

**Request for Bids**  
**for**  
**Implementation of Remote Monitoring of**  
**Distribution Transformer having capacity**  
**315 kVA & 630 kVA in different areas of**  
**West Bengal**

**E-TENDER Notice No: DPD/Tender/IS/2023-24/WB/27**  
**Date: 22.09.2023**

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

**September 2023**

**WEST BENGAL STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED****(A GOVT. OF WEST BENGAL ENTERPRISE)****PROJECT: Remote Monitoring of Distribution Transformer****National Open Competitive Procurement  
(Two-Envelope Bidding Process with e-Procurement)  
Design, Supply and Installation of Plant****CONTRACT TITLE : Implementation of Remote Monitoring of Distribution Transformer  
having capacity 315 kVA & 630 KVA in different areas of West Bengal**

PERIOD OF AVAILABILITY OF BIDDING DOCUMENT : FROM 12:00 hours of 22.09.2023  
TO 13:30 hours of 08.11.2023

TIME AND DATE OF PRE-BID MEETING : DATE 03.10.2023 TIME 14.00 HOURS

LAST DATE AND TIME FOR RECEIPT OF BIDS : DATE 08.11.2023 TIME 13:30 HOURS

\* TIME AND DATE OF OPENING OF BIDS – Technical Part : DATE 08.11.2023 TIME 14:00 HOURS

\* TIME AND DATE OF OPENING OF BIDS – Financial Part : To be notified later

PLACE OF OPENING OF BIDS : KOLKATA, West Bengal State Electricity Distribution Company Limited, Vidyut Bhavan, Block DJ, Bidhannagar, Kolkata-700091, West Bengal, India

OFFICER INVITING BIDS : Chief Engineer, Distribution Project Department, WBSEDCL

# **REQUEST FOR BIDS**

## **(RFB)**

**WEST BENGAL STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED**

**(A GOVT. OF WEST BENGAL ENTERPRISE)**

**Remote Monitoring of Distribution Transformer**

**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: Implementation of Remote Monitoring of Distribution Transformer having capacity 315 kVA & 630 kVA in different areas of West Bengal**

**Loan No. / Credit No.: 9301-IN for IBRD & L0454A for AIIB.**

**RFB No: IN-WBSEDCL-380440-CW-RFB**

**Issued on: 22.09.2023**

1. The Government of India *has received* financing from the World Bank and AIIB toward the cost of the **West Bengal Electricity Distribution Grid Modernization Project** and intends to apply part of the proceeds toward payments under the Contract for Implementation of Remote Monitoring of Distribution Transformer having capacity 315 kVA & 630 kVA in different areas of West Bengal
2. The *West Bengal State Electricity Distribution Company Limited* now invites sealed bids from eligible Bidders towards Implementation of Remote Monitoring of Distribution Transformer having capacity 315 kVA & 630 kVA in different areas of West Bengal in TOTEX (CAPEX + OPEX) model. The Bidder shall be responsible for Supply, delivery, installation, testing, commissioning, operation and maintenance of this system with related items viz. Sensors, hardware, Software, communication infrastructure including NMS/DCUs/Routers/Gateways (as required), Cloud based Application Server, Integration/ Access of Application Server by the WBSEDCL, its successful Operational Go-Live and operation & maintenance of the system throughout the contract period of 84 months. This includes 12 months of implementation period (from contract effective date) & subsequently 72 months of O&M in different Customer Care Centres (CCC) under WBSEDCL as per Section-XI of this document.  
  
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 for 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 November 2020” (“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

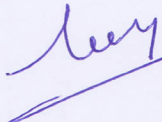
from India, who are not registered as above, on the date of bidding, can also participate provided they get themselves registered by the time of contract signing, if they become successful bidders.

5. The bidding document is available online on [www.wbtenders.gov.in](http://www.wbtenders.gov.in) from **22.09.2023** to **08.11.2023**. 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](http://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](http://www.wbtenders.gov.in).
7. Bids must be submitted online on [www.wbtenders.gov.in](http://www.wbtenders.gov.in) on or before **13:30 hours** on **08.11.2023** and the 'Technical Part' of the bids will be opened online on the **08.11.2023** 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 WBSEDCL. 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 the subject bidding Document.
9. Bid security may be submitted in online mode or through Bank Guarantee (BG) in full. Bidders submitting bid security in the form of Bank Guarantee (BG) are required to submit original bid security in approved form to the Chief Engineer, Distribution Project Deptt., WBSEDCL, Vidyut Bhavan, 5<sup>th</sup> Floor, "B" block, Block-DJ Sector-II, Bidhannagar, Kolkata-700091 before the bid submission deadline, 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 **03.10.2023 at 14:00 hrs.** at the office of The Chief Engineer, Distribution Project Department (DPD) 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.
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 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	Package no.	Contract Title	Approx. Estimated Cost (excluding GST) (Rs in lakhs)	Bid Security (Rs. in lakhs)	Cost of Document Including GST (Rs.)	Period of Completion (in months)
1	2	3	4	5	6	7
1	PK-IS_15	Remote Monitoring of Distribution Transformer having capacity 315 kVA & 630 kVA	1695.00	33.90	NIL	12 Months for implementation and Further 72 Months for Operation & Maintenance.

13. Rate should be quoted considering the **Environmental & Social Management Framework (ESMF) & Environmental & Social Impact Assessment (ESIA)** of the project as per WBEDGMP provision.
14. The address (es) referred to above is (are):

Chief Engineer, Distribution Project Department,  
 WBSEDCL, Vidyut Bhavan, 5<sup>th</sup> Floor, Bidhannagar, Kolkata - 700091  
 Phone: +91 033- 2358 9809/ 8900793547.  
 Email address : [ceproj1@wbasedcl.in](mailto:ceproj1@wbasedcl.in)  
 Website : <https://www.wbasedcl.in>

 22/09/23

Chief Engineer  
 Dist, Project Dept. WBSEDCL  
 Bidyut Bhawan, Kolkata-91

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## **PART 1 – Bidding Procedure**



## Section I - Instructions to Bidder

### Contents

#### 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.

During execution of the job, proper shutdown of 11KV feeder & LT feeder, as required, is to be obtained from WBSEDCL. For this, the Contractor must intimate the local authority of

WBSEDCL at least 7days in advance for allowing the shutdown against requisition as per their suitability.

## **B. Contents of Bidding Document**

- 6. Sections of Bidding Document** 6.1 The bidding document consists of Parts 1, 2, 3, 4 & 5 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

### **PART 4 -List of Distribution Transformers**

- Section XI – CCC wise list of 315KVA & 630 KVA DTRs considered under the project

### **PART 5 –BOQ**

- 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 through the procurement portal / email (email-id: [ceproj1@wbsedcl.in](mailto:ceproj1@wbsedcl.in)), 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 raise 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 copies 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.

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.

- 13.4 Unless otherwise specified **in the BDS**, alternative Bids shall not be considered.
- 13.5 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.
- 13.6 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.
- 13.7 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 accordance with clause no-4.4.9.1 of General Technical Condition of Section VII, Employer's Requirements, 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.

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| <b>18. Currencies of Bid and Payment</b> | <p>18.1 The Bidder shall quote the rates and prices, and shall be paid for, entirely in Indian Rupees (Rs.).</p> <p>18.2 Deleted.</p>   |
| <b>19. Period of Validity of Bids</b>    | <p>19.1 Bids shall remain valid for the Bid Validity period specified <b>in the BDS</b>. 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.</p> <p>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, <b>the Bidder granting the request shall also extend the Bid Security for forty-five (45) days beyond the deadline of the extended validity period</b>. 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.</p> <p>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:</p> <ul style="list-style-type: none"> <li>(a) in the case of <b>fixed price</b> contracts, the Contract price shall be the Bid price adjusted by the factor specified <b>in the BDS</b>;</li> <li>(b) in the case of <b>adjustable price</b> contracts, no adjustment shall be made;</li> <li>(c) in any case, Bid evaluation shall be based on the Bid price without taking into consideration the applicable correction from those indicated above.</li> </ul> |
| <b>20. Bid Security</b>                  | <p>20.1 The Bidder shall furnish as part of the Technical Part of its Bid, a Bid Security as specified <b>in the BDS</b>, in original form and, in the amount specified <b>in the BDS</b>.</p> <p>20.2 Not used.</p> <p>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:</p>  |

- (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 cashier's or certified check 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 online 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 for 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 clause no-4.4.9.1 of General Technical Condition of Section VII, Employer's Requirements. 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.
- [Note 1: where it is proposed to permit Standstill Period, incorporate all changes as indicated in Attachment 1 at the end of this document.
- Note 2: Standstill period shall not apply where only one bid is submitted or where the bidding process is in response to an emergency situation recognized by the Bank]
- 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://wbttenders.gov.in> or GoI Central Public Procurement Portal <https://eprocure.gov.in/cppppp/>) 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

The reference number of the Request for Bids (RFB) is: **IN-WBSEDCL-380440-CW-RFB**

The Employer is: **WBSEDCL** (*West Bengal State Electricity Distribution Company Limited*)

*The name of the RFB is:* Implementation of Remote Monitoring of Distribution Transformer having capacity 315 kVA & 630 kVA in different areas of West Bengal in TOTEX (**Total Expenditure = Capital Expenditure + Operational Expenditure**) model. The Bidder shall be responsible for Supply, delivery, installation, testing, commissioning, operation and maintenance of this system with related hardware, Software, communication infrastructure including NMS/DCUs/Routers/Gateways (as required), Cloud based Application Server, Integration/Access of Application Server by the WBSEDCL, its successful Operational Go-Live and maintain the system throughout the contract period of 84 months from the date of NoA, including 12 months of implementation period. The schedule of O&M of 72 months starts only after completion of the installation and Go Live.

*The number and identification of lots (contracts) comprising this RFB is: One lot only*

#### ITB 1.2 (a)

The Employer shall use the e-procurement system specified in BDS 7.1.

Additionally:

- a) The term “ES” means environmental and social (including Sexual Exploitation, and Abuse (SEA), and Sexual Harassment (SH));
- b) “Sexual Exploitation and Abuse” “(SEA)” means the following:

- (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;

	<p>c) “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;</p> <p>d) “Contractor’s Personnel” is as defined in Sub-Clause 1 of the General Conditions of Contract in PCC; and</p> <p>e) “Employer’s personnel” is as defined in GCC Sub-Clause 1 of the General Conditions of Contract in PCC.</p> <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>
<b>ITB 2.1</b>	<p>The Borrower is: Government of India. The sub-Borrower is GoWB / WBSEDCL</p> <p>The total amount of the financing is: <b>USD 385.70 MILLION</b></p> <p>The name of the Project is: <i>West Bengal Electricity Distribution Grid Modernization Project</i></p>
<b>ITB 4.1</b>	<p>Bids from Joint ventures are not accepted.</p> <p>Maximum number of members in the Joint Venture (JV) shall be: Not Applicable.</p> <p>Place where the agreement to form JV to be registered is India is: not Applicable.</p>
<b>ITB 4.2(h)</b>	<p>Add the following at the end of current texts in clause:</p> <p>The Bidder must not have in their employment:</p> <ul style="list-style-type: none"> <li>• 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</li> <li>• Any person working without Government permission, who retired as a gazetted officer within the last two years from any Department of Government of West Bengal.</li> </ul>
<b>ITB 4.5</b>	<p>A list of debarred firms and individuals is available on the Bank’s external website: <a href="http://www.worldbank.org/debarr">http://www.worldbank.org/debarr</a>.</p>
<b>B. Bidding Document</b>	
<b>ITB 7.1</b>	<p><b>Electronic –Procurement System</b></p> <p>The Employer shall use the following electronic-procurement system to manage this Bidding process:</p> <p><a href="http://www.wbtenders.gov.in">www.wbtenders.gov.in</a></p> <p>The Bidder is requested to submit any pre-bid queries only through the procurement portal, not later than seven (7) days before the pre-bid meeting</p> <p>For Clarification of bid purposes only, the Employer’s address is:</p>

	<p>Chief Engineer, Distribution Project Department</p> <p>Street Address: Sector-II, Salt Lake City, Block-DJ</p> <p>Floor/ Room number: Vidyut Bhavan, 5th Floor, B Block, WBSEDCL.</p> <p>City: Kolkata, West Bengal, PIN/Postal Code: 700091</p> <p>E-mail: <a href="mailto:ceproj1@wbasedcl.in">ceproj1@wbasedcl.in</a> <a href="http://www.wbasedcl.in">http://www.wbasedcl.in</a></p>
<b>ITB 7.4</b>	<p>A Pre-Bid meeting will take place at the following date, time and place:</p> <p>Date: <b>03.10.2023</b></p> <p>Time: <b>14.00 hours</b></p> <p>Place: Kolkata (Vidyut Bhavan, Block-DJ, Sector-II, Bidhannagar, Kolkata-700091)</p> <p>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.</p> <p>The intending bidders may submit their query in regards of this bid prior to Pre-Bid meeting through e-mail to <a href="mailto:ceproj1@wbasedcl.in">ceproj1@wbasedcl.in</a>.</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 WBSEDCL, if required.</p>
<b>ITB 8.1</b>	<p>The addendum will appear on the e-procurement system under <a href="http://www.wbtenders.gov.in">http://www.wbtenders.gov.in</a> and email notification is also automatically sent to those bidders who have started working on this tender.</p>
<b>C. Preparation of Bids</b>	
<b>ITB 11.2 (j)</b>	<p>The Bidder shall submit with its bid the following additional documents in its Bid – Technical Part:</p> <ol style="list-style-type: none"> <li>Copy of PAN, GST Registration certificate. (GSTIN No.)</li> <li>Copy of Firm Registration &amp; Certificate of Incorporation</li> <li>Memorandum and Articles of Association or document constituting the company and regulating its affairs</li> <li>List of board of directors or regulating/controlling body</li> <li>Address of its place of business</li> <li>EPF Registration</li> <li>Valid Electrical Contractor License issued by Electrical Inspector of any state/UT/Central Organization in force as on the last date of submission of Technical Bid.</li> <li>Electrical Supervisor's Certificate of Competency to be submitted as per clause 2.7(b) in Section III or an undertaking to submit the said Certificate before signing of contract in the event of contract award.</li> <li>Details of Device/ Monitoring Unit (RMDTU) &amp; Implementation Methodology</li> <li>List of equipment/ Sensors/ hardware with name of manufacturer(s) proposed to be utilized.</li> </ol>

	k) Name of Proposed Cloud Service Provider(s) with their letter of consent
ITB 11.3 (a)	Letter of Bid-Financial Part: Not Applicable.
ITB 11.3 (d)	The Bidder shall submit the following additional documents in its Bid – Financial Part: <i>Not Applicable</i>
ITB 12	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 downloaded by the bidders and filled up. <b>The filled-up pages shall then be scanned and uploaded on the e-procurement portal along with the scanned copies of the supporting documents.</b>
ITB 12.3	For submission of original documents, the Employer's address is: Attention: <b>Chief Engineer, Distribution Project Department</b> Street Address: <b>Sector-II, Salt Lake City, Block-DJ</b> Floor/ Room number: <b>Vidyut Bhavan, 5th Floor, B Block, WBSEDCL.</b> City: Kolkata, West Bengal PIN/Postal Code: 700091 Country: INDIA
ITB 13.1	Alternative Bids shall not be considered.
ITB 13.2	Alternatives to the Time Schedule <b>"shall not be"</b> permitted.
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	<b>Following details to be replaced with the following:</b> <b>Schedule No. 1:</b> Plant (including Mandatory Spare Parts) Supplied from Abroad – <b>Not Used</b> <b>Schedule No. 2:</b> Plant (including Mandatory Spare Parts) and associated F & I Charges) <b>Schedule No. 3:</b> Design Services <b>Not Used</b> <b>Schedule No. 4:</b> Installation Services <b>Schedule No. 5:</b> Grand Summary (Schedule Nos.1 to 4) <b>Schedule No. 6:</b> Recommended Spare Parts <b>Not Used</b>
ITB 17.5 (a)	Place of destination:  <i>As below</i>
and (b) & (d)	Under different CCC of WBSEDCL as per provided list (Section-XI)



	Rates or prices for local transportation to named place of final destination as specified <b>in the BDS</b> , insurance and other services incidental to delivery of the plant should be a part of Schedule 2.
<b>ITB 17.6</b>	The Inco terms edition is: 2010
<b>ITB 17.7, 17.8 &amp; 17.9</b>	The CAPEX portion of the contract is on Fixed Price basis, however, the OPEX (O&M) portion will be adjustable in line with Appendix-2 of the Contract Agreement
<b>ITB 17.10</b>	Not applicable.
<b>ITB 17.11</b>	No conditional discount is allowed. Discounted price, if any, is to be quoted. Offered discounts must be indicated in percentage on Supply and/or Erection schedule, which is applicable on all items equally.
<b>ITB 19.1</b>	The Bid validity period shall be <b>120 days</b>
<b>ITB 20.1</b>	The Bidder shall furnish a Bid Security in the amount of: INR 33.90 Lakh
<b>ITB 20.3 (d)</b>	<p>Other types of acceptable securities are:</p> <p><b><u>Following payment options are available for paying Bid Security amount:</u></b></p> <ol style="list-style-type: none"> <li><b><u>1. Net-banking</u></b> through Payment Gateway.</li> <li><b><u>2. RTGS/NEFT Payment:</u></b> On selection of RTGS/NEFT as the payment mode, the e-Procurement Portal will show a pre-filled challan having the details to process RTGS/NEFT transaction. The Bidder will print the challan and use the pre-filled information to make RTGS/NEFT payment using his bank account. Once the payment is made, the bidder will come back to the e-Procurement Portal to continue the bidding process after expiry of a reasonable time to enable the RTGS/NEFT process to be completed. <p>In case actual <b>Bid Security amount</b> as per NIT is <b>more than the one shown in e-tender portal</b>, the Bidder shall mandatorily opt for <b>NEFT/RTGS mode (Challan mode)</b>. In that case, the <b>total actual Bid Security amount</b> is to be paid only through NEFT/RTGS mode (Challan mode). Challan, thus generated will contain the amount which has been mentioned in e-tender portal. However, for payment of actual amount calculated as per NIT, bidders shall <b>strike out</b> the amount in Challan and manually put actual <b>Bid Security</b> amount while following the due payment procedure at respective Bank.</p> </li> <li><b><u>3. Submission of Bid Security through BG:</u></b> For submission of Bid Security in the form of BG, bidders will have to opt for Bid Security Exemption in e-tender portal and upload scanned copy of BG in the Bid Security exemption document upload section. Bank Guarantee (BG) should be drawn on any scheduled Bank drawn as per the pro-forma of Bank Guarantee for Bid</li> </ol>

	<p>Security, in favour of West Bengal State Electricity Distribution Company Limited as specified in the BDS.</p> <p><b>Physical copy of BG shall also be submitted at the office of tender inviting authority as per respective clauses of NIT.</b></p> <p><b><u>General Instructions for Online Payment:</u></b></p> <p>➤ EMD amount can be paid either in online mode or submitted through Bank Guarantee (BG) in full.</p> <p>Partial payment through online mode and remaining submission through BG is not allowed.</p> <p>&gt; The bidder will have to mandatorily pay through Net-banking facility once Net-banking mode is opted for payment.</p> <p>&gt; Status of NEFT/RTGS payment through Challan for a bid may take time to be updated in 24 Hrs. (approx.). As such bidders opting to pay through NEFT/RTGS mode shall make payment well before 24 Hrs. to avoid any complicity.</p> <p>&gt; The bank account used for payment of Bid Security by the bidders shall be maintained operative until the completion of tendering process. All refunds will be made mandatorily to the Bank A/c from which the payment of Bid Security has been initiated.</p> <p>4. 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>
<b>D. Online Submission and Opening of Bids</b>	
<b>ITB 21.3</b>	<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>
<b>E. Online Submission and Opening of Bids</b>	
<b>ITB 22.1</b>	Class of DSC required is: II or above
<b>ITB 23.1</b>	<p><b>The deadline for uploading the Bids is:</b></p> <p>Date: <b>08.11.2023</b></p> <p>Time: <b>13:30 Hours</b></p>
<b>ITB 25.1</b>	Re-submission of the bid is - <i>Allowed</i> , if withdrawn within deadline of Bid submission
<b>F. Public Opening of Technical Parts of Bids</b>	
<b>ITB 26.1</b>	<p>The online Bid opening of Technical Parts of Bids shall take place on:</p> <p>Street Address: <b>Karunamoyee, Salt Lake City, Block-DJ</b></p>

	Floor/Room number: <b>Vidyut Bhavan, 5<sup>th</sup> Floor, B Block, WBSEDCL</b> City: <b>Kolkata, West Bengal-700091</b> Country: <b>INDIA</b> Date: <b>08.11.2023</b> Time: <b>14:00 Hrs</b>
<b>G. Evaluation of Bids – General Provisions</b>	
<b>ITB 30.3</b>	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:  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.
<b>H. Public Opening of Financial Parts of Bids</b>	
<b>ITB 34.2 (c)</b>	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.  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 <a href="http://www.wbtenders.gov.in">http://www.wbtenders.gov.in</a>
<b>I. Evaluation of Financial Parts of Bids</b>	
<b>ITB 35.1 (f)</b>	The adjustments shall be determined using the following criteria, from amongst those set out in Section III, Evaluation and Qualification Criteria: <b>a) Deviation in Time for Completion: No</b> <b>b) Life cycle costs: the projected operating and maintenance costs during the life of the goods or equipment: No</b> <b>c) Functional Guarantees of the Facilities: No</b> <b>d) Work, services, facilities, etc., to be provided by the Employer: Yes, as per Bid for permission from Govt. Authorities</b>
<b>ITB 35.3</b>	Multiple Contracts: Not Applicable
<b>ITB 40.2</b>	Provisions related to Abnormally Low Bids is not applicable
<b>J. Award of Contract</b>	
<b>ITB 47.3</b>	<a href="http://www.wbtenders.gov.in">http://www.wbtenders.gov.in</a>
<b>ITB 49.1</b>	Prior to signing of the contract, the <b>Successful Bidder</b> shall also submit the following:  <b>A. Code of Conduct for Contractor's Personnel (ES) as per format enclosed in the "Contract Forms"</b>  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.  <b>The above shall become part of the Contract Agreement.</b>
<b>ITB 51</b>	The Adjudicator proposed by the Employer is: <b><i>Before signing of contract Agreement [insert name and address of proposed Adjudicator]</i></b> . The daily fee for this proposed Adjudicator shall be: <b><i>Rs. 10,000.00 per day.</i></b>
<b>ITB 20, 50 &amp; Appendix 1 Terms and Procedure of Payment</b>	Bank details for preparation of Bank Guarantee (Bid Security / EMD, Advance BG and Performance BG):- Name of Bank:- UCO Bank, Salt Lake, Sector-II, Karunamoyee, Kolkata-700091 Branch:-Salt Lake, Sector-II Bank Account No.:- 17130210001127 IFSC Code:-UCBA0001713
General / Common - Issue Complaint Officer	Designated Officer of WBSEDCL Name: -G. Mukhopadhyay. Designation: -Additional Chief Engineer. Address:-WBSEDCL Contact no.:-8900793557

## 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:

1. Substantially responsive to the bidding document; and
2. The lowest evaluated cost taking together Supply & Erection value including discounts offered, if any.

#### 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**

All items should be as per approved technical specification and drawings of WBSEDCL. The minimum (or maximum) requirements stated in the Specification for functional guarantees are to be fulfilled.

**(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**

#### 1.6 (a) Qualification requirements for Bidders

Factor	1. Eligibility					
Sub-Factor	Requirement	Bidder				Documentation Required
		Single Entity	JV (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 requirement	NA	NA	NA	Form ELI –1.1 and 1.2, with attachments
1.2. Conflict of Interest	No- conflicts of interests as described in ITB 4.2.	Must meet requirement	NA	NA	NA	Letter of Bid
1.3. Bank Ineligibility	Not having been declared ineligible by the Bank as described in 4.5.	Must meet requirement	NA	NA	NA	Letter of Bid
1.4. State Owned Enterprise or Institution	Compliance with conditions of ITB 4.6	Must meet requirement	NA	NA	NA	Form CON – 2
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	NA	NA	Letter of Bid
1.6. Bidder Identity	The bidder shall be a private/public Company registered under Companies Act 1956 / 2013 proprietary firm / partnership firm.	Must meet requirement	N/A	N/A	N/A	Certificate of Incorporation and registration.

Factor	2. Historical Contract Non-performance					
Sub-Factor	Requirement	Bidder				Documentation Required
		Single Entity	JV (existing or intended) where permitted			
			All members combined	Each Partner	At least one Partner	
2.1. History of non-performing contracts	Non-performance 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	Must meet requirement by itself or as member to past or existing JV.	NA	NA	NA	Form CON – 2

Factor	2. Historical Contract Non-performance					
Sub-Factor	Requirement	Bidder				Documentat ion Required
		Single Entity	JV (existing or intended) where permitted			
			All members combined	Each Partner	At least one Partner	
	Dispute Resolution Mechanism under the respective contract, and where all appeal instances available to the Bidder have been exhausted.					
Nonperformance, 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.						
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	NA	NA	Letter of Bid
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	NA	NA	NA	Form CON – 2
2.4. Litigation History	No consistent history of court/arbitral award decisions against the Bidder since 1st January 2018	Must meet requirement	NA	NA	NA	Form CON – 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.]						
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.	Must make the declaration. Where there are Specialized Sub-contractor/s, the Specialized Sub-contractor/s must also make the declaration.	NA	NA	NA	Form CON-3 ES Performance Declaration

Factor	2. Historical Contract Non-performance					
Sub-Factor	Requirement	Bidder				Documentation Required
		Single Entity	JV (existing or intended) where permitted			
			All members combined	Each Partner	At least one Partner	
(The Employer may use this information to seek further information or clarifications in carrying out its due diligence.)						

