



BANGLADESH POWER DEVELOPMENT BOARD

TENDER DOCUMENT FOR

**Supply, Installation, Testing & Commissioning of Effluent
Treatment Plant of Hathazari Power Plant, Chittagong, BPDB on
Turnkey Basis.**

(Single Stage Single Envelope)

AGAINST TENDER INQUIRY NO. PUR.: 361/2016 DATED: 27.10.2015

**DIRECTORATE OF PURCHASE
BANGLADESH POWER DEVELOPMENT BOARD
WAPDA BUILDING (9TH FLOOR), MOTIJHEEL, C/A.
DHAKA, BANGLADESH**

October'2016

REJECTION CLAUSES

(Tender must comply with the following criteria, otherwise tender shall be rejected)

1. Tenderer shall have to comply with Eligibility criteria (ITT 5), Experience criteria (ITT 14) and material supplied must be eligible (ITT 6.1);
2. Tenderer must submit required experience Criteria in support of his experience and must submit two certificate from the End-User in support of his experience [TDS(ITT14.1b)]; Stating Tenderers capability to design, Construct, Erect, Commissioning and Testing.
3. If the Tenderer is a Joint Venture, Consortium or Associations (JVCA), JVCA agreement or Letter of Intent along with the proposed agreement duly signed by all partners of the intended JVCA and authenticated by a Notary Public must be submitted (ITT 18.1);
4. For JVCA, lead partner and its other partners must meet minimum qualification criteria (ITT 18.2);
5. A Tenderer shall submit only one (1) Tender, either individually or as a JVCA (ITT 20);
6. Tender Submission Letter (Form PW3-1) shall be properly filled up by the Tenderer (ITT 21.1 a) otherwise tender will be rejected;
7. Bill of Quantities using the form(s) furnished in Section 6: Bill of Quantities shall be properly filled up by the Tenderer (ITT 25.2, 51.2). Tenderers are not allowed to change/ modify the format of Price Schedule.
8. If the Tenderer is not manufacturer, Manufacturer's Authorisation Letter for the items mentioned in TDS must be submitted to demonstrate that it has been duly authorized by the manufacturer or producer of the Goods to supply the Goods to Bangladesh [TDS(ITT24.1(l)1)];
9. Tenderer have to submit performance certificate from 2 (two) End Users of the offered spares (Pump, Air blower & Filter press) having 2 years satisfactory Operational performance. [ITT (TDS 24.1(l)2)];
10. The Tenderer shall have to submit with the tender the guarantee/ warranty certificate of the works and its satisfactory performance during warranty period 18 (Eighteen) months from the date of issuing Provisional Acceptance Certificate. [TDS(ITT24.1 l(3))];
11. The Tenderer shall have to submit with the tender the Certificate from the manufacturer confirming that offered system/ Equipments/items/spares are new, unused, in good condition. [TDS(ITT24.1 l(2))];
12. Tender Shall be accompanied by a valid Tender Security in accordance with [TDS(ITT 35.1)].
13. Tenderer must comply completion period as per clause [TDS(ITT26.2)] & [PCC (GCC 1.1(Y))];
14. Tender shall remain valid for the period specified in the TDS after the date of Tender submission deadline (ITT 33);
15. Tender must be accompanied by Letter of Authorization to sign the Tender on behalf of the Tenderer (ITT 24.1f, 51.2);
16. Tender must comply the scope of work as stated under General Specification, Section 7, without any material deviation or reservation (ITT 52.2);
17. Tenderer shall have to comply with the payment terms [PCC (GCC 66.1)];

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Section 1. Instructions to Tenderers

A. General

1. Scope of Tender
 - 1.1 The Procuring Entity, as indicated in the Tender Data Sheet (**TDS**) issues this Tender Document for the procurement of Works and associated Services incidental thereto as specified in the **TDS** and as detailed in **Section 6: Bill of Quantities**. The name of the Tender and the number and identification of its constituent lot(s) are stated in the **TDS**.
 - 1.2 The successful Tenderer shall be required to execute the works and physical services as specified in the General Conditions of Contract
2. Interpretation
 - 2.1 Throughout this Tender Document:
 - (a) the term “in writing” means communication written by hand or machine duly signed and includes properly authenticated messages by facsimile or electronic mail;
 - (b) if the context so requires, singular means plural and vice versa;
 - (c) “day” means calendar days unless otherwise specified as working days;
 - (d) “Person” means and includes an individual, body of individuals, sole proprietorship, partnership, company, association or cooperative society that wishes to participate in Procurement proceedings;
 - (e) “Tenderer” means a Person who submits a Tender;
 - (f) “Tender Document” means the Document provided by a Procuring Entity to a Tenderer as a basis for preparation of the Tender; and
 - (g) “Tender” depending on the context, means a Tender submitted by a Tenderer for execution of Works and Physical Services to a Procuring Entity in response to an Invitation for Tender.
3. Source of Funds
 - 3.1 The Procuring Entity has been allocated public funds as indicated in the **TDS** and intends to apply a portion of the funds to eligible payments under the Contract for which this Tender Document is issued.
 - 3.2 For the purpose of this provision, “public funds” means any monetary resources appropriated to Procuring Entities under Government budget, or loan, grants and credits placed at the disposal of Procuring Entities through the Government by the development partners or foreign states or organisations.
 - 3.3 Payments by the development partner, if so indicated in the **TDS**, will be made only at the request of the Government and upon approval by the development partner or foreign state or Organisation in accordance with the applicable Loan / Credit / Grant Agreement, and will be subject in all respects to the terms and conditions of that Agreement.

4. Corrupt, Fraudulent, Collusive or Coercive Practices
- 4.1 The Government requires that Procuring Entities, as well as Tenderers and Contractors shall observe the highest standard of ethics during implementation of procurement proceedings and the execution of Contracts under public funds.
- 4.2 For the purposes of ITT Sub Clause 4.3, the terms set forth below as follows:
- (a) "corrupt practice" means offering, giving or promising to give, receiving, or soliciting either directly or indirectly, to any officer or employee of a Procuring Entity or other public or private authority or individual, a gratuity in any form; employment or any other thing or service of value as an inducement with respect to an act or decision or method followed by a Procuring Entity in connection with a Procurement proceeding or Contract execution;
 - (b) "fraudulent practice" means the misrepresentation or omission of facts in order to influence a decision to be taken in a Procurement proceeding or Contract execution;
 - (c) "collusive practice" means a scheme or arrangement between two (2) or more Persons, with or without the knowledge of the Procuring Entity, that is designed to arbitrarily reduce the number of Tenders submitted or fix Tender prices at artificial, non-competitive levels, thereby denying a Procuring Entity the benefits of competitive price arising from genuine and open competition; or
 - (d) "coercive practice" means harming or threatening to harm, directly or indirectly, Persons or their property to influence a decision to be taken in the Procurement proceeding or the execution of a Contract, and this will include creating obstructions in the normal submission process used for Tenders.
 - (e) "obstructive practice" means deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede an 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.
- 4.3 Should any corrupt, fraudulent, collusive, coercive or obstructive practice of any kind come to the knowledge of the Procuring Entity, it will, in the first place, allow the Tenderer to provide an explanation and shall, take actions only when a satisfactory explanation is not received. Such exclusion and the reasons thereof, shall be recorded in the record of the procurement proceedings and promptly communicated to the Tenderer concerned. Any communications between the Tenderer and the Procuring Entity related to matters of alleged corrupt, fraudulent, collusive, coercive, or obstructive practices shall be in writing.

- 4.4 If corrupt, fraudulent, collusive, coercive or obstructive practices of any kind is determined by the Procuring Entity against any Tenderer or Contractor in competing for, or in executing, a contract under public fund, the Procuring Entity shall :
- (a) exclude the concerned Tenderer from further participation in the concerned procurement proceedings;
 - (b) reject any recommendation for award that had been proposed for that concerned Tenderer; and
 - (c) declare, at its discretion, the concerned Tenderer to be ineligible to participate in further Procurement proceedings, either indefinitely or for a specific period of time.
- 4.5 The Tenderer shall be aware of the provisions on corruption, fraudulence, collusion, coercion and obstruction as stated in GCC Clause 39 and 89.1(b)(vii).
5. Eligible Tenderers
- 5.1 This Invitation for Tenders is open to all potential Tenderers from all countries, except for any specified in the **TDS**.
- 5.2 A Tenderer may be a physical or juridical individual or body of individuals, or company, association or any combination of them in the form of a Joint Venture, Consortium or Association (JVCA) invited to take part in public procurement or seeking to be so invited or submitting a Tender in response to an Invitation for Tenders.
- 5.3 A Government-owned enterprise in Bangladesh may also participate in the Tender if it is legally and financially autonomous, it operates under commercial law, and it is not a dependent agency of the Procuring Entity.
- 5.4 The Tenderer shall have the legal capacity to enter into the Contract.
- 5.5 Tenderers should not be associated, or have been associated in the past, directly or indirectly, with a consultant or any of its affiliates which have been engaged by the Procuring Entity to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the works to be performed under this Invitation for Tenders.
- 5.6 The Tenderer in its own name or its other names or also in the case of its Persons in different names, shall not be under a declaration of ineligibility for corrupt, fraudulent, collusive, coercive, or obstructive practices as stated under ITT Sub Clause 4.4.
- 5.7 The Tenderer with a poor performance, consistent history of litigation or arbitration awards against it shall not be eligible to Tender.
- 5.8 The Tenderer shall not be insolvent, be in receivership, be

bankrupt, be in the process of bankruptcy, be not temporarily barred from undertaking business and it shall not be the subject of legal proceedings for any of the foregoing.

- 5.9 The Tenderer shall have fulfilled its obligations to pay taxes and social security contributions under the provisions of laws and regulations of the country of its origin.
- 5.10 Tenderers shall provide such evidence of their continued eligibility satisfactory to the Procuring Entity, as the Procuring Entity will reasonably request.
- 5.11 These requirements for eligibility will extend, as applicable, to each JVCA partner and Subcontractor proposed by the Tenderer.
- 6. Eligible Materials, Equipment and Associated Services
 - 6.1 All materials, equipment and associated services to be supplied under the Contract are from eligible sources, unless their origin is from a country specified in the **TDS**.
 - 6.2 For the purposes of this Clause, “origin” means the place where the Materials and Equipments are mined, grown, cultivated, produced or manufactured or processed, or through manufacturing, processing, or assembly, another commercially recognized new product results that differs substantially in its basic characteristics from its components or the place from which the associated services are supplied.
 - 6.3 The origin of materials and equipment and associated services is distinct from the nationality of the Tenderer.
- 7. Site Visit
 - 7.1 The Tenderer is advised to visit and examine the Site of Works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the Tender and entering into a contract for construction of the Works.
 - 7.2 The Tenderer and any of its personnel or agents will be granted permission by the Procuring Entity to enter into its premises and lands for the purpose of such visit, but only upon the express condition that the Tenderer, its personnel, and agents will release and indemnify the Procuring Entity 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.
 - 7.3 The Tenderer should ensure that the Procuring Entity is informed of the visit in adequate time to allow it to make appropriate arrangements.
 - 7.4 The costs of visiting the Site shall be at the Tenderer's own expense.

B. Tender Document

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| 8. Tender Document: General | <p>8.1 The Sections comprising the Tender Document are listed below, and should be read in conjunction with any Addendum issued under ITT Clause 11.</p> <ul style="list-style-type: none"> • Section 1 Instructions to Tenderers (ITT) • Section 2 Tender Data Sheet (TDS) • Section 3 General Conditions of Contract (GCC) • Section 4 Particular Conditions of Contract (PCC) • Section 5 Tender and Contract Forms • Section 6 Bill of Quantities (BOQ) • Section 7 General Specifications • Section 8 Particular Specifications • Section 9 Drawings <p>8.2 The Procuring Entity is not responsible for the completeness of the Tender Document and their addenda, if these were not purchased directly from the Procuring Entity, or through its agent as stated in the TDS.</p> <p>8.3 The Tenderer is expected to examine all instructions, forms, terms, and specifications in the Tender Document as well as in addendum to Tender, if any.</p> |
| 9. Clarification of Tender Document | <p>9.1 A prospective Tenderer requiring any clarification of the Tender Document shall contact the Procuring Entity in writing at the Procuring Entity's address and within time as indicated in the TDS.</p> <p>9.2 A Procuring Entity is not obliged to answer any clarification request received after that date as stated under ITT Sub Clause 9.1.</p> <p>9.3 The Procuring Entity shall respond in writing within five (5) working days of receipt of any such request for clarification received under ITT Sub Clause 9.1.</p> <p>9.4 The Procuring Entity shall forward copies of its response to all those who have purchased the Tender Document, including a description of the enquiry but without identifying its source.</p> <p>9.5 Should the Procuring Entity deem it necessary to revise the Tender Document as a result of a clarification, it will do so following the procedure under ITT Clause 11 and ITT Sub Clause 42.2.</p> |
| 10. Pre-Tender Meeting | <p>10.1 To clarify issues and to answer questions on any matter arising in the Tender Document, the Procuring Entity may, if stated in the TDS, hold a pre-Tender Meeting at the place, date and time as specified in the TDS. All potential Tenderers are encouraged and invited to attend the meeting, if it is held.</p> <p>10.2 The Tenderer is requested to submit any questions in writing so as to</p> |

reach the Procuring Entity no later than one day prior to the date of the meeting.

10.3 Minutes of the pre-Tender meeting, including the text of the questions raised and the responses given, together with any responses prepared after the meeting, will be transmitted within five (5) working days after holding the meeting to all those who purchased the Tender document and to even those who did not attend the meeting. Any revision to the Tender document listed in ITT Sub-Clause 8.1 that may become necessary as a result of the pre-Tender meeting will be made by the Procuring Entity exclusively through the issue of an Addendum pursuant to ITT Sub Clause 11 and not through the minutes of the Pre-Tender meeting.

10.4 Non-attendance at the Pre-Tender meeting will not be a cause for disqualification of a Tenderer.

11. Addendum to
Tender Document

11.1 At any time prior to the deadline for submission of Tenders, the Procuring Entity, on its own initiative or in response to an inquiry in writing from a Tenderer, having purchased the Tender Document, or as a result of a Pre-Tender meeting may revise the Tender Document by issuing an Addendum.

11.2 The Addendum issued under ITT Sub Clause 11.1 shall become an integral part of the Tender Document and shall have a date and an issue number and must be circulated by fax, mail or e-mail, to Tenderers who have purchased the Tender Documents, within three (3) working days of issuance of such Addendum, to enable Tenderers to take appropriate action.

11.3 The Tenderers will acknowledge receipt of an Addendum within three (3) working days.

11.4 Procuring Entities shall also ensure posting of the relevant addenda with the reference number and date on their websites including notice boards, where the Procuring Entities had originally posted the IFTs.

11.5 To give a prospective Tenderer reasonable time in which to take an addendum into account in preparing its Tender, the Procuring Entity may, at its discretion, extend the deadline for the submission of Tenders, pursuant to ITT Sub Clause 42.2.

11.6 If an addendum is issued when time remaining is less than **one-third** of the time allowed for the preparation of Tenders, a Procuring Entity at its discretion shall extend the deadline by an appropriate number of days for the submission of Tenders, depending upon the nature of the Procurement requirement and the addendum. In any case, the minimum time for such extension shall not be less than three (3) working days.

