at midnight on [insert date] (local time).

The Standstill Period lasts ten (10) Business Days after the date of transmission of this Notification of Intention to Award.

The Standstill Period may be extended as stated in Section 4 above.

If you have any questions regarding this Notification please do not hesitate to contact us.

On behalf of the Employer:

Signature: _____

Name: _____

Title/position: _____

Telephone: _____

Email: _____

2.2 Substitute the first note in *Italics* in the Form 'Notification of Award' as under:

[The Letter of Acceptance shall be the basis for formation of the Contract as described in ITB Clause 47. This Standard Form of Letter of Acceptance shall be filled in and sent to the successful Bidder only upon expiry of the Standstill Period, specified in BDS ITB 44.1 or any extension thereof, or upon satisfactorily addressing a complaint that has been filed within the Standstill Period, subject to any review by the World Bank required under the Loan Agreement.]

Code of Conduct for Contractor's Personnel(ES) Form

We are the Contractor, *[enter name of Contractor]*. We have signed a contract with *[enter name of Employer]* for *[enter description of the Works]*. These Works will be carried out at *[enter the Site and other locations where the Works will be carried out]*. Our contract requires us to implement measures to address environmental and social risks related to the Works, including the risks of sexual exploitation, sexual abuse and sexual harassment.

This Code of Conduct is part of our measures to deal with environmental and social risks related to the Works. It applies to all our staff, laborers and other employees at the Works Site or other places where the Works are being carried out. It also applies to the personnel of each subcontractor and any other personnel assisting us in the execution of the Works. All such persons are referred to as “**Contractor’s Personnel**” and are subject to this Code of Conduct.

This Code of Conduct identifies the behavior that we require from all Contractor’s Personnel.

Our workplace is an environment where unsafe, offensive, abusive or violent behavior will not be tolerated and where all persons should feel comfortable raising issues or concerns without fear of retaliation.

REQUIRED CONDUCT

Contractor’s Personnel shall:

1. carry out his/her duties competently and diligently;
2. comply with this Code of Conduct and all applicable laws, regulations and other requirements, including requirements to protect the health, safety and well-being of other Contractor’s Personnel and any other person;
3. maintain a safe working environment including by:
 - a. ensuring that workplaces, machinery, equipment and processes under each person’s control are safe and without risk to health;
 - b. wearing required personal protective equipment;
 - c. using appropriate measures relating to chemical, physical and biological substances and agents; and
 - d. following applicable emergency operating procedures.
4. report work situations that he/she believes are not safe or healthy and remove himself/herself from a work situation which he/she reasonably believes presents an imminent and serious danger to his/her life or health;
5. treat other people with respect, and not discriminate against specific groups such as women, people with disabilities, migrant workers or children;
6. not engage in Sexual Harassment, which means unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature with other Contractor’s or Employer’s Personnel;

7. not engage in Sexual Exploitation, which means any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another;
8. not engage in Sexual Abuse, which means the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions;
9. not engage in any form of sexual activity with individuals under the age of 18, except in case of pre-existing marriage;
10. complete relevant training courses that will be provided related to the environmental and social aspects of the Contract, including on health and safety matters, and Sexual Exploitation, and Abuse (SEA) and Sexual Harassment (SH);
11. report violations of this Code of Conduct; and
12. not retaliate against any person who reports violations of this Code of Conduct, whether to us or the Employer, or who makes use of the grievance mechanism for Contractor's Personnel or the project's Grievance Redress Mechanism.

RAISING CONCERNS

If any person observes behavior that he/she believes may represent a violation of this Code of Conduct, or that otherwise concerns him/her, he/she should raise the issue promptly. This can be done in either of the following ways:

1. Contact [*enter name of the Contractor's Social Expert with relevant experience in handling gender-based violence, or if such person is not required under the Contract, another individual designated by the Contractor to handle these matters*] in writing at this address [] or by telephone at [] or in person at []; or
2. Call [] to reach the Contractor's hotline (*if any*) and leave a message.

The person's identity will be kept confidential, unless reporting of allegations is mandated by the country law. Anonymous complaints or allegations may also be submitted and will be given all due and appropriate consideration. We take seriously all reports of possible misconduct and will investigate and take appropriate action. We will provide warm referrals to service providers that may help support the person who experienced the alleged incident, as appropriate.

There will be no retaliation against any person who raises a concern in good faith about any behavior prohibited by this Code of Conduct. Such retaliation would be a violation of this Code of Conduct.

CONSEQUENCES OF VIOLATING THE CODE OF CONDUCT

Any violation of this Code of Conduct by Contractor's Personnel may result in serious consequences, up to and including termination and possible referral to legal authorities.

FOR CONTRACTOR’S PERSONNEL:

I have received a copy of this Code of Conduct written in a language that I comprehend. I understand that if I have any questions about this Code of Conduct, I can contact [*enter name of Contractor’s contact person with relevant experience*] requesting an explanation.

Name of Contractor’s Personnel: [insert name]

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Contractor:

Signature: _____

Date: (day month year): _____

ATTACHMENT 1: Behaviors constituting Sexual Exploitation and Abuse (SEA) and behaviors constituting Sexual Harassment (SH)

ATTACHMENT 1 TO THE CODE OF CONDUCT FORM

**BEHAVIORS CONSTITUTING SEXUAL EXPLOITATION AND ABUSE (SEA) AND
BEHAVIORS CONSTITUTING SEXUAL HARASSMENT (SH)**

The following non-exhaustive list is intended to illustrate types of prohibited behaviors:

(1) Examples of sexual exploitation and abuse include, but are not limited to:

- A Contractor's Personnel tells a member of the community that he/she can get them jobs related to the work site (e.g. cooking and cleaning) in exchange for sex.
- A Contractor's Personnel that is connecting electricity input to households says that he can connect women headed households to the grid in exchange for sex.
- A Contractor's Personnel rapes, or otherwise sexually assaults a member of the community.
- A Contractor's Personnel denies a person access to the Site unless he/she performs a sexual favor.
- A Contractor's Personnel tells a person applying for employment under the Contract that he/she will only hire him/her if he/she has sex with him/her.

(2) Examples of sexual harassment in a work context

- Contractor's Personnel comment on the appearance of another Contractor's Personnel (either positive or negative) and sexual desirability.
- When a Contractor's Personnel complains about comments made by another Contractor's Personnel on his/her appearance, the other Contractor's Personnel comment that he/she is "asking for it" because of how he/she dresses.
- Unwelcome touching of a Contractor's or Employer's Personnel by another Contractor's Personnel.
- A Contractor's Personnel tells another Contractor's Personnel that he/she will get him/her a salary raise, or promotion if he/she sends him/her naked photographs of himself/herself.

Contractor's Environment & Social Management plan (C-ESMP)

(C-ESMP)

The Bidder shall submit comprehensive and concise Environmental and Social Management Plans (C-ESMP) as required by ITB 49.1 of the Bid Data Sheet. These plans shall describe in detail the actions, materials, equipment, management processes etc. that will be implemented by the Contractor, and its subcontractors.

In developing these strategies and plans, the Bidder shall have regard to the ES provisions of the contract including those as may be more fully described in the Works Requirements in Section VII.