Factor	3. Financial situation					
Sub-Factor	Requirement	Bidder				Documentation Required
		Single Entity	JV (existing or intended) where permitted			
			All members combined	Each Partner	At least one Partner	
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	N/A	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 Power/ IT Sector, in progress or completed, in at least two financial years, within the last Five (5) years: INR 16.95 Crore	Must meet requirement	NA	NA	NA	Form FIN –3.2
<b>Note: 1. 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 Inventories that are easily tradable.</b> <b>2. 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</b>						
3.3. Financial Resources	The Bidder must demonstrate access to, or availability of, financial resources such as liquid assets, unencumbered real assets, lines of credit, and	Must meet requirement	NA	NA	NA	Form FIN – 3.3



Factor	3. Financial situation					
Sub-Factor	Requirement	Bidder				Documentation Required
		Single Entity	JV (existing or intended) where permitted			
			All members combined	Each Partner	At least one Partner	
	other financial means, other than any contractual advance payments to meet the following cash-flow requirement:  INR 4.25 Cr					
3.4. Net Worth	Bidder shall have positive Net Worth for the each of the last three Financial Years.  <i>[Net Worth means 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.]</i>	Must meet requirement	NA	NA	NA	Form FIN – 3.3
3.5. 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,  i) A = Maximum turnover in any one year during the last three years (in case of bidders having multiple lines of businesses, turnover only against, which shall be duly certified by a Chartered Accountant)  ii) N = Number of years prescribed for completion of work (till go-	Must meet requirement	NA	NA	NA	Form FIN – 3.3

Factor	3. Financial situation					
Sub-Factor	Requirement	Bidder				Documentation Required
		Single Entity	JV (existing or intended) where permitted			
			All members combined	Each Partner	At least one Partner	
	live) for which bids have been invited  iii) B = Value of existing commitments and ongoing works for similar types of 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 bids for any subsequent package.					

Factor	4. Experience					
Sub-Factor	Requirement	Bidder				Documentation Required
		Single Entity	JV (existing or intended) where permitted			
			All members combined	Each Partner	At least one Partner	
4.1. General Experience	Experience in power sector /IT Sector/ Automation/ Instrumentation Sector contracts in the role of <i>contractor</i> , subcontractor, or management contractor for at least the last Five (5)	Must meet requirement	N / A	N/ A	N / A	Form EXP-4.1

Factor	4. Experience					
Sub-Factor	Requirement	Bidder				Documentation Required
		Single Entity	JV (existing or intended) where permitted			
			All members combined	Each Partner	At least one Partner	
	years from deadline of Bid Submission Date.					
4.2. Specific Experience	<p><u>The bidder must have successfully supplied, erected, tested &amp; commissioned as contractor, joint venture member<sup>1</sup>, management contractor, or subcontractor the following works in last 7 years from deadline of Bid Submission date:</u></p> <p>Implementation /Integration of IT enabled System Infrastructure in Power Distribution/Transmission/Generation Sector:</p> <p><u>Having summative contract value at least Rs 10 crore, out of which value of one contract should be at least Rs. 4 Crore.</u></p> <p><u>All the above systems so created must be in satisfactory operation for at least Six (6) months prior to deadline of Bid Submission date.</u></p>	Must meet requirement	N / A	N / A	N/A	Form EXP 4.2(a)

Note: Even though the bidders may meet the above qualifying criteria, they are subject to be disqualified if they have:

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.

<sup>1</sup> 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

## 2.5 Personnel

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

Serial No	Position	Number	Experience
1	Support Engineer	At least One (1)	Has Degree in Electrical/ Electronics/ IT Engineering with at-least 3 years relevant Experience for resolving field & application management and overall system maintenance

The Bidder must not have in his 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. Power Sector /Departments of Government of West Bengal
- [ii] any person working without Government permission, who retired as a gazetted officer within the last two years.

## 2.6 Equipment: Not applicable

Not applicable			

## 2.7 Special Technical Requirements

The bidder should possess the following:

- a) Valid Electrical Contractor license issued by any State/UT/Central Organization which is in force as on the last date of submission of Technical Bid in line with BDS 11.2 (j)(c ).
- b) Electrical Supervisor's Certificate of Competency issued by any State/ UT/Central Organization. Alternatively the Bidder shall submit a declaration that the required certificate shall be submitted before signing of Contract, in case of Contract award.

## 3. Evaluation – Financial Part

**3.1 The following factors and methods will apply:** [use one or more of the following adjustment factors consistent with ITB 35.1 of the BDS]

**Bidders have to quote the unit rate of the item as per schedule. GST as applicable shall be paid extra. 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 installation, Deployment &

Go-live activities is 12 months from the date of Notification of Award (NoA). No credit will be given for earlier completion.

Post Go-live, the Bidder shall provide Operational support & Maintenance services for a period of 72 months.

**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 aspect : *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: As listed under Section III - Qualification requirements for Sub-contractors/Contractors/ Service Provider

**Qualification requirements for Sub-contractors/ Contractors/ Service Providers**

Sl.	Description	Qualification Criteria	Evaluation/ Document Required
<b>I. Pre-qualification Requirement for Proposed Cloud Service Provider</b>			
1	Certification	Proposed CSP should be Tier-3 MeitY empanelled Data Centre within INDIA.	Valid Letter of Award of Empanelment from MeitY.
2	DC Criteria DR	1. Proposed CSP must be operating Data Centre facilities in India at time of submission of the bid. 2. CSP must be operating a separate DC and DR (Disaster Recovery) facilities in India at physically different locations.	Self-certificate from the CSP mentioning the location details signed by

			authorised signatory of the CSP for this bid.
--	--	--	---

Failure to comply with this requirement will result in rejection of the subcontractor. Bidders can propose more than one sub-contractor for one or more items. 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:** *[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 our Bid, in two parts, namely:

- A. the Technical Part, and
- B. the Financial Part

In submitting our Bid, we make the following declarations:

- **No reservations:** We have examined and have no reservations to the bidding document, including Addenda issued in accordance with ITB 8;
- **Eligibility:** We meet the eligibility requirements and have no conflict of interest in accordance with ITB 4;
- **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]*;
- **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;
- **Performance Security:** If our Bid is accepted, we commit to obtain a Performance Security in accordance with the bidding document;
- **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
- **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;
- **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];*



- **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;
- **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;
- **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;
- 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
- **Adjudicator:** The Adjudicator proposed by the Employer will be named ***before signing of contract Agreement***. The daily fee for this proposed Adjudicator shall be: decided with mutual consent between Employer and contractor.

We accept this arrangement.

**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

## Technical Proposal

### I. Site Organization

- 
- II.** Method Statement
  - III.** Mobilization Schedule
  - IV.** Construction Schedule
  - V.** Plant
  - VI.** Contractor's Equipment
  - VII.** Personnel
  - VIII.** Proposed Subcontractors/ Service Providers for Major Services
  - IX.** Others

---

**I. Appendix to Technical Part: Site Organization**

*[Insert Site Organization Information]*

**II. 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].*

### **III. Appendix to Technical Part: Mobilization Schedule**

*[Insert Mobilization Schedule]*

**IV. Appendix to Technical Part: Construction Schedule**

*[Insert Construction Schedule]*

**V. Appendix to Technical Part: Plant**

**VI. Appendix to Technical Part: Contractor's Equipment: Not Applicable****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	



**VII. 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.

<b>Required Functional Guarantee</b>	<b>Value of Functional Guarantee of the Proposed Plant and Equipment</b>
1.	
2.	
3.	

**VIII. Appendix to Technical Part: Personnel****Form PER -1****Proposed Personnel**

Bidders should provide the names of suitably qualified personnel to meet the specified requirements stated in Section III. The data on their experience should be supplied using the Form below for each candidate.

<b>1.</b>	<b>Title of position*</b>
	<b>Name</b>
<b>2.</b>	<b>Title of position*</b>
	<b>Name</b>
<b>3.</b>	<b>Title of position*</b>
	<b>Name</b>
<b>4.</b>	<b>Title of position*</b>
	<b>Name</b>

*\*As listed in Section III.*

**Form PER-2**

Name of Bidder
----------------

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

[illegible]

**IX. Appendix to Technical Part: Proposed Subcontractors/ Service Providers for Major Items of Plant & Installation and O&M Services**

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

The following Subcontractors/ Service Providers 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

<b>Major Items of Plant &amp; Installation and O&amp;M Services</b>	<b>Proposed Subcontractors / Manufacturers/ Service Provider</b>	<b>Nationality</b>

**X. Appendix to Technical Part: Time Schedule**

**Others - Time Schedule**

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

**XI. Appendix to Technical Part: Bidder qualification****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.

**XII. Appendix to Technical Part: Bidder Information Sheet**

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. 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

**XIII. Appendix to Technical Part: Party to JV****Form ELI 1.2 (Not Applicable)****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 4.1 and ITB 4.6.  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.



**XIV. Appendix to Technical Part: Details of JV (Not Applicable)****Details of Participation in the Joint Venture (where permitted)**

PARTICIPATION DETAILS	FIRM 'A' (Lead Member)	FIRM 'B'	FIRM 'C'
Financial			
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.

**XV. Appendix to Technical Part: Historical Contract Non-Performance****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 <sup>st</sup> 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 <sup>st</sup> 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.			

**XVI. Appendix to Technical Part: Current contract commitments****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 of outstanding work (Rs million)	Estimated completion date	Average monthly invoicing over last six months (Rs million)
1.				
2.				
3.				
4.				
5.				
etc.				

**XVII. Appendix to Technical Part: Financial Situation****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

<b>Financial information in Rs. million</b>	Historic information for previous _____ (____) years (in Rs. million)						
	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year ...</b>	<b>Year n</b>	<b>Avg.</b>	<b>Avg. Ratio</b>
<b>Information from Balance Sheet</b>							
<b>Total Assets (TA)</b>							
<b>Total Liabilities (TL)</b>							
<b>Net Worth (NW)</b>							
<b>Current Assets (CA)</b>							
<b>Current Liabilities (CL)</b>							
<b>Information from Income Statement</b>							
<b>Total Revenue (TR)</b>							
<b>Profits Before Taxes (PBT)</b>							

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)

This should be certified by a Chartered Accountant.

**XVIII. Appendix to Technical Part: Avg. Annual Turnover****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.

**XIX. Appendix to Technical Part: Financial Resources****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

<b>Source of financing</b>	<b>Amount (Rs million)</b>
1.	
2.	
3.	
4.	

**XX. Appendix to Technical Part: Experience****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:	_____
_____	_____	_____	_____	_____	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:	_____
_____	_____	_____	_____	_____	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:	_____
_____	_____	_____	_____	_____	Contract name: Brief Description of the Works performed by the Bidder: _____ Name of Employer: Address:	_____

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

**XXI. Appendix to Technical Part: Specific Experience****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:	_____		
Address:	_____ _____ _____		
Telephone/fax number:	_____ _____		
E-mail:	_____		



**XXII. Appendix to Technical Part: Specific Experience (contd.)****Form EXP –4.2(a) (cont.)  
Specific Experience (cont.)**

Bidder's Legal Name: \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_ pages

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	_____

**XXIII. Appendix to Technical Part: Specific Experience in Key Activities****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:	_____		

**XXIV. Appendix to Technical Part: Specific Experience in Key Activities****Form EXP –4.2 (b)(cont.)****Specific Experience in Key Activities (cont.)**

Bidder's Legal Name: \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_ pages

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:	

**XXV. Appendix to Technical Part: ES Performance****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

**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.

**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> 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>[insert amount]</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>

**XXVI. Appendix to Technical Part: Bank guarantee****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 Department, WBSEDCL,  
Vidyut Bhavan, 5<sup>th</sup> Floor, Kolkata-700091

**RFB No.:** *[Insert RFB No]*

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

**Date:**

**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]*<sup>2</sup> (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 Proposals 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 \_\_\_\_\_<sup>3</sup> 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\_\_\_\_.

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, 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 \_\_\_\_\_<sup>4</sup> 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,

<sup>2</sup> In the case of a JV, the bidder should be stated as "a Joint Venture consisting of ....., and .....".

<sup>3</sup> 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.

<sup>4</sup> 45 days after the end of the validity period of the Bid.

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.***

**XXVII. Appendix to Technical Part: MAF****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 \_\_\_\_\_, \_\_\_\_\_

**XXVIII. Appendix to Technical Part: Tax exemption declaration***(Name of the Project)****(Declaration regarding tax/ duty exemption for plant/equipment/construction equipment bought for the work)<sup>5</sup>****(Bidder's Name and Address)*

To,

*(Chief Engineer, Distribution Project Department, WBSEDCL, Vidyut Bhavan, 5<sup>th</sup> 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 <i>(modify the list suitably for each specific work) *</i>	Make/ Brand Name	Capacity <i>[where applicable]</i>	Quantity	Value	State whether it will be procured locally or imported <i>[if so from which country]</i>	Remarks regarding justification for the quantity and their usage in works.
<b>Plant and Equipment</b>						
[a] _____						
[b] _____						
[c] _____						
<b>Construction Equipment</b>						

4. We agree that no modification to the above list is permitted after bids are opened.

<sup>5</sup> 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.



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.**

**XXIX. Letter of Bid – Financial Part: Not applicable**

**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.:**

**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:

**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];*

**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.

**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

**XXX. Appendix to Financial Part: Schedule of Rates and Prices**

**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:**

**XXXI. Appendix to Financial Part: (Not Applicable)**

**Country of Origin Declaration Form**

Item	Description	Country Code <sup>6</sup>	Country

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6

XXXII.    Schedule 3: Appendix to Financial Part (ONLINE)

Schedule No. 3. Design Services Not Used

	Description			
TOTAL (to Schedule No. 5. Grand Summary)				
<sup>1</sup> All rates and prices shall be specified in Rs. only in accordance with ITB 18.				

XXXIII. Appendix to Financial Part (ONLINE)

Schedule No. 4. Installation and Other Services

	Description			
TOTAL (to Schedule No. 5. Grand Summa				
		<div>Name of Bid</div> <div>Signature of Bid</div>		

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

**XXXIV. Appendix to Financial Part (ONLINE)****Schedule No. 5. Grand Summary**

Item	Description	Total Price <sup>1</sup>
	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 No. 2
	TOTAL (to Bid Form)	

Name of Bidder \_\_\_\_\_

Signature of Bidder \_\_\_\_\_

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



**XXXV. Appendix to Financial Part (ONLINE)****Schedule No. 6. Recommended Spare Parts (Not used)**

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

Name of Bidder \_\_\_\_\_

Signature of Bidder \_\_\_\_\_

<sup>1</sup> 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, this Tender is exclusively **Indian National competitive Bidding**.

## Section VI - Fraud and Corruption

(This Section shall not be changed)

### 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, 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:
    1. 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
    2. 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;<sup>7</sup> (ii) to be a nominated<sup>8</sup> 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 inspect<sup>9</sup> 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

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<sup>7</sup> 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.

<sup>8</sup> 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.

<sup>9</sup> 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**

## Section VII - Employer’s Requirements

### 1 Introduction and General Information

#### 1.1 Brief about WBSEDCL

- I. The Government of West Bengal unbundled the erstwhile West Bengal State Electricity Board (WBSEB) into two companies viz., West Bengal State Electricity Distribution Company Limited (WBSEDCL) and West Bengal State Electricity Transmission Company Limited (WBSETCL). The main business of WBSEDCL is distribution and hydro generation of electricity. It is also the nodal Agency of the Government of West Bengal for undertaking Rural Electrification task in the State with objective of providing access of electricity to all rural households in the state in line with the National Rural Electrification Policy. The Company is managed by a Board of Directors including Chairman & Managing Director.
- II. Over the years, WBSEDCL has been continually evolving to position itself as a leading Power Utility services organization of the Country. In the changing landscape, post recent global slowdown, it is anticipated that demand for electricity will change rapidly and expectations will also increase exponentially. WBSEDCL continually strives to enhance the quality of services delivered to its customers. WBSEDCL provides quality power to a gargantuan customer base of more than 2.25 crore across West Bengal through its service network spanning 5 Zones, 21 Regional Offices, 78 Distribution Divisions and 544 Customer Care Centers.
- III. These are indeed exciting times for the Company, given its rapid progression from providing engineering solutions, to solving complex customer challenges, to providing innovative solutions. WBSEDCL has implemented Enterprise Resource Planning – SAP in Financial Accounting & Control, Material Management, HR with Payroll, Plant Maintenance and Project System. After successful implementation of Purulia Pumped Storage Project in 10th Plan period with a capacity of 900 MW hydel power, the Company has taken up the ambitious plan of implementing Turga Pumped Storage Project in the 13th Plan period with installed capacity of 4 x 250 MW. For solving complex customer challenges and for providing more efficient service to the consumers, a Project titled Integrated Power Development Scheme for strengthening of sub transmission and Distribution networks, metering of Distribution transformers etc. in the urban areas has been undertaken. WBSEDCL is innovating and embarking upon an IT-enabled system across the organization to ensure greater engineering predictability and to position itself into the best utility in the country in terms of customer service, efficiency and financial viability.

#### 1.2 Existing status

WBSEDCL presently have 2 lakhs Distribution Transformers out of which approx. 4000 nos. of DT having capacity 315 kVA & 630 kVA located mainly in urban areas catering important load. WBSEDCL now planned to implement Remote Monitoring of Distribution Transformer having capacity 315 kVA & 630 kVA. This will ensure better monitoring of those Transformers, reduce failure rate & improve the reliability.

## **2 Scope of work**

### **2.1 Project Objective**

With an aim to provide best services to its consumers, WBSEDCL intends to implement the scheme for Remote Monitoring of Distribution Transformer (RMDT) having capacity 315 kVA & 630 kVA. The RMDT system implementation is intended to remotely monitor the important DT parameters, both electrical & physical along with real time data collection and generation of alarm in case of any critical parameters/ pre-set value. This will ensure better monitoring of DTR status, timely taking up preventive measure in case of any critical situation, on demand access of live parameters, access & analyze the storage data and retrieve of past critical information of the DT. This will ensure better monitoring of Transformers, reduce failure rate & improve the reliability.

WBSEDCL intends to implement RMDT on approx. 4000 DT having capacity 315 kVA & 630 kVA with cellular communication and deployment of Cloud based Data Collection and Application server including Integration/ Access of Application server by the WBSEDCL with execution of the Project in TOTEX model.

The main objective of Remote Monitoring of Distribution Transformer (RMDT) is to establish / enable bidirectional communication between Remote Monitoring Unit installed at Distribution Transformer (DT) end and Application Server to increase the reliability of Distribution Network by monitoring regular & critical information. Data will be collected continuously. After checking against parameter limits, the RMDT system will trigger alarms to the end system in case of exceeding set limit. The types of end systems are PCs, Workstations, Web servers, email servers, PDAs, Cell Phones, Tablets, etc. The sanitized data may be utilized for other utility function for higher order analysis.

### **2.2 Scope of work for Remote Distribution Transformer Monitoring (RMDT)**

The work broadly covers survey, supply, customization, installation, deployment and operation & maintenance of necessary Current Transformers, sensors, RMDTU, hardware, software, communication channel at 11/0.4kV Distribution Substation to facilitate web based centralized monitoring through cloud based application server for 315kVA & 630kVA Dist. Transformer in different area throughout West Bengal for the purpose of data logging and data analysis, alert generation of Electrical parameter like Phase Voltage, Current, Neutral Current, Active-Reactive – Apparent Power, P.F, Harmonics, Power Off alert, along with Physical Parameter like - Tr. Oil level, Tr. Oil & Winding Temperature, Tr. Tap Position, GPS positioning in map etc for the period of Project implementation (12 Months) and O&M period of 72 Months to ensure Project operability, maintainability and the reliability for real time Remote Monitoring of Distribution Transformer Health Condition.

#### **Following parameters is to be captured and recorded in the system:**

##### **A. Physical Parameters to be uploaded in system to set the limiting Value:**

- 1) RMDTU Address RMDTU Address, DT Location, CCC Name with ERP Code, Division Name with ERP code, GPS Position in map.
- 2) DT particulars

- i. DT SL No.
  - ii. DT Make
  - iii. DT Location
  - iv. Year of Manufacturing
  - v. DT Repairing Date, if any
  - vi. LV side Voltage as per name Plate
  - vii. LV Side Current as per Name Plate
- 3) Installed CT Ratio
  - 4) RMDT installed on LT Kiosk / Transformer Plinth / Pole / Separate Arrangement
  - 5) DT Tap Position
  - 6) Current range for under load
  - 7) Neutral unbalance limit
  - 8) Overload range with time duration for which to be considered as overload.
  - 9) Over Voltage limit
  - 10) Under Voltage limit
  - 11) Single Phase voltage
  - 12) Critical Oil Temperature
  - 13) Critical Winding Temperature
  - 14) Critical Oil Level with changed Seasonal Ambient Temperature

**B. Following parameters shall be continuously updated in the system:**

- 1) Real time clock date and time
- 2) Voltage R Phase, Voltage Y Phase & Voltage B Phase
- 3) Current R Phase, Current Y Phase, Current B Phase
- 4) Neutral Current
- 5) Total Active Power, kW and Active Power, R Phase , Active Power, Y Phase, Active Power, B Phase
- 6) Total Reactive Power, kVAR and Reactive Power, R Phase Reactive Power, Y Phase Reactive Power, B Phase
- 7) Total Apparent Power, kVA and Apparent Power, R Phase Apparent Power, Y Phase Apparent Power, B Phase
- 8) Three Phase Power Factor, PF and Power Factor, R Phase Power Factor, Y Phase Power Factor, B Phase
- 9) Maximum Demand KW , KVA
- 10) Total Current Harmonics Distortion at least up to 27th harmonic
- 11) Total Voltage Harmonics Distortion at least up to 27th harmonic
- 12) Total Demand Distortion (TDD)



- 13) Generation of alarms for any crossing of limiting values on above noted electrical parameters
  - a. Overloading
  - b. Under Loading
  - c. Current unbalancing
  - d. Power Off Alert
  - e. THD for Voltage & Current
  - f. TDD
- 14) DT Oil temperature in Degree Centigrade
- 15) Calculated DT Winding temperature in Degree Centigrade ( Calculation model is to be submitted in 'Method Statement' part of the bid)
- 16) DT Oil Level
- 17) Generation of alarms for any crossing of limiting values on above noted physical parameters
  - a. Oil Temperature
  - b. Winding Temperature
  - c. Oil Level

**C. The following parameter shall communicate to the Application Server on hourly basis (Schedule can be changed for critical DTR, if require) irrespective of any event:**

- 1) Real time clock date and time
- 2) Average Voltage
- 3) Average Current
- 4) Neutral Current
- 5) Total Active Power, kW
- 6) Total Apparent Power
- 7) Three Phase Power Factor,
- 8) DT Oil temperature in Degree Centigrade
- 9) DT Winding temperature in Degree Centigrade
- 10) DT Oil Level

**D. The software shall be able to pull following parameters on-demand a predefined interval:**

- 1) Real time clock date and time
- 2) Voltage R Phase, Voltage Y Phase & Voltage B Phase
- 3) Current R Phase, Current Y Phase, Current B Phase
- 4) Neutral Current
- 5) Total Active Power, kW and Active Power, R Phase , Active Power, Y Phase, Active Power, B Phase

- 6) Total Reactive Power, kVAR and Reactive Power, R Phase Reactive Power, Y Phase Reactive Power, B Phase
- 7) Total Apparent Power, kVA and Apparent Power, R Phase Apparent Power, Y Phase Apparent Power, B Phase
- 8) Three Phase Power Factor, PF and Power Factor, R Phase Power Factor, Y Phase Power Factor, B Phase
- 9) DT Oil temperature in Degree Centigrade
- 10) DT Oil Level
- 11) THD for Voltage
- 12) THD for Current
- 13) Total Demand Distortion (TDD)

**E. The RMDT system shall be able to monitor, detect and generate Alert against following faults and events:**

- 1) Any RMDT unit Time stamping if mismatched with system Time Stamping.
- 2) Over Voltage for pre-defined period & value
- 3) Under Voltage for pre-defined period & value
- 4) Voltage imbalance
- 5) Neutral current for pre-defined period & value
- 6) Communication Fail and same after restoration
- 7) Over Load for pre-defined period & value
- 8) Repetition of "Power Off" Alert for every 30 minutes with time stamping till the "Power On"
- 9) High THD for exceeding set limit
- 10) TDD for exceeding set limit
- 11) DT Oil temperature for exceeding set limit
- 12) DT Winding temperature for exceeding set limit
- 13) DT Oil Level for beyond set limit
- 14) DT Oil Level for beyond set limit
- 15) DT Oil Level for beyond set limit in "Power Off" Condition

**F. Event Logging - Total number of event records to be stored in system memory. The entire individual event will be recorded and added in the individual event list.**

Following parameters shall be logged in memory along with occurrence and restoration of every electrical event.