C. Qualification Criteria

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| 12. General Criteria | <p>12.1 The Tenderer shall possess the necessary professional and technical qualifications and competence, financial resources, equipment and other physical facilities, managerial capability, specific experience, reputation, and the personnel, to perform the contract.</p> <p>12.2 To qualify for multiple number of contracts/lots in a package made up of this and other individual contracts/lots for which tenders are invited in the Invitation for Tenders, the Tenderer shall demonstrate having resources and experience sufficient to meet the aggregate of the qualifying criteria for the individual contracts.</p> |
| 13. Litigation History | <p>13.1 Litigation history shall comply with the requirement as specified in ITT 15.1(c).</p> |
| 14. Experience Criteria | <p>14.1 The Tenderer shall have the following minimum level of construction experience to qualify for the performance of the Works under the Contract:</p> <ul style="list-style-type: none"> (a) a minimum number of years of general experience in the construction of works as Prime Contractor or Subcontractor or Management Contractor as specified in the TDS; and (b) Specific experience as a Prime Contractor or Subcontractor or Management Contractor in construction works of a nature, complexity and methods/construction technology similar to the proposed Works in at least a number of contract(s) and of a minimum value over the period, as specified in the TDS. |
| 15. Financial Criteria | <p>15.1 The Tenderer shall have the following minimum level of financial capacity to qualify for the performance of the Works under the Contract.</p> <ul style="list-style-type: none"> (a) the average annual construction turnover as specified in the TDS during the period specified in the TDS; (b) availability of minimum liquid assets or working capital or credit facilities, as specified in the TDS; and (c) satisfactory resolution of all claims, arbitrations or other litigation cases and shall not have serious negative impact on the financial capacity of the Tenderer. |
| 16. Personnel Capacity | <p>16.1 The Tenderer shall have the following minimum level of personnel capacity to qualify for the performance of the Works under the Contract:</p> <ul style="list-style-type: none"> (a) a Construction Project Manager, Engineers, and other key |

staff with qualifications and experience as specified in the **TDS**;

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| 17. Equipment Capacity | 17.1 The Tenderer shall own suitable equipment and other physical facilities or have proven access through contractual arrangement to hire or lease such equipment or facilities for the desired period, where necessary or have assured access through lease, hire, or other such method, of the essential equipment, in full working order, as specified in the TDS . |
| 18. Joint Venture, Consortium or Association (JVCA) | <p>18.1 The Tenderer may participate in the procurement proceedings forming a Joint Venture, Consortium or Associations (JVCA) by an agreement,executed case by case on a non judicial stamp of value as stated in TDS or alternately with the intent to enter into such an agreement supported by a Letter of Intent along with the proposed agreement duly signed by all partners of the intended JVCA and authenticated by a Notary Public .</p> <p>18.2 The figures for each of the partners of a JVCA shall be added together to determine the Tenderer's compliance with the minimum qualifying criteria; however, for a JVCA to qualify, lead partner and its other partners must meet the criteria stated in the TDS. Failure to comply with these requirements will result in rejection of the JVCA Tender. Subcontractors' experience and resources will not be taken into account in determining the Tenderer's compliance with the qualifying criteria.</p> <p>18.3 Each partner of the JVCA shall be jointly and severally liable for the execution of the Contract, all liabilities and ethical and legal obligations in accordance with the Contract terms.</p> <p>18.4 The JVCA shall nominate a Representative (partner-in-charge) who shall have the authority to conduct all business for and on behalf of any and all the partners of the JVCA during the tendering process and, in the event the JVCA is awarded the Contract, during contract execution including the receipt of payments for and on behalf of the JVCA.</p> <p>18.5 Each partner of the JVCA shall complete the JVCA Partner Information (Form PW3-3) for submission with the Tender.</p> |
| 19. Subcontractor(s) | <p>19.1 A Tenderer may intend to subcontract an activity or part of the Works, in which case such elements and the proposed Subcontractor shall be clearly identified.</p> <p>19.2 The Procuring Entity may require Tenderers to provide more information about their subcontracting arrangements. If any Subcontractor is found ineligible or unsuitable to carry out the subcontracted tasks, the Procuring Entity may request the Tenderer to propose an acceptable substitute.</p> <p>19.3 The Procuring Entity may also select nominated Subcontractor(s) to execute certain specific components of the Works and if so, those will be specified in the TDS.</p> |

- 19.4 The successful Tenderer shall under no circumstances assign the Works or any part of it to a Subcontractor.
- 19.5 Each Subcontractor shall complete the Subcontractor Information (**Form PW3-4**) for submission with the Tender.

D. Tender Preparation

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| 20. Only one Tender | 20.1 A Tenderer shall submit only one (1) Tender for each lot, either individually or as a JVCA. The Tenderer who submits or participates in more than one (1) Tender in one (1) lot will cause all the Tenders of that particular Tenderer to be rejected. |
| 21. Cost of Tendering | 21.1 The Tenderer shall bear all costs associated with the preparation and submission of its Tender, and the Procuring Entity shall not be responsible or liable for those costs, regardless of the conduct or outcome of the Tendering process. |
| 22. Issuance and Sale of Tender Document | <p>22.1 A Procuring Entity shall make Tender Documents available immediately to the potential Tenderers, requesting and willing to purchase at the corresponding price if the advertisement has been published in the newspaper.</p> <p>22.2 There shall not be any pre-conditions whatsoever, for sale of Tender Documents and the sale of such Document shall be permitted up to the day prior to the day of deadline for the submission of Tender.</p> |
| 23. Language of Tender | <p>23.1 The Tender shall be written in the English language. Correspondences and documents relating to the Tender may be written in English or <i>Bangla</i>. Supporting documents and printed literature furnished by the Tenderer that are part of the Tender may be in another language, provided they are accompanied by an accurate translation of the relevant passages in the English or <i>Bangla</i> language, in which case, for purposes of interpretation of the Tender, such translation shall govern.</p> <p>23.2 The Tenderer shall bear all costs of translation to the governing language and all risks of the accuracy of such translation.</p> |
| 24. Contents of Tender | <p>24.1 The Tender prepared by the Tenderer will comprise the following:</p> <ul style="list-style-type: none"> (a) the Tender Submission Letter in accordance with ITT Clause 25 (Form PW3-1); (b) Tenderer Information in accordance with ITT Clauses 5,29 and 32 (Form PW3-2); (c) the priced Bill of Quantities for each lot in accordance with ITT Clauses 25,27 and 28; (d) Tender Security as stated under ITT Clauses 35, 36 and 37. (e) alternatives, if permissible, as stated under ITT Clause 26; (f) written confirmation authorizing the signatory of the Tender to commit the Tenderer, as stated under ITT Sub Clause 40.3; |

- (g) Valid Trade license ;
 - (h) documentary evidence of Tax Identification Number (TIN) and Value Added Tax (VAT) as a proof of taxation obligations as stated under ITT Sub Clause 5.9;
 - (i) documentary evidence as stated under ITT Clause 29 establishing the Tenderer's qualifications to perform the Contract if its tender is accepted;
 - (j) Technical Proposal describing work plan & method, personnel, equipment and schedules as stated under ITT Clause 31;
 - (k) documentary evidence as stated under ITT Clause 32 establishing the minimum qualifications of the Tenderer required to be met for due performance of the Works and physical services under the Contract; and
 - (l) any other document as specified in the **TDS**.
- 24.2 In addition to the requirements stated under ITT Sub Clause 24.1, Tenders submitted by a JVCA or proposing a Subcontractor shall include:
- (a) a Joint Venture Agreement entered into by all partners, executed on a non-judicial stamp of value or equivalent as stated under ITT Sub Clause 18.1; or
 - (b) a Letter of Intent along with the proposed agreement duly signed by all partners of the intended JVCA with the declaration that it will execute the Joint Venture agreement in the event the Tenderer is successful;
 - (c) the JVCA Partner Information (**Form PW3-3**);
 - (d) the Subcontractor Information (**Form PW3-4**).
25. Tender Submission Letter and Bill of Quantities
- 25.1 The Tenderer shall submit the Tender Submission Letter (**Form PW3-1**), which shall be completed without any alterations to its format, filling in all blank spaces with the information requested, failing which the Tender may be rejected as being incomplete.
- 25.2 The Tenderer shall submit the priced Bill of Quantities using the form(s) furnished in **Section 6: Bill of Quantities**.
- 25.3 If in preparing its Tender, the Tenderer has made errors in the unit rate or price or the total price, and wishes to correct such errors prior to submission of its Tender, it may do so, but shall ensure that each correction is initialled by the authorised person of the Tenderer.
26. Alternatives
- 26.1 Unless otherwise stated in the **TDS**, alternatives shall not be considered.
- 26.2 When alternative times for completion are explicitly invited, a statement to that effect will be included in the **TDS**, as will the method of evaluating different times for completion.
- 26.3 Except as provided under ITT Sub Clause 26.4, Tenderers wishing

- to offer technical alternatives to the requirements of the Tender Documents **must first price** the Procuring Entity's design as described in the Tender Documents and shall further provide all information necessary for a complete evaluation of the alternative by the Procuring Entity, including drawings, designs, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details.
- 26.4 When specified in ITT clause 26.1, Tenderers are permitted to submit alternative technical solutions for specified parts of the Works, and such parts will be identified in the **TDS**.
- 26.5 Only the technical alternatives, if any, of the lowest evaluated Tenderer conforming to the basic technical requirements will be considered by the Procuring Entity.
27. Tender Prices, Discounts and Price Adjustment
- 27.1 The prices and discounts quoted by the Tenderer in the Tender Submission Letter (**Form PW3-1**) and in the Bill of Quantities (BOQ) shall conform to the requirements specified below.
- 27.2 The Tenderer shall fill in unit rates or prices for all items of the Works both in figures and in words as described in the BOQ.
- 27.3 The items quantified in the BOQ for which no unit rates or prices have been quoted by the Tenderer will not be paid for, by the Procuring Entity when executed and shall be deemed covered by the amounts of other rates or prices in the BOQ and, it shall not be a reason to change the Tender price.
- 27.4 The Procuring Entity may, if necessary, require the Tenderer to submit the detail breakdown of the unit rates or prices quoted by the Tenderer for the facilitation of the Tender proceedings.
- 27.5 The price to be quoted in the Tender Submission Letter, as stated under ITT Sub Clause 25.1, shall be the total price of the Tender, excluding any discounts offered.
- 27.6 The Tenderer shall quote any unconditional discounts and the methodology for application of discount in the Tender Submission Letter as stated under ITT Sub Clause 25.1.
- 27.7 Tenderers wishing to offer any price reduction for the award of more than one lot shall specify in their Tender the price reductions applicable to each lot, or alternatively, to any combination of lots within the package. Price reductions or discounts will be submitted as stated under ITT Sub Clause 27.1, provided the Tenders for all lots are submitted and opened together.
- 27.8 All applicable taxes, custom duties, VAT and other levies payable by the Contractor under the Contract, or for any other causes, as of the date twenty-eight (28) days prior to the deadline for submission of Tenders, shall be included in the unit rates and prices and the total Tender price submitted by the Tenderer.

- 27.9 Unless otherwise provided in the **TDS** and the Contract, the price of a Contract shall be fixed in which case the unit rates or prices may not be modified in response to changes in economic or commercial conditions.
- 27.10 If so indicated under ITT Sub Clause 27.9, Tenders are being invited with a provision for price adjustments. The unit rates or prices quoted by the Tenderer are subject to adjustment during the performance of the Contract in accordance with the provisions of GCC Clause 71 and, in such case the Procuring Entity shall provide the indexes and weightings or coefficients in **Appendix to the Tender** for the price adjustment formulae specified in the PCC.
- 27.11 The Procuring Entity may require the Tenderer to justify its proposed indexes, if any of those as stated under ITT Sub Clause 27.10, are instructed to be quoted by the Tenderer in **Appendix to the Tender**.
28. Tender Currency 28.1 The Tenderer shall quote all prices in the Tender Submission Letter and in the Bill of Quantities in Bangladesh Taka currency unless otherwise specified in the **TDS**.
29. Documents Establishing Eligibility of the Tenderer 29.1 A Tenderer, if applying as a sole Tenderer, shall submit documentary evidence to establish its eligibility as stated under ITT Clause 5 and, in particular, it shall:
- (a) complete the eligibility declarations in the Tender Submission Letter (**Form PW3-1**);
 - (b) complete the Tenderer Information (**Form PW3-2**);
 - (c) provide completed Subcontractor Information (**Form PW3-4**), if it intends to engage any Subcontractor(s).
- 29.2 A Tenderer, if applying as a partner of an existing or intended JVCA shall submit documentary evidence to establish its eligibility as stated under ITT Clause 5 and, in particular, in addition to as specified in ITT Sub Clause 29.1, it shall:
- (a) provide for each JVCA partner, completed JVCA Partner Information (**Form PW3-3**);
 - (b) provide the JVCA agreement or Letter of Intent along with the proposed agreement of the intended JVCA as stated in ITT Sub Clause 18.1.

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| 30. Documents Establishing the Eligibility and Conformity of Materials, Equipment and Services | <p>30.1 The Tenderer shall submit documentary evidence to establish the origin of all Materials, Equipment and services to be supplied under the Contract as stated under ITT Clause 6.</p> <p>30.2 To establish the conformity of the Materials, Equipment and services to be supplied under the Contract, the Tenderer shall furnish, as part of its Tender, the documentary evidence (which may be in the form of literature, specifications and brochures, drawings or data) that these conform to the technical specifications and standards specified in Section 7, General Specifications and Section 8, Particular Specifications.</p> |
| 31. Documents Establishing Technical Proposal | <p>31.1 The Tenderer shall furnish a Technical Proposal including a statement of work methods, equipment, personnel, schedule and any other information as stipulated in TDS, in sufficient detail to demonstrate the adequacy of the Tenderer's proposal to meet the work requirements and the completion time.</p> |
| 32. Documents Establishing the Tenderer's Qualification | <p>32.1 Tenderers shall complete and submit the Tenderer Information (Form PW3-2) and shall include documentary evidence, as applicable to satisfy the following:</p> <ul style="list-style-type: none"> (a) general experience of construction works as stated under ITT Sub Clause 14.1(a) ; (b) specific experience in construction works of similar nature and size as stated under ITT Sub Clauses 14.1(b) (c) average annual construction turnover for a period as stated under ITT Sub Clause 15.1(a); (d) adequacy of working capital for this Contract i.e. access to line(s) of credit and availability of other financial resources as stated under ITT Sub Clause 15.1(b); (e) technical and administrative personnel along with their qualification and experience proposed for the Contract as stated under ITT Clause 16; (f) major items of construction equipment proposed to carry out the Contract as stated under ITT Clause 17; (g) authority to seek references from the Tenderer's bankers or any other sources. (h) information regarding any litigation, current or during the last five years, in which the Tenderer is involved, the parties concerned, and disputed amount; (i) reports on the financial standing of the Tenderer, such as profit and loss statements and auditor's reports for the past five years. <p>32.2 An Procuring Entity shall disqualify a Tenderer who submits a document containing false information for purposes of qualification or mislead or makes false representations in proof of qualification requirements. An Procuring Entity may declare such a Tenderer</p> |

ineligible, either indefinitely or for a stated period of time, from participation in future procurement proceedings

32.3 An Procuring Entity may disqualify a Tenderer if it finds at any time that the information submitted concerning the qualifications of the Tenderer was materially inaccurate or materially incomplete. Also, an Procuring Entity may disqualify a Tenderer who has record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays, litigation history or financial failures.

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| 33. Validity Period of Tender | 33.1 Tenders shall remain valid for the period specified in the TDS after the date of Tender submission deadline prescribed by the Procuring Entity. A Tender valid for a period shorter than that specified will be rejected by the Procuring Entity as non- responsive. |
| 34. Extension of Tender Validity and Tender Security | <p>34.1 In exceptional circumstances, prior to the expiration of the Tender validity period, the Procuring Entity may solicit the Tenderers' consent to an extension of the period of validity of their Tenders.</p> <p>34.2 The request and the responses shall be made in writing. Validity of the tender security provided under ITT Clause 35 shall also be suitably extended for twenty eight (28) days beyond the new date for the expiry of the Tender Validity. If a Tenderer does not respond or refuses the request it shall not forfeit its tender security, but its tender shall no longer be considered in the evaluation proceedings. A Tenderer agreeing to the request will not be required or permitted to modify its tender.</p> |
| 35. Tender Security | <p>35.1 The Tenderer shall furnish as part of its Tender, in favour of the Procuring Entity or as otherwise directed on account of the Tenderer, a Tender Security in original form and in the amount, as specified in the TDS.</p> <p>35.2 If the Tender is a Joint Venture, the Tenderer shall furnish as part of its Tender, in favour of the Procuring Entity or as otherwise directed on account of the title of the existing or intended JVCA or any of the partners of that JVCA or in the names of all future partners as named in the Letter of Intent of the JVCA, a Tender Security in original form and in the amount as stated under ITT Sub Clause 35.1.</p> |
| 36. Form of Tender Security | <p>36.1 The Tender Security shall:</p> <ul style="list-style-type: none"> (a) at the Tenderer's option, be either; <ul style="list-style-type: none"> i. in the form of a bank draft or pay order, or ii. in the form of an irrevocable bank guarantee issued by a scheduled Bank of Bangladesh, in the format (Form PW3-6) furnished in Section 5: Tender and Contract Forms; (b) be payable promptly upon written demand by the Procuring Entity in the case of the conditions listed in ITT Sub Clause 39.1 being invoked; and (c) remain valid for at least twenty eight (28) days beyond the expiry date of the Tender Validity in order to make a claim in |

due course against a Tenderer in the circumstances as stated under ITT Sub Clause 39.1.