- 1) Duration with Date and time of event
- 2) Type of Event
- 3) Status of Event if the Event is related to DT

- a. Voltage R Phase - instantaneous Voltage
- b. Voltage Y Phase - instantaneous Voltage
- c. Voltage B Phase - instantaneous Voltage
- d. Current R Phase - instantaneous current
- e. Current Y Phase - instantaneous current
- f. Current B Phase - instantaneous current

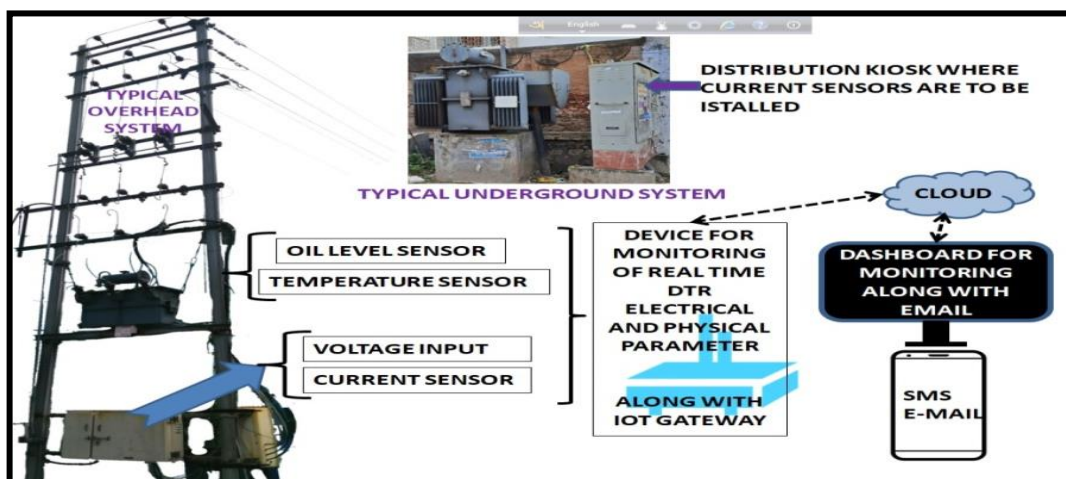
**Note:** For Communication fail only date and Time stamping to be logged

Dashboard Data are to be captured according to Dashboard Design, which will be finalized at the time of project implementation.

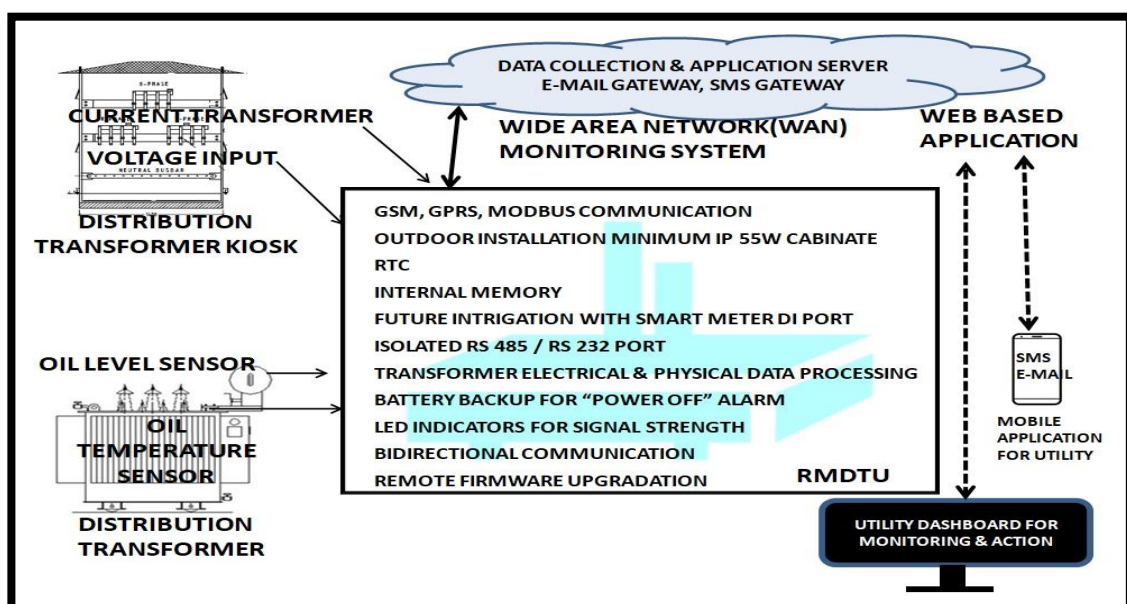
For reporting purpose all above noted parameter is to be captured with required format as asked by Project Manager / Site In-charge / Nodal Officer.

**A schematic layout of System Architecture & System Block Diagram is shown hereunder:**

#### **Remote Distribution Transformer Monitoring (RMDT) System Architecture**



#### **Remote Distribution Transformer Monitoring (RMDT) System Block Diagram**



**The details of scope of work are stated hereunder:**

1. Survey, Providing all materials, equipment’s and services specified or otherwise, which are required to fulfill the intent of ensuring operability, maintainability and the reliability of the complete works covered under this specification.
2. Supply, customization, installation, deployment and maintenance of necessary sensors, hardware, software and communication equipment at Distribution Substations to facilitate monitoring of 315KVA & 630KVA Distribution Transformer at WBSEDCL area for the purpose of centralized DT monitoring, data logging and data analysis.
3. Erection, testing and putting into satisfactory operation of RMDTU along with all Sensors/ hardware / software / communication equipment and including successful commissioning.
4. Operation & maintenance of the entire RMDT facilities including communication & access of Application Server by WBSEDCL for 72 months after go live acceptance of the entire system and 12 months implementation period/ up to go-live acceptance, including replace/ repair/ set-right of any sensor/ hardware/ accessories, update of software, maintain of communication mechanism, cloud service etc. as may be required to ensure running & availability/ accessibility of the facilities.
5. In case of relocation of any DT with RMDT facility within the entire contract period, the RMDT facility shall also be relocated to the new location of DTR within the logical time & necessary updates are to be incorporated.
6. Provide ongoing product information and documentation such as User manuals, System administrator manuals, Technical manuals, Installation guides etc. as applicable.
7. Providing engineering data and drawing/ diagram/ equipment particulars for review, approval and records.
8. The selected Bidder shall be responsible for providing all material, equipment and services specified or otherwise, which are required to fulfill the intent of ensuring operability, maintainability and the reliability of the complete work covered under this specification.
9. All items to be supplied and erected shall be strictly as per the specifications given in the Bid and should comply the relevant standards and any amendments thereof.
10. Any deviation taken by the bidder and not specifically / clearly brought out in the price schedule will not be considered as a valid deviation.
11. Selected Bidder to establish Remote Distribution Transformer Monitoring System for listed 315KVA & 630KVA Distribution Transformer at WBSEDCL area within 12 months from the date of award of contract.
12. Selected bidder may propose & establish the solution for 315KVA & 630KVA Indoor / Outdoor Plinth/ Pole mounted Distribution Transformer.
13. Suitable arrangement for installation RMDTU.
14. In general Outdoor Type Current transformers are to be installed in respective LT Kiosk. Power Supply for Monitoring Unit is to taken from LT Kiosk. Oil Temperature and Oil Level Sensors shall be installed in Distribution Transformer.
15. Where LT Kiosk will not be accessible, Outdoor Type Current transformers are to be installed making suitable arrangement considering site survey report.
16. The selected bidder in consultation with **Project Manager** shall determine the **exact positioning** of equipment Installation, housing of equipment.
17. The equipment shall be supported for the entire contract period. Bidder will submit MAF (Manufacturer Authorization Form) as per FORMAT for the equipment being proposed under this tender.
18. For the operation & maintenance phase of 72 months, selected bidder to dedicatedly deploy at-least one qualified (Degree in Electrical/ Electronics/ IT Engineering with at-least 3 years relevant Experience) Support Engineer with relevant experience for resolving field & application management and overall system maintenance and primarily be contacted by the Employer in case of any issue.

19. **Integrating** the proposed system with other necessary software being implemented in other project as / if required.
20. All supplied items must conform to the detailed **technical specifications** mentioned in this tender document.
21. Supply, testing, **Packaging, transportation** and insurance of materials / equipment / Sensors from the manufacturer’s work to the site including ports and customs clearance as / if applicable will be borne by the selected bidder.
22. Insurance of all equipment from manufacturer’s site till installation, commissioning, handing over and user acceptance will be borne by the selected bidder.
23. The selected bidder shall make his own necessary arrangements to maintain the mandatory and recommended **spares** during entire contract period and provide the list of the same.
24. Install the equipment, obtain **Site In-charge acceptance** and submit a copy of the same to designated authority.
25. The system shall be highly reliable providing 99.5% uptime and ensuring availability of the network of 99.5%.
26. The proposed solution must efficiently enable all required interfaces and integration, including integration with the existing software as detailed in existing IT infrastructure.
27. The selected bidder shall make his own necessary arrangements for the following and for those not listed anywhere else :
  - i. Office and store.
  - ii. Transportation.
  - iii. Boarding & lodging arrangement for their personnel.
28. Receipt, storage, insurance, preservation and conservation of equipment are at the site.
29. In addition to the requirements indicated in different section, all the requirements as stated in Technical specifications shall also be considered as a part of this specification as if completely bound herewith.
30. Provide the daily and periodical and executive report to the WBSEDCL for taking into account for health monitoring of DT.
31. During entire contract period the selected bidder is required to provide all the services and activities mentioned in the contract.
32. Safety norms & I.E. rules should be followed during the entire period of contract.
33. It is not the intent to specify all aspects of design and installation of associated systems mentioned herein. The systems, sub-systems and equipment/devices shall conform in all respect to high standards of engineering, design and workmanship, and shall be capable of performing continuous required operation.

The required RMDT facility shall support at-least but not limit the following functionalities:

- a) Distribution Transformer Monitoring which will record and analyse key parameter and trigger alarms in case of critical value/ events of key operation parameters of transformers.
- b) The system will capture and display real-time data at defined intervals and provide key operational parameters of transformers and indicate the condition of the transformer.
- c) Alarm/Event detection, notification and reporting.
- d) All limiting values at defined/on demand conditions can be configured remotely in advance.
- e) Network Monitoring System for the field area network (WAN), Remote firmware upgrade, configuration of network nodes, remote configuration of value settings etc.

- f) The System should accurately maintain system time synchronization across all devices to ensure accuracy of time stamping.
- g) Future provision of Integration with DI Port of Smart Meter ( Confirming IS 16444)
- h) Security features to prevent unauthorized access to the “SERVER” including Remote Monitoring Device, Sensors & Remote data etc.
- i) System shall adhere with the appropriate security algorithm for encryption and decryption as for data exchange between filed devices and end system and follow cyber security guidelines for data security.

### 2.3 CLIMATIC CONDITION :

For the purpose of design following climatic conditions shall be considered:-

1. Elevation at mean sea level : 1000 M
2. Maximum ambient Air temperature (°C) : 50
3. Maximum daily average ambient (°C) : 40
4. Minimum Ambient air temperature (°C) : (-) 5 Deg. C
5. Relative humidity : 100%
6. Pollution level : Heavily polluted.
7. Maximum Wind Pressure : 250 kg/sq. mtr.
8. Annual average rain fall : 3000mm
9. Average No. of thunder storm day per annum : 100

### 2.4 The Transformers are conform to the following specific parameters

Sl NO	RATING	315KVA	630KVA
1.	System Voltage	12 KV	
2.	Rated Voltage HV	11 KV	
3.	Rated Voltage LV	0.433 KV	0.415 KV
4.	Phase	3 phase	
5.	Frequency	50 HZ subject to fluctuation of + 5%	
6.	Connection HV	Delta	
7a.	Connection LV	Star ( Neutral brought out)	
7b.	LV Neutral Earthing	The Neutral point of the secondary (LV) winding shall be brought out in a separate insulated terminal and shall be solidly earthed.	
8.	Vector Group	Dyn11	
9.	Type of Core	High Grade CRGO material (Stack Core)	
10.	Winding	HV & LV winding shall be wound from Double paper Covered copper conductor	
11.	Type of Cooling	ONAN	
12.	Percentage Impedance at 75°C & 50Hz	4.5% ± 10%(IS tolerance)	
13.	Maximum Temperature Rise over ambient	i) Top oil temp. rise measured by thermometer - “35°C” ii) Winding temp. rise measured by resistance method – “40 °C”	i) Top oil temp. rise measured by thermometer - “40°C” ii) Winding temp. rise measured by resistance method – “45 °C”
14.	Rated Short Circuit	13.1 KA for 3 seconds at 11 KV	

	Level		
15.	Taps	Tapping shall be provided for on HV winding for voltage variation of +5.0% to -7.50% with Tap position no. 3 as Normal.	Tapping shall be provided for on HV winding for voltage variation of +5.0% to -7.50% or -10.0% with Tap position no. 3 as Normal.
16.	Audible sound levels in decibel at rated voltage & frequency	i) Up to 50 KVA 48db ii) 51 – 100 KVA – 51db iii) 101 – 300KVA – 55 db iv) 301 – 500KVA – 56 db.	
17.	Type	Non-Sealed type	

## 2.5 APPLICABLE STANDARDS

Unless otherwise specified elsewhere in this Specification, LT insulated flexible lead wires, IoT gateway, Electrical and physical parameter computing unit and other associated accessories shall conform to the latest revisions and amendments thereof to the following standards.

Sr No	Applicable IEC/IS	Description
1	IEC 62053-22	Metering Standard
2	IS: 8130	Conductors for insulated electric cables and flexible cords
3	IEC 61000-4-2	Electromagnetic compatibility: Testing and measurement techniques - Electrostatic discharge immunity test
4	IEC 61000-4-3	Electromagnetic compatibility: Testing and measurement techniques – Electromagnetic Radiated HF susceptibility
5	IEC 61000-4-4	Electromagnetic compatibility (EMC):Testing and measurement techniques - Electrical fast transient/burst immunity test
6	IEC 61000-4-5	Electromagnetic compatibility (EMC):Testing and measurement techniques - Surge immunity test / Impulse Voltage Test
7	IEC 61000-4-6	Electromagnetic compatibility (EMC):Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields
8	IEC 61000-4-8	Electromagnetic compatibility (EMC)-Testing and Measurement Techniques - Power Frequency Magnetic Field Immunity Test
9	IEC 61000-4-11	Electromagnetic compatibility (EMC): Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests
10	IS 6842	Radio Interface Measurement
11	IS 13252 CISPR22(Class B)	Safety Compliance
12	CISPR22(Class B)	Conducted Emission
13	IS – 7421/IS - 3347	Specification for Low Voltage bushings/ outdoor Low Voltage bushings
14	IS - 4257	Dimensions for clamping arrangements

15	IS 14772	General Requirements for Enclosures for Accessories for Household and Similar Fixed Electrical Installations
16	IEC 60870 -103 & 104	Network access using standard transport profiles

All Indian Electricity Rules amended up to date applicable for clearances, safety and operation of the equipment

Equipment meeting with the requirements of any other authorities standards, which ensures equal or better quality than the standard mentioned above as well as latest standard shall also be acceptable. If the equipment, offered by the Bidder conforms to other standards, salient points of difference between the standards adopted and the specific standards shall be clearly brought out in Method Statement. In case of any difference between provisions of System standards and provisions of this specification, the provisions contained in this specification shall prevail. One hard copy of such standards with authentic English Translations shall be furnished along with the offer.

## **2.6 Wires used for Voltage sensing and other purpose:**

The wires used for connection between Transformer LT side to Monitoring Unit shall be flexible flame retardant (FR) Teflon Insulated single core unsheathed industrial multi-strand plain annealed electrolytic grade copper conductors having 99.97% purity for voltage grade minimum 1000 V.

Cable construction:

Conductor: Plain annealed electrolytic grade copper conductor as per IS: 8130

Insulation: Primary - Teflon with FR property as per IS JSS51304

Colour- R Phase-Red, Y Phase-Yellow, B Phase- Blue, Neutral Black

All the cables quoted / supplied shall bear ISI mark. The lead wires shall conform in all respects to high System standards of engineering, design, workmanship, this specification and the latest revisions of relevant standards at the time of offer.

The cables / wires shall be suitable for being installed in outdoor metallic enclosure which is in contact with body of Transformer Tank. The insulation shall withstand mechanical and thermal stress under steady state and transient operating conditions.

If any wiring is to be crossed any road or Pathway, conduit pipe with ISI marked will be used to protect the wire from any mechanical injury.

## **2.7 Remote Monitoring Distribution Transformer Unit (RMDTU) Technical specifications**

This specification covers the following for Remote Monitoring Device with communication modules and integrated with its accessories.



- a) An outdoor compact set of DT Monitoring Unit capable to capture analog & digital sensor output, Electrical & Physical parameter, with communication module / Modem.
- b) RMDTU shall be anti-corrosive, dust proof, rust proof, shock proof, self-extinguishing property, resistant to heat, vermin proof, water jets proof from any direction, Damp & wet weather proof and Ultra Violet Stabilized (minimum rating: IP-55W)
- c) Provide LED indicators for Signal Strength Indication – This for site level supervision of RMDTU communication failure, if any.
- d) Design, manufacture, testing at manufacturer's works before dispatch, packing, delivery and submission of all documents.
- e) The RMDTU shall have bidirectional communication using 4G compatible with fall back to 2G communication capabilities through all of the communication technologies and shall communicate with End System as per the choice /requirement of the utility.
- f) MODBUS communication over a 2-wire as specified under TIA/EIA-485-A. The Device able to communicate on a baud rate of 9600 and higher bps as per the requirement of the individual connected equipment.
- g) Communication between field and Server is secured and encrypted using TLS/SSL certificate etc
- h) As a part of IoT protocol, Authentication and Authorization is implement using token/password mechanism
- i) Provision in RMDTU to change the frequency of data logging and on demand data log from application server.
- j) RMDTU shall support on demand data fetching, remote firmware upgrading, different types of event detection etc.
- k) Built in RTC with 10 Years Battery Back Up. RTC Synchronization provision for all installed device.
- l) The RMDTU consist isolated RS 485/ RS 232 Port.
- m) Graphic User Interface for data visualization
- n) View Location of Transformer on map.
- o) The auxiliary power supply requirements of the RMDTU managed from the LV side of the transformer. However during any fault condition on any LV phase, the RMDTU should be capable to work on single phase i.e. R phase, Y phase or B phase.
- p) The RMDTU has input line MCB along with Surge protection.
- q) Power supply Isolation: The Protection up to 2000Vrms three way Isolation
  - 1) Input Supply to Micro Controller Supply Isolation
  - 2) Input Supply to Communication Isolation
  - 3) Microcontroller to Communication Isolation

- r) The RMDTU shall have capability to send “Power Off” Alert with time stamping
- s) Repetition of “Power Off” Alert with time stamping till the “Power On” for every 30 minutes interval. Minimum Battery backup should be for **4 Hrs**.
- t) All Limiting value, if required, can be changed remotely i.e. from application Server.
- u) The RMDTU must have self-diagnostic feature and have a continuous communication error checking facility.
- v) System firmware and user configuration maintained in flash memory so as not to be lost during power interruptions.
- w) Communication Isolation: The Protection up to 2000 Vrms Isolation from Input Power Supply, Field IO, and Controller.
- x) All accessories / hardware required for installation, commissioning and operation for the RMDTU shall have to be provided.
- y) The RMDTU has 6 Digital input with Dry/Potential Free Contacts and with isolation up to 2000 Vrms.
- z) The RMDTU have 03 analog Inputs with 0.1% FSR accuracy for sensor integration
- aa) The RMDTU has to communicate with the secured server using a secure communication protocol.
- bb) All parameter updated on cycle to cycle basis and sampling rate 128 sample per Cycle
- cc) **Over the air (OTA) capability:** Capability to update the RMDTU's firmware and configuration to change data formats, change communication destination locations, troubleshoot software bugs (if any) in a secured manner.
- dd) **History backfills during GPRS Failure:** In case of failure of communication, the internal storage is required.. Once GPRS connectivity is restored the RMDTU synchronizes with the server and communicates all the missing data. **Internal memory** must able to store data up to one month.
- ee) **Remote Diagnostics:** Capable of supporting remote diagnostics such as RSSI (signal strength), network status, GPRS status, connectivity status and be capable of remotely restarting the GPRS module.
- ff) Should support TCP/IP/IPV4/IPV6/ Multi-PDP/FTP/FTPS/ HTTP/ **HTTPS**/DNS protocols.
- gg) **Communication Security:** Multilayer security is to be implemented for the communication between field Devices to Server.
- hh) Accuracy-Class 1.0 or Higher, as per IEC-62053-22:2003
- ii) Input frequency: 45-65 Hz.
- jj) Individual Harmonics for voltage and current at least up to 27th harmonic.
- kk) User defined registers. Minimum 200 user defined registers should be available
- ll) The system shall be mounted on wall or pole

mm) Outdoor installation: Protection Class – IP-55W as per IEC 60529 & IP 20 as per IEC 60259(terminals)

nn) RMDTU must have IT Solution like

- 1 Data Collection and Application Server
- 2 Network management system
- 3 Portal application & Android based Mobile Application for Utility
- 4 Cloud based Application

oo) RMDT System Service & Support

- 1 Site Survey for installation feasibility study
- 2 Integration Services
- 3 Operation & Maintenance Support
- 4 Annual security audit/ certification for CSP
- 5 Annual Technical Support
- 6 Annual Maintenance Support
- 7 Training & Handholding etc.

## 2.8 EMI/EMC Compliance:

- i. Electrostatic Discharge (**IEC 61000-4-2**)  
Contact Discharge: +/- 4 kV, Criteria B
- ii. Fast Transient (**IEC 61000-4-4**)  
Power: +/- 2 kV, 100 kHz, Criteria A
- iii. Surge (**IEC 61000-4-5**)  
Power: +/- 1kV, Criteria B
- iv. Conducted Immunity (**IEC 61000-4-6**)  
Power: 10 Vrms, 0.15 – 80 MHz, Criteria A

## 2.9 Hardware Sensor Specification

All the sensors (Current Measurement, Temperature measurement, Oil level measurement etc.) should be robust prefabricated harnesses for easy installation and maintenance.

### Oil Temp sensor

- ✓ Industrial Platinum Resistance Thermometer Sensors
- ✓ Platinum RTD Sensor according to IEC-60751 or equivalent IS 2848 Class –B accuracy.
- ✓ Dimensions are to match with Oil temperature pocket of 315KVA and above Distribution Transformer.
- ✓ Temperature Range -5<sup>0</sup>C to 150<sup>0</sup>C

- ✓ Calibration as per standard
- ✓ Dielectric Strength 2KV RMS for 1Min
- ✓ Lead lengths as per design. There must not be any loose lead wire.
- ✓ IP65 termination Head
- ✓ IS 3639 - SPECIFICATION FOR FITTINGS AND ACCESSORIES FOR POWER TRANSFORMERS & IS 554 is to be followed.
- ✓ Properly insulated long lead Enameled copper Secondary wires (without any joint in-between and having continuous current carrying capacity of at least 10Amp) measuring at least 3 meters.
- ✓ Sensor and lead wire for outdoor application should be well protected from any external hazardous.

#### **Oil Level sensor**

- ✓ Magnetic Level Gauge/ Ultrasound Sensor/ other compatible
- ✓ Application for Transformer Conservator tank oil level measurement.
- ✓ Provision to send a Low Level Output (Which is also settable)
- ✓ Output from the Probe goes to the Remote Monitoring Device through proper lead wire.
- ✓ Lead lengths as per design. There must not be any loose lead wire.
- ✓ Temperature Range -5°C to 150°C
- ✓ Dielectric Strength 2KV RMS for 1Min
- ✓ IP65 termination Head
- ✓ Proper Rating Plate should be provided
- ✓ Properly insulated long lead Enameled copper Secondary wires (without any joint in-between and having continuous current carrying capacity of at least 10Amp) measuring at least 3 meters.
- ✓ Sensor and lead wire for outdoor application should be well protected from any external hazardous.

#### **Current Transformers (CTs)**

- ✓ The Current Transformer will be used to measure current in phases & neutral.
- ✓ The Current Transformer should conform to the I.S.16227:2016 (part 1 & part 2) with subsequent modification thereof.
- ✓ The Current Transformer will be of Ring Type suitable for fixing on Bar Primary as per existing approval LT Kiosk of WBSEDCL.
- ✓ Current Ratio: 500/5Amps & 1000/5A according to current rating of DTR
- ✓ Rated Voltage: The Current Transformer will have to be suitable for continuous working at system voltage up to 660Volts and frequency 50Hz.
- ✓ Burden: 5VA at 0.8 pf (lag).
- ✓ Class of Accuracy: 1 or above.

- ✓ Instrument Security Factor: < 5.
- ✓ Rated continuous thermal current temperature rise over ambient: 1.2 times rated primary current with maximum temp. rise limit of 50 deg C
- ✓ One minute withstand of power frequency Voltage between primary & secondary: 3KV 11.
- ✓ Short time current rating: 5KA for 1 second
- ✓ Ambient Conditions: -5<sup>0</sup>c and 50 <sup>0</sup>C
- ✓ Class of Insulation: A
- ✓ Primary and Secondary Terminal Marking will have to be clearly indicated as per I.S. These marking should be permanent in nature.
- ✓ Properly insulated long lead Enameled copper Secondary wires (without any joint in-between and having continuous current carrying capacity of at least 10Amp) measuring at least 3 meters (Red colour for S1 & Black Colour for S2) are to be provided for secondary connection.

Installation of CT:

CTs are to be installed in LT Kiosk.

In general main bus bar size is 50 mm x10 mm x 2Nos. for each phase & Neutral is 50 mm x10 mm x 1No.

✓ **RATING PLATE**

Primary & Secondary terminal identification scheme shall be embossed on the CT. Beside this there shall be self-adhesive laminated paper rating plate suitable for outdoor installations. Rating plate to be secured on the body such that it is retained for outdoor applications and it should not come out easily. The rating plate shall carry following information:

- 1. Type, Ratio, Burden & Accuracy Class
- Applicable Standard
- I.L
- STC Rating
- ISF
- Continuous thermal current
- Caution against open secondary.
- Manufacturer's Name
- Manufacturing month and year
- Serial No.

## **2.10 Transformer Tap Position:**

Tap position of Off Load Tap Changer of Distribution Transformer, which is to be manually entered as per its actual physical position, is to be displayed in Report and Dashboard. Any subsequent change in Tap position also to be updated.

### 2.11 Transformer latitude and Longitude:

Geo Location of Distribution Transformer is to be captured and displayed in Report & Dashboard.

### 2.12 Key Features of RMDTU

Parameter	System Value
Type of Installation of DTR	Outdoor Plinth / Pole Mounted. Indoor Plinth Mounted
System	AC, 3 Phase +4 Wire
Rated Frequency	50 Hz $\pm$ 5%
System Neutral	Solidly Earthed
System Type	3- Phase with Neutral, memory, which can be plugged via RS485/RS232 with bi-directional GPRS communication module, all to be housed in box which must be IP55W
Connection	3 Phase + Neutral
Reference and operating Voltage	Reference Voltage (Vref) – 250 Volt (Phase to neutral) for 315KVA & 240 Volt (Phase to neutral) for 630KVA or as per name plate. The system shall be operational with required accuracy from 60% of Vref to 120% of Vref.
Calibration	The system shall be calibrated through software at authorized testing laboratory and modification in calibration shall not be possible at site by any means or external influence. However, configuration of parameter allowed for field reconfiguration shall be possible through wired or Over The Air (OTA) communication.
Resistance against heat and fire	<p>The device shall have safety against the spread of fire. They shall not be ignited by thermal overload of live parts in contact with them.</p> <p>Bottom base, Middle and top covers shall be made of unbreakable high-grade flame-retardant insulating material of good dielectric and mechanical strength as per relevant IS</p> <p>Top, Middle, and base cover should be fixed in proper manner.</p>
Enclosure	The Enclosure shall be weatherproof, dustproof, and constructed for outdoor installation on poles (minimum rating: IP-55W). A suitable mounting provision shall be made for the equipment.

	In case the gasket of the cover is used for protection against moisture, dust and insects, the gasket shall be made of weather and aging resistant material.
<b>Initial start-up of system</b>	The system shall be fully functional within 3 seconds after $V_{ref}$ is applied
<b>Memory</b>	<p>The system shall have in-built memory for storing the Event log.</p> <p>The memory should be interfaced with the system processor for data storing and retrieving on demand.</p>
<b>Real Time Clock (RTC)</b>	<p>The system shall have internal real time clock to set date and time</p> <p>The Real Time Clock (RTC) shall have 10Years life with battery backup</p> <p>The system should have capability of Time synchronization through remote communication with proper authentication.</p>
<b>Battery</b>	GPRS communication modem shall have suitable power supply arrangements with provision of battery backup for at least 4 hours to continue operation in case of incoming power supply failure. The life expectancy of battery shall be 10 years or more.
<b>RS-485/ RS-232 connection</b>	The system shall have provision for RS-485/ RS-232 port for communicating system data to web enabled software through GSM/GPRS module
<b>Name Plate and marking</b>	Device, CT and all sensors should have clearly visible, indelible, and distinctly marked nameplate in accordance with relevant IS
<b>Connection Diagram</b>	The connection diagram of the Device shall be clearly shown on the nameplate and shall be of permanent nature
<b>Communication protocol</b>	<p>The system shall support MODBUS Protocol via RS485/ RS232 for communication module.</p> <p>Communication module should be attached with Device for a seamless transfer of data from system to cloud and shall have 4G capability (with fall back on 2G).</p>
<b>M2M Connectivity</b>	Secure M2M connectivity with IPsec/L2TP/VPN & 3 DES.
<b>Digital input port</b>	<p>4Nos DI, or Digital Input Port , is to interface in future with Smart meter and RMDTU</p> <p>Integration with Smart Meter, if required, is to be done.</p> <p>Port must have maximum Voltage 12V and Maximum Current 10 mA to send any output with dedicated earthing.</p>
<b>Database</b>	Parameters received from all distribution transformers will be saved in SQL or other equivalent database in Application server.

### **2.13 Testing and Inspection**

Test and Inspection:

This test and inspection clause is applicable to for complete system and its sub-components unless some special testing is mentioned for any sub-components of the project. The Monitoring Unit & Hardware/ Sensors which will be supplied shall undergo pre-dispatch inspection from WBSEDCL. Before supply of items, clearance from WBSEDCL is required.

### **2.14 Test Plans & Procedures:**

Test plans and test procedures shall be provided by the Contractor, for all tests to ensure that each factory and field test is comprehensive and verifies all the features of the equipment are tested. The Contractor shall prepare detail testing procedure in line with specification. The procedure shall be modular to the extent possible, which shall facilitate the completion of the testing in the least possible time. During the development of test plans and test procedures for the system, emphasis shall be placed on testing each conditional logic statement, checking error conditions, and documenting the simulation techniques used. The test plans and test procedures shall be modular to allow individual test segments to be repeated as necessary.

The following conditions must be satisfied before starting any test:

- ✓ All test plans and procedures for the test shall be available.
- ✓ All hardware and software engineering design change orders shall be incorporated.
- ✓ All relevant documentation including drawings, lists of deliverables, and software functional and design documents, and user manuals shall be available

### **2.15 Test Plan:**

The test plans shall describe the overall test process, including the responsibilities of individuals and the documentation of the test results. The following shall be included in the test plans:

- a) Test schedule on a day-by-day basis.
- b) Responsibilities of test engineer and WBSEDCL personnel.
- c) Record-keeping assignments, procedures, and forms.
- d) Procedures for monitoring, correcting, and retesting variances.
- e) Procedures for controlling and documenting all changes made to the hardware and software after the start of testing.
- f) Block diagrams of the hardware test configuration, the external communication channels, and any test or simulation hardware.

### **2.16 Test Procedure:**

The test procedures shall describe the individual tests segments and the steps comprising each segment, particularly the methods and processes to be followed. The test procedures shall include the following items:

- a) Name of function to be tested.



- b) References to the functional, design, user, and any other documents describing the function.
- c) List of test segments to be performed and the purpose of each test segment.
- d) Set-up conditions for each test segment, including descriptions of the test equipment.
- e) Descriptions, listings, and instructions for test software tools and displays if any.
- f) Step-by-step descriptions of each test segment, including user actions for each test step.
- g) Expected results for each test segment, including pass/fail criteria.
- h) Descriptions of the techniques and scenarios to be used to simulate system field inputs and controlled equipment.
- i) Copies of any certified test data to be used in lieu of testing.

### 2.17 Test Records:

The complete record of all factory and field acceptance tests results shall be maintained by the designated personnel of the Contractor. The records shall be maintained in a logical form and shall contain all the relevant information. The test reports shall be signed by the Testing Engineer and the Engineer witnessing the tests. The records shall be keyed to the test procedures. The following items shall be included in the test records:

- a) Reference to appropriate test procedure.
- b) Date and Place of Test.
- c) Description of any test conditions, input data, or user actions differing from that described in the test procedure.
- d) Test results for each test segment including a pass/fail indication.
- e) Identification of Test Engineer and WBS EDC L’s representative.
- f) Provision for comments
- g) Copies of any variance reports generated
- h) Copies of reports, display copies, and any other hardcopy generated as part of the test.

**I. Reporting of variances:** Starting from the dry run test period, a variance report shall be prepared by Contractor’s personnel each time a deviation from the requirements of this Specification is detected in areas such as system functions, design parameters, performance, documentation, test plans, and test procedures. Record of all such variances and their resolution shall be maintained.

**II.** The report shall include a complete description of the variance, including:

- a) Unique identification number assigned to the variance.
- b) Date and time the variance was detected.
- c) Appropriate references to the test procedures and this Specification.
- d) Description of test conditions at the time the variance was detected.
- e) Estimated date and time when variance is expected to be fixed.
- f) Description of the corrective actions taken (to be completed as part of the variance resolution process) with dated signature lines for the Contractor and WBS EDC L’s representatives.

**III.** Type Test:

- a) Type Tests shall be defined as those tests which are to be carried out to prove the design, process of manufacture and general conformity of the product to this specification. Type Testing shall comply with the following.

- b) The Bidder shall document, within scheduled period as per project plan, copies of test reports and certificates for all the Type Tests that are specified in the specifications and that have previously been performed. These certificates shall apply to items and equipment that are essentially identical to those due to be delivered under the Contract and test procedures and parameter values shall be identical to those specified in this specification. The type tests shall be carried out at NABL accredited labs.
- c) Type test certificates should not be older than 3 years as on NIT Publication Date.
- d) Documentation for all factory, field, and availability tests that apply to the complete RMDT system shall be provided in accordance with the requirements defined in this section of specification.

#### **IV. Software Development Testing:**

The following testing steps are usually employed in the project lifecycle. The Implementation Agency is expected to follow these steps:

- a. Unit Testing:

In unit testing, each functionality has to be rigorously tested. At this stage testing is done according to the predefined process (process as submitted with bidding document). This process is iterative till criteria for successful testing is reached.

- b. Integration Testing

Upon completion of unit testing, integration testing begins. The purpose is to ensure distinct components of the application still work in accordance to WBSEDCL requirements. Test sets will be developed with the express purpose of exercising the interfaces between the components. This activity is to be carried out by the Test Team. Integration test will be termed complete when actual results and expected results are either in line or differences are explainable /acceptable based on user defined input.

- c. Incremental Integration Testing

Continuous testing of an application as new functionality is added.

- d. System Testing

System testing is performed when all the components are delivered to central repository prior to the release of the software. The testing is done on priority basis of business processes. All the defects are recorded.

#### **V. FAT Inspection:**

The Contractor shall ensure a prototype demonstration of entire integrated system for at least 1% of each lot towards acceptance of same by the Employer prior to commencement of installation at site.

- a) All FAT will be carried out by joint inspection of WBSEDCL and the Contractor. Deliverables shall not be shipped until all required inspections and tests have been completed successfully.
- b) The contractor shall offer the materials in writing for material inspection. The contractor shall intimate at least 7 days in advance through notice(s) about the readiness of material for dispatch commensurate with specific delivery schedule so as to enable the Employer to depute his

representative for inspection testing and checking of the material/equipment (Expenses will be borne by the Employer). For this purpose, the date of receipt of the letter by WBSEDCL shall be deemed as the date of call for inspection and not the date mentioned in the letter and the date of dispatch. The designated officer/ representative of WBSEDCL shall on giving seven days, notice in writing to the contractor setting out any grounds of objections which he may have in respect of the work, be at liberty to reject any drawing and all or any plant, or workmanship connected with such work which in his opinion are not in accordance with the contract or are in his opinion defective for any reason whatsoever.

- c) If any inspections or tests indicate that specific hardware, software or documentation does not meet the Specification requirements, the appropriate items shall be replaced, upgraded, or added by the contractor as necessary to correct the noted deficiencies. After correction of a deficiency, all necessary retests shall be performed to verify the effectiveness of the corrective action.
- d) The Employer reserve to him the right of having any inspection of special test of a reasonable nature at contracts premises or at sites in addition to those prescribed in applicable standards and the enclosed technical specification. If during inspection, the offered material / equipment are not found in entire quantity, the offer would be termed as “FAKE OFFER.” In that case, a **penalty amount of Rs. 25,000 /-** (excluding GST) against each inspection shall be payable by the Contractor to the account of WBSEDCL. Unless the inspection is specifically waived no material shall be dispatched without inspection and clearance for dispatch. The Employer reserves the right to reject all or any part of the material being manufactured or awaiting dispatch, due to any defect or deviations from the standard specifications prescribed as observed during the Inspection.
- e) In case of any dispute/difference in this regard the decision of the Controlling Officer shall be final. WBSEDCL also reserves the right to get the material/equipment tested in any recognized Government Laboratory & claiming any compensation or rejecting the material/equipment, if not found in accordance with the specification. All charges consequent to such rejection and replacement/rectification shall be borne by the supplier.
- f) The test shall be considered complete when
  - 1) All test results are accepted
  - 2) when all variances have been resolved;
  - 3) all the test records have been filed;
  - 4) Assigned officer from WBSEDCL acknowledges in writing the successful completion of the test.
- g) **Dispatch:** The Material Dispatched Clearance Certificate (MDCC) for all hardware shall be issued only after successful completion of FAT as per specification. FAT quantity will be decided depends on LOT sizing. The data exchange between central systems shall also be simulated in the factory test environment. Material shall be dispatched after specific MDCC (Material Dispatch Clearance Certificate) is issued by WBSEDCL. Following documents shall be sent along with material (in soft copy/hard copy):
  - 1) Govt. certified/accredited lab testing certificate
  - 2) Test reports
  - 3) MDCC issued by WBSEDCL
  - 4) Packing list
  - 5) Drawings & catalogue

- 6) Guarantee / Warranty card
- 7) Delivery Challan
- 8) Other Documents (as applicable)

## **VI. Field Installation and Integration Test (FIIT):**

Before the start of the FIIT, the following steps have to be completed:

- a) All field level hardware which have undergone FAT shall be installed at the site and the installation report signed off;
- b) The installed field hardware shall be configured and registered in the production environment of the cloud data centre;
- c) In the FIIT tests regime, the minimum following tests shall be performed:
  - 1) Proper registration of the incoming population of field devices;
  - 2) Checking of user interface linkages with database;
  - 3) Remote configuration downloads and reading of profiles;
  - 4) If required checking of RMDTU readings with existing meter readings, if available in existing system; If found difference, logical explanation is to be recorded for the same. If not found any logic then Factory test procedure is to be reviewed.
  - 5) Forced event creation and communication of such events;
  - 6) Performance tests of device communication links;
  - 7) Device communication link failover;

## **VII. Site Acceptance Test (SAT):**

- a) SAT shall be carried out with RMDTU in lots as these are delivered and passes through the Field Installation and Integration tests. The first lot to be subjected to SAT shall consist of the complete cloud data centre and its hardware and software components along with supply, installation & integration of 500 DTR i.e. whole 1<sup>st</sup> Lot. The SAT for remaining RMDTU population shall be staged periodically based on the total supply (LOT wise), installation and integration of RMDTU (along with its related hardware and software equipment).

The SAT shall exhibit generally all functions of the equipment. The list of final tests to be carried out in the field shall be listed in the site-testing document by the Bidder.

## **VIII. Performance Testing:**

The bidder has to test and demonstrate the operational performance of the entire system after completion of entire scope. Bidder should note that WBSEDCL can appoint a third-party agency for conducting any part of above testing procedures (in addition to the testing carried out by the bidder).

### **3. Document and Deliverables Scope**

#### **I. General**

To ensure that the proposed systems conform to the specific provisions and general intent of the Specification, the Contractor shall submit documentation to utility describing the systems for review and approval. Further the Contractor shall also submit the drawings / documents for all the hardware & software required for installation, testing and commissioning and thereafter operation of the system. The Contractor shall obtain approval of utility for the relevant document at each stage before proceeding for purchase, application development, system deployment, testing, training etc.

#### **II. Instructions**

Documents shall have unique identification No. and every revision shall be mentioned. The Contractor shall submit three (3) hard copies of each document/drawing for Utility’s review and approval along with soft copy with each submission. After approval two (2) sets of all the documents shall be submitted as final documentation. Any changes observed during field implementation shall be incorporated in the as-built drawing and two copies of same shall be submitted to utility on electronic media in pdf format. The Contractor shall also supply two (2) sets of Technical User manuals/guides/O&M manuals/manufacturers catalogues for all the hardware & software supplied under the contract. The user manual shall at minimum include the principle of operation, block diagrams, troubleshooting and diagnostic and maintenance procedures. Considering all the components of the system the following documents/drawings shall be required under the system.

### **III. Hardware Documentation Requirements:**

The following document shall be submitted as applicable for the subsystem:

- a) System description documents (Overview)
- b) Data requirement sheets for all items
- c) Functional description document
- d) Database documents
- e) Drawings/Documents for manufacturing/assembly of the equipment/system
- f) Drawings/Documents for installation of the equipment/system at site
- g) Installation Progress Document: Including documentation of date of installation, make and DTR S1 No. DTR Make, GPS coordinates. Where applicable Contractor may, for recordkeeping, take photographs/ videos of installation site on approval from WBSEDCL Software description/design documents for each module
- h) Factory test procedure and report
- i) Manuals for RMDTU and each sensors
- j) System configuration parameter
- k) Site testing procedure and report
- l) Software licenses
- m) Type test reports
- n) Cable sizing calculations
- o) Inventory of the hardware
- p) General and internal arrangement drawing indicating modules, component location etc.
- q) Installation drawing
- r) Schematic drawing.

### **IV. Software Documentation Standards:**

The documents to be submitted shall include the following information.

#### **1) Functional Description:**

Functional description documentation shall be provided for each function described in this specification. It shall include the following information for each function.

- 1) Introduction describing the purpose of the function with references to other documentation to aid the reader's understanding of the functions performed.
- 2) Performance requirements that describe the execution periodicity and the tuning parameters that control or limit the capabilities of the software.
- 3) Complete description of the operation, data and logic interfaces with other functions.
- 4) Sample displays where applicable.

**2) Software Design:**

Software design documentation shall be provided for each function before the Acceptance Test. It shall include detailed descriptions of the following items.

- 1) The overall organization and architecture of the software logic such as a breakout of the software into software modules.
- 2) Mathematical algorithms and formulae.
- 3) Complete description of the algorithms, operation and the data and logic interfaces with other functions
- 4) Data dictionary in which the following (as applicable) information for each data item in tables, file, and array is provided:
  - 4.1 Name
  - 4.2 Purpose,
  - 4.3 Location,
  - 4.4 Length of data item, and
  - 4.5 Initialization.
- 5) Databases internal and external to the software, along with a description of all inputs required and the output produced by the software modules.
- 6) Interfaces with other software modules.
- 7) Design limitations such as field length and the maximum quantity of data items that can be processed.

**3) Database Documentation:**

Database documentation shall describe the structure of the database. The documentation shall define the individual elements (files, records, fields, and tables) and their interrelationships. Portions of the database developed specifically for Owner's systems shall be identified. Documentation shall also be provided that instructs the user in the preparation of data to be used for the databases, including:

- 1) The overall organization of input records
- 2) The format of each data record
- 3) Each data field and the valid entries pertaining to the fields.
- 4) Sufficient database documentation shall be provided to enable the database to be updated or regenerated when inputs are changed and added, programs are modified, and new programs are added.

**4) User Documentation:**

User documentation shall contain detailed operating instructions and procedures. Instructions and procedures shall be explained step-by-step with an explanation of how each step is performed, which parameters can be adjusted, and the effects obtained by varying each parameter. Additionally, the user documentation shall describe:

- 1) All user guidance and error messages, along with the steps necessary to recover from errors
- 2) The user interface including displays and keyboard operations used to control, review the input and output produced by the function. All displays relevant to the function shall be included along with a description of each dynamic display field.
- 3) Alarms and messages issued by the function and the conditions under which they are generated
- 4) Procedures to be followed for computer system restarts, failures, and failovers.

**5) System Administration Documentation:**

System administration documentation shall be provided to guide utility personnel in the operation

and procedures required to generate and update the systems, including system software, database, application software and other elements of the systems. System administration documents shall be provided for the following items:

- 1) Network communications management
- 2) Cloud resource configuration
- 3) System performance monitoring
- 4) System restart/failover management and diagnostic procedures
- 5) System generation and management
- 6) Database generation and management
- 7) Display generation and management
- 8) Report generation and management
- 9) Diagnostic programs
- 10) Software utilities
- 11) Software maintenance
- 12) Application software parameters and tuning guides
- 13) Web administration
- 14) Other contractor supplied system software not included above.

**6) Test Documentation:**

Documentation for all type of component and overall system tests shall be provided.

**1. Reporting and Dashboard:**

1. Application Server will provide thin client web portal enabled dashboard services for utility users. Dashboard should be dynamic to user specific and intended display information should be configurable.
2. Reporting Service shall be able to generate various reports, based on Electrical and Physical parameter, collected measurement data, received alarms etc. Report shall be based on a report definition made by the system administrator. In the definition the user to specify the data for the report, defines mathematical operations on the data as multiplying by a constant, summing two measurements etc. Additional statistic functions can be performed on the data, for example finding a maximum, minimum, average etc. Each report can be viewed and downloaded in standard reporting format (Excel, PDF, CSV etc.) and shall be distributed via SFTP, Email or file dump.
3. Application Server shall have critical and non-critical reporting functionality. The critical & non-critical information generated from this reporting functionality shall be made available at user configurable periodicity.

**4. Critical Reporting:**

Application Server shall have alarms and keep record of following events:

- a. Event log for high or low set value and power failures etc.
- b. Data not received from RMDTU points
- c. Communication link failure with device points
- d. Network Failure
- e. RMDTU Power Failure

**5. Non-Critical Reporting:**

- a. Application Server shall report and keep record of following communication failure events:
  - b. Retry attempts
  - c. Missed periodic reading

- d. Failure to connect
6. Application Server shall support reporting of communication failure history of RMDTU /access points etc. and give an exception report for RMDTU /access points not communicating for last 0 – 24 hours (the reporting period shall be on user configurable period). Application Server shall have feature to send email/SMS notification of configured alarms & events to its users.

## **2. Notifications:**

RMDTU must support notification module for dispatching notifications based on exceptions to concern user/s via application pop-up, email, SMS. These notifications should be based on the data received from the field devices.

### **1. User Interface:**

User interface for utility shall have ability for at least the following functionality:

1. Graphical User Interface to provide role-based access based on user identity and user role. Shall have following types of users:
  - a. Administrator
  - b. Operator
  - c. Field staff
  - d. Viewer/Guest
2. Configure the look, feel, and functionality of the application in accordance with business needs, business processes, and business conventions. (e.g. GUI, content, look and feel of screens, validation rules, exception handling, etc.).
3. Ability for utility through user interface to set up alarm and event notifications that can be directed to a combination of configurable email addresses, cellular text messages or phone numbers.

### **3. Data Validation and Exception Handling:**

1. Application Server shall ensure data integrity checks, for example, checksum, time check, pulse, overflow, etc. on all data.
  2. The system shall detect and prevent logical data errors when the data is input either by user entry or from other systems.
  3. Any data error shall not affect system functions that are not directly associated with it. The system should generate an error code and description which can be used to help facilitate debugging end user problems. Error code must be referenced to the actual exception generated
- The application software shall have drilldown dashboards for depicting the real time status of the Distribution Transformer along with the details of the energy flow statistics with time stamping. Further, the contractor should provide for changes, updating, modifications, new dash boards and reports during the entire project implementation as per the requirement of the WBSEDCL as and when required. The reports shall be generated and published periodically on the web server and shall be readily available for download and consumption. Further all the reports generated shall have option of exporting into xls, pdf etc.

Some of the reports that needs to be generated at desired periodicity are:

- a. Periodic load profile



- b. Voltage Profile
- c. Power Factor
- d. Outage Report
- e. Daily 3 Phase availability duration
- f. Seasonal Demand Curve
- g. Abnormal loading with duration and time stamping
- h. Any other reports which can be generated from the available data.
- i. Viewing Historical data in Graphical format
- j. Present Geo location (latitude, longitude) of DT/ RMDTU

The above reports are indicative and further reports along with details and formats of the dashboards and reports to be generated online shall be finalized with the contractor during the implementation.

Web dashboard shall be responsive web design (RWD) for mobile viewing facility.

#### Reporting Requirement

- I. Complete system/ Application Server System shall provide following daily, weekly and monthly performance and analytical reports. Reports should be system generated only and can be exported in various formats such as HTML, PDF, CSV, XLS. The scope shall include but not limited to the requirements given elsewhere in the Technical specification.
- II. Following are the indicative reporting requirement. Utility reserve the right to add to the list in consultation with implementing agency without any additional financial liability to the utility.

Sl No	Description Of Report
1	Electrical and Physical parameter Report: Count of data against different profile parameters.
2	Data not received (missed periodic readings) from RMDTU.
3	Communication link failure with RMDTU.
4	Event logs and Power outages.
5	Availability Report of Application Server, Cloud and network components
6	Execution status of On-demand Read request with Success/Failed polling flag
7	Report on RMDTU Firmware up-gradation request with Success/ Failed flag
8	Facility installation report showing list of installation orders, progress, installation status, failures, new installations vs replacements, etc.
9	System monitoring report
10	Resource monitoring report

11	Authentication Failure Report
12	Unauthorized access report
13	Network Report with any firewall policy change
14	Cyber Security Reports

## 2.18 Item Heads:

### During Implementation & commissioning period (12 months)

Sl. No.	Item & description	Unit	Quantity
1	RMDTU Device	Nos.	As applicable
2	LT CT		
a.	500/5 A	Nos.	As applicable
b.	1000/5 A	Nos.	As applicable
3	Sensors		
a.	Oil Temperature Sensor	Nos.	As applicable
b.	Oil Level Sensor	Nos.	As applicable
3	Communication Module and components		
a.	4G (with 2G fallback)	Nos.	As applicable
4	Application Software Licenses		
a	Application Server Perpetual License	Total	As applicable
5	Implementation, Training and Commissioning		
a	Installation and Commissioning	Lot	As applicable
b	Integration	Lot	As applicable
c	Training	Lot	As applicable

### During Operation & Maintenance period

Sl. No.	Item & description	Unit	Quantity	Period
1	Annual SIM charges	Nos.	As applicable	Throughout the contract period
2	Annual CSP charges	Lot	As applicable	-Do-
3	Operation, Support & Maintenance	Lot	As applicable	-Do-

## 2.19 Cloud Service Provider (CSP):

This section mentions key requirements from the Cloud Service Provider (CSP). BIDDER shall be responsible to provide the services of CSP.