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| 37. Authenticity of Tender Security | 37.1 The authenticity of the Tender Security submitted by a Tenderer may be examined and verified by the Procuring Entity at its discretion in writing from the Bank issuing the security. |
| | 37.2 If a Tender Security is found to be not authentic, the Procuring Entity may proceed to take measures against that Tenderer as stated under ITT Sub Clause 4.4. |
| | 37.3 A Tender not accompanied by a valid Tender Security will be rejected by the Procuring Entity. |
| 38. Return of Tender Security | 38.1 No Tender Securities shall be returned by the Tender Opening Committee (TOC) during and after the opening of the Tenders. |
| | 38.2 No Tender Security shall be returned to the Tenderers before contract signing, except to those who are found unsuccessful. |
| | 38.3 Unsuccessful Tenderer's tender security will be discharged or returned as soon as possible but within 28 days of the end of the tender validity period specified in ITT Sub-Clauses 33.1. |
| | 38.4 The tender security of the Successful Tenderer will be discharged upon the Tenderer's furnishing of the performance security pursuant to ITT Clause 33 and signing the Agreement. |
| 39. Forfeiture of Tender Security | 39.1 The Tender Security may be forfeited, if a Tenderer: |
| | (a) withdraws its Tender after opening of Tenders but within the validity of the Tender as stated under ITT Clause 33 and 34; or |
| | (b) refuses to accept a Notification of Award as stated under ITT Sub Clause 63.1; or |
| | (c) fails to furnish Performance Security as stated under ITT Sub Clause 64.1 and 64.2; or |
| | (d) refuses to sign the Contract as stated under ITT Sub Clause 69.2 ; or |
| | (e) does not accept the correction of the Tender price following the correction of the arithmetic errors as stated under ITT Clause 55. |
| 40. Format and Signing of Tender | 40.1 The Tenderer shall prepare one (1) original of the documents comprising the Tender as described in ITT Clause 24 and clearly mark it "ORIGINAL." In addition, the Tenderer shall prepare the number of copies of the Tender, as specified in the TDS and clearly mark each of them "COPY." In the event of any discrepancy between the original and the copies, the ORIGINAL shall prevail. |
| | 40.2 Alternatives, if permitted in accordance with ITT Clause 26, shall be clearly marked "Alternative". |

- 40.3 The original and each copy of the Tender shall be typed or written in indelible ink and shall be signed by the Person duly authorized to sign on behalf of the Tenderer. This authorization shall be attached to the Tender Submission Letter (**Form PW3-1**). The name and position held by each Person(s) signing the authorization must be typed or printed below the signature. All pages of the original and of each copy of the Tender, except for un-amended printed literature, shall be numbered sequentially and signed or initialled by the person signing the Tender.
- 40.4 Any interlineations, erasures, or overwriting will be valid only if they are signed or initialled by the Person(s) signing the Tender.

E. Tender Submission

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| 41. Sealing, Marking and Submission of Tender | <p>41.1 The Tenderer shall enclose the original in one (1) envelope and all the copies of the Tender, including the alternatives, if permitted under ITT Clause 26, in another envelope, duly marking the envelopes as "ORIGINAL" "ALTERNATIVE" (if permitted) and "COPY." These sealed envelopes will then be enclosed and sealed in one (1) single outer envelope.</p> <p>41.2 The inner and outer envelopes shall:</p> <ul style="list-style-type: none"> (a) be addressed to the Procuring Entity at the address as stated under ITT Sub Clause 42.1; (b) bear the name of the Tender and the Tender Number as stated under ITT Sub Clause 1.1; (c) bear the name and address of the Tenderer; (d) bear a statement "DO NOT OPEN BEFORE _____" the time and date for Tender opening as stated under ITT Sub Clause 48.1; (e) bear any additional identification marks as specified in the TDS. <p>41.3 The Tenderer is solely and entirely responsible for pre-disclosure of Tender information if the envelope(s) are not properly sealed and marked.</p> <p>41.4 Tenders shall be delivered by hand or by mail, including courier services at the address(s) as stated under ITT Sub Clause 42.1.</p> <p>41.5 The Procuring Entity will, on request, provide the Tenderer with acknowledgement of receipt showing the date and time when it's Tender was received.</p> |
| 42. Deadline for Submission of Tender | <p>42.1 Tenders shall be delivered to the Procuring Entity at the address specified in the TDS and no later than the date and time specified in the TDS.</p> <p>42.2 The Procuring Entity may, at its discretion, extend the deadline for submission of Tender as stated under ITT Sub Clause 42.1, in which case all rights and obligations of the Procuring Entity and Tenderers</p> |

previously subject to the deadline will thereafter be subject to the new deadline as extended.

- 42.3 In general, the submission of Tenders will not be allowed in more than one place. If, in exceptional cases, for procurement using government's own fund, submission of Tenders is allowed in more than one location/place, name of such primary and secondary location/place(s) shall be as specified in the **TDS**.
43. Late Tender 43.1 Any Tender received by the Procuring Entity after the deadline for submission of Tenders as stated under ITT Sub Clause 42.1 shall be declared LATE, rejected, and returned unopened to the Tenderer.
44. Notice for Modification, Substitution or Withdrawal of Tender 44.1 A Tenderer may modify, substitute or withdraw its Tender after it has been submitted by sending a written notice duly signed by the authorized signatory and properly sealed, and shall include a copy of the authorization ; provided that such written notice including the affidavit is received by the Procuring Entity prior to the deadline for submission of Tenders as stated under ITT Clause 42.
45. Tender Modification 45.1 The Tenderer shall not be allowed to retrieve its original Tender, but shall be allowed to submit corresponding modification to its original Tender marked as "**MODIFICATION**".
46. Tender Substitution 46.1 The Tenderer shall not be allowed to retrieve its original Tender, but shall be allowed to submit another Tender marked as "**SUBSTITUTION**".
47. Tender Withdrawal 47.1 The Tenderer shall be allowed to withdraw its Tender by a Letter of Withdrawal marked as "**WITHDRAWAL**".

F. Tender Opening and Evaluation

48. Tender Opening 48.1 Tenders shall be opened in one location, immediately, but no later than one hour, after the deadline for submission of Tenders at the place as specified in the **TDS**. In case of submission of tender for procurement using Government's own fund, tenders shall be opened at the primary place of submission within three hours of the deadline for submission of tenders.
- 48.2 Persons not associated with the Tender may not be allowed to attend the public opening of Tenders.
- 48.3 The Tenderers' representatives shall be duly authorised by the Tenderer. Tenderers or their authorised representatives will be allowed to attend and witness the opening of Tenders, and will sign a register evidencing their attendance.
- 48.4 The authenticity of withdrawal or substitution of, or modifications to original Tender, if any made by a Tenderer in specified manner, shall be examined and verified by the Tender Opening Committee (TOC) based on documents submitted as stated under ITT Sub Clause 44.1.

- 48.5 Ensuring that only the correct (M), (S), (A), (O) envelopes are opened, details of each Tender will be dealt with as follows:
- (a) the Chairperson of the Tender Opening Committee will read aloud each Tender and record in the Tender Opening Sheet (TOS) :
 - (i) the name and address of the Tenderer;
 - (ii) state if it is a withdrawn, modified, substituted or original Tender;
 - (iii) the Tender price;
 - (iv) any discounts;
 - (v) any alternatives;
 - (vi) the presence or absence of any requisite Tender Security; and
 - (vii) such other details as the Procuring Entity, at its discretion, may consider appropriate
 - (b) only discounts and alternatives read aloud at the Tender opening will be considered in evaluation.
 - (c) all pages of the original version of the Tender, except for un-amended printed literature, will be initialled by members of the Tender Opening Committee.
- 48.6 Upon completion of Tender opening, all members of the Tender Opening Committee and the Tenderers or Tenderer's duly authorised representatives attending the Tender opening shall sign by name, address, designation, the Tender Opening Sheet, copies of which shall be issued to the Head of the Procuring Entity or an officer authorised by him or her and also to the members of the Tender Opening Committee and any authorised Consultants and, to the Tenderers immediately.
- 48.7 The omission of a Tenderer's signature on the record shall not invalidate the contents and effect of the record under ITT Sub Clause 48.6.
- 48.8 No Tender will be rejected at the Tender opening stage except the LATE Tenders as stated in the ITT Clause 43.
49. Evaluation of Tenders
- 49.1 Tenders shall be examined and evaluated only on the basis of the criteria specified in the Tender Document.
 - 49.2 The Procuring Entity's **Tender Evaluation Committee (TEC)** shall examine, evaluate and compare Tenders that are substantially responsive to the requirements of Tender Documents in order to identify the successful Tenderer.
50. Evaluation Process
- 50.1 The TEC will consider a Tender responsive that conforms in all respects to the requirements of the Tender Document without material deviation, reservation, or omission. The evaluation process should begin immediately after tender opening, following

four broad steps:

- (a) Preliminary examination
- (b) Technical examination and responsiveness
- (c) Financial evaluation and price comparison
- (d) Post-qualification of the Tender.

51. Preliminary Examination

51.1 The Procuring Entity shall examine the tenders to confirm that all documentation requested in ITT Clause 24 has been provided, to determine the completeness of each document submitted .

51.2 The Procuring Entity shall confirm that the following documents and information have been provided in the tender. If any of these documents or information is missing, the offer shall be rejected.

- (a) Tender Submission Letter;
- (b) Priced Bill of Quantities;
- (c) Written confirmation of authorization to commit the Tenderer; and
- (d) Tender Security.

52. Technical Responsiveness and Technical Evaluation

52.1 The Procuring Entity's determination of a tender's responsiveness is to be based on the contents of the tender itself without recourse to extrinsic evidence.

52.2 A substantially responsive tender is one that conforms in all respects to the requirements of the Tender Document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:

- (a) affects in any substantial way the scope, quality, or performance of the Works specified in the Contract; or
- (b) limits in any substantial way, or is inconsistent with the Tender Documents, the Procuring Entity's rights or the Tenderer's obligations under the Contract; or
- (c) if rectified would unfairly affect the competitive position of other Tenderers presenting substantially responsive tenders.

52.3 If a tender is not substantially responsive to the Tender Document, it shall be rejected by the Procuring Entity and shall not subsequently be made responsive by the Tenderer by correction of the material deviation, reservation, or omission.

52.4 There shall be no requirement as to the minimum number of responsive tenders.

52.5 There shall be no automatic exclusion of tenders which are above or below the official estimate.

52.6 The Procuring Entity shall now examine the tender to confirm that all terms and conditions specified in the GCC and the PCC have been accepted by the Tenderer without any material deviation or

reservation.

- 52.7 The Procuring Entity shall evaluate the technical aspects of the tender submitted in accordance with ITT Clauses 30,31 and 32, to confirm that all requirements specified in Section 7: General Specifications and Section 8: Particular Specifications of the Tender Document have been met without any material deviation or reservation.
- 52.8 If, after the examination of the terms and conditions and the technical aspects of the tender, the Procuring Entity determines that the tender is not substantially responsive in accordance with ITT Sub-Clauses 52.6 and 52.7 , it shall reject the tender.
- 52.9 Provided that a tender is substantially responsive, the Procuring Entity may request that the Tenderer submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the tender related to documentation requirements. Such omission shall not be related to any aspect of the rates of the tender reflected in the Priced Bill of Quantities. Failure of the Tenderer to comply with the request may result in the rejection of its tender.
- 52.10 The TEC may regard a Tender as responsive even if it contains;
- (a) minor or insignificant deviations which do not meaningfully alter or depart from the technical specifications, characteristics and commercial terms and, conditions or other mandatory requirements set out in the Tender Document; or
 - (b) errors or oversights, that if corrected, would not alter the key aspects of the Tender.

53. Clarification on Tender

- 53.1 The TEC may ask Tenderers for clarification of their Tenders, including breakdowns of unit rates or prices, in order to facilitate the examination and evaluation of Tenders. The request for clarification by the TEC and the response from the Tenderer shall be in writing, and Tender clarifications which may lead to a change in the substance of the Tender or in any of the key elements of the Tender pursuant to ITT Sub Clause 52.2, will neither be sought nor be permitted.
- 53.2 Changes in the Tender price shall also not be sought or permitted, except to confirm the correction of arithmetical errors discovered by the TEC in the evaluation of the Tenders, as stated under ITT Sub Clause 55.1.

54. Restrictions on Disclosure of Information

- 54.1 After the opening of tenders, information relating to the examination, clarification, and evaluation of tenders and recommendations for award shall not be disclosed to tenderers or other persons not officially concerned with the evaluation process until the award of the contract is announced.
- 54.2 Any effort by a Tenderer to influence a Procuring Entity in its decision concerning the evaluation of Tenders, Contract awards may result in the rejection of its Tender as well as further action in

accordance with Section 64 (5) of the Public Procurement Act, 2006.

55. Correction of
Arithmetical Errors

55.1 Provided that the Tender is substantially responsive, the TEC shall correct arithmetical errors on the following basis:

- (a) if there is a discrepancy between the unit price and the line item total price that is obtained by multiplying the unit price and quantity, the unit price will prevail and the line item total price shall be corrected, unless in the opinion of the TEC there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted will govern and the unit price will be corrected; and
- (b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
- (c) if there is a discrepancy between words and figures, the unit price in words will prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.

55.2 If the Tenderer determined to be the lowest evaluated tenderer does not accept the correction of errors, its tender shall be disqualified and its tender security may be forfeited.

56. Financial Evaluation

56.1 The TEC will evaluate each Tender that has been determined, up to this stage of the evaluation, to be substantially responsive to the requirements set out in the Tender Document.

56.2 To evaluate a Tender, the TEC will consider the following:

- (a) the Tender price, excluding Provisional Sums and the provision, if any, for contingencies in the priced Bill of Quantities, but including Daywork items, where priced competitively;
- (b) adjustments for correction of arithmetical errors pursuant to ITT Sub Clause 55.1;
- (c) adjustments in order to take into consideration the unconditional discounts or methodology for application of the discount offered pursuant to ITT Sub Clause 27.7;
- (d) adjustments for any other acceptable variations or deviations pursuant to ITT Sub Clause 52.10.

56.3 Variations, deviations, alternatives and other factors which are in excess of the requirements of the Tender Document or otherwise result in unsolicited benefits for the Procuring Entity will not be taken into account in Tender evaluation.

56.4 The estimated effect of any price adjustment provisions under GCC Clause 71, applied over the period of execution of the Contract, will not be taken into account in Tender evaluation.

- 56.5 If so indicated in the ITT Sub Clause 1.1 the Procuring Entity may award one or multiple lots to one Tenderer following the methodology specified in ITT Sub Clause 56.6.
- 56.6 To determine the lowest-evaluated lot or combination of lots, the TEC will take into account:
- (a) the experience and resources sufficient to meet the aggregate of the qualifying criteria for the individual lot;
 - (b) the lowest-evaluated Tender for each lot calculated in accordance with all the requirements of Evaluation Criteria;
 - (c) the price reduction on account of discount per lot or combination of lots and the methodology for application of the discount as offered by the Tenderer in its Tender; and
 - (d) the Contract-award sequence that provides the optimum economic combination on the basis of least overall cost of the total Contract package taking into account any limitations due to constraints in Works or execution capacity determined in accordance with the post-qualification criteria stated under ITT Clause 59.
- 56.7 If the tender, which results in the lowest Evaluation Tender Price, is Substantially below the updated official estimate or seriously unbalanced as a result of front loading in the opinion of the Procuring Entity, the Procuring Entity may require the Tenderer to produce details price analyses for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, taking into consideration the schedule of estimated Contract payments, the Procuring Entity may require that the amount of the performance security set forth in ITT Clause 64 be increased at the expenses of the Tenderer to a level sufficient to protect the Procuring Entity against financial loss in the event of default of the successful Tenderer under the Contract.
57. Price Comparison
- 57.1 The TEC will compare all substantially responsive Tenders to determine the lowest-evaluated Tender, in accordance with ITT Clause 56.
- 57.2 In the extremely unlikely event that there is a tie for the lowest evaluated price, the Tenderer with the superior past performance with the Procuring Entity shall be selected, whereby factors such as delivery period, quality of Works delivered, complaints history and performance indicators could be taken into consideration.
- 57.3 In the event that there is a tie for the lowest price and none of the Tenderers has the record of past performance with the Procuring Entity as stated under ITT Sub Clause 57.2, then the Tenderer shall be selected, subject to firm confirmation through the Post-qualification process, after consideration as to whether the Tenderer has demonstrated in its Tender superior past performance with the other Procuring Entities or a more efficient work programme and

- work methodology.
- 57.4 The successful Tenderer as stated under ITT Sub Clauses 57.1, 57.2 and 57.3 shall not be selected through lottery under any circumstances.
58. Negotiations
- 58.1 No negotiations shall be held during the Tender evaluation or award with the lowest or any other Tenderer.
- 58.2 The Procuring Entity through the TEC may, however, negotiate with the lowest evaluated Tenderer with the objective to reduce the Contract price by reducing the scope of works or a reallocation of risks and responsibilities, only when it is found that the lowest evaluated Tender is significantly higher than the official estimate; the reasons for such higher price being duly analyzed.
- 58.3 If the Procuring Entity decides to negotiate for reducing the scope of the requirements under ITT Sub Clause 58.2, it will be required to guarantee that the lowest Tenderer remains the lowest Tenderer even after the scope of work has been revised and shall further be ensured that the objective of the Procurement will not be seriously affected through this reduction.
- 58.4 In the event that the Procuring Entity decides because of a high Tender price to reduce the scope of the requirements to meet the available budget, the Tenderer is not obliged to accept the award and shall not be penalised in any way for rejecting the proposed award.
59. Post-qualification
- 59.1 The Procuring Entity shall determine to its satisfaction whether the Tenderer that is selected as having submitted the lowest evaluated and substantially responsive tender is qualified to perform the Contract satisfactorily.
- 59.2 The determination shall be based upon an examination of the documentary evidence of the Tenderer's qualifications submitted by the Tenderer, pursuant to ITT Clause 32, clarifications in accordance with ITT Clause 53 and the qualification criteria indicated in ITT Clauses 12 to 17. Factors not included therein shall not be used in the evaluation of the Tenderer's qualification.
- 59.3 An affirmative determination shall be a prerequisite for award of the Contract to the Tenderer. A negative determination shall result in rejection of the tenderer's tender, in which event the Procuring Entity shall proceed to the next lowest evaluated tender to make a similar determination of that Tenderer's capabilities to perform satisfactorily
- 59.4 The TEC may verify information contained in the Tender by visiting the premises of the Tenderer as a part of the post qualification process, if practical and appropriate.
60. Procuring Entity's Right to Accept any or to Reject Any or All Tenders
- 60.1 The Procuring Entity reserves the right to accept any tender, to annul the tender proceedings, or to reject any or all tenders at any time prior to contract award, without thereby incurring any liability to Tenderers, or any obligations to inform the Tenderers of the grounds

for the Procuring Entity's action.