#### 1.1.1.1 General Conditions

The cloud data centre shall have to comply with requirements of tier III category which applies to a concurrently maintainable site infrastructure with redundant capacity components and multiple independent distribution paths serving the critical environment. All IT equipment shall be dual powered. The following general conditions will apply:

- a) Only GI (MeghRaj) cloud services or Meity empaneled Cloud services should be used.
- b) One of the most critical issues in the Cloud Service implementation is the security of the data. It is the responsibility of the BIDDER to define the security services that need to be implemented for their workloads depending on the nature of the applications / data hosted on the cloud.
- c) The Contractor need to ensure that the CSPs facilities/services are compliant to various security standards (as mentioned in Clause 2.7.3.4 of this Section) and should be verified by third party auditors.
- d) The Contractor shall be responsible for providing the cloud data centre services. It shall be up to the Contractor, to identify the critical service agreements with the concerned cloud data centre provider in order that the Contractor can meet and sustain the requirements for the project
- e) All Services including data should be hosted in India
- f) Exit Management / Transition-Out Services -The responsibilities of the CSP during the Exit Management Period need to be agreed upon with the Utility and they should assist the Utility in migrating the data etc.
- g) The responsibilities of CSP include migration of the data, content and any other assets to the new environment or on alternate cloud service provider’s offerings and ensuring successful deployment and running of the Utility’s Solution on the new infrastructure
- h) The ownership of the data generated upon usage of the system, at any point of time during the contract or expiry or termination of the contract, shall rest absolutely with the Utility.

The Contractor may also choose to procure the following Managed Services (O&M – Cloud Services) from a Managed Service Provider (MSP) in addition to the cloud services to handhold the department in managing the operations on the cloud. The scope of MSP may include:

- a) Migration of Existing Applications to Cloud / Deploying of new applications;
- b) Operations & Maintenance Services on Cloud (e.g., Resource Management, User Administration, Security Administration & Monitoring of Security Incidents, Monitoring Performance & Service Levels, Backup, Usage Reporting Management)
- c) Exit Management & Transition-out Services, etc.

#### 1.1.1.2 MeitY’s Guidelines

While the security, storage, data and compliance tools are provided by the CSP, it is the Contractor’s responsibility to ensure that the CSPs facilities/services are certified to be compliant to standards. In the MeitY’s guidelines to Government Departments on Adoption / Procurement of Cloud Services, the following are included as essential certification by CSP. BIDDER also needs to ensure that the CSPs facilities/services are certified to be compliant to the following standards (indicative list provided below):

- a) ISO 27001 - Data Center and the cloud services should be certified for the latest version of the standards towards information security management system
- b) ISO/IEC 27017:2015-Code of practice for information security controls based on ISO/IEC 27002 for cloud services and Information technology
- c) ISO 27018 - Code of practice for protection of personally identifiable information (PII) in public clouds.
- d) ISO 20000-1 – Information Technology service management system requirements

- e) The CSP’s Data Center should conform to at least Tier III standard (preferably certified under TIA 942 or Uptime Institute certifications by a 3rd party) and implement tool-based processes based on ITIL standards.

#### 1.1.1.3 Functional Requirements of the CSP

##### 1.1.1.3.1 Operational Management

- a) CSP should provide access of cloud virtual machines either by SSH in case of Linux and RDP in case of Windows servers.
- b) CSP should enable Utility to get console access of cloud virtual machine from portal and perform operations. There should be facility to view resource type-wise (VM, database, storage etc.) quota usage. It should be possible to configure automated alerts when the threshold of estimated quota is reached.
- c) The CSP should allow different users with different level of access on CSP portal.

##### 1.1.1.3.2 Cloud Network Requirement

- a) CSP must ensure that the non-production and the production environments are in separate VLANs in the cloud so that users of the two environments are separated.
- b) CSP should ensure that Internet vNIC card is having minimum 1 Gbps network connectivity and service NIC card is on 10 Gbps for better internal communication.
- c) In case of scalability like horizontal scalability, the CSP should ensure that additional require network is provisioned automatically of same network segment.
- d) CSP should ensure that cloud VM network is IPV6 compatible.
- e) CSP should ensure use of appropriate load balancers for network request distribution across multiple cloud VMs.

##### 1.1.1.3.3 Cloud data centre specifications

- a) All the physical servers, storage and other IT hardware from where cloud resources are provisioned for this project must be within Indian data centres only.
- b) Selection of DC-DR site architecture shall be in accordance with applicable laws including but not limited to the “Disaster Recovery Best Practices” guidelines issued by the Ministry of Electronics & Information Technology (MEITY) and as amended from time to time”.
- c) The Data Centre should conform to at least Tier III standard (preferably certified under TIA 942 or Uptime Institute certifications by a 3rd party) and implement tool-based processes based on ITIL standards.

##### 1.1.1.3.4 Cloud Storage Service Requirements

- a) CSP should provide scalable, dynamic and redundant storage.
- b) CSP should clearly differentiate its storage offering based on IOPS. There should be standards IOPS offering per GB and high-performance disk offering for OLTP kind of workload.

##### 1.1.1.3.5 Data Management

- a) CSP should clearly define policies to handle data in transit and at rest.
- b) CSP should not delete any data at the end of agreement without consent from Utility.
- c) In case of scalability like horizontal scalability, the CSP should ensure that additional generated data is modify/deleted with proper consent from Utility.

##### 1.1.1.3.6 Managed Services

- a) Network and Security Management:
  - i. Monitoring & management of network link proposed as part of this Solution. Bandwidth utilization, latency, packet loss etc.
  - ii. Call logging and co-ordination with contractors for restoration of links, if need arises.
  - iii. Ensure a well-designed access management process, ensuring security of physical and digital assets, data and network security, backup and recovery etc.
  - iv. Adding/ Changing network address translation rules of existing security policies on the firewall

b) Server Administration and Management:

- i. Administrative support for user registration, User ID creation, maintaining user profiles, granting user access, authorization, user password support, and administrative support for print, file, and directory services.
- ii. Installation/ re-installation of the server operating systems and operating system utilities
- iii. OS Administration including troubleshooting, hardening, patch/ upgrades deployment, BIOS & firmware upgrade as and when required/ necessary for Windows, Linux or any other O.S proposed as part of this solution whether mentioned in the RFP or any new deployment in future.
- iv. Regular backup of servers as per the backup & restoration
- v. Managing uptime of servers.
- vi. Preparation/ update of the new and existing Standard Operating Procedure (SOP) documents on servers & applications deployment and hardening.

1.1.1.3.7 Business Continuity Plan & Backup Services

As part of a business continuity plan, the Utility has made a business impact analysis in the event of loss of applications running in the cloud and consequent loss of data to come up with a management plan for the associated risk to business operations. Central to this risk management strategy, the Utility has defined the following target objectives:

- a) Recovery Time Objective (RTO): Duration of time and a service level within which a business process must be restored after a disruption in order to avoid unacceptable consequences associated with a break in continuity of service. The RTO of 24 hours shall be met by infrastructure redundancy and failover.
- b) Recovery Point Objective (RPO): Interval of time that may pass during a disruption before the quantity of lost data during that period exceeds the business continuity plan’s maximum allowable threshold. The RPO of 12 hours shall be met by a suitable backup and replication strategy of operational data / application. The RPO shall define how fast the replicated data / application can be made available to the target system after a disruption strikes.

With these two objectives, the CSP shall provide the following:

- a) CSP must provide backup of cloud resources. The backup tool should be accessible
- b) To perform backup and restore management as per policy & procedures for backup and restore, including performance of daily, weekly, monthly, quarterly and annual backup functions (full volume and incremental) for data and software maintained on the servers and storage systems using Enterprise Backup Solution.

1.1.1.3.8 Database support service

- a) Installation, configuration, maintenance of the database (Cluster & Standalone).
- b) Regular health check-up of databases.
- c) Regular monitoring of CPU & Memory utilization of database server, Alert log monitoring & configuration of the alerts for errors.
- d) Space monitoring for database table space, Index fragmentation monitoring and rebuilding.
- e) Schedule/review the various backup and alert jobs.
- f) Configuration, installation and maintenance of Automatic Storage Management (ASM), capacity planning/sizing estimation of the Database setup have to be provided and taken care by the BIDDER.

1.1.1.3.9 Factory acceptance testing:

- a) The functional performance test shall verify all features specified in respective technical specifications of equipment/ systems along with cloud services & software using selected communication paths.

- b) The data exchange between central systems shall also be simulated in the factory test environment. Contractor shall submit the documents for tests and test procedures for approval of Utility.

#### 1.1.1.4 Security

Further, commercial CSPs offer cloud services to multiple consumers. In such an environment, the security controls and compliance to various standards (Including ISO 27001, ISO 27017, and ISO 27018) should be verified by third party auditors. Third-party certifications and evaluations provide assurance that effective physical and logical security controls are in place.

Although, the Cloud Service Providers (CSPs) offer assurances of effective physical and logical security controls through the third-party certifications such as ISO 27001, ISO 27017, ISO 27018, etc. and also may provide a host of security services such as encryption, web application firewall, etc., it is the responsibility of the BIDDER to define the security services that need to be implemented for their workloads depending on the nature of the applications / data hosted on the cloud.

The Contractor needs to review and validate the security configurations, review the notifications and patches released by the CSP and validate that the same is being taken into consideration during operations, confirm that the audit trails (e.g., who is accessing the services, changes to the configurations, etc.) are captured for supporting any downstream audits of the projects by the finance or audit organization such as STQC.

#### 1.1.1.5 Reporting

Further, the Contractor should insist on the following regular reporting by CSP during the contract:

- a) Availability of the cloud services being used
- b) Summary of alerts that are automatically triggered by changes in the health of those services.
- c) Summary of event-based alerts, providing proactive notifications of scheduled activities, such as any changes to the infrastructure powering the cloud resources
- d) Reports providing system-wide visibility into resource utilization, application performance, and operational health through proactive monitoring (collect and track metrics, collect and monitor log files, and set alarms) of the cloud resources
- e) Auto-scaling rules and limits
- f) In case of any un-authorized access, the Agency should provide logs of all user activity within an account, with details including the identity of the API caller, the time of the API call, the source IP address of the API caller, the request parameters, and the response elements returned by the cloud service. This is required to enable security analysis, resource change tracking, and compliance auditing
- g) Report of all the provisioned resources and view the configuration of each.

### 1.1.2 Database

#### 1.1.2.1 Initial Database Generation

##### Development Tools

The Contractor shall provide all necessary software tools for the development and maintenance of the databases required for application.

This tool shall be capable of managing the entire system database. The database development software tool delivered with the system shall be used to generate, integrate and test the database. The system must support export of data into XML format.

The database development tool shall facilitate exchange of both incremental and full data in standard exchange format. The product should have facility to export and import databases from different contractors applications.

#### 1.1.2.2 Management

The database manager shall locate order, retrieve, update, insert, and delete data; ensure database integrity; and provide backup and recovery of database files. The database manager shall generate and modify all application data by interfacing with all database structures.

The database manager shall include the mechanisms, in both interactive and batch processing modes, to perform the following functions:

- a) Add, modify and delete database items and data sources such as data links, and local I/O.
- b) Add, modify and delete application program data
- c) Create a new database attribute or new database object
- d) Resize the entire database or a subset of the database
- e) Redefine the structure of any portion of the database.

The Contractor shall be required to provide whether they require or impose any particular hardware and database management techniques to achieve above functionality.

#### 1.1.2.3 Tracking Changes

The database manager utility shall maintain Audit trail files for all changes made by all users (both online/off-line). The audit trails shall identify each change including date and time stamp for each change and identify the user making the change. Audit trail of past 1 year edit operations shall be maintained.

#### 1.1.2.4 Integration

The System should support exchange of data from utility’s computerized billing & collection, consumer indexing and asset mapping systems residing at different servers.

### 1.1.3 Display Generation, Management and Integration (Display Management and Reporting)

The Contractor shall provide necessary software tools preferably browser based for the generation, management and Integration of application displays.

Displays shall be generated in an interactive mode. The user shall be able to interactively:

- a) Develop display elements
- b) Link display elements to the database via symbolic point names
- c) Establish display element dynamics via database linkages
- d) Define linkages to other displays and programs
- e) Combine elements and linkages into display layers
- f) Combine display layers into single displays.

All workstation features and all user interface features defined in this specification shall be supported by the display generator software.

The display generator shall support the addition, deletion and modification of segments, including the merging of one segment with another to create a new segment.

Displays shall not be limited by the size of the viewable area of the screen.

### 1.1.4 Software Utilities

The Contractor shall supply all software utilities used to develop and maintain these software, whether or not specifically described by this Specification. The software utilities shall operate on-line (in background mode) without jeopardizing other application functions running concurrently. Utility software shall be accessible from workstations, processor terminals and servers.

#### 1.1.4.1 Auxiliary Memory Backup Utility

Software utility, to take back-up of auxiliary memory files of server and workstation onto a user-selected archival device such as SAN, shall be installed. Backup shall be maintained for the entire duration of contract period. The backup utility shall allow for user selection of the files to be saved based on:

- a) Server and workstation
- b) File names (including directory and wildcard designations)

- c) File creation or modification date and time
- d) Whether or not the file was modified since the last backup.

#### 1.1.4.2 On-Line Monitoring Diagnostics Utility

On-Line monitoring diagnostic programs shall be provided for verifying the availability of the backup equipment and for limited testing of devices without interfering with on-line operations of application system or the failover capability of the devices.

Redundant communication line interface equipment shall be tested by periodically retrieving data over these lines and checking for the ability to communicate with the redundant channel for any errors.

Designated backup server(s) and associated auxiliary memories shall be automatically tested for proper operation to ensure they are ready if needed for a failure over contingency. Any failure to perform diagnostic functions correctly shall cause an alarm to be issued.

#### 1.1.4.3 Data Exchange Utilities

Facility of data export and import between this system and external systems shall be provided through web services.

#### 1.1.4.4 Other Utility Services

Application management shall include the following utility services:

- a) Loading and storage of information from labelled portable media storage units as dictated by the requirements of this specification.
- b) Preparation of .pdf output for the displays/reports available in the Application system. It should also be possible to export all the reports to any MS-Office format.
- c) Displays and Reports for Web server -The Contractor shall provide utilities for preparing displays and reports suitable for Web publishing. These utilities shall be used to generate, all required displays and reports from the system displays and reports, automatically (without requiring rebuilding).
- d) Online access to user and system manuals for all software products (e.g., Operating System and Relational Database Software) and applications shall be provided with computer system
- e) Antivirus Software - All computers and firewalls shall be provided with the latest antivirus software as on date of supply. The antivirus software shall have the capability of having its virus definitions updated from time to time. The BIDDER shall be responsible for the maintenance & update of the antivirus software during the contract period.
- f) Software Upgrade-The Contractor shall be responsible for the maintenance & update of the patches and signatures of operating system, applications system and Web based System up to the contract period.
- g) Automated patch management and anti-virus tools shall be provided to expedite the distributions of patches and virus definitions to the system using an orchestration facility.

These tools should consider the possibility to use standardized configurations for IT resources.

#### 1.1.5 Cyber Security – General Guidance

Cyber security governance problems are unique as well as evolving therefore, they cannot be dealt with a traditional approach. For establishing secure and resilient systems, a standardized cybersecurity framework should be adopted by the Contractor in consultation with the Utility and relevant stakeholders. The key elements of the cyber security framework must include:

- a) Differentiation of stakeholders into broad categories to aid in proper distribution of responsibilities among stakeholders and avoid overlapping
- b) Defined set of responsibilities for each stakeholder group. As a result, the decision-making process is streamlined, and proper management hierarchy is established for handling the reported cyber-attacks. The roles and responsibilities are divided into two groups:
  - i. Cyber – strategy and governance: The responsibilities under this group relates to the policy and decision-making aspects of cyber security framework
  - ii. Cyber security – risk, operations and compliance: This group comprises of responsibilities relating to the operational parts of implementing cyber security policies



- c) Standardization of security practices and abundant guidance from knowledge bodies while implementing security controls and processes. There are multiple global security standards and Indian standards that are relevant in context of the underlying technologies used:
  - i. National Institute of Standards and Technology (NIST) has developed a framework for Cyber Physical Systems (CPS). The Framework provides a taxonomy and organization of analysis that allow the complex process of studying, designing, and evolving CPS to be orderly and sufficiently encompassing.
  - ii. Department of Electronics and Information Technology (DeitY), Government of India has developed a National Cyber Security Policy. It aims at protecting the public and private infrastructure from cyber- attacks. The policy also intends to safeguard "information, such as personal information (of web users), financial and banking information and sovereign data".
- d) Cyber security incident management: The ISO/IEC Standard 27035 outlines a five-step process for security incident management, including:
  - i. Prepare for handling incidents.
  - ii. Identify potential security incidents through monitoring and report all incidents.
  - iii. Assess identified incidents to determine the appropriate next steps for mitigating the risk.
  - iv. Respond to the incident by containing, investigating, and resolving it
  - v. Learn and document key takeaways from every incident

Notwithstanding the measures suggested above, the following guidelines/strategies shall be taken care of by the BIDDER for making the entire ~~AMI~~ system including the NOMC immune to Cyber Attacks.

- a) All the Hardware, OS and application software shall be hardened.
- b) Application, scanning and hardware scanning tools shall be provided to identify vulnerability & security threats.
- c) Data shall be encrypted at system/device/technology level.
- d) Network Zoning shall be implemented as per the proposed architecture. However, the Contractor may suggest other methods of network architecture without compromising the security of the System.
- e) Internal user shall be allowed to access all adjacent zones. However, they will not have access to remote network zone.
- f) While procuring cyber security items testing must be done and the system must be secure by design.
- g) Residual information risk shall be calculated by the Contractor and same shall be submitted to the Utility for approval.
- h) All default user id & passwords shall be changed.
- i) All log in/out and cable plugs in/ out shall also be logged in Central Syslog server.
- j) Penetration & Vulnerability assessment test from CERT-IN certified auditors during SAT & Operations and Maintenance period.
- k) Auditing by third party during SAT and annually during operations and maintenance period shall be in the scope of the Contractor.
- l) As the computer system in NOMC has access to external environment the BIDDER shall document and implement Cyber Security Policy/Plan in association with the Utility to secure the system.
- m) Latest Cyber Security Guidelines issued by CERT-In specified at <http://www.cert-in.org.in/>, Ministry of Power (including “Testing of all equipment, components, and parts imported for use in the power Supply System and Network in the country to check for any kind of embedded malware /trojans/ cyber threat and for adherence to Indian Standards – Regarding” vide Order No. No.9/16/2016-Trans-Part(2) published by Ministry of Power, Government of India dated 18 November 2020 and amended from time to time) or any other competent authority shall be followed.

- n) The Contractor shall adhere with the appropriate security algorithm for encryption and decryption as per established cyber security guidelines. For smooth functioning of the entire system, it is essential that the BIDDER shall provide in the form of a document enough details of such algorithm including the mechanism of security key generation to the Utility. In case of proprietary or secret mechanism, the same shall be kept in a secured escrow account.

#### 1.1.6 Data Privacy

The Contractor should describe ensure that the system is compliant with the applicable provisions of the “Reasonable security practices and procedures and sensitive personal data or information Rules, 2011 (IT Act)” as well as shall be committed to work with Utility for compliance to Personal Data Protection requirements. In this regard, the general elements of the data privacy framework may include:

- a) The Utility shall be the sole custodian of the data. The Contractor and its contracted contractors will have limited need basis access to the data. In case of pre-mature termination or at the end of contract, the Contractor and the contracted contractors should relinquish all access to the data and transfer the same to the Utility.
- b) The Contractor is required to prepare and submit a “Privacy by Design” document to the Utility which details out all the policies, practices, processes and technologies employed to manage, and process the data in a secure manner. This should also include the details on methods of anonymization applied to the data based on data types defined below:
  - i. Aggregated Data: No identification individually and at neighborhood level unless explicitly required to report
  - ii. Anonymized Data: A data set which has individual data but without any personally identifiable information like consumer name, account number, address etc.
- c) The system should enable following Data sharing protocol.
  - i. Data should be shared by providing finite and secure access to the system. The access can be modified or terminated as need be.
  - ii. Sharing of part/full database shall be subject to review and consent of Utility.
- d) All data sharing shall be recorded and periodically submitted to utility for review
- e) BIDDER should have a data breach response plan and should communicate to the utility and consumers in case of any data breach from the system
- f) BIDDER is responsible to conduct 3rd party data privacy audit at least once every year based on evaluation criteria pre-identified by the Utility in consultation with data experts. The audit report should be made available to Utility. BIDDER to take necessary actions on audit observations in consultation with the utility.

### 3. **TRAINING FOR THE EMPLOYEES -**

The Contractor shall be required to organize following training for the WBSedCL personnel:

The Contractor shall provide training to various user groups nominated by Controlling Officer. The training modules shall include but not limited to –

- System Administration & Configuration
- Installation of facilities and Trouble-Shooting
- Application Management
- Application Data Analysis

Training arrangements – All trainings must be of minimum 1 day or Employer/ Contractor can propose more no. of days training along with batch size as per requirement.

**End User Training** - The Contractor shall provide training to the Employer's team on a "Train the Trainer" basis. The Employer's team so trained will then train all of the Employer's end users. It is estimated that this training will require around 3 batches, with each group comprising of around 15 to 20 persons. These training sessions will be required to be conducted at locations mutually agreed to by the Controlling Officer and the Contractor.

The roll out of the training program will be coordinated with the overall project implementation strategy.

## 2.20 Project timelines

Implementation period (in month)												O&M period (in month)
M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13 to M84
NOA												
Preparation of site, procurement, IT & Communication system installation, deployment of Application Server												
	Installation & Commissioning, UAT & Operational Go-Live of Application Server											
Lot I: 500 DTRs Operational Go-Live of Lot I												
						Lot II: 1500 DTRs Operational Go-Live of Lot II						
									Lot III: 2000 DTRs Operational Go-Live of Lot III			
Go-Live Acceptance (for entire quantity) →												← Operational & Maintenance period starts

## 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°: \_\_\_\_\_

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**ANNEXES**

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- 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. \_\_\_\_\_<sup>10</sup>:
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: \_\_\_\_\_<sup>11</sup>

(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)		_____

 \_\_\_\_\_  
 (Contractor’s Name)

 \_\_\_\_\_  
 (Signature)

 \_\_\_\_\_  
 (Name of signatory)

\_\_\_\_\_ (Title of signatory)

<sup>11</sup> Costs shall be in Rs.

**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:<sup>12</sup>  

	<u>(Amount)</u>
(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	_____

---

<sup>12</sup> Costs shall be in Rs.

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:<sup>2</sup> \_\_\_\_\_

(Contractor’s Name)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Name of signatory)

\_\_\_\_\_  
(Title of signatory)

<sup>2</sup> 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)

As per WBSEDCL Specifications& Drawing

(Included in the Scope of Work part). However if any specification & drawings are not covered, then latest uploaded specification & Drawings at WBSEDCL official website ([www.wbsedcl.in](http://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.

## **PART 3 - Conditions of Contract and Contract Forms**

## Section VIII - General Conditions of Contract

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## 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<sup>er</sup>, 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:

1. in writing and delivered against receipt; and
2. 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 therefore 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 arbitrage 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.** 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.

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 A<sup>13</sup>****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. 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.

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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 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:

- a. Visit the site periodically.
- b. Keep abreast of job activities and developments.
- c. Encourage the resolution of disputes by the parties.
- d. 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)*

**(a) Purpose**

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

**(c) 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:

1. "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
2. "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;
3. "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;
4. "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;
5. "obstructive practice" is:
  1. 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
  2. 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;<sup>14</sup> (ii) to be a nominated<sup>15</sup> 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 inspect<sup>16</sup> 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.

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<sup>14</sup> 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.

<sup>15</sup> 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.

<sup>16</sup> 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

### J. Salient Features of Labour & Environment

#### Protection Laws<sup>17</sup>

#### 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
- 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

<sup>17</sup> 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.

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, travelling 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 Erection 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.

- 5 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.
- 6 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.
- 7 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.
- 8 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.
- 9 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.



- 10 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.
- 11 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.
- 12 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.
- 13 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.
- 14 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.

- 15 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.
- 16 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.
- 17 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.
- 18 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.
- 19 The Petroleum Rules, 2002: This provides for safe use and storage of petroleum products, and will need to be complied by the contractors.
- 20 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.
- 21 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.
- 22 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.
- 23 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.

- 24 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-modeling, 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.
- 25 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.
- 26 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.
- 27 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.
- 28 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.
- 29 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.
- 30 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.