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| 61. Informing Reasons for Rejection | 61.1 Notice of the rejection will be given promptly within seven (7) days of decision taken by the Procuring Entity to all Tenderers and, the Procuring Entity will, upon receipt of a written request, communicate to any Tenderer the reason(s) for its rejection but is not required to justify those reason(s). |
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G. Contract Award

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| 62. Award Criteria | 62.1 The Procuring Entity shall award the Contract to the Tenderer whose offer is responsive to all the requirements of the Tender Document and that has been determined to be the lowest evaluated Tender, provided further that the Tenderer is determined to be Post-qualified in accordance with ITT Clause 59.

62.2 A Tenderer will not be required, as a condition for award, to undertake responsibilities not stipulated in the Tender documents, to change its price, or otherwise to modify its Tender. |
| 63. Notification of Award | 63.1 Prior to the expiry of the Tender Validity period and within seven (7) working days of receipt of the approval of the award by the Approving Authority, the Procuring Entity shall issue the Notification of Award (NOA) to the successful Tenderer.

63.2 The Notification of Award, attaching the contract as per the sample (Form PW3-7) to be signed, shall state :
<ul style="list-style-type: none">(a) the acceptance of the Tender by the Procuring Entity;(b) the price at which the contract is awarded;(c) the amount of the Performance Security and its format;(d) the date and time within which the Performance Security shall be submitted; and(e) the date and time within which the Contract shall be signed.
63.3 Until a formal contract is signed, the Notification of Award will constitute a Contract, which shall become binding upon the furnishing of a Performance Security and the signing of the Contract by both parties. |
| 64. Performance Security | 64.1 The Performance Security shall be provided by the successful Tenderer in the amount as specified in the TDS and denominated in the currencies in which the Contract Price is payable.

64.2 The Procuring Entity may increase the amount of the Performance Security above the amounts as stated under ITT Sub Clause 64.1 but not exceeding twenty five (25) percent of the Contract price, if it is found that the Tender is Substantially below the updated official estimated or unbalanced as a result of front loading as stated under ITT Sub Clause 56.7. |

- 64.3 The proceeds of the Performance Security shall be payable to the Procuring Entity unconditionally upon first written demand as compensation for any loss resulting from the Contractor's failure to complete its obligations under the Contract.
65. Form and Time Limit for Furnishing of Performance Security
- 65.1 The Performance Security, as stated under ITT Clause 64, may be in the form of a Bank Draft, Pay Order or an irrevocable Bank Guarantee in the format (**Form PW3-9**), issued by any scheduled Bank of Bangladesh acceptable to the Procuring Entity.
- 65.2 Within fourteen (14) days from the date of acceptance of the Notification of Award (NOA) but not later than the date specified therein, the successful Tenderer shall furnish the Performance Security for the due performance of the Contract in the amount as stated under ITT Sub Clauses 64.1 or 64.2.
66. Validity of Performance Security
- 66.1 The Performance Security shall be required to be valid until a date twenty eight (28) days beyond the Intended Completion Date as specified in Tender Document.
67. Authenticity of Performance Security
- 67.1 The Procuring Entity may verify the authenticity of the Performance Security submitted by the successful Tenderer by sending a written request to the branch of the bank issuing the Pay Order, Bank Draft or irrevocable Bank Guarantee in specified format.
68. Adjudicator
- 68.1 The Procuring Entity proposes the person named in the **TDS** to be appointed as Adjudicator under the Contract, at an hourly fee and for those reimbursable expenses specified in the **TDS**.
69. Contract Signing
- 69.1 At the same time as the Procuring Entity issues the Notification of Award (NOA), the Procuring Entity will send the draft Contract Agreement and all documents forming the Contract to the successful Tenderer.
- 69.2 Within twenty-one (21) days of receipt of the Agreement, but not later than twenty-eight (28) days of issuance of the NOA, the successful Tenderer shall sign, date, and return it to the Procuring Entity.
- 69.3 Failure of the successful Tenderer to submit the Performance Security, pursuant to ITT Sub-Clause 64.1, or sign the Contract, pursuant to ITT Sub-Clause 69.2, shall constitute sufficient grounds for the annulment of the award and forfeiture of the Tender Security. In that event the Procuring Entity may award the Contract to the next lowest evaluated Tenderer, whose offer is substantially responsive and is determined by the Procuring Entity to be qualified to perform the Contract satisfactorily.

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| 70. Publication of Notification of Award of Contract | <p>70.1 Notification of Awards for Contracts of Taka ten (10) million and above shall be notified by the Procuring Entity to the Central Procurement Technical Unit within seven (7) days of issuance of the NOA for publication in their website, and that notice shall be kept posted for not less than a month.</p> <p>70.2 Notification of Award for Contracts below Taka ten (10) million, shall be published by the Procuring Entity on its Notice Board and where applicable on the website of the Procuring Entity and that notice shall be kept posted for not less than a month.</p> |
| 71. Debriefing of Tenderers | <p>71.1 Debriefing of Tenderers by Procuring Entity shall outline the relative status and weakness only of his or her Tender requesting to be informed of the grounds for not accepting the Tender submitted by him or her, without disclosing information about any other Tenderer.</p> <p>71.2 In the case of debriefing, confidentiality of the evaluation process shall be maintained.</p> |
| 72. Right to Complain | <p>72.1 Any Tenderer has the right to complain in accordance with Section 29 of the Public Procurement Act 2006 and Part 12 of Chapter Three of the Public Procurement Rules, 2008.</p> |

Section 2. Tender Data Sheet	
<i>Instructions for completing Tender Data Sheet are provided in italics in parenthesis for the relevant ITT clauses</i>	
ITT Clause	Amendments of, and Supplements to, Clauses in the Instructions to Tenderers
A. General	
ITT 1.1	<p>The Procuring Entity is Bangladesh Power Development Board (BPDB)</p> <p>The Director Directorate of Purchase Bangladesh Power Development Board WAPDA Bhaban (9th Floor) Motijheel C/A, Dhaka -1000.</p> <p>Consignee: The Manager, Hathazari Power station, BPDB, Chittagong, Bangladesh.</p> <p>Engineer: The Director, Directorate of Design & Inspection-1, BPDB, Dhaka, Bangladesh.</p> <p>The Name of the Tender is: Supply, Installation, Testing & Commissioning of Effluent Treatment Plant of Hathazari Peaking Power Plant, Chittagong, BPDB on turnkey basis.</p>
ITT 3.1	The source of public funds is Revenue Budget of BPDB
ITT 3.3	The name of the Development Partner is – N/A
ITT 5.1	Tenderers from the following countries are not eligible: Israel
ITT 6.1	Materials, Equipments and associated services from the following countries are not eligible: Israel
ITT 7.1	Each Tenderer before submitting his Tender will carefully examine the tender requirements and will visit the site at their own cost to determine the existing conditions, facilities and limitations. Any neglect to delay or failure on the part of the tenderer to obtain reliable information upon the foregoing or any matter effecting the work and completion period shall not relieve the successful tenderer of his responsibilities, risks or liabilities until final acceptance of the work in case of award of the contract.
B. Tender Document	
ITT 8.2	<p>The following are authorised agents of the Procuring Entity for the purpose of issuing the Tender Document:</p> <p>Director, Directorate of Purchase Bangladesh Power Development Board WAPDA Bhaban (9th Floor) Motijheel C/A, Dhaka -1000, Bangladesh Telephone: 9550532; Fax: 8802-7126151</p>
ITT 9.1	For <u>clarification of Tender Document purposes</u> only, the Procuring Entity's

	<p>address is:</p> <p>Director, Directorate of Purchase</p> <p>Bangladesh Power Development Board</p> <p>WAPDA Bhaban (9th Floor)</p> <p>Motijheel C/A, Dhaka -1000, Bangladesh</p> <p>Telephone: 9550532; Fax: 8802-7126151</p>
ITT 10.1	A Pre-Tender meeting shall not be held
C. Qualification Criteria	
ITT 13.1	The maximum <i>three (3)</i> numbers of arbitration against the Tenderer over a period <i>the last five (5) years</i> .
ITT 14.1(a)	The minimum number of years of general experience of the Tenderer in the construction works as Prime Contractor or Subcontractor or Management Contractor shall be <i>Three (03) years</i> .
ITT 14.1(b)	<p>The tenderer himself and/or member(s) of JVCA having experience of design, supply, fabrication, installation, testing, commissioning of Effluent Treatment Plant of a liquid fuel fired Power Plant having treatment capacity of 720m³/day during last ten (10) years shall be eligible for tendering. The said Plant(s) should have been in continuous commercial operation for at least two (2) years.</p> <p>In support of experience, either Tenderer himself or as a member of JVCA shall have to submit with his tender at least 1 (one) no. certificate from the End user of the Power Plant of liquid fuel fired stating that the Effluent Treatment Plant having capacity of 720m³/day is installed on turnkey basis within last ten (10) years by the Tenderer and/or member(s) of JVCA and the said Plant has been in continuous commercial operation for minimum two (2) years and the performance of the ETP is satisfactory.</p> <p>This certificate shall mention the name of Power Plant, Capacity of the unit(s), ETP Type (Make & Model), work completion date, certificate issue date, name and address (telephone/fax/e-mail) of the end user duly signed in the official pad. These certificate must be authenticated from the Chamber of Commerce of the Tenderer's own country/ own country of JVCA member(s) or the Embassy/ High commission of the End-user's country situated in Dhaka. In absence of that in Dhaka, authentication from Tenderer's own country/ JVCA member(s) own country Embassy/ High commission.</p>
ITT 15.1(a)	The required average annual construction turnover shall be greater than USD 1.0 (one) million or equivalent BDT over the last 5 (five) years.
ITT 15.1(b)	The minimum amount of liquid assets or working capital or credit facilities of the Tenderer shall be USD 0.5 (point five) million or equivalent BDT.
ITT 16.1(a)	<p>A Construction Project Manager, Engineer, and other key staff shall have the following qualifications and experience:</p> <p>Qualified Engineer having at least 05 years experience of similar work as mentioned in Section-7, General Specification.</p>
ITT 17.1	<p>The Tenderer shall own or have proven access to hire or lease of the major construction equipments, in full working order as follows :</p> <p>As required to perform the work as mentioned in Section-7, General Specification.</p>

ITT 18.1	The value of non-judicial stamp for execution of the Joint Venture agreement shall be Tk 300 (Three Hundred).			
ITT 18.2	The minimum qualification requirements of Leading Partner and other Partner(s) of a JVCA shall be as follows:			
	TDS Clauses References	Requirements by summation	Requirements for Leading Partner	Requirements for other Partner(s)
	ITT-14.1(a)	Summation not applicable	Same as stated in TDS	Same as for Leading Partner
	ITT-14.1(b)	100%	At least one Contract if any other Partner does not have required experience	At least one Contract if any other Partner or Lead partner does not have required experience
	ITT-15.1(a)	100%	Not applicable	Not applicable
	ITT-15.1(b)	100%	Not applicable	Not applicable
	ITT-16.1(a)	100%	Not applicable	Not applicable
	ITT-17.1	100%	Not applicable	Not applicable
	JVCA Stake	100%	At least 51%	Partner having experience [to fulfil experience criteria mentioned in TDS (ITT14.1 b)] must have at least 20%.
ITT 19.3	The Nominated Subcontractor(s) named [None] shall execute the following specific components of the proposed Works: None.			

D. Tender Preparation

ITT 24.1 (I)	<p>The Tenderer shall submit with its Tender the following additional documents:</p> <ol style="list-style-type: none"> 1. If Tenderer does not manufacture or produce the Goods it offers to supply shall submit the Manufacturer's Authorization Letter (Form PW3-5A) furnished in Section 5: Tender and Contract Forms, to demonstrate that it has been duly authorized by the manufacturer or producer of the Goods to supply the Goods to Bangladesh (ITT 26.1b). Authorization Letter from Dealer will not be accepted. Authorization Letter from Trading house will not be accepted if not supported by Manufacturer's Authorization Letter. Authorization Letter from Manufacturer's Sales office located in other country (not in the country of origin) may be allowed if supported by Manufacturer's letter in this regard. Scanning Paper, E-mail copy, Faxed copy will not be allowed; 2. Performance Certificate from 2 (two) end users of the offered spares (Pump, Air blower & Filter press) having 2 years satisfactory Operational performance. 3. Certificate from the manufacturer confirming that offered system/ Equipments/items/spares are new, unused, in good condition. 4. Guarantee /warranty certificate of the offered System/Equipments/items/spares including turnkey work and its satisfactory performance during warranty period [18 (Eighteen) months from the date of issuing Provisional Acceptance Certificate]
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	<p>5. Supply records of offered System/Equipments/items/spares for last 5 years from manufacturer.</p> <p>6. If Tenderer has any reservations, he has to mention it in deviation list (PW3-12).</p> <p>7. The tenderer is allowed to visit the Hathazari Power Station at his own cost with the permission of the authority before submission of the tender.</p> <p>8. Sealed & signed Tender Document by a person duly authorised to sign on behalf of the Tenderer.</p> <p>9. Tenderer shall have to submit Certificate confirming compliance to the terms and conditions of the Tender Document.</p>
ITT 26.1	Alternatives will not be permitted.
ITT 26.2	There shall not be alternative times for completion of the Works.
ITT 26.4	Alternative technical solutions for any parts of works will not be permitted.
ITT 27.9	The prices quoted by the Tenderer shall be fixed for the duration of the Contract.
ITT 28.1	<p>The currency of the Tender shall be: US Dollar/ Freely convertible international currency and Bangladesh Taka.</p> <p>Tenderers shall quote a Firm Turnkey Contract Price for the work as described in Section 7 of this Tender document. If the Tenderer deemed necessary any additional equipments/materials/ spares/ works out of the list of tender schedule, may quote as recommended equipments/materials/spares/ works. In that case, price of those additional spares/ works will be loaded during evaluation. The total price shall be considered as the firm base price. Prices quoted shall be firm for a period Tender validity. Prices of all items shall be entered in the Bill of Quantities under Section 6.</p>
ITT 31.1	<p>The required Technical Proposal shall include the following additional information:</p> <p>a) Detailed list of materials/ equipments, spares & consumables with specification to be supplied under this tender.</p> <p>b) The Tenderer is required to furnish the following documents along with the Bid</p> <ol style="list-style-type: none"> i. Flow diagram and plan layout ii. hydraulic design with component sizing and head loss calculation <p>c) Name of Manufacturer & Country of origin of System, materials, spares & consumables to be supplied under this tender</p> <p>d) Common approach or methodology for carrying out the work including detailed relevant information and work program.</p> <p>e) Schedule of work in bar chart form as well as in critical path method.</p> <p>f) List of special tools, equipment and instruments which they intend to bring to Bangladesh on re-exportable basis for completion of the work.</p> <p>g) Complete CV with detail experience of the key personnel, who will perform the work.</p> <p>h) Maximum no. of days required to complete the work including required shut down period reckoning from the date of opening of L/C.</p>

	<p>i) Original printed catalogue/ technical literature, dimensional drawings for System, Equipments/Materials/items/ spares from manufacturer.</p> <p>j) List of special equipment and tools, which will be handed over to BPDB after completion of work (If any).</p>
ITT 33.1	The Tender Validity period shall be 120 days.
ITT 35.1	The amount of the Tender Security shall 12,50,000.00 Taka or 15,900.00 US Dollar in the form of an irrevocable and unconditional Bank Guarantee issued by a scheduled bank of Bangladesh or by a foreign bank duly endorsed/authenticated by a scheduled bank of Bangladesh in favour of Director, Directorate of Purchase, Bangladesh Power Development Board. Dhaka.
ITT 40.1	In addition to the original of the Tender, <i>03 (Three)</i> copies shall be submitted.

E. Tender Submission

ITT 41.2(e)	<p>The inner and outer envelopes shall bear the following additional identification marks:</p> <ol style="list-style-type: none"> 1. Tender Enquiry No. & Date and Lot no. 2. Brief Description of work 3. Name & Address of the Employer 4. Name & Address of the Tenderer.
ITT 42.1	<p>For <u>Tender submission purposes</u> only, the Procuring Entity's address is:</p> <p>Attention: Director, Purchase Address: Directorate of Purchase, Bangladesh Power Development Board WAPDA Building, (9th Floor), 12, Motijheel C/A, Dhaka-1000. The deadline for the submission of Tenders is: As specified in the Tender Notice</p>

ITT 42.3	<p>For <u>Tender submission purposes</u> only, the Procuring Entity's address is:</p> <p>Address (PRIMARY PLACE):</p> <p>Directorate of Purchase, Bangladesh Power Development Board WAPDA Building, (9th Floor), 12, Motijheel C/A, Dhaka-1000.</p>
	<p>Address (SECONDARY PLACES):</p> <p>Submission of Tenders will not be allowed in more than one place.</p>

F. Tender Opening and Evaluation

ITT 48.1	<p>The Tender opening shall take place at (<i>always the PRIMARY PLACE</i>):</p> <p>Address: Directorate of Purchase, Bangladesh Power Development Board WAPDA Building, (9th Floor), 12, Motijheel C/A, Dhaka-1000. Time & Date: As specified in the Tender Notice</p>
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ITT 49.1 & 56.1	<p>Evaluation of the Tenders shall be carried out based on the following:</p> <p>1.0 Exchange Rate</p> <p>For Comparison of Tenders, BPDB shall convert all currencies excepting Bangladesh Currency quoted by the Tenderers into Bangladesh Taka. Such conversions shall be made on the basis of the Sonali Bank rate on the date of Tender opening and applicable to similar transactions.</p> <p>2.0 Method of Tender Evaluation</p> <p>The Technical conformance shall be evaluated considering all the aspects (in connection with specified work) offered by Tenderer as well as the data and information submitted and on proper judgment of the capability of Tenderer. The technical qualifications and overall capabilities of the Tenderer for carrying out the work as specified as well as the specifications of the system, equipments, spares and consumables offered and fulfillment of the key dates shall be the essence for selection of technically responsive Tenderers.</p> <p>The evaluation will take into account the initial costs of the Tender, which shall be determined by bringing the scope of work of all the Tender to a common basis for complete fulfillment of the work. BPDB reserves the right to judge the reasonableness of the cost components quoted by the Tenderer. For the purpose of evaluation all costs shall be based on current prices as of the date of the tender closing.</p> <p>The Tender quoting total completion period more than 120 days shall not be accepted. The Tender of which total evaluated cost is the lowest shall be adjudged the lowest Tender.</p>
G. Contract Award	
ITT 64.1	<p>The amount of Performance Security shall be <i>ten (10)</i> percent of the Contract Price. The Performance Security shall be in the form of an irrevocable and unconditional Bank Guarantee issued by a scheduled bank of Bangladesh or by a foreign bank duly endorsed/authenticated by a scheduled bank of Bangladesh.</p>
ITT 68.1	<p>The Adjudicator proposed by the Procuring Entity is [Will be selected as and when necessary. Adjudicator Appointing Authority: President of the Institution of Engineers, Bangladesh.]. The hourly fee shall be Tk [Will be informed later] and the reimbursable expenses shall be limited to [will be informed later].</p>

Section 3. General Conditions of Contract

A. General

1. **Definitions**
- 1.1 In the Conditions of Contract, which include Particular Conditions and these General Conditions, the following words and expressions shall have the meaning hereby assigned to them. Boldface type is used to identify the defined terms:
- (a) **Act means** The Public Procurement Act, 2006 (Act 24 of 2006).
 - (b) **Adjudicator** is the expert appointed jointly by the Procuring Entity and the Contractor to resolve disputes in the first instance, as provided for in GCC Sub Clause 94.2.
 - (c) **Bill of Quantities (BOQ)** means the priced and completed Bill of Quantities forming part of the Contract defined in GCC Clause 60.
 - (d) **Compensation Events** are those defined in GCC Clause 69.
 - (e) **Competent Authority** means the authority that gives decision on specific issues as per delegation of administrative and/or financial powers.
 - (f) **Completion Certificate** means the Certificate issued by the Project Manager as evidence that the Contractor has executed the Works and Physical services in all respects as per design, drawing, specifications and Conditions of Contract.
 - (g) **Completion Date** is the actual date of completion of the Works and Physical services certified by the Project Manager, in accordance with GCC Clause 80.
 - (h) **Contract Agreement** means the Agreement entered into between the Procuring Entity and the Contractor, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein to execute, complete, and maintain the Works.
 - (i) **Contract Documents** means the documents listed in GCC Clause 6, including any amendments thereto.
 - (j) **Contractor** means the Person under contract with the Procuring Entity for the execution of Works under the Rules and the Act as stated in the **PCC**.
 - (k) **Contract Price** means the price payable to the Contractor as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions therefrom, for the execution, completion and maintenance of the Works in accordance with the

provisions of the Contract.

- (l) **Contractor's Tender** is the completed Tender Document including the priced Bill of Quantities and the Schedules submitted by the Contractor to the Procuring Entity.
- (m) **Cost** means all expenditures reasonably incurred or to be incurred by the Contractor, whether on or off the Site, including overhead ,profit, taxes, duties, fees, and such other similar levies
- (n) **Day** means calendar day unless otherwise specified as working days.
- (o) **Dayworks** means work carried out following the instructions of the Procuring Entity or the authorised Project Manager and is paid for on the basis of time spent by the Contractor's workers and equipment at the rates specified in the Schedules, in addition to payments for associated Materials and Plant.
- (p) **Defect** is any part of the Works not completed in accordance with the Contract.
- (q) **Defects Correction Certificate** is the certificate issued by the Project Manager upon correction of defects by the Contractor.
- (r) **Drawings** include calculations and other information provided in Section 9 or as approved by the Project Manager for the execution and completion of the Contract.
- (s) **Goods** mean the Contractor's Equipment, Materials, Plant and Temporary Works, or any of them as appropriate.
- (t) **Equipment** is the Contractor's apparatus, machinery, vehicles and other things required for the execution and completion of the Works and remedying any defects excluding Temporary Works and the Procuring Entity's Equipment (if any), Plant, Materials and any other things to form or forming part of the Permanent Works.
- (u) **Force Majeure** means an event or situation beyond the control of the Contractor that is not foreseeable, is unavoidable, and its origins not due to negligence or lack of care on the part of the Contractor; such events may include, but not be limited to, acts of the Government in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes or more as included in GCC Clause 85.;
- (v) **GCC** means the General Conditions of Contract.
- (w) **Government** means the Government of the People's Republic of Bangladesh.

- (x) **"Head of the Procuring Entity"** means the Secretary of a Ministry or a Division, the Head of a Government Department or Directorate; or the Chief Executive, by whatever designation called, of a local Government agency, an autonomous or semi-autonomous body or a corporation, or a corporate body established under the Companies Act;
- (y) **Intended Completion Date** is the date calculated from the Commencement Date as specified in the **PCC**, on which it is intended that the Contractor shall complete the Works and Physical services as specified in the Contract and may be revised only by the Project Manager by issuing an extension of time or an acceleration order.
- (z) **Materials** means things of all kinds other than Plant intended to form or forming part of the Permanent Works, including the supply-only materials, if any, to be supplied by the Contractor under the Contract.
- (aa) **Month** means calendar month.
- (bb) **Original Contract Price** is the Contract Price stated in the Procuring Entity's Notification of Award (Form PW3-7) and further clearly determined in the **PCC**.
- (cc) **Permanent works** means the permanent works to be executed by the Contractor under the Contract.
- (dd) **PCC** means the Particular Conditions of Contract.
- (ee) **Plant** means the apparatus, machinery and other equipment intended to form or forming part of the Permanent Works, including vehicles purchased for the Procuring Entity and relating to the construction of the Works and Physical services.
- (ff) **Procuring Entity** means a Procuring Entity having administrative and financial powers to undertake procurement of Works and Physical services using public funds and is as named in the **PCC** who employs the Contractor to carry out the Works.
- (gg) **Project Manager** is the person named in the **PCC** or any other competent person appointed by the Procuring Entity and notified to the Contractor who is responsible for supervising the execution and completion of the Works and Physical services and administering the Contract.
- (hh) **Provisional Sums means** amounts of money specified by the Procuring Entity in the Bill of Quantities which shall be used, at its discretion, for payments to Nominated Subcontractor(s) and for meeting other essential expenditures under the Contract pursuant to GCC Sub Clause 77.
- (ii) **Retention Money** means the accumulated retention moneys which the Procuring Entity retains under GCC

Clause 72.

- (jj) **Schedules** means the document(s) entitled schedules, completed by the Contractor and submitted with the Tender Submission Letter, as included in the Contract. Such document may include the data, lists and schedules of rates and/or prices.
- (kk) **Site** means the places where the Permanent Works are to be executed including storage and working areas and to which Plant and Materials are to be delivered, and any other places as may be specified in the **PCC** as forming part of the Site.
- (ll) **Site Investigation Reports** are those that were included in the Tender Document and are factual and interpretative reports about the surface and subsurface conditions at the Site.
- (mm) **Specification** means the Specification of the Works included in the Contract and any modifications or additions to the specifications made or approved by the Project Manager in accordance with the Contract.
- (nn) **Start Date** is the date defined in the **PCC** and it is the last date when the Contractor shall commence execution of the Works under the Contract.
- (oo) **Subcontractor** means a person or corporate body, who has a contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.
- (pp) **Temporary Works** means all temporary works of every kind other than Contractor's Equipment required on the Site for the execution and completion of the Permanent Works and remedying of any defects.
- (qq) **Variation** means any change to the Works directly procured from the original Contractor to cover increases or decreases in quantities, including the introduction of new work items that are either due to change of plans, design or alignment to suit actual field conditions, within the general scope and physical boundaries of the contract.
- (rr) **Works** means all works associated with the construction, reconstruction, site preparation, demolition, repair, maintenance or renovation of railways, roads, highways, or a building, an infrastructure or structure or an installation or any construction work relating to excavation, installation of equipment and materials, decoration, as well as physical services ancillary to works as detailed in the **PCC**, if the value of those services does not exceed that of the Works themselves.
- (ss) **Writing** means communication written by hand or

machine duly signed and includes properly authenticated messages by facsimile or electronic mail.

- 2. Interpretation**
- 2.1 In interpreting the GCC, singular also means plural, male also means female or neuter, and the other way around. Headings in the GCC shall not be deemed part thereof or be taken into consideration in the interpretation or construance of the Contract. Words have their normal meaning under the language of the Contract unless specifically defined.
- 2.2 Entire Agreement
- The Contract constitutes the entire agreement between the Procuring Entity and the Contractor and supersedes all communications, negotiations and agreements (whether written or verbal) of parties with respect thereto made prior to the date of Contract Agreement; except those stated under GCC Sub Clause 6.1(j).
- 2.3 Non waiver
- (a) Subject to GCC Sub Clause 2.3(b), 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, neither shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract.
- (b) Any waiver of a party's rights, powers, or remedies under the Contract must be in writing, 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.
- 2.4 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.
- 2.5 Sectional completion
- If sectional completion is specified in the **PCC**, references in the GCC to the Works, the Completion Date, and the Intended Completion Date apply to any section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).
- 3. Communications and Notices**
- 3.1 Communications between Parties such as notice, request or consent required or permitted to be given or made by one

party to the other pursuant to the Contract shall be in writing to the addresses specified in the **PCC**.

3.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

3.3 A Party may change its address for notice hereunder by giving the other Party notice of such change to the address.

4. Governing Law

4.1 The Contract shall be governed by and interpreted in accordance with the laws of the People's Republic of Bangladesh.

5. Governing Language

5.1 The Contract shall be written in English. All correspondences and documents relating to the Contract may be written in English or *Bangla*. Supporting documents and printed literature that are part of the Contract may be in another language, provided they are accompanied by an accurate translation of the relevant passages in English, in which case, for purposes of interpretation of the Contract, such translation shall govern.

5.2 The Contractor shall bear all costs of translation to the governing language and all risks of the accuracy of such translation.

6. Documents Forming the Contract and Priority of Documents

6.1 The following documents forming the Contract shall be interpreted in the following order of priority:

- (a) the signed Contract Agreement (**Form PW3-8**);
- (b) the Notification of Award (**PW3-7**);
- (c) the completed Tender and the appendix to the Tender;
- (d) the Particular Conditions of Contract;
- (e) the General Conditions of Contract;
- (f) the Technical Specifications;
- (g) the General Specifications;
- (h) the Drawings;
- (i) the priced Bill of Quantities and the Schedules; and
- (j) any other document listed in the **PCC** forming part of the Contract.

7. Scope of Works

7.1 The Works to be executed, completed and maintained shall be as specified in the Bill of Quantities, the General and Particular Specifications and Drawings.

7.2 Unless otherwise stipulated in the Contract, the Works shall include all such items not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for completion of the Works as if such items were expressly mentioned in the Contract.

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| 8. Assignment | 8.1 Neither the Contractor nor the Procuring Entity shall assign, in whole or in part, its obligations under the Contract |
| 9. Eligibility | <p>9.1 The Contractor and its Subcontractor(s) shall have the nationality of a country other than that specified in the PCC.</p> <p>9.2 All materials, equipment, plant, and supplies used by the Contractor in both permanent and temporary works and services supplied under the Contract shall have their origin in the countries except any specified in the PCC.</p> |
| 10. Gratuities / Agency fees | 10.1 No fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the tender or in the Contract, have been given or received in connection with the procurement process or in the Contract execution. |
| 11. Confidential Details | <p>11.1 The Contractor's and the Procuring Entity's personnel shall disclose all such confidential and other information as may be reasonably required in order to verify the Contractor's compliance with the Contract and allow its proper implementation.</p> <p>11.2 Each of them shall treat the details of the Contract as private and confidential, except to the extent necessary to carry out their respective obligations under the Contract or to comply with applicable Laws. Each of them shall not publish or disclose any particulars of the Works prepared by the other Party without the previous agreement of the other Party. However, the Contractor shall be permitted to disclose any publicly available information, or information otherwise required to establish his qualifications to compete for other projects.</p> |
| 12. JVCA | <p>12.1 If the Contractor is a JVCA ,</p> <ul style="list-style-type: none"> (a) each partner of the JVCA shall be jointly and severally liable for all liabilities and ethical or legal obligations to the Procuring Entity for the fulfilment of the promises of the Contract; (b) the JVCA partners shall nominate a representative who shall have the authority to conduct all business including the receipt of payments for and on behalf of all partners of the JVCA; (c) the JVCA shall notify the Procuring Entity of its composition and legal status which shall not be altered without the prior approval of the Procuring Entity. (d) alteration of partners shall only be allowed if any of the partners is found to be incompetent or has any serious difficulties which may impact the overall implementation of the works. |

13. Possession of the Site	13.1	The Procuring Entity shall give possession of the Site or part(s) of the Site, to the Contractor on the date(s) stated in the PCC . If possession of a part of the Site is not given by the date stated in the PCC , the Procuring Entity will be deemed to have delayed the start of the relevant activities, and this will be a Compensation Event as stated under GCC Sub Clause 69.1(a).
14. Access to the Site	14.1	The Contractor shall allow the Project Manager and any person authorised by the Project Manager access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.
15. Procuring Entity's Responsibilities	15.1	The Procuring Entity shall pay the Contractor, in consideration of the satisfactory progress of execution and completion of the Works and Physical services, and the remedying of defects therein, the Contract price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract Agreement.
	15.2	The Procuring Entity shall make its best effort to guide and assist the Contractor in obtaining, if required, any permit, licence, and approvals from local public authorities for the purpose of execution of the Works and Physical services under the Contract.
16. Approval of the Contractor's Temporary Works	16.1	The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Project Manager, who is to approve them, if they comply with the Specifications and Drawings.
	16.2	The Contractor shall be responsible for design of Temporary Works.
	16.3	The Project Manager's approval shall not alter the Contractor's responsibility for design of the Temporary Works.
	16.4	The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.
17. Contractor's Responsibilities	17.1	The Contractor shall execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract Agreement.
18. Taxes and Duties	18.1	The Contractor shall be entirely responsible for all taxes, duties, fees, and other such levies imposed inside and outside Bangladesh.
19. Contractor's Personnel	19.1	The Contractor shall employ the key personnel named in the Schedule of Key Personnel, as referred to in the PCC , to carry out the functions stated in the Schedule or other personnel approved by the Project Manager.
	19.2	The Project Manager will approve any proposed

replacement of key personnel only if their relevant qualifications and abilities are equal to or higher than those of the personnel named in the Schedule.