- 31 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.
- 32 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.
- 33 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.
- 34 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 foe 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.
- 35 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:*

45.1 *environmental incidents or non-compliances with contract requirements,;*

45.2 *health and safety incidents, accidents, injuries that require treatment and all fatalities;*

45.3 *status of all permits and agreements, as applicable:*

1. work permits: number required, number received, actions taken for those not received;

45.4 *health and safety supervision:*

17. safety officer: number days worked, number of full inspections & partial inspections, reports to construction/project management;

18. number of new workers inducted, number receiving induction training, dates of induction training

19. Flag personnel training

20. number of workers receiving training on Code of Conduct for Contractor's Personnel (in the reporting period and in the past

21. number of toolbox talks and training programs, number of workers receiving Occupational Health and Safety (OHS), environmental and social training

22. 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);

45.5 *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. action taken to recommend/require improved conditions, or to improve conditions.

45.6 *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);*

45.7 *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);*

45.8 *environmental and social supervision:*

8. 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;
9. 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 centre, community centre, 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
10. community liaison person(s): days worked (hours community centre open), number of people met, highlights of activities (issues raised, etc.), reports to environmental and/or social specialist /construction/site management.

45.9 *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):

- Worker grievances;
- Community grievances

45.10 *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.).

45.11 *Environmental mitigations and issues (what has been done)*:

1. dust: number of working browsers, number of watering/day, number of complaints, actions taken to resolve;
2. 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,;
3. 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);

4. spill clean-ups, if any: material spilled, location, amount, actions taken, material disposal (report all spills that result in water or soil contamination;
5. waste management: types and quantities generated and managed, including amount taken offsite (and by whom) or reused/recycled/disposed on-site;
6. details of tree plantings and other mitigations required undertaken in the reporting period;
7. details of water and swamp protection mitigations required undertaken in the reporting period.

45.12 *compliance:*

1. compliance status for conditions of all relevant consents/permits, for the Work,.);;
2. compliance status of C-ESMP/ESIP requirements: statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance
3. compliance status of SEA and SH prevention and response action plan: statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance
4. 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

other unresolved issues from previous reporting periods related to environmental and social: Cross-reference other sections as needed.

## Section IX - Particular Conditions of Contract

### A. 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.

<b>PCC 1. Definitions</b>	<p>The Employer is: <i>WBSEDCL</i></p> <p>The Controlling Officer is: The Addl. Chief Engineer, Distribution Project Department, WBSEDCL.</p> <p>The Project Manager is: The Regional Manager of the respective Region.</p> <p>The Consignee Officer is: Concerned Project Manager</p> <p>The Supervising Officer is: The Addl. Chief Engineer, ED (Dist) Office</p> <p>Paying Authority is: AGM (F&amp;A), Distribution Project Department.</p> <p>The Bank is: The International Bank for Reconstruction and Development (IBRD) &amp; AIIB.</p> <p>Country of Origin: all countries and territories as indicated in Section V of the bidding document, Eligible Countries.</p> <p>Remote Monitoring of Distribution Transformer (RMDT) Projects shall be defined as “Supply, delivery, installation, testing, commissioning, operation and maintenance of this system with related items viz. Sensors, hardware, Software, communication infrastructure including NMS/DCUs/Routers/Gateways (as required), Cloud based Application Server, Integration/ Access of Application Server by the WBSEDCL, its successful Operational Go-Live and operation &amp; maintenance of the system throughout the contract period of 84 months from the date of NoA, including 12 months of implementation period in different CCC under WBSEDCL.</p>
	<p>Following definitions are added:</p> <p>“<b>Contractor’s Personnel</b>” 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>



**“Key Personnel”** means the positions (if any) of the Contractor’s personnel that are stated in the Specification.

**“ES”** means Environmental and Social (including Sexual Exploitation and Abuse (SEA), and Sexual Harassment (SH)).

**“Sexual Exploitation and Abuse” “(SEA)”** means the following:

**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;

**Sexual Abuse** is defined as the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions.

**“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

**“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.

**“Independent Valuer”** shall mean a qualified valuer duly registered under Companies (Registered Valuers and Valuation) Rules, 2017 for Plant and Machinery and jointly appointed by the Parties in the event of forced termination of contract;

**“Implementation Period”** shall mean the period from the Date of Award of Contract till the Go-Live Acceptance;

**“Operation & Maintenance Period”** shall mean the period from the Go-Live Acceptance till the end of the Contract Period;

**“Operational Go-Live of Application Server”** shall be considered as completion of SAT for initial 500 RMDT facilities (along with its related hardware, software equipment & communication infrastructure), installation of Cloud based Application Server, Integration/ Access of Application Server by the WBS EDC.

**“Go-Live Certificate”** shall be considered as a document of certification issued by the Employer to the Contractor at the end of installation and commissioning of RMDT facilities in a single Lot signifying that the cumulative number of RMDT facilities installed in the field are all satisfying the requirements by the Employer.

**“Operational Go-Live for Lot (1, 2, 3)”** shall be considered as the installation and commissioning of all RMDT facilities in the specific

	<p>lot. This shall be followed by Go-Live Certificate issue subject to the conditions being met for the cumulative quantity by the Contractor.</p> <p><b>“Go-Live Acceptance”</b> shall be considered as the installation of 4,000 (or as per the final order/ finalized quantity) RMDT facilities, (along with its related hardware, software equipment &amp; communication infrastructure), installation of Cloud based Application Server, Integration/ Access of Application Server by the WBSEDCL. This shall be considered as the “Go-Live” for the project.</p> <p><b>“Lender”</b> means the banks, financial institutions, multilateral funding agencies, non-banking financial companies registered with the Reserve Bank of India (RBI), insurance companies registered with the insurance Regulatory &amp; Development Authority (IRDA), pension funds regulated by the Pension Fund Regulatory &amp; Development Authority (PFRDA), mutual funds registered with Securities &amp; Exchange Board of India (SEBI), etc., including their successors and assigns, who have agreed to provide the SP with the debt financing, and any successor banks or financial institutions to whom their interests may be transferred or assigned;</p> <p><b>“Monthly O&amp;M Charge”</b> shall mean the payment to be made by the Employer to the Contractor in INR per RMDT facility per month for each capacity of DT as derived from the quoted price in the Bid;</p> <p><b>“CSP”</b> shall mean a Cloud Service Provider which is a third-party company offering a cloud-based platform, infrastructure, application or storage services as per requirements listed under Section-VII clause 3.9 of the RFB.</p> <p><b>“Device”</b> shall mean a Box of suitable size comprising of a compact set of outdoor DT Monitoring Unit with analog &amp; digital data processor, Electrical &amp; Physical parameter capturing unit, communication module including SIM, Modem etc. This is also termed as <b>“RMDTU”</b>.</p> <p><b>“Facility”</b> shall mean an entire system for a DT (Distribution Transformer) with equipment including CT, Sensors, Device etc. with all necessary wirings &amp; mounting arrangement along with communication with Application Server and access of Application Server.</p>
<b>PCC 5. Law and Language</b>	<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>
<b>PCC 7. Scope of Facilities [Spare Parts] (GCC Clause 7)</b>	<p>PCC 7.3 The Contractor shall supply spare parts as required for the entire period of contract and covered within the scope of contract price.</p> <p>The Contractor shall carry sufficient inventories to ensure an ex-stock supply of consumable spares. Other spare parts and</p>

	<p>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.</p>
<b>PCC 8. Time for Commencement and Completion</b>	<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 installation of the whole of the Facilities shall be 12 months from the Effective Date as described in the Contract Agreement. The Time of Completion of the O&amp;M period shall be 72 months from Go-Live Acceptance date.</p>
<b>PCC 10.8</b>	<p>In the event that the Employer shall be in breach of any of his obligations under this Clause, <b>the additional cost or loss</b> incurred by the Contractor in consequence thereof would be determined and mutually agreed by the Employer and the Contractor and <b>be added to the Contract Price</b>.</p>
<b>PCC 11. Contract Price</b>	<p>The Contract Price shall be adjusted in accordance with the provisions of the Appendix to the Contract Agreement titled Adjustment Clause.</p>
<b>PCC 12. Terms of Payment</b>	<p>PCC 12.3 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 supporting documents and duly certified by the 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.</p> <p>PCC 12.4 The currency in which payments are made to the Contractor under this Contract shall be Indian Rupees (Rs.)</p> <p><b>Following are added:</b></p> <p><b>Payment Mechanism</b></p> <p>Payment of Mobilization Advance by the Employer shall be made to the Contractor after acceptance of NOA by the Contractor. Subsequent payments shall be made as per successful completion of payment milestones as defined in Section X Appendix 1.</p>

	<p>The payment to the Contractor for <b>Service/ O&amp;M</b> part shall commence after Go-Live Acceptance as defined in Section VII of this RFB. Payments shall be made as defined in Section X Appendix 1.</p> <ol style="list-style-type: none"> <li>I. The payments due to the Contractor from the Employer shall be paid on Quarterly basis as per the payment structure specified in GCC clause no. 12.</li> <li>II. The actual payment shall be net of any applicable liquidated damage and/or penalty due to delay in meeting project milestones/ noncompliance by the contractor.</li> <li>III. The Contractor will raise and deliver the Quarterly invoice to the Employer. The Employer shall accept or dispute the raised invoice and generate the Actual monthly payment amount.</li> <li>IV. Payment shall be made by the Employer within sixty (60) days of approval of Actual Quarterly Payment amount.</li> <li>V. In the event the Contractor fails to meet a particular performance criterion as mentioned under the clause 2.13 of Section VII for cumulatively 3 (three) months in past 6 (six) months, resulting in the maximum penalty for the particular performance criterion, the Employer may issue Default Notice to the Contractor directing it to take steps within 90 days to comply with the performance criterion specified in the Service Level 2.13 of Section VII.</li> <li>VI. In the event a facility supplied and installed by the Contractor is damaged for reasons not attributable to the Contractor such as theft, vandalism, burning, etc. or as a result of Force Majeure Event, the Contractor shall not be liable for such damage. In such cases, upon receipt of Notice from the Employer, the Contractor shall repair or replace the damaged facility. The Contractor shall be required to replace the facility no later than 72 hours of notification by the Employer.</li> </ol>
<b>PCC 13. Securities</b>	<p>PCC 13.3.1 As contract security, the contractor has to furnish a performance security in the form of Bank Guarantee on non-judicial stamp paper of Rs.100/-by any Schedule Bank in India, as per format enclosed Form K. The Performance Bank Guarantee (PBG) shall be submitted to the Chief Engineer, Distribution Project Department, 5<sup>th</sup> Floor, 'B' Block, Vidyut Bhavan, WBSEDCL. For any failure towards satisfactory performance on the part of the Bidder(s), the Bank Guarantee will be liable to encashment and forfeiture. As Performance BG, 10 % of Total Contract Price (CAPEX+OPEX) to be submitted within 30 days from the date of issue of NOA. Validity of PBG will be initially for 12 months from the date of the NOA (i.e., till completion of the CAPEX portion).</p> <p>After the Go Live, the amount of the PBG will be reduced to half [i.e., 5 % of Total Contract Price (CAPEX+OPEX) ] and the validity</p>

	<p>will be increased for an additional 72 months, i.e. till completion of the OPEX portion and claim period will be further 6 months.</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 13.3.4 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>
<b>PCC 14 Taxes and Duties</b>	<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: “The above will not apply to deemed export benefits”.</p> <p>GCC 14.4 – Add the following at the end 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.”</p>
<b>PCC 15 Intellectual Property</b>	<p>Additional clause:</p> <p>15.3 All Intellectual Property Rights in all material (including but not limited to all Source code, Object code, records, reports, designs, application configurations, data and written material, products, specifications, reports, drawings and other documents), which have been newly created and developed by the Contractor or its OEM Partners solely during the performance of Related Services and for the purposes of inter-alia use or sub-license of such services under this Contract, shall be the property of the Contractor or its OEM Partner. The Contractor undertakes to disclose all such material, which have been newly created and developed by the Contractor solely during the performance of Related Services and for the purposes of inter-alia use or sub-license of such services under this Contract, to the Utility. The Contractor hereby grants to Utility a perpetual, non-exclusive, nontransferable, irrevocable, royalty-free license to use all material disclosed to the Utility under the Contract.</p>

	<p>Nothing contained herein shall be construed as transferring ownership of any Intellectual Property Right from the SP to the Utility.</p> <p>15.4 The Contractor shall ensure that while it uses any software, hardware, processes, document or material in the course of performing the Services, it does not infringe the Intellectual Property Rights of any person and the Contractor shall keep the Utility indemnified against all costs, expenses and liabilities howsoever, arising out any illegal or unauthorized use (piracy) or in connection with any claim or proceedings relating to any breach or violation of any permission/license terms or infringement of any Intellectual Property Rights by the Contractor or its personnel during the course of performance of the Related Services. In case of any infringement by the Contractor, the Contractor shall have sole control of the defense and all related settlement negotiations.</p> <p>15.5 Subject to Article 15, the Contractor shall retain exclusive ownership of all methods, concepts, algorithms, trade secrets, software documentation, other intellectual property or other information belonging to the Contractor that existed before the date of execution of the Contract.</p>
<p><b>PCC 18 Work Program</b></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. 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</p>

	<p>the Project Manager within the timeframe agreed with the Project Manager.</p> <p>The Contractor shall require to immediately notify of any incidents or accidents referred in this Sub-clause.</p>
<b>PCC 20 Design and Engineering</b>	<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>
<b>PCC 22 Installation</b>	<p>PCC22.2.5 Working Hours</p> <p>Normal working hours are: 10.00 AM to 5.30 PM on all calendar days.</p>
<b>PCC 23.4</b>	<p><u>Replace Para-2 of GCC 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>
<b>PCC 23.11</b>	<p>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>
<b>PCC 24.2 &amp; 24.3</b>	<p>GCC 24.2 and 24.3 deleted</p>
<b>PCC 24.4</b>	<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>
<b>PCC 25.1.1</b>	<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>

<b>PCC 25.1.2</b>	GCC 25.1.2 deleted									
<b>PCC 25. Commissioning and Operational Acceptance</b>	PCC 25.2.2 The Guarantee Test of the Facilities shall be successfully completed within 28 days from the date of Completion.									
<b>PCC 25.5.2(c)</b>	GCC 25.5.2(c) Deleted									
<b>PCC 26. Completion Time Guarantee</b>	<p>PCC 26.2</p> <p><b>Applicable rate for Liquidated Damages:</b></p> <p><b><u>During Implementation Period:</u></b></p> <p>Employer shall without prejudice to all its other remedies under the Contract, deduct from the amount due to be paid, as liquidated damages, 10% of Total Capex Component per facility per Month for each delayed facility for each completed month of delay.</p> <p>Total Capex Component per facility per Month = Total Capex Component per facility as quoted by the bidder in the BOQ / Implementation Period (12 months)</p> <p>Maximum deduction for liquidated damages for total CAPEX part work: <i>10% of total CAPEX Component</i></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 obligation to complete the Work or from any of 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><b><u>During O&amp;M period:</u></b></p> <p>Liquidated Damage (LD) would be computed on the basis of Total Hours available in each Month of the Billing Quarter (THM)</p> <p>1. The deduction shall be computed as Monthly OPEX Charge x LD % as computed below.</p> <table border="1"> <tr> <td>Availability of facilities</td><td>% of LD</td><td>Remarks</td></tr> <tr> <td>Up to 98% of THM</td><td>NIL</td><td rowspan="2">THM is Total Hours available in each month of the Billing Quarter = 24 x Number of days in the Month</td></tr> <tr> <td></td><td>1% of OPEX charges for each % or parts</td></tr> </table>		Availability of facilities	% of LD	Remarks	Up to 98% of THM	NIL	THM is Total Hours available in each month of the Billing Quarter = 24 x Number of days in the Month		1% of OPEX charges for each % or parts
Availability of facilities	% of LD	Remarks								
Up to 98% of THM	NIL	THM is Total Hours available in each month of the Billing Quarter = 24 x Number of days in the Month								
	1% of OPEX charges for each % or parts									



	Below 98% of THM	thereof of shortage of available hours subject to maximum 20% of OPEX Charges for each Month of the Billing Quarter.	x Number of installed facilities.
	Below 60% of THM	No payment for OPEX component will be made for the respective month in the Billing Quarter.	
	<p>2. THM Report should be system generated where hour of desired data of each installed facility should be available. This report can be extracted as excel, csb, pdf format.</p> <p>3. If any desired data i.r.o the installed facility is not available for a hour, the availability of the facility shall not be considered.</p> <p>4. Exclusions: Power Outages (beyond 4 Hrs. in each occasion), Local Temporary/ Permanent issues/ force majeure beyond the control of contractor, shall be excluded from above calculations. For these cases, joint visit of the contractor and Employer shall be carried out and field inspection report shall be submitted by the contractor to WBSEDCL for suitable action.</p> <p>5. The penalties would be computed on the basis of performance of the Contractor for each month in a Billing Quarter as elaborated above. However, no payment for OPEX part will be made in case of THM is found less than 60% for the respective month in the Billing Quarter.</p> <p>PCC 26.3 No bonus will be given for earlier Completion of the Facilities or part thereof.</p>		
PCC 27. Defect Liability	GCC 27.2 Shall be read as  The Defect Liability Period shall be Seventy Two (72) months from the date of -Go-Live Acceptance.		
PCC 30. Limitation of Liability	PCC 30.1 (b) The multiplier of the Contract Price is: <i>One</i>		
PCC 31. Transfer of Ownership	Plant referred to in the GCC shall mean facilities with all related sensors, software, hardware, communication infrastructure & Cloud based Application Server (as relevant to the scope of this RFP)  Additional Clause  PCC 31.6		

	<p>The ownership, rights and title to the RMDT system (as relevant to the scope of this RFP) and other equipment installed by contractor for operation of the RMDT system (as relevant to the scope of this RFP) pursuant to this Contract shall vest with Contractor during the entire Term of Contract.</p> <p>However, the lenders shall have first right on contractor's assets subject to the fulfillment of the provisions in this Contract.</p> <p>PCC 31.6</p> <p>Unless extended by mutual consent of the Employer and Contractor, after the Contract Period the ownership, rights and title of the installed system (as relevant to the scope of this RFP) and other equipment (if any) installed by contractor for operation of the system (as relevant to the scope of this RFP) pursuant to this Contract shall be transferred to the Employer without any cost.</p>
<p><b>PCC 35</b></p> <p><b>Unforeseen</b></p> <p><b>Conditions</b></p>	<p>Additional Clause</p> <p><b>PCC 35.2 Event of Default</b></p> <p><b>A. Contractor Event of default:</b> Contractor Event of Default means any of the following events arising out of any acts or omission of Contractor, its representative, sub-contracts, employees and which have not occurred solely as a result of any breach of this Contract by the WBSedCL or due to Force Majeure, and where contractor has failed to remedy these events within a period of 90 (ninety) days of issuance of a notice by WBSedCL requiring Contractor to remedy such event.</p> <ol style="list-style-type: none"> <li>I. Contractor has failed to procure and arrange requisite finances for the implementation of the Project;</li> <li>II. Contractor abandons the implementation of the Project or repudiates this Contract or otherwise takes any action, or evidences or conveys an intention not to be bound by the Contract;</li> <li>III. Contractor, in the judgment of The Employer has engaged in corrupt, fraudulent, collusive, or coercive practices, in competing for or in executing the Contract; or</li> <li>IV. Contractor is adjudged bankrupt or insolvent, or if a trustee or receiver is appointed for CONTRACTOR or for the whole or material part of its assets that has a material bearing on its ability to implement the Project;</li> <li>V. Contractor has been, or is in the process of being liquidated, dissolved, wound-up, amalgamated or reconstituted in a manner that in the reasonable opinion of The Employer would adversely affect Contractors ability to implement the Project;</li> <li>VI. A resolution for winding up Contractor is passed, or any petition for winding up of Contractor is admitted by a court of competent jurisdiction and a provisional liquidator or receiver is appointed and such order has not been set aside within 90 (Ninety) days of the date thereof</li> </ol>

	<p>or Contractor is ordered to be wound up by a court of competent jurisdiction;</p> <p>VII. In the event Contractor fails to cure the default as indicated in the Default Notice within the time period specified therein;</p> <p>VIII. Failure of Contractor to furnish Performance Security in accordance with the provisions of this Contract;</p> <p>IX. Failure or inordinate delay by Contractor to provide Solution as per Contract;</p> <p>X. Any representation or warranty made by the Contractor during the term of the Contract is found to be false and/or misleading;</p> <p>XI. Failure on account of Contractor to abide by Applicable Laws and regulations;</p> <p>XII. The shareholding of the Contractor ceases to be in accordance with the provisions of this Contract;</p> <p>XIII. In the event equipment installed or proposed to be installed by the Contractor is found to have any embedded malware/ Trojans / cyber threat;</p> <p>XIV. Contractor fails to comply with the local content requirement as specified in the Bid Submission;</p> <p>XV. Contractor fails to comply with any of its material obligations under this Contract.</p> <p>XVI. In the event the Solution supplied do not meet the minimum specifications as per the Contract, and the same is not replaced/ modified by the Contractor to meet the requirements within 14 (fourteen) working days of being informed by WBSEDCL, or as mutually decided between The Employer and Contractor.</p> <p><b>B. The Employer Event of default :</b></p> <p>The Employer Event of Default means any of the following events, unless such event has occurred as a consequence of the contractor Event of Default or a Force Majeure event and where The Employer has failed to remedy these events within a period of 90 (ninety) days of issuance of a notice by Bidder requiring The Employer to remedy such event:</p> <p>I. The Employer is adjudged bankrupt or insolvent, or if a trustee or receiver is appointed for The Employer or for the whole or material part of its assets that has a material bearing on its ability to perform its obligations under this Contract;</p> <p>II. Utility has been, or is in the process of being liquidated, dissolved, wound-up, amalgamated or reconstituted in a manner that in the reasonable opinion of Bidder would adversely affect Utility's ability to perform its obligations under this Contract;</p> <p>III. A resolution for winding up of The Employer is passed, or any petition for winding up of The Employer is admitted by a court of competent jurisdiction and a provisional liquidator or receiver is appointed and such order has not</p>
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	<p>been set aside within [90 (Ninety)] days of the date thereof or The Employer is ordered to be wound up by a court of competent jurisdiction;</p> <p>IV. The breach by The Employer of its obligations under this Contract which has an adverse effect on the performance of contractor's obligations under this Contract.</p> <p><b>C. TERMINATION FOR CONTRACTOR EVENT FOR DEFAULT:</b></p> <p>I. Without prejudice to any other right or remedy which the Employer may have in respect thereof under this Contract, upon the occurrence of Contractor Event of Default, The Employer shall be entitled to terminate this Contract in the manner provided in GCC 42.</p> <p>II. The Employer shall issue a Preliminary Notice to Contractor providing 90 (Ninety) Days, or such extended period as the Employer may allow, to cure the underlying Event of Default. If Contractor fails to cure the underlying Event of Default within such period allowed, The Employer shall be entitled to terminate this Contract by issuing a termination notice to Contractor</p> <p><b>D. TERMINATION FOR The Employer EVENT FOR DEFAULT</b></p> <p>I. Without prejudice to any other right or remedy which Contractor may have in respect thereof under this Contract, upon the occurrence of a The Employer Event of Default, Contractor shall be entitled to terminate this Contract in the manner provided in GCC 42.</p> <p>II. Contractor shall issue a Preliminary Notice to The Employer providing 90 (Ninety) Days, or such extended period as the Bidder may allow, to cure the underlying Event of Default. If the Employer fails to cure the underlying Event of Default within such period allowed, Contractor shall be entitled to terminate this Contract by issuing a termination notice to WBSIEDCL.</p>
<b>PCC 36 Change in Laws and Regulation</b>	<p>GCC 36.1 - Add the following before the last sentence 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>
<b>PCC 39. Value Engineering</b>	PCC 39.1.2 Provisions related to Value Engineering do not apply.
<b>PCC 42.</b>	Additional clause:

Termination	<b>42.6 CONSEQUENCES OF TERMINATION</b>
	<p>Upon Termination of the Contract, the Contractor shall:</p> <ol style="list-style-type: none"> <li>1. Notwithstanding anything to the contrary contained in this Contract, any termination of this Contract pursuant to its term shall be without prejudice to accrued rights of any Party, including its right to claim and recover damages and other rights and remedies which it may have in law or contract. All accrued rights and obligations of any of the Parties under this Contract, shall survive the termination of this Contract to the extent such survival is necessary for giving effect to such rights and obligations.</li> <li>2. Following issue of the Termination Notice by Utility or Contractor, Utility take possession and control of the installations and the exclusivity granted to Contractor under Article 31 will come to an end.</li> <li>3. Upon termination of this Contract by Utility or Contractor on account of Contractor's Event of Default (in accordance with Article 15.3), or termination of this Contract on account of Utility's event of default (in accordance with Article 15.4), contractor shall have been titled to a termination payment subject to proper transfer of the installed System, as agreed mutually upon, basis the following criteria: <ol style="list-style-type: none"> <li>a) In case termination of this Contract on account of Contractor's event of default: Termination payment to Contractor after Go-Live Acceptance has been declared shall be the percentage, specified in PCC, of the termination payment Value as determined in terms of this Contract.</li> <li>b) In case termination of this Contract on account of Utility's event of default: Termination payment to Contractor after Go-Live Acceptance has been declared shall be the percentage, specified in PCC, of the termination payment Value as determined in terms of this Contract.</li> <li>c) In case termination of this Contract prior to Go-Live Acceptance the Termination payment shall be equal to: <ol style="list-style-type: none"> <li>i. the percentage, specified in PCC, of the value of the assets proposed to be handed over to the Utility as certified by an Independent Valuer in the event termination is on account of Contractor event of default–and</li> <li>ii. the percentage, specified in PCC, of the asset values shall be paid to the Contractor in the event termination is on account of Utility event of default</li> </ol> </li> </ol> <p>For the avoidance of doubt, it is clarified that in the event lump sum payment in terms of Article 11 has been made then such payment shall be reduced from the amount determined in accordance with this Article 42.6.(c)</p> </li></ol>

d) In case termination of the Contract prior to the Go-Live Acceptance- The Goods that are complete and ready for shipment within 28 (twenty-eight) days after the Contractor's receipt of the Notice of termination shall be taken into account while determining value of the assets proposed to be handed over to the Utility.

e) In the event of termination prior to Go-Live Acceptance, Utility may request the Contractor to complete any part of the Solution. The cost of such works shall be agreed between the Parties. In the event Parties deem it appropriate the cost may be determined by the Independent Valuer.