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| | 19.3 | If the Project Manager asks the Contractor to remove a particular person who is a member of the Contractor's staff or work force from the Site, he or she shall state the reasons, and the Contractor shall ensure that the person leaves the Site within three (3) days and has no further connection with the work in the Contract. |
| 20. Subcontracting | 20.1 | Subcontracting the whole of the Works by the Contractor shall not be permissible. The Contractor shall be responsible for the acts or defaults of any Subcontractor, his or her agents or employees, as if they were the acts or defaults of the Contractor. |
| | 20.2 | The prior consent, in writing, of the Project Manager shall however be obtained for other proposed Subcontractor(s). |
| | 20.3 | Subcontractors shall comply with the provisions of GCC Clause 39. |
| 21. Nominated Subcontractor | 21.1 | Nominated Subcontractor named in the Contract shall be entitled to execute the specific components of the Works stated in the PCC . |
| | 21.2 | The Contractor shall not be under obligations to employ a Nominated Subcontractor against whom the Contractor raises reasonable objection by notice to the Project manager as soon as practicable, with supporting particulars while there are reasons to believe that the Subcontractor does not have sufficient competence, resources or financial strength, or does not accept to indemnify the Contractor against and from any negligence or misuse of Goods by the nominated Subcontractor. |
| | 21.3 | Subcontracting shall in no event relieve the Contractor from any of its obligations, duties, responsibilities, or liability under the Contract and all Subcontractors shall comply with the provisions of GCC Clause 39. |
| 22. Other Contractors | 22.1 | The Contractor shall cooperate and share the Site with other Contractors, public authorities, utilities, the Project Manager and the Procuring Entity between the dates given in the Schedule of other Contractors. The Contractor shall also provide facilities and services for them as described in the Schedule. The Procuring Entity may modify the Schedule of other Contractors, and shall notify the Contractor of any such modification. |
| 23. Project Manager's Decisions | 23.1 | Except where otherwise specifically stated in the PCC , the Project Manager will decide Contractual matters between the Procuring Entity and the Contractor in its role as representative of the Procuring Entity. |
| 24. Delegation | 24.1 | The Project Manager may delegate any of his duties and responsibilities to his representative except to the |

		Adjudicator, after notifying the Contractor, and may cancel any delegation, without retroactivity, after notifying the Contractor.
	24.2	Any communications to the Contractor in accordance with such delegation shall have the same effect as if it was given by the Project Manager.
25. Instructions,	25.1	The Contractor shall carry out all instructions of the Project Manager that comply with the applicable law.
26. Queries about the Contract conditions	26.1	The Project Manager, on behalf of the Procuring Entity, will clarify queries on the Conditions of Contract.
27. Safety, Security and Protection of the Environment	27.1	<p>The Contractor shall throughout the execution and completion of the Works and the remedying of any defects therein:</p> <ul style="list-style-type: none"> (a) take all reasonable steps to safeguard the health and safety of all workers working on the Site and other persons entitled to be on it, and to keep the Site in an orderly state; (b) provide and maintain at the Contractor's own cost all lights, guards, fencing, warning signs and watching for the protection of the Works or for the safety on-site; and (c) take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of the Contractors methods of operation.
28. Working Hours	28.1	The Contractor shall not perform any work on the Site on the weekly holidays, or during the night or outside the normal working hours, or on any religious or public holiday, without the prior written approval of the Project Manager.
29. Welfare of Labourers	29.1	The Contractor shall comply with all the relevant labour Laws applicable to the Contractor's personnel relating to their employment, health, safety, welfare, immigration and shall allow them all their legal rights.
	29.2	The Contractor, in particular, shall provide proper accommodation to his or her labourers and arrange proper water supply, conservancy and sanitation arrangements at the site for all necessary hygienic requirements and for the prevention of epidemics in accordance with relevant regulations, rules and orders of the government.
	29.3	The Contractor, further in particular, shall pay reasonable wages to his or her labourers, and pay them in time. In the event of delay in payment the Procuring Entity may effect payments to the labourers and recover the cost from the

Contractor.

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| 30. Child Labour | 30.1 | 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 in compliance with the applicable labor laws and other relevant treaties ratified by the government. |
| 31. Discoveries | 31.1 | Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Procuring Entity. The Contractor shall notify the Project Manager of such discoveries and carry out the Project Manager's instructions for dealing with them. |
| 32. Procuring Entity's and Contractor's Risks | 32.1 | The Procuring Entity carries the risks that the Contract states are Procuring Entity's risks and the Contractor carries the risks that the Contract states are Contractor's risks. |
| 33. Procuring Entity's Risks | 33.1 | <p>From the Start Date until the Defects Correction Certificate has been issued, the following are Procuring Entity's risks:</p> <ul style="list-style-type: none">(a) the risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to<ul style="list-style-type: none">i. use or occupation of the Site by the Works or for the purpose of the Works, which is the unavoidable result of the Works orii. negligence, breach of statutory duty, or interference with any legal right by the Procuring Entity or by any person employed by or Contracted to him except the Contractor.(b) the risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Procuring Entity or in the Procuring Entity's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed. |
| | 33.2 | <p>From the Completion Date until the Defects Correction Certificate has been issued, the risk of loss of or damage to the Works, Plant, and Materials is Procuring Entity's risk, except loss or damage due to:</p> <ul style="list-style-type: none">(a) a Defect which existed on the Completion Date;(b) an event occurring before the Completion Date, which was not itself Procuring Entity's risk; or(c) the activities of the Contractor on the Site after the Completion Date. |

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| 34. Contractor's Risks | 34.1 From the Start Date until the Defects Correction Certificate has been issued the risks of personal injury, death, and loss of or damage to property including without limitation, the Works, Plant, Materials, and Equipment, which are not Procuring Entity's risks are Contractor's risks. |
| 35. Copyright | <p>35.1 The copyright in all drawings, documents, and other materials containing data and information furnished to the Procuring Entity by the Contractor herein shall remain vested in the Contractor, or, if they are furnished to the Procuring Entity 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.</p> <p>35.2 The Contractor shall not, except for the purposes of performing the obligations under the Contract, without the written permission of the Procuring Entity disclose or make use of any specification, plan, design and drawing, pattern, sample or information furnished by or on behalf of the Procuring Entity.</p> |
| 36. Limitation of Liability | <p>36.1 Except in cases of criminal negligence or wilful misconduct:</p> <ul style="list-style-type: none"> (a) the Contractor shall not be liable to the Procuring Entity, 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, provided that this exclusion shall not apply to any obligation of the Contractor to pay liquidated damages to the Procuring Entity; and (b) the aggregate liability of the Contractor to the Procuring Entity, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective Works, or to any obligation of the Contractor to indemnify the Procuring Entity with respect to patent infringement. |
| 37. Insurance | <p>37.1 The Contractor shall provide, in the joint names of the Procuring Entity and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles specified in the PCC for the following events which are due to the Contractor's risks:</p> <ul style="list-style-type: none"> (a) loss of or damage to the Works, Plant, and Materials; (b) loss of or damage to Equipment; (c) loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and (d) personal injury or death. |

- 37.2 The Contractor shall deliver policies and certificates of insurance to the Project Manager, for the Project Manager's approval, before the Start Date. All such insurances shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.
- 37.3 If the Contractor does not provide any of the policies and certificates required, the Procuring Entity may effect the insurance which the Contractor should have provided and recover the premiums the Procuring Entity has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.
- 37.4 Alterations to the terms of insurance shall not be made without the approval of the Project Manager.
- 37.5 Both parties shall comply with conditions of the insurance policies.
- 38. Management and Progress Meetings**
- 38.1 Either the Project Manager or the Contractor may require the other to attend a management and progress meeting. The business of such meeting shall be to review the progress and plans for remaining work and to deal with matters raised in accordance with the early warning procedure.
- 38.2 The Project Manager shall record the business of the meetings and provide copies of the record to those attending the meeting and to the Procuring Entity. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management and progress meeting or after the meeting, and stated in writing to all concerned.
- 39. Corrupt, Fraudulent, Collusive or Coercive Practices**
- 39.1 The Government requires that Procuring Entity, as well as the Contractor shall observe the highest standard of ethics during the implementation of procurement proceedings and the execution of the Contract under public fund.

39.2 For the purposes of GCC Sub Clause 39.4, the terms set forth below as follows:

- (a) “corrupt practice” means offering, giving or promising to give, receiving, or soliciting either directly or indirectly, to any officer or employee of a Procuring Entity or other public or private authority or individual, a gratuity in any form; employment or any other thing or service of value as an inducement with respect to an act or decision or method followed by a Procuring Entity in connection with a Procurement proceeding or Contract execution;
- (b) “fraudulent practice” means the misrepresentation or omission of facts in order to influence a decision to be taken in a Procurement proceeding or Contract execution;
- (c) “collusive practice” means a scheme or arrangement between two (2) or more Persons, with or without the knowledge of the Procuring Entity, that is designed to arbitrarily reduce the number of Tenders submitted or fix Tender prices at artificial, non-competitive levels, thereby denying a Procuring Entity the benefits of competitive price arising from genuine and open competition; or
- (d) “coercive practice” means harming or threatening to harm, directly or indirectly, Persons or their property to influence a decision to be taken in the Procurement proceeding or the execution of the Contract, and this will include creating obstructions in the normal submission process used for Tenders.
- (e) “obstructive practice” means deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede an 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.

- 39.3 Should any corrupt, fraudulent, collusive, coercive or obstructive practice of any kind come to the knowledge of the Procuring Entity, it will, in the first place, allow the Contractor to provide an explanation and shall, take actions only when a satisfactory explanation is not received. Such exclusion and the reasons thereof, shall be recorded in the record of the procurement proceedings and promptly communicated to the Contractor. Any communications between the Contractor and the Procuring Entity related to matters of alleged corrupt, fraudulent, collusive, coercive or obstructive practices shall be in writing.
- 39.4 If corrupt, fraudulent, collusive, coercive or obstructive practices of any kind determined by the Procuring Entity against the Contractor alleged to have carried out such practices, the Procuring Entity will :
- (a) exclude the Contractor from further participation in the particular Procurement proceeding; or
 - (b) declare, at its discretion, the Contractor to be ineligible to participate in further Procurement proceedings, either indefinitely or for a specific period of time.
- 39.5 The Contractor shall be aware of the provisions on corruption, fraudulence, collusion and coercion in Section 64 of the Public Procurement Act, 2006 and Rule 127 of the Public Procurement Rules, 2008.
- 39.6 The Contractor shall permit the Procuring Entity and/or the Development Partner to inspect the Contractor's accounts and records and other documents relating to the submission of tender and contract performance, and to have them audited by auditors appointed by the Procuring Entity and/or the Development Partner, if so required.

B. Time Control

- 40. Commencement of Works**
- 40.1 Except otherwise specified in the **PCC** , the Commencement Date shall be the date at which the following precedent conditions have all been fulfilled and the Project Manager's instruction recording the agreement of both Parties on such fulfilment and instructing to commence the Works is received by the Contractor:
- (a) signing of the Contract Agreement by both parties upon approval of the by relevant authorities;
 - (b) possession of the Site given to the Contractor as required for the commencement of the Works; and
 - (c) receipt by the Contractor of the Advance Payment under GCC Clause 75 provided that the corresponding Bank Guarantee has been delivered by the Contractor, if any.

	40.2	The Contractor shall commence the execution of the Works as soon as is reasonably practicable by the Start Date as specified in the GCC Sub Clause 1.1(nn) after the Commencement Date, and shall then proceed with the Works with due expedition and without delay.
41. Completion of Works	41.1	The Contractor shall carry out the Works in accordance with the Programme of Works submitted by the Contractor and as updated with the approval of the Project Manager as stated under GCC Clause 42 to complete them in all respects by the Intended Completion Date.
42. Programme of Works	42.1	Within the time stated in the PCC , the Contractor shall submit to the Project Manager for approval a Programme of Works showing the general methods, arrangements, order, and timing for all the activities in the Works. The programme may be in the form of an Implementation Schedule prepared in any software or other form acceptable to the Project Manager.
	42.2	The Contractor shall submit to the Project Manager for approval of an updated Programme at intervals no longer than the period stated in the PCC . An update of the Programme shall be a Programme showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.
	42.3	If the Contractor does not submit an updated Programme of Works at the intervals as stated under GCC Sub Clause 42.2, the Project Manager may withhold an amount as stated in the PCC from the next payment certificate and continue to withhold this amount until the next due payment after the date on which the overdue Programme of Works has been submitted.
	42.4	The Project Manager's approval of the Programme of Works shall not alter the Contractor's obligations. The Contractor may revise the Programme and submit it to the Project Manager again at any time for approval. A revised Programme shall show the effect of Variations and Compensation Events.
43. Pro Rata Progress	43.1	The Contractor shall maintain Pro Rata progress of the Works. Progress to be achieved shall be pursuant to GCC Clause 42 and shall be determined in terms of the value of the works done.
44. Early Warning	44.1	If at any time during performance of the Contract, the Contractor or its Subcontractors should encounter events, circumstances, conditions that may adversely affect the quality of the work, increase the original Contract Price or delay the execution of the Works, the Contractor shall promptly notify the Project Manager in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Contractor's notice, the Project Manager

shall evaluate the situation, and the Contractor shall cooperate with the Project Manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced.

44.2 The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the original Contract price and Completion Date. The Contractor shall provide the estimate and the Project Manager shall further proceed as soon as reasonably possible.

45. Extension of Intended Completion Date

45.1 The Contractor shall be entitled to an extension of the Intended Completion Date, if and to the extent that completion of the Works or any part thereof is or will be delayed by Compensation Events or a Variation or Extra Work Order.

45.2 The Project Manager shall decide whether and by how much to extend the Intended Completion Date within twenty-one (21) days of the Contractor asking the Project Manager for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the extension of Intended Completion Date.

45.3 Except in case of Force Majeure, as provided under GCC Clause 85, a delay by the Contractor in the performance of its Completion obligations shall render the Contractor liable to the imposition of Liquidated Damages pursuant to GCC Clause 73, unless an extension of Intended Completion Date is agreed upon, pursuant to GCC Clause 45.

46. Delays Caused by Authorities

46.1 If the following conditions apply, namely:

- (a) the Contractor has diligently followed the procedures laid down by the relevant legally constituted public authorities,
- (b) these public authorities delay or disrupt the Contractor's work, and
- (c) the delay or disruption was unforeseeable;

then this delay or disruption will be considered as a cause of delay under GCC Sub Clause 45.1.

46.2 The Project Manager shall notify the Contractor accordingly keeping the Procuring Entity posted.

47. Acceleration

47.1 When the Procuring Entity wants the Contractor to finish the Works before the Intended Completion Date, the Project Manager will obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Procuring Entity accepts these proposals, the Intended Completion Date will be advanced accordingly and confirmed by both

the Procuring Entity and the Contractor.

- 47.2 If the Procuring Entity accepts the Contractor's priced proposals for acceleration, they will be incorporated in the Contract Price and treated as a **Variation** under GCC Clause 62.
- 48. Delays Ordered by the Project Manager**
- 48.1 The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.
- 49. Suspension of Work**
- 49.1 The Project Manager may at any time instruct the Contractor to suspend progress of part or all of the Works. During such suspension, the Contractor shall protect, store and secure such part or the Works against any deterioration, loss or damage.
- 50. Consequences of Suspension**
- 50.1 If the Contractor suffers delay and/or incurs Cost from complying with the Project Manager's instructions under GCC Clause 49 and/or from resuming the work, the Contractor shall give notice to the Project Manager and shall be entitled subject to GCC Clause 93 to:
- (a) an extension of time for any such delay, if Completion is or will be delayed and
 - (b) payment of any such cost, which shall be included in the Contract Price.
- 50.2 After receiving this notice, the Project Manager shall proceed to agree or determine these matters.
- 50.3 The Contractor shall not be entitled to any extension of time for, or to any payment of the cost incurred in, making good the consequences of the Contractor's faulty design, workmanship or materials, or of the Contractor's failure to protect, store or secure in accordance with GCC Clause 49.

C. Quality Control

- 51. Execution of Works**
- 51.1 The Contractor shall construct, install and carry out the Works and Physical services in accordance with the Specifications and Drawings as scheduled in GCC Clause 6.
- 52. Examination of Works before covering up**
- 52.1 All works under the Contract shall at all times be open to examination, inspection, measurements, testing and supervision of the Project Manager, and the Contractor shall ensure presence of its representatives at such actions provided proper advance notice is given by the Project Manager.
- 52.2 No part of the Works shall be covered up or put out of sight without the approval of the Project Manager. The Contractor shall give notice in writing to the Project Manager whenever any such part of the Works is ready for examination and the

Project Manager shall attend to such examination without unreasonable delay.

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| 53. Identifying Defects | 53.1 The Project Manager shall check the works executed by the Contractor and notify the Contractor of any Defects found. Such checking shall not relieve the Contractor from his or her obligations. The Project Manager may also instruct the Contractor to search for a Defect and to uncover and test any work that the Project Manager considers may have a Defect. |
| 54. Testing | 54.1 If the Project Manager instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect, the test shall be a Compensation Event. |
| 55. Rejection of Works | 55.1 If, as a result of an examination, inspection, measurement or testing, of Works it is found to be defective or otherwise not in accordance with the Contract, the Project Manager may reject the Works by giving notice to the Contractor, with reasons. The Contractor shall then promptly make good the defect and ensure that the rejected Works subsequently complies with the Contract. |
| 56. Remedial Work | <p>56.1 Notwithstanding any test or certification, the Project Manager may instruct the Contractor to:</p> <ul style="list-style-type: none"> (a) remove from the Site and replace any Plant or Materials which is not in accordance with the Contract, (b) remove and re-execute any other work which is not in accordance with the Contract, and (c) execute any work which is urgently required for the safety of the Works, whether because of an accident, unforeseeable event or otherwise. <p>56.2 The Contractor shall comply with the instruction issued under GCC Sub Clause 56.1 within a reasonable time, which shall be specified in the instruction, or immediately if urgency is specified under GCC Sub Clause 56.1(c).</p> <p>56.3 If the Contractor fails to comply with the instruction issued under GCC Sub Clause 56.2, the Procuring Entity shall be entitled to employ and pay other persons to carry out the work. Except to the extent that the Contractor would have been entitled to payment for the work, the Contractor shall be liable to pay all such costs arising from this failure.</p> |
| 57. Correction of Defects | 57.1 The Project Manager shall give notice to the Contractor, with a copy to the Procuring Entity and others concerned, of any Defects before the end of the Defects Liability Period, which begins at Completion Date, and is defined in the PCC . The Defects Liability Period shall be extended for |

as long as Defects remain to be corrected.

57.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Project Manager's notice.

58. Uncorrected Defects

58.1 If the Contractor has not corrected a Defect within the time specified in the Project Manager's notice, the Project Manager shall assess the cost of having the Defect corrected by it, and the Contractor shall remain liable to pay the expenditures incurred on account of correction of such Defect.

D. Cost Control

59. Contract Price

59.1 The Contract Price shall be as specified in the Contract Agreement subject to any additions and adjustments thereto, or deductions therefrom, as may be made pursuant to Contract

60. Bill of Quantities

60.1 The Bill of Quantities shall contain priced items for the construction, installation, testing, and commissioning work to be done by the Contractor.

60.2 The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item.

61. Changes in the Quantities and Unit Rate or Price

61.1 If the final quantity of the work done for any particular item increases from the quantity in the Bill of Quantities by more than twenty-five percent (25%), provided the change in case exceeds one percent (1%) of the original Contract Price, the Project Manager shall adjust the rate to allow for the change.

61.2 If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.

62. Variations

62.1 All Variations and Extra Work Orders under the Contract shall be included in the updated Programme of Works produced by the Contractor.

63. Costing of Variations or Extra Orders

63.1 The Contractor shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager. The Project Manager shall assess the quotation, which shall be given within seven (7) days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.

63.2 If the work in the Variation corresponds with an item description in the Bill of Quantities and if, in the opinion of the Project Manager, the quantity of work not above the limit stated in GCC Sub-Clause 61.1 or the timing of its execution do not cause the cost per unit of quantity to

	change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of work.
	63.3 If the Contractor's quotation is found to be unreasonable, the Project Manager may order the Variation and make a change to the Contract price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.
	63.4 If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event under GCC Sub Clause 69.
	63.5 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning under GCC Sub Clause 44.1.
64. Cash Flow Forecasts	64.1 When the Programme of Works is updated under GCC Sub Clause 42.2, the Contractor shall provide the Project Manager with an updated cash flow forecast.
65. Payment Certificates	65.1 The basis for payment certificates shall be Bill of Quantities used to determine the Contract price.
	65.2 The Contractor shall submit to the Project Manager monthly statements of the estimated value of the works executed less the cumulative amount certified previously.
	65.3 The Project Manager shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.
	65.4 The value of work executed shall be determined by the Project Manager.
	65.5 The value of work executed shall include the valuation of Variations or Extra Work Orders, Certified Dayworks and Compensation Events.
	65.6 The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.
66. Payments to the Contractor	66.1 Payments shall be adjusted for deductions for advance payments and retention. The Procuring Entity shall pay the Contractor the amounts certified by the Project Manager within twenty eight (28) days of the date of each certificate after due adjustments for deductions for advance payments, retention and any other additions or deductions which may have become due under the Contract or

otherwise, including those under GCC Clause 93.

- 66.2 Items of works quantified in the Bill of Quantities for which no rates or prices have been quoted shall be deemed covered by the amounts at rates and prices of other items in the Contract.
- 66.3 Payments due to the Contractor in each certificate shall be made into the Bank Account in any scheduled Bank of Bangladesh of the title of the Contract specified in the **PCC**, nominated by the Contractor in the currency specified in the Contract.
- 67. Delayed Payment**
- 67.1 If the Procuring Entity makes a late payment, the Contractor shall be paid interest on the late payment in the next payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the prevailing rate of interest for commercial borrowing for each of the currencies in which payments are made.
- 67.2 If an amount certified is increased in a subsequent certificate as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.
- 68. Payments to Nominated Subcontract or(s)**
- 68.1 The Contractor shall pay to the Nominated Subcontractor(s) the amounts shown on the Nominated Subcontractor's invoices approved by the Contractor which the Project Manager certifies to be due in accordance with the subcontract included under the Contract.
- 69. Compensation Events**
- 69.1 The following shall be Compensation Events:
- (a) The Procuring Entity does not give access to or possession of the Site or part of the Site by the Site Possession Date stated in the GCC Sub Clause 13.1;
 - (b) The Procuring Entity modifies the Schedule of other Contractors in a way that affects the works of the Contractor under the Contract;
 - (c) The Project Manager orders a delay or does not issue Drawings, Specifications, or instructions required for execution of the Works on time;
 - (d) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects;
 - (e) The Project Manager unreasonably does not approve a subcontract to be let, if applicable;
 - (f) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Notification of Award from the

information issued to Tenderers (including the Site Investigation Reports), from information available publicly and from a visual inspection of the Site;

- (g) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Procuring Entity, or additional work required for safety or other reasons;
- (h) Other Contractors, public authorities, utilities, or the Procuring Entity do not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor;
- (i) The advance payment is delayed;
- (j) The effects on the Contractor of any of the Procuring Entity's Risks;
- (k) The Project Manager unreasonably delays issuing a Completion Certificate;
- (l) A situation of Force Majeure has occurred, as defined in GCC Clause 85; and
- (m) Other Compensation Events described in the Contract or determined by the Project Manager in the **PCC** shall apply.

69.2 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract price shall be increased and/or the Intended Completion Date shall be extended. The Project Manager shall decide whether and by how much the Contract price shall be increased and whether and by how much the Intended Completion Date shall be extended, only on justifiably acceptable grounds duly recorded.

69.3 As soon as the Contractor has provided information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost, the Project Manager shall assess it, and the Contract price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Project Manager shall adjust the Contract price based on the Project Manager's own forecast. The Project Manager will assume that the Contractor will react competently and promptly to the event.

69.4 The Contractor shall not be entitled to compensation to the extent that the Procuring Entity's interests are adversely affected by the Contractor not having given early warning or not having cooperated with the Project Manager.

70. Adjustments for Changes in Legislation

70.1 Unless otherwise specified in the Contract, if between the date twenty-eight (28) days before the submission of Tenders for the Contract and the date of the last Completion Certificate, any law, regulation, ordinance, order or bylaw having the force of law is enacted,

promulgated, abrogated, or changed in Bangladesh (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Completion Date and/or the Contract price, then such Completion Date and/or Contract price shall be correspondingly increased or decreased, to the extent that the Contractor has thereby been affected in the performance of any of its obligations under the Contract.

- 70.2 The Project Manager shall adjust the Contract Price on the basis of the change in the amount of taxes, duties, and other levies payable by the Contractor, provided such changes have not already been accounted for in the price adjustment as defined in GCC Clause 69 and/or reflected in the Contract price.

71. Price Adjustment

- 71.1 Prices shall be adjusted for fluctuations in the cost of inputs only if provided for in the **PCC**. If so provided, the amounts as certified in each payment certificate, before deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amount. The formula indicated below applies:

$$P = A + B (I_m/I_o)$$

where:

P is the adjustment factor

A and **B** are Coefficients specified in the **PCC**, representing the nonadjustable and adjustable portions, respectively, of the Contract; and

I_m is the Index during the month the work has been executed and **I_o** is the Index prevailing twenty eight (28) days prior to the deadline for submission of Tender.

The Indexes to be used is as published by the Bangladesh Bureau of Statistics (BBS) on a monthly basis. In case not available, then other countries or authorities of the sources mentioned in **Appendix to the Tender** may be used.

72. Retention Money

- 72.1 The Procuring Entity may retain from each progressive payment due to the Contractor at the percentage specified in the **PCC** until completion of the whole of the Works under the Contract.
- 72.2 On completion of the whole of the Works, the first half the total amount retained under GCC Sub Clause 72.1 shall be repaid to the Contractor and the remaining second half after the Defects Liability Period has passed and the Project Manager has certified in the form of **Defects Corrections Certificate**.
- 72.3 On completion of the whole of the Works, the Contractor may substitute an unconditional Bank Guarantee in the format as specified (**Form PW3-11**) acceptable to the Procuring Entity for the second half of the retention money

as stated under GCC Sub Clause 72.2.

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| 73. Liquidated Damages | <p>73.1 The Contractor shall pay liquidated damages¹⁶ to the Procuring Entity at the rate per day stated in the PCC for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount defined in the PCC. The Procuring Entity may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.</p> <p>73.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Project Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate.</p> |
| 74. Bonus | <p>74.1 The Contractor shall be paid a Bonus calculated at the rate per calendar day if stated in the PCC for each day (less any days for which the Contractor is paid for acceleration) that the Completion of the whole of the Works is earlier than the Intended Completion Date. The Project Manager shall require certifying that the Works are complete, although they may not have fallen due to being complete as per approved updated Programme of Works.</p> |
| 75. Advance Payment | <p>75.1 If so specified in the PCC, the Procuring Entity shall make advance payment to the Contractor of the amounts and by the dates stated in the PCC against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a bank acceptable to the Procuring Entity in an amount equal to the advance payment. The Guarantee shall remain effective until the advance payment has been repaid, but the amount of the Guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest will not be charged on the advance payment.</p> <p>75.2 The Contractor shall use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used for such specific purposes by supplying copies of invoices or other documents to the Project Manager.</p> <p>75.3 The advance payment shall be repaid by deducting at proportionate rate from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Bonuses, or Liquidated Damages.</p> |

¹⁶ Usually liquidated damages are set between 0.05 percent and 0.10 percent per day, and the total amount is not to exceed between 5 percent and 10 percent of the Contract Price.

- 76. Performance Security**
- 76.1 The Procuring Entity shall notify the Contractor of any claim made against the Bank issuing the Performance Security.
- 76.2 The Procuring Entity may claim against the security if any of the following events occurs for fourteen (14) days or more.
- (a) The Contractor is in breach of the Contract and the Procuring Entity has duly notified him or her ; and
 - (b) The Contractor has not paid an amount due to the Procuring Entity and the Procuring Entity has duly notified him or her.
- 76.3 In the event the Contractor is liable to pay compensation under the Contract amounting to the full value of the Performance Security or more, the Procuring Entity may call the full amount of the Performance Security.
- 76.4 The Performance Security furnished at the time of signing of the Contract Agreement shall be substituted, after the issuance of certificate of Completion of works by the Project Manager, by a new Security covering fifty (50) percent amount of the Performance Security to cover the Defects Liability Period.
- 76.5 If there is no reason to call the Performance Security, the Performance Security shall be discharged by the Procuring Entity and returned to the Contractor after the Defects Liability period has passed and the Project Manager has certified in the form of Defects Corrections Certificates.
- 77. Provisional Sums**
- 77.1 Provisional Sums shall only be used, in whole or in part, in accordance with the Project Manager's instructions and the Contract price shall be adjusted accordingly. The total sum paid to the Contractor shall include only such amounts, for the work, supplies or services to which the Provisional Sum relates, as the Project Manager shall have instructed.
- 77.2 Plants, Materials or Services to be purchased by the Contractor under the provisions of GCC Sub Clause 77.1 from Nominated Subcontractor(s) or for meeting the other expenditures under the Contract, and for which there shall be included in the Contract price, the actual amounts paid or due to be paid by the Contractor, and a sum for VAT, profit and overhead charges, as applicable, calculated as a percentage of these actual amounts by applying the relevant percentage rate stated in the **PCC**.
- 77.3 The Contractor shall, when required by the Project Manager, produce quotations, invoices, vouchers and accounts or receipts in substantiation of purchases under GCC Sub Clause 77.2.
- 78. Dayworks**
- 78.1 If applicable, the Dayworks rates in the Contractor's Tender shall be used for small additional amounts of work only when the Project Manager has given written instructions in

advance for additional work to be paid for in that way.

78.2 All works to be paid for as Dayworks shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be certified and signed by the Project Manager within seven (7) days of the works being done.

78.3 The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.

79. Cost of Repairs to Loss or Damages

79.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Liability Period shall be remedied by the Contractor at the Contractor's own cost, if the loss or damage arises from the Contractor's acts or omissions.

E. Completion of the Contract

80. Completion

80.1 The Contractor shall apply by notice to the Project Manager for issuing a Completion Certificate of the Works, and the Project Manager shall do so upon deciding that the work is completed.

81. Taking Over

81.1 The Procuring Entity shall take over the Site and the Works within seven (7) days of the Project Manager's issuing a certificate of Completion.

82. Amendment to Contract

82.1 The amendment to Contract shall generally include extension of time to the Intended Completion Date, increase or decrease in original Contract price and any other changes acceptable under the conditions of the Contract.

82.2 The Procuring Entity, in accordance with the Delegation of Financial Power or sub-delegation thereof, shall amend the Contract incorporating the changes introduced to the original terms and conditions of the Contract in line with the Rules.

83. Final Account

83.1 The Contractor shall submit with a detailed account of the total amount that the Contractor considers payable under the Contract to the Project Manager before the end of the **Defects Liability Period**.

83.2 The Project Manager shall certify the **Final Payment** within fifty six (56) days of receiving the Contractor's account if the payable amount claimed by the Contractor is correct and the corresponding works are completed.

83.3 If it is not, the Project Manager shall issue within fifty six (56) days a **Defects Liability Schedule** that states the scope of the corrections or additions that are necessary.

	83.4	If the Final Account of Works submitted under GCC Sub Clause 83.1 is unsatisfactory even after it has been resubmitted, the Project Manager shall decide on the amount payable to the Contractor and issue a payment certificate.
84. As-built Drawings and Manuals	84.1	If “As Built” Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the PCC .
	84.2	If the Contractor does not supply the Drawings and/or Manuals by the dates specified in GCC Sub Clause 84.1, or they do not receive the Project Manager’s approval, the Project Manager shall withhold a nominal amount specified in the PCC from payments due to the Contractor.
85. Force Majeure	85.1	Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind stated below; <ul style="list-style-type: none"> (a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies ; (b) rebellion, terrorism, sabotage by persons other than the Contractor’s personnel, revolution, insurrection, military or usurped power, or civil war ; (c) riot, commotion, disorder, strike or lockout by persons other than the Contractor’s personnel ; (d) munitions of war, explosive materials, ionising radiation or contamination by radio-activity, except as may be attributable to the Contractor’s use of such munitions, explosives, radiation or radio-activity ; and (e) natural catastrophes such as fires, floods, epidemics, quarantine restrictions, freight embargoes, cyclone, hurricane, typhoon, tsunamis, storm surge, earthquake, hill slides, landslides, and volcanic activities.
86. Notice of Force Majeure	86.1	If a party is or will be prevented from performing its substantial obligations under the Contract by Force Majeure, then it shall give notice, within fourteen (14) days after the party became aware, to the other party of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented.
	86.2	Notwithstanding any other provision of this Clause, Force Majeure shall not apply to obligations of either party to make payments to the other party under the Contract.
87. Consequences of Force Majeure	87.1	If the Contractor is prevented from performing its substantial obligations under the Contract by Force Majeure of which notice has been given under GCC Sub

Clause 86, and suffers delay and/or incurs cost by reason of such Force Majeure, the Contractor shall be entitled subject to GCC Sub Clause 93 to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under GCC Clause 45, and
- (b) if the event or circumstance is of the kind described sub-paragraphs (a) to (e) of GCC Sub Clause 85.1 occurs in the Country, payment of any such cost, including the costs of rectifying or replacing the Works and Physical services damaged or destroyed by Force Majeure, to the extent they are not indemnified through the insurance policy referred to in GCC Clause 37.

87.2 After receiving notice under GCC Sub Clause 86.1, the Project Manager shall proceed to determine these matters under the provisions of the Contract.

88. Release from Performance

88.1 Notwithstanding any other provision of this Clause, if any event or circumstance outside the control of the parties (including, but not limited to, Force Majeure) arises which makes it impossible or unlawful for either or both parties to fulfil its or their contractual obligations or which, under the law governing the Contract, entitles the parties to be released from further performance of the Contract, then upon notice by either party to the other party of such event or circumstance:

- (a) the parties shall be discharged from further performance, without prejudice to the rights of either party in respect of any previous breach of the Contract, and
- (b) the sum payable by the Procuring Entity to the Contractor shall be the same as would have been payable under GCC Sub Clause 90.3 if the Contract had been terminated under GCC Sub Clause 89.3.