Upon termination of this Contract by Utility or Contractor on account of Contractor's Event of Default, or termination of this Contract on account of Utility's event of default, Contractor shall be entitled to raise a supplementary invoice for an amount which is equal to the termination payment. The Supplementary invoice shall be paid separately by the Utility within 30 (thirty) days from the date of such invoice.

4. The Termination payment value would be calculated basis the following mechanism:

a) The present value of the receivables for the facilities installed shall be calculated by multiplying the outstanding facility-months of operating the facility with percentage of total facilities installed, integrated and operationalized as on the date of termination, and O&M Charge, and discounting the same as on date of termination at the percentage specified in PCC ("Present Value").

b) All amounts due, but not paid by the Utility, including the aggregated amount due to be paid including amount due to be paid towards supplementary invoice, but not paid or recovered from the Utility, for the system operations and maintenance as defined in the RFB by the Contractor, shall be calculated and factored in to arrive at the net outstanding receivables of the Contractor ("Outstanding Receivables");

c) All amounts due, but not paid by the Contractor, including the aggregated applicable liquidated damages and/(or) penalties due to non-compliance by the Contractor, but not paid or recovered from the Contractor, for the system operations and maintenance as defined in the RFB by the Contractor, shall be calculated and factored in to arrive at the net outstanding payables by the Contractor ("Outstanding Payables");

d) Termination Payment Value shall be equal to the sum of Net Present Value and Outstanding Receivables as per 4.(a) and (b); reduced by Outstanding Payables as per 4.(c) and the sum of insurance proceeds received by the Contractor for the system, (if any).

5. Upon Termination of the Contract or expiry of the contract period, the Contractor shall prepare and present a detailed Exit Management Plan within 5 (five) working days of termination notice receipt to the Utility ("Exit Management Plan") in accordance with Exit Management Clause of this Contract.

6. The Utility or its nominated agency will review the Exit Management plan. If approved, Contractor shall start working on the same immediately. If the plan is rejected, Contractor shall prepare alternate plan within two (2) working days. If this conditional plan is also rejected, Utility will provide a plan for Contractor and it should be adhered by in totality.

7. The Exit Management Plan should cover at least the following:

- a) Execute all documents that may be necessary to effectively transfer the ownership and title, including OEM warranties in respect of all equipment;
- b) Handover all developed codes, related documentation and other Configurable Items, if any in his possession;
- c) Handover the list of all IT Assets, passwords at all locations to Utility.

8. The Contractor and the Authorized personnel from Utility will sign a completion certificate at the end of successful completion (all points tracked to closure) of the Exit Management Plan.

In case termination of this Contract on account of Contractor's event of default: Termination payment to Contractor after Go-Live Acceptance has been declared shall be determined by the Independent Valuer.

In case termination of this Contract on account of Utility's event of default: Termination payment to Contractor after Go-Live Acceptance has been declared shall be determined by the Independent Valuer.

The value of the assets proposed to be handed over to the Utility in the event termination on account of Contractor event of default shall be determined as certified by an independent valuer

The present value of the receivables for the system installed shall be calculated by multiplying the outstanding facility-months of operating the system with percentage of total facilities installed, integrated and operationalized as on the date of termination, and Service Charge, and discounting the same as on date of termination and shall be determined by the Independent Valuer.

<b>PCC 46. Disputes and Arbitration</b>	<p>PCC 46.1 and PCC 46.2</p> <p>Name of the agreed Adjudicator ..... (<i>Insert name before signing contract</i>).</p> <p>Appointing Authority for the Adjudicator: [<i>insert name of Authority</i>].</p> <p>[<i>Note: if ITB 51 provides for an Adjudicator from list provided by an Institution, insert the name of the same institution as the appointing authority</i>]</p>
	<p>PCC 46.4</p> <p>Daily rate and types of reimbursable expenses to be paid to the Adjudicator: [<i>insert daily fees - not less than Rs. 10,000 per day, and reimbursable expenses – boarding/ lodging/ travel etc.</i>].</p> <p>[<i>Note: if ITB 51 provides for provision of an Adjudicator from list provided by an institution, kindly state that ‘the daily fee and reimbursable expenses payable to the Adjudicator will be governed by rules of ..... [name of the Institution].</i>]</p>
	<p>PCC 46.5</p> <p>The procedure for ad-hoc arbitration will be as follows:</p> <ol style="list-style-type: none"> <li>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).</li> <li>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.</li> </ol>



	<p>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.</p> <p>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> <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>
<p><b>PCC 47</b></p>	<p>Addition of a new clause GCC 47</p> <p><b>GCC 47. Closure Procedure:</b></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> <ul style="list-style-type: none"> <li>a) Material reconciliation</li> <li>b) Payment reconciliations, submission and verifications that reconciliation of payment toward statutory provisions like GST/Entry Tax, any other dues etc. Reconciliation statement shall be verified and vetted by chartered accountant.</li> <li>c) Approval for extension of Completion period, with or without compensation, as required.</li> <li>d) Certification from agency regarding payment of dues to its             <ul style="list-style-type: none"> <li>—</li> <li>1. Sub-contractors</li> <li>2. Workers/ contract Labourers,</li> <li>3. Payment of statutory dues toward Provident Funds, wages etc.as required.</li> </ul> </li> <li>e) Certification of Project Manager &amp; agency to the effect that erection, testing and commissioning of the equipment</li> </ul>

	<p>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.</p> <p><i>f)</i> Removal of construction meant for site stores, hutment, labour colony etc. in the premises of EMPLOYER.</p> <p><i>g)</i> Certificate from Project Manager in charge regarding final amendment of drawings and detailed of such amendments,</p> <p><i>h)</i> Drawing receipt certificate by the Project Manager,</p> <p><i>i)</i> Receipt of compliance report on Quality Assurance Mechanism along with photograph, Assurance documents by Project Manager</p> <p><i>j)</i> Shortfall in equipment / Line performance Certificate issued by Project Manager,</p> <p><i>k)</i> No demand certificate issued by contractor,</p> <p><i>l)</i> Certificate about completion of Defect Liability Period of the package by Project Manager,</p> <p><i>m)</i> Certificate regarding return of Performance Security &amp; ES performance security / Indemnity Bond by Project Manager/Employer</p>
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## Section X - Contract Forms

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**A. Notification of Award - Letter of Acceptance***Dated:* \_\_\_\_\_

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****B. 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) NoA
- (h) PERT Chart
- (i) Performance BG
- (j) LoA
- (k) Power of Attorney
- (l) Other completed Bidding forms submitted with the Bid
- (m) Any other documents forming part of the Employer’s Requirements

(n) 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)**

(o) 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)

(p) 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 Notification of Award (NoA).

Each party shall use its best efforts to fulfill the 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 Department, Vidyut Bhavan, 5<sup>th</sup> Floor 'B' Block, Salt Lake City, Kolkata-700091
- 4.2 The address of the Contractor for notice purposes, pursuant to GCC 4.1 is:  
[Add Contractor details]

**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.]*



### C. Appendix 1. Terms and Procedures of Payment

*[The following Terms and Procedures of Payment are given as a guideline suitable for Supply and Installation Contracts. In the event that the Employer wishes to introduce substantially different terms of payment, it may be done in consultation with the Bank. If additional Price Schedules are introduced, suitable terms of payment for such additional schedules must be added]*

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)

Supply, Delivery, Installation, Testing, Commissioning, Operation and Maintenance of this system with related items viz. Sensors, hardware, Software, communication infrastructure including NMS/DCUs/Routers/Gateways (as required), Cloud based Application Server, Integration/ Access of Application Server by the WBSEDCL, its successful Operational Go-Live and operation & maintenance of the system throughout the contract period

In respect of Schedule 4, the payments shall be made in Rs. in the following manner.

The successful Bidder shall be paid as per a Capex-Opex payment structure with Capex capped at 40% of overall Contract price. The Capex amount shall be paid as per pre-configured payment milestones defined below conditional to the fulfillment of pre-defined delivery and configuration conditions.

The balance 60% of the Contract Price shall be paid quarterly on per RMDT facility per month basis (Monthly O&M Charges) conditional to the fulfillment of defined requirements. However, no payment for OPEX component will be made for the respective month in the Billing Quarter if THM for that month <60%.

All time is in months.

Payment Milestone	Schedule T0 = Date of NoA	Payment criteria	Contract Price
Mobilization Advance	T0 + 2 months	1. Signing of contract 2. Mobilization of resources, site survey etc. 3. Submission of advance payment security	10% of the CAPEX Component of the Contract Price
Phase-I: CAPEX Part	T0 + 6 months	Deployment of Cloud based Application Server,	5% of the CAPEX Component of the Contract Price

<b>Payment Milestone</b>	<b>Schedule T0 = Date of NoA</b>	<b>Payment criteria</b>	<b>Contract Price</b>
		Integration/ Access of Application Server by the WBSEDCL.  Configuration of 500 facilities on Application Server & its successful Operational Go-Live (Lot 1).	
Phase-II: CAPEX Part	T0+9 month	Configuration of further 1,500 facilities on Application Server & its successful Operational Go-Live (Lot 2).  Operational Go-Live for Lot 1 and issue of Go-Live Certificate for Lot 1.  Availability of data i.r.o. Lot 1.	25% of the CAPEX Component of the Contract Price
Phase-III: CAPEX Part	T0 + 12 month	Configuration of Remaining facilities on Application Server & its successful Operational Go-Live (Lot 3).  Operational Go-Live for Lot 1 & Lot 2 and issue of Go-Live Certificate for Lot 1 & Lot 2.  Availability of data i.r.o. Lot 1 & Lot 2.  Go Live Acceptance for the entire quantity	60% of the CAPEX Component of the Contract Price
O&M period	72 months from Go-Live Acceptance date	Go Live Acceptance for the entire quantity/ Cumulative Quantity.  Conditional to the fulfilment of O&M requirements	Quarterly Paid on Per facility per month basis (Monthly O&M Charges)

Schedule No. 3. Design Services - Not Applicable

**Schedule No. 4. Installation Services:**

Other than the documents mentioned above, the following are also to be submitted towards processing the claim for CAPEX part of payment:

- i) 3 copies of GST invoice showing contract no., goods/ item description, quantity, unit price and total amount.
- ii) 3 copies of Detailed Packing list, e-waybill, challan etc. applicable for each Lot.
- iii) Insurance Policy/Certificate.
- iv) Manufacturer's/supplier's warranty certificate.
- v) Factory inspection report issued by the Employer/ Dispatch Clearance, as applicable.
- vi) Certificate of origin.
- vii) Proof of GST payment.
- viii) Certificate from the Project Manager on the specified format indicating Site acceptance testing.
- ix) Any other documents as required/ applicable.

For Quarterly payment of OPEX charges, the contractor shall have to furnish Tax Invoice along with details of Facility Availability Reports based on data available in the Application Server duly certified by the Controlling Officer of the Work.

In respect of installation services, payments shall be made in Rs. in the following manner:

**PAYMENT PROCEDURES**

The procedures to be followed in applying for certification and making payments shall be as follows:

- 7. *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.*
- 8. *Price Variation :- As per Appendix-2*

**1. Taxes and Duties:**

***GST shall be additionally payable as per the applicable rate and production of the GST invoice***

***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. The quantities(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*

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## D. Appendix 2. Price Adjustment

### Price Adjustment Formula

Price adjustment shall be paid ONLY on the OPEX (O&M) portion as per the following formulae:  
No price adjustment is payable on CAPEX portion.

$$ER_1 = ER_0 \times \{ 0.70 + 0.30 \times (L_1/L_0) \}$$

Where,

$ER_1$  = Adjusted Price for the OPEX monthly invoice

$ER_0$  = Monthly OPEX Price, as established by the Contract.

$L$  = Indian field labour index – namely All India average consumer price index for Industrial Workers (monthly) (Base: 2016= 100), as published by Labour Bureau, Shimla, Government of India (<http://labourbureaunew.gov.in>).

- 1.1
  - i) Subscript '0' will correspond to one month prior to the month of the date of the deadline of bid submission.
  - ii) Subscript '1' will correspond to the index for the first month for which the adjustment is to have effect..
- 1.2 This Price Adjustment shall be done in every 12 months (and, for the first time, with effect for the OPEX price in the 13<sup>th</sup> calendar month after the date of commencement of OPEX i.e. Operation & maintenance period)
- 1.3 The total price adjustment, as above, shall not be subject to any ceiling whatsoever.

### E. 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) 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.

b) 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.

c) 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.

d) Workers' Compensation

In accordance with the statutory requirements applicable in India.

e) Employer's Liability

In accordance with the statutory requirements applicable in India.

f) Other Insurances

The Contractor is also required to take out and maintain at its own cost the insurances for burglary, theft, fire, natural calamity etc.

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 Workers' Compensation and Employer's Liability Insurances. All insurer's rights of subrogation against such co-insured 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-insured 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>
---------------	--------------------------	------------------------	-------------	-----------

**F. 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.



**G. 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.

<b>Major Items of Plant and Installation Services</b>	<b>Approved Subcontractors/Manufacturers/ Service Provider</b>	<b>Nationality</b>

**H. 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)

## **I. 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**

1.1.1.1 Drawings

1.1.1.2 GTP

1.1.1.3 Specifications

### **B. Review**

1.

2.

3.

## J. 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:

*[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 - Not Applicable to be discussed

*[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 to be discussed

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.

**K. 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 Contractor<sup>18</sup>]* (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 bank<sup>19</sup> 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 guarantee<sup>20</sup>]* \_\_\_\_\_ *[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 \_\_\_\_\_ *[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.

<sup>18</sup> In the case of a JV, insert the name of the Joint Venture

<sup>19</sup> The Bank Guarantee from a Scheduled Bank in India is acceptable to the Employer.

<sup>20</sup> 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.

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) expire no later than the earlier of:<sup>21</sup> (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\_\_\_\_.<sup>22</sup>

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

Signature and seal of the guarantor \_\_\_\_\_

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.]*

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<sup>21</sup> 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).

<sup>22</sup> 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."

**L. 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 Contractor<sup>23</sup>]* (hereinafter called "the Applicant") shall deposit with \_\_\_\_\_ *[name of Employer]* a bank guarantee<sup>24</sup> to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of \_\_\_\_\_ *[amount of guarantee<sup>25</sup>]* \_\_\_\_\_ *[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 \_\_\_\_\_ *[name of Employer]* and the Applicant, shall in any way release

<sup>23</sup> In the case of a JV, insert the name of the Joint Venture

<sup>24</sup> The Bank Guarantee from a Scheduled Bank in India is acceptable to the Employer.

<sup>25</sup> An amount shall be inserted by the bank representing the amount of the Advance Payment, and denominated in Indian Rupees.



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.

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.]***

## **M. Attachment 1**

### **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:

- i. carry out his/her duties competently and diligently;
- ii. 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;
- iii. 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.
- iv. 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;
- v. treat other people with respect, and not discriminate against specific groups such as women, people with disabilities, migrant workers or children;

- vi. 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;
- vii. 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;
- viii. 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;
- ix. not engage in any form of sexual activity with individuals under the age of 18, except in case of pre-existing marriage;
- x. 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);
- xi. report violations of this Code of Conduct; and
- xii. 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:

- a. 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
- b. 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:

(a) **Examples of sexual exploitation and abuse** include, but are not limited to:

- i. 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.
- ii. 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.
- iii. A Contractor's Personnel rapes, or otherwise sexually assaults a member of the community.
- iv. A Contractor's Personnel denies a person access to the Site unless he/she performs a sexual favor.
- v. 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.

(b) **Examples of sexual harassment in a work context**

- vi. Contractor's Personnel comment on the appearance of another Contractor's Personnel (either positive or negative) and sexual desirability.
- vii. 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.
- viii. Unwelcome touching of a Contractor's or Employer's Personnel by another Contractor's Personnel.
- ix. 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)- NOT APPLICABLE**

**N. Proforma of Irrevocable Standby Letter of Credit – NOT APPLICABLE**

**O. Tripartite Agreement Form**

**TRIPARTITE AGREEMENT FORM: Not Applicable**



## P. Beneficial Ownership Disclosure Form

**INSTRUCTIONS TO CONSULTANTS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE FORM**

*This Beneficial Ownership Disclosure Form ("Form") is to be completed by the successful Bidder<sup>1</sup>. In case of joint venture, the Bidder must submit a separate Form for each member. The beneficial ownership information to be submitted in this Form shall be current as of the date of its submission.*

*For the purposes of this Form, a Beneficial Owner of a Bidder is any natural person who ultimately owns or controls the Bidder by meeting one or more of the following conditions:*

- *directly or indirectly holding 25% or more of the shares*
- *directly or indirectly holding 25% or more of the voting rights*

**Request for Proposal reference No.:** *[insert identification no]*

Name of the Assignment: *[insert name of the assignment]*

To: *[insert complete name of Client]*

In response to your notification of award dated *[insert date of notification of award]* to furnish additional information on beneficial ownership: *[select one option as applicable and delete the options that are not applicable]*

(i) we hereby provide the following beneficial ownership information.

### Details of beneficial ownership

Identity of Beneficial Owner	Directly or indirectly holding 25% or more of the shares (Yes / No)	Directly or indirectly holding 25 % or more of the Voting Rights (Yes / No)	Directly or indirectly having the right to appoint a majority of the board of the directors or an equivalent governing body of the Bidder (Yes / No)
<i>[include full name (last, middle, first), nationality, country of residence]</i>			

**OR**

(ii) *We declare that there is no Beneficial Owner meeting one or more of the following conditions:*

- directly or indirectly holding 25% or more of the shares
- directly or indirectly holding 25% or more of the voting rights
- directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Bidder

**OR**

*(iii) We declare that we are unable to identify any Beneficial Owner meeting one or more of the following conditions. [If this option is selected, the Consultant shall provide explanation on why it is unable to identify any Beneficial Owner]*

- directly or indirectly holding 25% or more of the shares
- directly or indirectly holding 25% or more of the voting rights
- directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Bidder]"

**Name of the Bidder:** *\*[insert complete name of the Bidder]*\_\_\_\_\_

**Name of the person duly authorized to sign the Proposal 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 a Joint Venture specify the name of the Joint Venture as Bidder. In the event that the Bidder is a joint venture, each reference to “Bidder” in the Beneficial Ownership Disclosure Form (including this Introduction thereto) shall be read to refer to the joint venture member.

\*\* Person signing the Bid shall have the power of attorney given by the Bid. The power of attorney shall be attached with the Bid Schedules.

## **PART-4**

## SECTION-XI-CCC wise list of 315KVA & 630 KVA DTRs considered

DIVISION NAME	CCC NAME	Capacity of DTR			
		315		630	
		Urban	Rural	Urban	Rural
BNDD-I	BIDHANNAGAR-I	185	0	3	0
	BIDHANNAGAR-II	214	0	17	0
	BIDHANNAGAR-III	181	0	1	0
	Sub total	580	0	21	0
	<b>Division Total</b>	<b>580</b>		<b>21</b>	
Bhangar	BHANGAR				
	KASHIPUR				
	KLC		22		1
	LAUHATI				
	MINAKHAN				
	SARBERIA				
	Sub total	0	22	0	1
	<b>Division Total</b>	<b>22</b>		<b>1</b>	
Bidhannagar 2	BAGUIHATI	154	8	12	2
	BIRATI	29	0	0	0
	KRISHNAPUR	125	1	3	0
	LAUHATI	5	79	1	7
	NEW BARRACKPUR	31	0	0	0
	RAJARHAT	271	22	24	0
	TEGHORIA	222	0	4	0
	Sub total	837	110	44	9
	<b>Division Total</b>	<b>947</b>		<b>53</b>	
NewTown	NEW-TOWN I	40	0	96	0
	NEW-TOWN II	47	0	122	0
	NEW-TOWN III	30	0	40	0
	Sub total	117	0	258	0
	<b>Division Total</b>	<b>117</b>		<b>258</b>	
		<b>1534</b>	<b>132</b>	<b>323</b>	<b>10</b>
<b>Bidhananagr Region</b>		<b>1666</b>		<b>333</b>	
Howrah-I	ANDUL-MOURI	4	11		
	BALLY		18		
	BHATTANAGAR	21	2		
	DASNAGAR	94		8	
	JAGADISHPUR		3		

DIVISION NAME	CCC NAME	Capacity of DTR			
		315		630	
		Urban	Rural	Urban	Rural
	JALDHULAGORI		7		
	SANTRAGACHI	16		3	
	Sub total	135	41	11	0
	<b>Division Total</b>	<b>176</b>		<b>11</b>	
Howrah-II	AMRAGORAI	0	0	0	0
	AMTA	0	2	0	0
	BARGACHIA	0	2	0	0
	DOMJUR	0	24	0	0
	MUNSHIRHAT	0	2	0	0
	SALAP	36	38	4	0
	UDAYNARAYANPUR	0	0	0	0
	Sub total	36	68	4	0
	<b>Division Total</b>	<b>104</b>		<b>4</b>	
Uluberia	AJODHYA	0	0	0	0
	BAGNAN-I	0	0	0	0
	BAGNAN-II	0	0	0	0
	BIRSHIBPUR	0	0	0	0
	BURIKHALI	0	0	0	0
	DEULGRAM	0	0	0	0
	GARCHUMUK	0	0	0	0
	MANASATALA	0	0	0	0
	PANCHLA	0	4	0	0
	SHYAMPUR	0	1	0	0
	ULUBERIA	0	0	0	0
	Sub total	0	5	0	0
	<b>Division Total</b>	<b>5</b>		<b>0</b>	
	Sub total	171	114	15	0
<b>Howrah Region</b>		<b>285</b>		<b>15</b>	
Habra	ASHOKNAGAR	2	0	0	0
	BANIPUR	0	0	0	0
	CHARGHAT	0	0	0	0
	GAIGHATA	0	0	0	0
	GOBARDANGA	0	0	0	0
	GUMA	0	0	0	0
	HABRA	2	0	0	0
	Sub total	4	0	0	0
		<b>4</b>		<b>0</b>	
Barasat	BARASAT-I	50	0	2	0
	BARASAT-II	39	0	6	0

DIVISION NAME	CCC NAME	Capacity of DTR			
		315		630	
		Urban	Rural	Urban	Rural
	BERACHAMPA				
	DEGANGA				
	DUTTAPUKUR				
	GANGANAGAR	42	2	4	0
	JEERAT				
	KADAMGACHI	0	2		
	MADHYAMGRAM	23	0	2	0
	NABAPALLY	28	8	2	0
	NOAPARA	21	0		
	Sub total	203	12	16	0
		215		16	
Naihati	ATPUR	10			
	BHATPARA	9			
	DEULPARA	10	1		
	HALISAHAR	1			
	JETIA		1		
	KAMPA				
	KANCHRAPARA	2			
	KANKINARA	17			
	NAIHATI	11			
	SHYAMNAGAR	2			
	Sub total	62	2	0	0
		64		0	
Barrackpore	AGARPARA	7			
	ANANDAPURI SECTOR	20	0		
	ARABINDA NAGAR	11	0		
	BARRACKPORE	29			
	JAFARPUR	10	9		
	MURAGACHA	1	3		
	PANSILA	12			
	RAHARA	29			4
	SODEPUR	29			
	TALPUKUR	8	0		
	Sub total	156	12	0	4
		168		4	
Bongaon	BAGDA	0	1		
	BANGAON	2	0		
	GANRAPATA	0	0		
	GOPALNAGAR	0	0		

DIVISION NAME	CCC NAME	Capacity of DTR			
		315		630	
		Urban	Rural	Urban	Rural
	SINDRANI	0	0		
	THAKURNAGAR	0	0		
	Sub total	2	1	0	0
		3		0	
Baduria	BADURIA	0	0		
	HAROA	0	0		
	KATIAHAT	0	0		
	KEOTSHA	0	0		
	KHOLAPATA	0	0		
	SWARUPNAGAR	0	0		
	Sub total	0	0	0	0
		0		0	
Basirhat	BASHIRHAT	1	0		
	BHEBIA	0	0		
	HASNABAD	0	0		
	HINGALGANJ	0	0		
	MAITRABAGAN	0	0		
	SANDESHKHALI	0	0		
	Sub total	1	0	0	0
		1		0	
	Sub total	428	27	16	4
<b>North 24 PGS Region</b>		<b>455</b>		<b>20</b>	
Behala	AMTALA	0	8	0	0
	BAKRAHAT	3	16	0	2
	BUDGE BUDGE	0	0	0	0
	NODAKHALI	0	0	0	0
	PAILAN	4	3	0	28
	USTHI	0	0	0	0
	Sub total	7	27	0	30
		34		30	
Garia	BAISHALI PARK	11		1	
	BANSDRONI	8			
	BOALIA	1			
	BORAL	5	10	3	
	GARIA	166		5	
	RAJPUR	42	4		
	SONARPUR	13	5		
	Sub total	246	19	9	0
		265		9	

DIVISION NAME	CCC NAME	Capacity of DTR			
		315		630	
		Urban	Rural	Urban	Rural
Baruipur	BARUIPUR	8			
	CHAMPAHATI	0	4	0	0
	DAKSHIN BARASAT				
	JOYNAGAR				
	KULTALI				
	LAXMIKANTAPUR				
	MAGRAHAT	0	0	0	0
	MAHINAGAR	18	6	0	0
	MATHURAPUR				
	RAMNAGAR	0	6	0	0
	Sub total	26	16	0	0
		42		0	
Diamond Harbour	DIAMOND HARBOUR	0	0	0	0
	FALTA	0	0	0	0
	FALTA SEZ	2	0	0	0
	KULPI	0	0	0	0
	SARISHA	0	2	0	0
	Sub total	2	2	0	0
		4		0	
JOYNAGAR	DAKSHIN BARASAT	0	0		
	JOYNAGAR	0	0		
	KASHINAGAR	0	0		
	KULTALI	0	0		
	LAXMIKANTAPUR	0	1		
	MANIRTAT	0	0		
	MATHURAPUR	0	0		
	RAIDIGHI	0	0		
	Sub total	0	1	0	0
		1		0	
Kakdwip	KAKDWIP	0	0	0	0
	NAMKHANA	0	0	0	0
	PATHAR PRATIMA	0	0	0	0
	RUDRANAGAR	0	0	0	0
	Sub total	0	0	0	0
		0		0	
Canning	BASANTI	0	0	0	0
	CANNING	0	1	0	0
	GOSABA	0	0	0	0



DIVISION NAME	CCC NAME	Capacity of DTR			
		315		630	
		Urban	Rural	Urban	Rural
	JIBANTALA	0	0	0	0
	Sub total	0	1	0	0
		1		0	
	Sub total	281	66	9	30
<b>South 24 PGS Region</b>		<b>347</b>		<b>39</b>	
	Sub total	2414	339	363	44
<b>Kolkata Zonal Total</b>		<b>2753</b>		<b>407</b>	
Chandannagar	CHANDANNAGAR_1	11		2	
	CHANDANNAGAR_2	20			
	CHANDANNAGAR_3	6			
	MOGHOLTULI	35			
	TOLAFATAK	41	5		
	PIPULPATI	26			
	BALLYMORE	7	2		
	BANDEL		1		
	POLBA				
	KHALISANI	14			
	Sub total	160	8	2	0
		168		2	
Sreerampore	Begampore				
	Chanditala				
	Dankuni				
	Makhla				
	Nabagram				2
	Rishra	3			
	Serampore	3			
	Sub total	6	0	0	2
		6		2	
Tarakeshwar	MASAT				
	JANGIPARA				
	RAJBALHAT				
	JANGALPARA				
	DADPUR				
	DHANIAKHALI				
	GURAP				
	TARAKESWAR	2			
	Sub total	2	0	0	0
		2		0	
Arambag	Kamarpukur				

DIVISION NAME	CCC NAME	Capacity of DTR			
		315		630	
		Urban	Rural	Urban	Rural
	Arambagh				
	Gourhati				
	Goghat				
	Champadanga				
	Pursurah				
	Asanpur				
	Khanakul				
	Rajhati				
	Sub total	0	0	0	0
		0		0	
Singur	Nasibpur				
	Singur				
	Haripal				
	Nalikul				
	Sub total	0	0	0	0
		0		0	
Mogra	KHANYAN				
	BOINCHEE		1		
	SOMRABAZAR				
	PANDUA				
	ADISAPTAGRAM		0		
	KHAMARGACHI				
	BANSBARIA	2			
	MOGRA				
	Sub total	2	1	0	0
		3		0	
	Sub total	170	9	2	2
<b>Hooghly Region</b>		<b>179</b>		<b>4</b>	
Burdwan North	Bhatar				
	Kurmun				
	Galsi		1		
	Gushkara	4		1	
	Budbud				
	Bonpas				
	Sub total	4	1	1	0
		5		1	
Burdwan South	BURDWAN -- 1	6		12	
	BURDWAN -- 2				
	BURDWAN -- 3	14	1	2	

DIVISION NAME	CCC NAME	Capacity of DTR			
		315		630	
		Urban	Rural	Urban	Rural
	BURDWAN -- 4	1			
	KHANDAGHOSH		1		
	MADHABDIHI		1		
	RAINA		1		
	Sub total	21	4	14	0
		25		14	
Memari	MEMARI				
	SAKTIGARH				
	SATGACHIA				
	JAMALPUR				
	NABASTTA				
	Sub total	0	0	0	0
		0		0	
Katwa	DAINHAT				
	KATWA	4			
	KANDRA				
	NATUNHAT				
	PACHUNDI				
	Sub total	4	0	0	0
		4		0	
Kalna	KALNA	1	0		
	BAIDYAPUR	0	0		
	DHATRIGRAM	0	0		
	SAMUDRAGARH	0	0		
	PURBASTHALI	0	0		
	MONTESWAR	0	0		
	Sub total	1	0	0	0
		1		0	
	Sub total	30	5	15	0
<b>Purba Burdwan Region</b>		35		15	
Asansole	HIRAPUR	2			
	DOMOHANI		1		
	RUPNARAYANPUR		6		
	RANIGANJ	16			
	ASANSOL-I	22			
	ASANSOL CCC-II	26			
	BARAKAR	18			
	Sub total	84	7	0	0
		91		0	

DIVISION NAME	CCC NAME	Capacity of DTR			
		315		630	
		Urban	Rural	Urban	Rural
Durgapur	PANDABESWAR				
	JAMURIA				
	UKHRA		2		
	PANAGARH		1		
	ANDAL				
	GOPALPUR		19		
	BENACHITY	9			
	COKE OVEN (DURGAPUR)				
	CITY CENTRE (DURGAPUR)	8			
	BIDHANNAGAR (DURGAPUR)	10			
	Sub total	27	22	0	0
		49		0	
	Sub total	111	29	0	0
<b>Paschim Burdwan Region</b>		140		0	
Suri	Suri East	4			
	Suri West	2			
	Dubrajpur				
	Khayrasole				
	Rajnagar				
	Md.Bazar		2		
	Sub total	6	2	0	0
		8		0	
Bolpur	Illambazar		1		
	Kirnahar	0	0	0	0
	Labpur				1
	Ahmedpur				
	Bolpur	0	0	0	0
	Shantiniketan	4	0	0	0
	Sub total	4	1	0	1
		5		1	
Rampurhat	Margram		8		
	Mayureshwar				
	Mollarpur		2		
	Murari				
	Nalhati	1	1		
	LOHAPUR				
	PAIKAR				

DIVISION NAME	CCC NAME	Capacity of DTR			
		315		630	
		Urban	Rural	Urban	Rural
	Rampurhat				
	Sainthia	2			
	Sub total	3	11	0	0
		14		0	
	Sub total	13	14	0	1
<b>Birbhum Region</b>		27		1	
	Sub total	324	57	17	3
<b>Burdwan Zone</b>		381		20	
Tehatta	Chapra	0	0	0	0
	Karimpur	0	0	0	0
	Nazirpur	0	0	0	0
	Tehatta	0	0	0	0
	Panchdhara - Abhoynagar	0	0	0	0
	Sub total	0	0	0	0
		0		0	
Kalyani	Chakdah (East)	0	0	0	0
	East Bishnupur	0	0	0	0
	Chakdah (West)	0	0	0	0
	Kalyani	0	0	0	0
	Gayeshpur	0	0	0	0
	Subarnapur	0	0	0	0
	Madanpur	0	0	0	0
	Nagarukhra	0	0	0	0
	Sub total	0	0	0	0
		0		0	
Ranaghat	Aranghata	0	0	0	0
	Aishtala	0	0	0	0
	Gangnapur	0	0	0	0
	Ranaghat(East)	0	0	0	0
	Ranaghat(N-S)	0	0	0	0
	Ulabirnagar	0	0	0	0
	Badkulla	0	0	0	0
	Dignagar	0	0	0	0
	Fulia	0	0	0	0
	Santipur	0	0	0	0
	Sutragarh	0	0	0	0
	Sub total	0	0	0	0
		0		0	

DIVISION NAME	CCC NAME	Capacity of DTR			
		315		630	
		Urban	Rural	Urban	Rural
Krishnanagar	Krishnagar Town	84	0	0	0
	Krishnagar Road Station	0	0	0	0
	Nabadwip	3	0	0	0
	Krishnaganj	0	0	0	0
	Bagula	0	0	0	0
	Swarupganj	0	0	0	0
	Chitrasali	0	0	0	0
	Sub total	87	0	0	0
		87		0	
NAKASHIPARA	Debagram	0	0	0	0
	Bethuadahari	0	0	0	0
	Dhubulia	0	0	0	0
	Matiary	0	0	0	0
	Muragacha Dharmada	0	0	0	0
	Plassey	0	0	0	0
	Sub total	0	0	0	0
		0		0	
	Sub total	87	0	0	0
<b>Nadia Region</b>		87		0	
North Malda	Bhaluka	0	0	0	0
	Samsi	0	0	0	0
	Paranpur	0	0	0	0
	Chanchal	0	0	0	0
	Malatipur	0	0	0	0
	Harischandrapur	0	0	0	0
	Gazole	0	0	0	0
	Bamongola	0	0	0	0
	Pandua	0	0	0	0
	Kushida	0	0	0	0
	Sub total	0	0	0	0
		0		0	
South Malda	Old Malda	0	0	0	0
	Mathurapur	0	0	0	0
	Aiho	0	0	0	0
	Kaliachak	0	0	0	0
	Mothabari	0	0	0	0
	Sujapur	0	1	0	0
	Rathbari	0	0	0	0
	Fulbari	0	0	0	0

DIVISION NAME	CCC NAME	Capacity of DTR			
		315		630	
		Urban	Rural	Urban	Rural
	Makdampur	0	0	0	0
	Baishnabnagar	0	0	0	0
	Golapganj	0	0	0	0
	Sub total	0	1	0	0
		1		0	
	Sub total	0	1	0	0
<b>Malda Region</b>		1		0	
Berhampore	Khagra	8	0	1	0
	Gorabazar	2	0	0	0
	Cossimbazar	1	0	0	0
	Bharampur	0	1	0	0
	Baharan	0	0	0	0
	Beldanga	1	0	0	0
	Rejinagar	0	0	0	0
	Amtala	0	0	0	0
	Sargachi	0	0	0	0
	Sub total	12	1	1	0
		13		1	
KANDI	Kandi	1	0	0	0
	Bharatpur	0	0	0	0
	Salar	0	0	0	0
	Panchthupi	0	0	0	0
	Khargram	0	0	0	0
	Goaljan	0	0	0	0
	Saktipur	0	0	0	0
	Gokarna	0	0	0	0
	Sub total	1	0	0	0
		1		0	
Jiaganj	Jiaganj	0	0	0	0
	MMT	0	0	0	0
	Lalgola	0	0	0	0
	Bhagabangola	0	0	0	0
	Azimganj	0	0	0	0
	Nabagram	0	0	0	0
	Maya	0	0	0	0
	Sub total	0	0	0	0
		0		0	
Domkal	Chak Islampur	0	0	0	0
	Raninagar	0	0	0	0

DIVISION NAME	CCC NAME	Capacity of DTR			
		315		630	
		Urban	Rural	Urban	Rural
	Domkal	0	0	0	0
	Jalangi	0	0	0	0
	Doulatabad	0	0	0	0
	Sub total	0	0	0	0
		0		0	
Raghunathganj	Raghunathganj	1	0	0	0
	Jangipur	0	0	0	0
	Aurangabad	0	0	0	0
	Dhulian		0	0	0
	Farakka	0	0	0	0
	Ahiran	0	0	0	0
	Sagardighi	0	0	0	0
	Sub total	1	0	0	0
		1		0	
	Sub total	14	1	1	0
Murshidabad Region		15		1	
	Sub total	101	2	1	0
Berhampore Zone		103		1	
Midnapore	MIDNAPORE	3	0		
	B R SECTOR	1	0		
	BARUA	0	0		
	SALBONI	0	0		
	ANANDAPORE	0	0		
	CK ROAD	0	0		
	AMLAGORA	0	0		
	PIRAKATA	0	0		
	GOALTORE	0	0		
	Sub total	4	0	0	0
		4		0	
Kharagpur	Malancha CCC	7	0	0	0
	Nimpura CCC	0	0	0	0
	Kharagpur CCC	3	0	0	0
	Balichak CCC	0	0	0	0
	Sabang CCC	0	0	0	0
	Pingla CCC	0	0	0	0
	Lowada CCC	0	0	0	0
	Chandkuri CCC	0	0	0	0
	Madpur CCC	0	0	0	0
	Sub total	10	0	0	0



DIVISION NAME	CCC NAME	Capacity of DTR			
		315		630	
		Urban	Rural	Urban	Rural
		10		0	
Belda	BELDA				
	KHAKURDA				
	DANTAN				
	MOHANPUR				
	KESHIARY				
	NARAYANGARH				
	Sub total	0	0	0	0
		0		0	
Ghatal	DASPUR				
	SONAKHALI				
	GHATAL				
	C.K.TOWN				
	RAMJIBANPUR				
	UPERQUAI				
	BIRSINGHA				
	Sub total	0	0	0	0
		0		0	
Jhargram	Jhargram				
	Manikpara				
	Jamboni				
	Gopiballavpur				
	Binpur				
	Belpahari				
	Sankrail				
	NAYAGRAM				
	Sub total	0	0	0	0
		0		0	
	Sub total	14	0	0	0
<b>Paschim Medinipur Region</b>		<b>14</b>		<b>0</b>	
Khatra	Indpur				
	Khatra				
	Ranibandh				
	Hirbandh				
	Simlapal				
	Taldangra				
	Sarenga				
	Raipur				
	Sub total	0	0	0	0

DIVISION NAME	CCC NAME	Capacity of DTR			
		315		630	
		Urban	Rural	Urban	Rural
		0		0	
Bishnupur	Bishnupur	1			
	Patrasayer				
	Joypur				
	Kotulpur				
	Onda				
	Sonamukhi				
	Indas				
	Radhanagar				
	Sub total	1	0	0	0
		1		0	
Bankura	Patpur				
	Lalbazar				
	Schooldanga				
	Barjora				
	Beliatore				
	Saltora				
	Jhantipahari				
	Chhatna				
	Gangajalghati				
	Mejia				
	Sub total	0	0	0	0
		0		0	
	Sub total	1	0	0	0
<b>Bankura Region</b>		1		0	
Purulia	PURULIA				
	TELKALPARA				
	JOYPUR				
	ARSHA				
	JHALDA		1		
	BALARAMPUR				
	BAGMUNDI				
	BARABAZAR				
	BUNDWAN				
	Sub total	0	1	0	0
		1		0	
Raghunathpur	Hura				
	Rag'pur				
	Saltore				

DIVISION NAME	CCC NAME	Capacity of DTR			
		315		630	
		Urban	Rural	Urban	Rural
	Santuri				
	Chlyma				
	Adra				
	Anara				
	Dubra				
	K'pur				
	M'bazar				
	Puncha				
	Sub total	0	0	0	0
		0		0	
	Sub total	0	1	0	0
<b>Purulia Region</b>		<b>1</b>		<b>0</b>	
Tamluk	NANDAKUMAR				
	MOYNA				
	GOURANGAPUR				
	KOLAGHAT				
	GOPALNAGAR				
	PANSKURA				
	PRATAPPUR				
	TAMLUK				
	MATANGINI				
	Sub total	0	0	0	0
		0		0	
Egra	Bhagwanpur CCC	0	0	0	0
	Egra	0	0	0	0
	Patashpur	0	0	0	0
	Chorepalia CCC	0	0	0	0
	Balighai CCC	0	0	0	0
	Amarshi CCC	0	0	0	0
	Sub total	0	0	0	0
		0		0	
Contai	Contai	1	0	0	0
	Marishda	0	0	0	0
	Digha	79	0	6	0
	Pichhaboni	0	0	0	0
	Khejuri	0	0	0	0
	Madhakhali	0	0	0	0
	Mukundapur	0	0	0	0
	Sub total	80	0	6	0

DIVISION NAME	CCC NAME	Capacity of DTR			
		315		630	
		Urban	Rural	Urban	Rural
		80		6	
Haldia	DURGACHAK CCC	6	0	2	0
	BRAJALALCHAK CCC	2	0	0	0
	CHAITANYAPUR CCC	0	0	0	0
	MAHISHADAL CCC	0	0	0	0
	CHANDIPUR CCC	0	0	0	0
	NANDIGRAM CCC	0	0	0	0
	REYAPARACCC	0	0	0	0
	Sub total	8	0	2	0
		8		2	
	Sub total	88	0	8	0
<b>Purba Medinipur Region</b>		88		8	
	Sub total	103	1	8	0
<b>Medinipur zone</b>		104		8	
Siliguri Town	Hakimpara CCC	7	0		
	Power House CCC	102	5		
	PradhannagarCCC	6	12		
	Subhaspally CCC	0	0		
	NJPG BazaarCCC	0	0		
	Millanpally CCC	14	0		
	Slg Town CCC	15	0		
	Sub total	144	17	0	0
		161		0	
Siliguri Sub Urban	BAGDOGRA	0	0	0	0
	BIDHANNAGAR	0	0	0	0
	SHIVMANDIR	0	19	0	5
	MATIGARA	0	101	0	0
	NAXALBARI	0	0	0	0
	PHANSIDEWA	0	3	0	0
	KHARIBARI	0	0	0	0
	Sub total	0	123	0	5
		123		5	
Darjeeling	DARJEELING CCC				
	TAKDAH CCC				
	SUKHIAPOKHARI CCC				
	BIJANBARI CCC				
	LODHOMA CCC				
	Sub total	0	0	0	0
		0		0	

DIVISION NAME	CCC NAME	Capacity of DTR			
		315		630	
		Urban	Rural	Urban	Rural
Kurseong	Kurseong				
	Mirik				
	Sonada				
	Sub total	0	0	0	0
		0		0	
Kalimpong	Kalimpong				
	Teesta Bazar				
	Mongpu				
	Pedong				
	Sinjee				
	Sub total	0	0	0	0
		0		0	
	Sub total	144	140	0	5
<b>Darjeeling Region</b>		<b>284</b>		<b>5</b>	
Jalpaiguri	Ukilpara-Maskalaibari	7	1		
	Nayabasti-Pandapara		0		
	Belakoba		0		
	Maynaguri		0		
	Dhupguri		0		
	Fulbarihat		0		
	Bhotpatty		0		
	Sub total	7	1	0	0
		8		0	
Mal	BANARHAT CCC				
	NAGRAKATA CCC				
	MAL CCC				
	ODLABARI CCC				
	MATELLI CCC				
	JHALONG PAREN CCC				
	KRANTI CCC				
	BULK				
	Sub total	0	0	0	0
		0		0	
	Sub total	7	1	0	0
<b>Jalpaiguri Region</b>		<b>8</b>		<b>0</b>	
Coochbehar	COOCHBEHAR	55			
	KHAGRABARI				
	PUNDIBARI				
	NEWTOWN				

DIVISION NAME	CCC NAME	Capacity of DTR			
		315		630	
		Urban	Rural	Urban	Rural
	TUFANGANJ				
	BOXIRHAT				
	Sub total	55	0	0	0
		55		0	
Dinhata	Dinhata CCC				
	Dewnhat CCC				
	Okrabari CCC				
	Sahebganj				
	SITAI CCC				
	Sub total	0	0	0	0
		0		0	
Mathabhanga	MATHABHANGA CCC				
	SITALKUCHI CCC				
	DOLONGMORE				
	CHANGRABANDA				
	HALDIBARI CCC				
	Sub total	0	0	0	0
		0		0	
	Sub total	55	0	0	0
<b>Coochbehar Region</b>		55		0	
Alipurduar	NEW TOWN	0	0	0	0
	KAMAKHYAGURI	0	0	0	0
	KALCHINI	0	0	0	0
	BIRPARA	0	0	0	0
	FALAKATA	0	0	0	0
	MADARIHAT	0	0	0	0
	JAIGAON	0	0	0	0
	PURAN BAZAR	0	0	0	0
	MEJBIL	0	0	0	0
	SAMUKTALA	0	0	0	0
	Sub total	0	0	0	0
		0		0	
	Sub total	0	0	0	0
<b>Alipurduar Region</b>		0		0	
Raiganj	Raiganj CCC				
	Birnagar CCC				
	Itahar CCC				
	Karandeghi CCC				
	Kaliyaganj CCC				

DIVISION NAME	CCC NAME	Capacity of DTR			
		315		630	
		Urban	Rural	Urban	Rural
	Hemtabad CCC				
	Sub total	0	0	0	0
		0		0	
Islampur	ISLAMPUR CCC	0	0	0	0
	CHOPRA CCC	0	0	0	0
	DALKHOLA CCC	0	0	0	0
	GOALPOKHER CCC	0	0	0	0
	KANKI CCC	0	0	0	0
	Sub total	0	0	0	0
		0		0	
	Sub total	0	0	0	0
<b>Uttar Dinajpur Region</b>		0		0	
Balurghat	BALURGHAT CCC				
	TAPAN CCC				
	KUMARGANJ CCC				
	HILI CCC				
	PATIRAM CCC				
	Sub total	0	0	0	0
		0		0	
Buniadpur	BUNIADPUR	0			
	KUSHMUNDI	0			
	HARIRAMPUR	1			
	GANGARAMPUR	0			
	Sub total	1	0	0	0
		1		0	
	Sub total	1	0	0	0
<b>Dakshin Dinajpur</b>		1		0	
	Sub total	207	141	0	5
<b>Siliguri Zone</b>		348		5	
	Sub total	3149	540	389	52
<b>Grand Total</b>		<b>3689</b>		<b>441</b>	

## **PART-5 -BOQ**



## Bill of Quantities (BoQ)

(To be filled Online)

SI.No	Item	Quantity	Unit rate without GST (to be quoted by bidder) (Rs.)	Total Cost without Applicable GST	Total CAPEX component @ 40% of total cost as per Payment terms	Total OPEX component	No. of months of O&M service	Monthly O&M / OPEX Cost per facility(in Rs)
	Implementation of Remote Monitoring of Distribution Transformer & data communication through Cloud based Application Server with provision of access to WBSEDCL and Subsequent Operation & maintenance of the system	A	B	C=A*B	D=C*0.4	E= C-D	F	G=E/(F*A) rounded to nearest two decimal places
1	For 315 kVA DT	3600	To be quoted online				72	
2	For 630 kVA DT	400	To be quoted online				72	
Grand Total (I+II)		4000	NA				72	NA
Total CAPEX & OPEX of facility: This includes Implementation of RMDT system on identified Distribution Transformers, all operations required for running the system operations (like, maintenance of equipment/ hardware/ sensors, replacement of those items as & when required to set right the system/ keep the system healthy, Data communication & Cloud based Application Server Service throughout the contract period, Communication Charges, other O&M support etc.) for the entire contract period i.e. 84 months from the date of NoA. The quoted rate shall include all taxes, duties & all other incidental charges except GST.								

Total Cost of the Project i.e., total contract price without applicable GST (Grand Total of Column C) = INR [X]

**Note:**

Maximum Amount i.e. Sum of Column C (Excluding GST) would be paid during the whole contract period

GST as applicable would be paid extra

Tender Inviting Authority: Chief Engineer, Distribution Project Department

Name of Work: Implementation of Remote Monitoring of Distribution Transformer having capacity 315 kVA & 630 kVA in different areas of West Bengal

NIT No: DPD/Tender/IS/2022-23/WB/27 Date: 22.09.2023

Name of the Bidder/ Bidding Firm / Company :											
<div> <div>PRICE SCHEDULE: FIN-2 (SUMMARY OF COSTS)</div> <div>(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevent columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only )</div> </div>											
NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER	NUMBER	TEXT	NUMBER	NUMBER	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	Unit rate without GST to be quoted by bidder ( Rs.) in Rs. P	Total Cost without Applicable GST	Total CAPEX to be paid by DISCOM @ 40% of total cost as per Payment terms	Total Opex Component	No. of months of O&M service	Monthly O&M / OPEX Cost per facility (in Rs)	TOTAL AMOUNT in INR (approx value)	TOTAL AMOUNT In Words
A	B	C	D	E	F=CxE	G=0.4 x F	H=F-G	I	J=H/(IxC)	K=F	L
1	Implementation of Remote Monitoring of Distribution Transformer & data communication through Cloud based Application Server with provision of access to WBSEDCL and Subsequent Operation & maintenance of the system										
1.01	For 315 kVA DT	3600	Nos		0.00	0.00	0.00	72	0	0.00	INR Zero Only
1.02	For 630 kVA DT	400	Nos		0.00	0.00	0.00	72	0.00	0.00	INR Zero Only
Total in Figures										0.00	
Discount, if any (in %) on total price (Please do not change the cell formatting)											
Total in Figures	(excluding local taxes, if any)									0.00	INR Zero Only
Quoted Rate in Words		INR Zero Only									