F. Termination and Settlement of Disputes

89. Termination

89.1 Termination for Default

- (a) The Procuring Entity or the Contractor, without prejudice to any other remedy for breach of Contract, by giving twenty eight (28) days written notice of default to the other party, may terminate the Contract in whole or in part if the other party causes a fundamental breach of Contract.
- (b) Fundamental breaches of the Contract shall include, but shall not be limited to, the following:
 - (i) the Contractor stops work for twenty-eight (28) days when no stoppage of work is

shown on the current Programme and the stoppage has not been authorized by the Project Manager;

- (ii) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within eighty four (84) days;
- (iii) the Project Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager;
- (iv) the Contractor does not maintain a Security, which is required;
- (v) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of Liquidated Damages can be paid, as specified in GCC Sub Clause 73;
- (vi) the Contractor has subcontracted the whole of the Works or has assigned the Contract without the required agreement and without the approval of the Project Manager;
- (vii) the Contractor, in the judgment of the Procuring Entity has engaged in corrupt or fraudulent practices, as defined in GCC Sub Clause 39, in competing for or in executing the Contract.
- (viii) A payment certified by the Project Manager is not paid by the Procuring Entity to the Contractor within eighty-four (84) days of the date of the Project Manager's certificate.

89.2 Termination for Insolvency

The Procuring Entity and the Contractor may at any time terminate the Contract by giving twenty eight (28) days written notice to the other party if either of the party becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to any party, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the other party.

89.3 Termination for Convenience

- (a) The Procuring Entity, by giving twenty eight (28) days written notice sent to the Contractor, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Procuring Entity's convenience, the extent to which performance of the Contractor under the Contract is terminated, and the date upon which such

- termination becomes effective.
- (b) The Procuring Entity shall not terminate the contract under GCC Sub Clause 89.3 (a) in order to execute the Works itself or to arrange for the Works to be executed by another contractor or to avoid a termination of the Contract by the Contractor as stated under GCC Sub Clause 89.1(a).
- 89.4 In the event the Procuring Entity terminates the Contract in whole or in part, the Procuring Entity shall accept the portion of the Works that are complete and ready for handing over after the Contractor's receipt of notice of termination of the Contract. For the remaining portion of the Works, the Procuring Entity may elect:
- (a) to have any portion completed by the Contractor at the Contract terms and prices; and /or
 - (b) to cancel the remainder and pay to the Contractor an agreed amount for partially completed Works and for materials and parts previously procured by the Contractor, or
 - (c) except in the case of termination for convenience as stated under GCC Sub Clause 89.3., engage another Contractor to complete the Works, and in that case the Contractor shall be liable to the Procuring Entity for any cost that may be incurred in excess of the sum that would have been paid to the Contractor, if the work would have been executed and completed by him or her.
- 89.5 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as is reasonably possible
- 90. Payment upon Termination**
- 90.1 If the Contract is terminated because of a fundamental breach of Contract under GCC Sub Clause 89.1 by the Contractor, the Project Manager shall issue a certificate for the value of the Works done and Plant and Materials ordered less advance payments received up to the date of the issue of the certificate and less the amount from percentage to apply to the contract value of the works not completed, as indicated in the **PCC**. If the total amount due to the Procuring Entity exceeds any payment due to the Contractor, the difference shall be a debt payable to the Procuring Entity.
- 90.2 If the Contract is terminated for the Procuring Entity's convenience or because of a fundamental breach of Contract by the Procuring Entity, the Project Manager shall issue a payment certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's foreign personnel employed solely on the Works and recruited

specifically for the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.

90.3 If the Contract is terminated for reasons of Force Majeure, the Project Manager shall determine the value of the work done and issue a Payment Certificate which shall include:

- (a) the amounts payable for any work carried out for which unit rates or prices are stated in the Contract;
- (b) the cost of Plant and Materials ordered for the Works which have been delivered to the Contractor, or of which the Contractor is liable to accept delivery: this Plant and Materials shall become the property of (and be at the risk of) the Procuring Entity when paid for by the Procuring Entity, and the Contractor shall place the same at the Procuring Entity's disposal;
- (c) other costs or liabilities which in the circumstances were reasonably and necessarily incurred by the Contractor in the expectation of completing the Works;
- (d) the cost of removal of Temporary Works and Contractor's Equipment from the Site; and
- (e) the cost of repatriation of the Contractor's staff and labour employed wholly in connection with the Works at the date of termination.

91. Property

91.1 All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Procuring Entity if the Contract is terminated because of the Contractor's default stated under GCC Sub Clause 89.1.

92. Frustration

92.1 If the Contract is frustrated by the occurrence of a situation of Force Majeure as defined in GCC Sub Clause 85, the Project Manager shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all works carried out before receiving it and for any work carried out afterwards to which a commitment was made.

G. Claims, Disputes and Arbitration

93. Contractor's Claims

93.1 If the Contractor considers himself to be entitled to any extension of the Completion Time and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall give notice to the Procuring Entity, describing the

event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than twenty eight (28) days after the Contractor became aware, or should have become aware, of the event or circumstance.

93.2 If the Contractor fails to give notice of a claim within such period of twenty eight (28) days, the Intended Completion Date shall not be extended, the Contractor shall not be entitled to additional payment, and the Procuring Entity shall be discharged from all liability in connection with the claim.

93.3 Within forty two (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, for settlement.

94. Settlement of Disputes

94.1 Amicable settlement

The procuring Entity and the Contractor shall use their best efforts to settle amicably all possible disputes arising out of or in connection with this Contract or its interpretation.

94.2 Adjudication

(a) 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 fourteen (14) days of notification of the Project Manager's decision in writing.

(b) The Adjudicator named in the **PCC** is jointly appointed by the parties. In case of disagreement between the parties, the Appointing Authority designated in the **PCC** shall appoint the Adjudicator within fourteen (14) days of receipt of a request from either party.

(c) The Adjudicator shall give its decision in writing to both parties within twenty-eight (28) days of a dispute being referred to it.

(d) The Contractor shall make all payments (fees and reimbursable expenses) to the Adjudicator, and the Procuring Entity shall reimburse half of these fees through the regular progress payments.

(e) Should the Adjudicator resign or die, or should the Procuring Entity and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract; a new Adjudicator will be

jointly appointed by the Procuring Entity and the Contractor. In case of disagreement between the Procuring Entity and the Contractor the Adjudicator shall be designated by the Appointing Authority within fourteen (14) days of receipt of a request from either party as stated under GCC Sub Clause 94.2 (b)

94.3 **Arbitration**

- (a) If the parties are unable to reach a settlement as per GCC Clauses 94.1 and 94.2 within twenty-eight (28) days of the first written correspondence on the matter of disagreement, then either party may give notice to the other party of its intention to commence arbitration in accordance with GCC Sub Clause 94.3(b).
- (b) The arbitration shall be conducted in accordance with the Arbitration Act (**Act No 1 of 2001**) of Bangladesh as at present in force and in the place shown in the **PCC**.

Section 4. Particular Conditions of Contract

<i>In the case of any discrepancy between the Sections 3 and 4, the Section 4 shall prevail.</i>	
GCC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
GCC 1.1(j)	The Contractor is <i>[Name, address, and name of authorized representative]</i>
GCC 1.1(ff)	<p>The Procuring Entity is Bangladesh Power Development Board (BPDB)</p> <p>“BOARD” means Bangladesh Power Development Board (BPDB) “Engineer” means Director, Design & Inspection 1, BPDB</p> <p>Name & Address of authorized representative:</p> <p>The Director, Directorate of Purchase Bangladesh Power Development Board WAPDA Bhaban (9th Floor), Motijheel C/A, Dhaka -1000 Phone:8802-9550532, Fax: 8802-7126151</p> <p>The Consignee: The Manager, Hathazari Peaking Power station, BPDB, Hathazari, Chittagong, Bangladesh.</p> <p>Engineer: The Director, Directorate of Design & Inspection-1, BPDB, Dhaka, Bangladesh.</p>
GCC 1.1(gg)	<p>The Project Manager is</p> <p>The Manager, Hathazari Peaking Power station, BPDB</p>
GCC 1.1 (bb)	The original Contract price is <i>[insert the amount in the NOA]</i>
GCC 1.1(y)	<p>The Intended Completion Date for the whole of the Works shall be:</p> <p>120 Days from the date of opening of L/C</p>
GCC 1.1(kk)	The Site is located at Hathazari Peaking Power station, BPDB, Chittagong, Bangladesh.
GCC 1.1(nn)	The Start Date shall be: Immediately after opening of L/C
GCC 1.1(rr)	<p>The Works consist of</p> <p>As mentioned in Section 7, General Specification</p>
GCC 2.5	The Sectional Completion Dates are: As mentioned in the offer
GCC 3.1	<p>The Procuring Entity's address for the purpose of communications under this contract is :</p> <p>The Director Directorate of Purchase Bangladesh Power Development Board WAPDA Bhaban (9th Floor), Motijheel C/A, Dhaka -1000</p>

	<p>Phone:8802-9550532, Fax: 8802-7126151</p> <p>The Contractor's address for the purpose of communications under this contract is : Contact person: Address: Tel: Fax: e-mail address:</p>
GCC 6.1 (j)	<p>Other documents forming part of the Contract are:</p> <p>All correspondences between Procuring Entity and Contractor prior to signing of the Contract agreement.</p>
GCC 9.1	<p>A Contractor or a Subcontractor that is a national of, or registered in, the following countries are not eligible:</p> <p>Israel</p>
GCC 9.2	<p>Materials, Equipments Plants and supplies shall not have their origin in the following countries:</p> <p>Israel</p>
GCC 13.1	<p>Possession of the Site or part(s) of the Site, to the Contractor shall be given on the following date(s): After signing of Contract Agreement</p>
GCC 18	<p><u>Taxes and Duties</u></p> <p>a) Bangladesh Income tax and VAT for Income Earned in Bangladesh The Contractor/supplier shall be entirely liable to pay Income Tax at the prevailing rules of the Government of Bangladesh for payments of Foreign & Local currency portion under the Contract (i.e. CIF price and service cost in Foreign currency). Income Tax shall be deducted at source during payment of bills/invoice for onward deposition of the same into Government Treasury.</p> <p>The contractor/supplier shall not be responsible for payment of applicable Value Added Tax (VAT) on the imported permanent materials and equipments of the contract price. BPDB will pay the same VAT during clearing stage at the port. But, the applicable VAT on the service portion of the contract price shall be paid by the contractor which will be deducted at source from the contractor's invoice/bill during payment.</p> <p>But for payment through Local L/C, Supplier shall be entirely responsible to pay all Income Tax and other taxes (if any) as per existing laws/rules of Bangladesh Government and these will be deducted at source.</p> <p>b) For Contractor's equipment, materials imported on re-exportable basis The Contractor shall be entirely responsible for all Bangladesh Custom and Import duties, VAT, taxes and all other levies imposed under applicable law of Bangladesh for Importation of Contractor's Construction equipment, tools and materials required for implementation of the contract in Bangladesh which shall be imported on the condition to be exported after completion of the work, if the same are not exempted from such taxes, VAT & levies. The Board shall assist to the contractor to obtain exemption from NBR [National Board of Revenue] for import of the contractor's equipment and materials on the basis of re-export.</p>

	<p>c) Foreign country Taxes and Permits</p> <p>The Contractor shall pay all sales, income and other taxes and duties, tariffs and imports that can be lawfully assessed against the contractor by the Government or any lawful authority of any country other than the people's Republic of Bangladesh which has jurisdiction over the contractor in connection with this contract and shall pay for all licenses permits and inspection required for the work including the cost or securing all export licenses and permits for materials, equipment, supplies and personnel exported from that country to Bangladesh.</p> <p>d) IMPORT DUTY, VAT, TAXES, LEVIES AND OTHER TAXES FOR PERMANENT MATERIALS OF THE WORK</p> <p>The Contractor shall obtain all import permits or licenses required for any part of the work within the terms stated in the program or if not so stated, in reasonable time having regard to the time for delivery of the work and the time for completion. The Board shall pay all Bangladesh customs and import duties, VAT, taxes and all other levies arising from the importation of all permanent materials and equipments (on CIF Value) as well as spares/consumables. The Board shall provide its extreme effort to pay such taxes in a timely manner to avoid any extra cost thereon. The contractor shall submit to the owner 5 (five) copies of non-negotiable shipping document ahead of shipment for arranging payment of such taxes and clearing the materials in time.</p> <p>Normally, equipment and materials that will be incorporated in the permanent works shall be transported by vessel. If the Contractor decides to air freight any items, the excess freight beyond freight of vessel or excess inland transportation or any other additional cost on account of air freight shall be borne by the Contractor.</p> <p>e) CONTRACTOR'S RESPONSIBILITY TO GET ACQUAINTED WITH BANGLADESH LAWS, IMPORT POLICY, ETC.</p> <p>The Contractor shall get himself acquainted with the relevant Bangladesh Laws as well as the Import Policy of the Government of People's Republic of Bangladesh remaining in force regarding import of banned items, if any, during the execution of the Contract. In case of import of any banned items and/or contraband item, the consequential effect shall rest with the Contractor. Similarly the Contractor shall be responsible for any non-conformance of Bangladesh Laws either by his own employees or any of the employees of his Subcontractors during execution of the Contract.</p>
GCC 19.1	<p>Following Key Personnel to carry out the functions stated in the Schedule shall be employed by the Contractor:</p> <p>As mentioned in the offer or Personnel having experience in similar work</p>
GCC 21.1	<p>Nominated Subcontractor(s) named below: As mentioned in the Offer or other Subcontractor(s) with the consent of Project Manager (Consignee): Not Applicable.</p>
GCC 23.1	<p>The Contractual matters between the Procuring Entity and the Contractor shall be decided by Project Manager</p>

GCC 37.1	<p>1.INSURANCE The Contractor shall arrange the following insurance except “Workmen’s compensation Insurance for the Contractor’s expatriate personnel” from M/S Bangladesh Sadharan Bima Corporation in the joint name of the BOARD and Contractor and Policies to be taken in foreign currency and local currency wherever necessary and the payment of premium shall be made by the Contractor.</p> <p>2.MARINE INSURANCE Insurance of equipment/Spare parts/materials/ Vehicles and other goods covering all risks including war, strike, riots, civil commotion from the port of shipment to the port of discharge transit after discharge to the Site, and warehouses to warehouse anywhere in Bangladesh.</p> <p>The Contractor shall promptly furnish one set of shipping documents, a copy of Bill of lading, invoice, packing list etc, of each consignment direct to the Deputy Director, Insurance. Finance Directorate, BPDB, Dhaka well in time of the shipment of goods indicating the contract number and name of the insurer. If they fail to comply with this instruction they will be held responsible to compensate the losses if any arising out of the non –compliance of this conditions.</p> <p>3. ERECTION INSURANCE “Builder’s risk Insurance” and “Erection Insurance’ and or “Structural Insurance” including third party liabilities wherever considered necessary by the Contractor and approved by the Board.</p> <p>4.TRANSPORT LIABILITY INSURANCE Comprehensive water crafts if necessary automobile insurance on motor vehicles to be used by the Contractor during the working period in Bangladesh.</p> <p>5.WORKMEN’S COMPENSATION INSURANCE The Contractor shall procure and maintain Workman’s Compensation Insurance for all expatriate personnel employed by the Contractor for services in Bangladesh and shall provide for such employees other insurance benefits such as it customarily provides for overseas assignments of its other employees.</p> <p>a. REPLACEMENT AND REPAIR UNDER INSURANCE The Contractor shall follow customary insurance claim procedures in seeking to effect recovery under the applicable insurance coverage, of the costs of repair or replacement of any materials lost or damaged in shipment or handling, replacement shipments for materials being replaced or materials that has been returned to the country of origin for repair shall be shipped at no charge to the Board. However, any costs for custom duties, taxes, import licenses under an insurances claim will be borne by the Contractor. The contractor shall in no way withheld the project works/ supplies / services for finalization of the insurance claimed, if any.</p> <table border="1" data-bbox="440 1690 1375 1764"> <tr> <td data-bbox="440 1690 511 1764">(a)</td><td data-bbox="511 1690 1375 1764">The maximum deductible for insurance of the Works and of Plant and Materials is : Not Applicable</td></tr> </table>	(a)	The maximum deductible for insurance of the Works and of Plant and Materials is : Not Applicable
(a)	The maximum deductible for insurance of the Works and of Plant and Materials is : Not Applicable		

	(b)	The minimum cover for insurance of the Works and of Plant and Materials in respect of the Contractor's faulty design is Tk 110% of the value of the works, plant and materials.
	(c)	The maximum deductible for insurance of Equipment is Tk <i>[state amount]</i> . Not Applicable
	(d)	The minimum cover for loss or damage to Equipment is Tk 110% of the replacement value of the equipment
	(e)	The maximum deductible for insurance of other property is: Not Applicable
	(f)	The minimum cover for insurance of other property is 10% of contract price.
	(g)	The minimum cover for personal injury or death insurance: (i) for the Contractor's employees is as per the law and common practice in Bangladesh. (ii) and for third parties is as per the law and common practice in Bangladesh.
GCC 40.1	Commencement Date of Works shall be as follows: Date of opening of L/C	
GCC 42.1	The Contractor shall submit a Programme for the Works within fifteen (15) days of signing the Contract.	
GCC 42.2	The period between Programme updates is weekly.	
GCC 42.3	The amount to be withheld for late submission of an updated Programme is : As decided by Project Manager (Consignee)	
GCC 52	Post landing inspection Post Landing Inspection shall be done after arrival of the materials/ equipment at Hathazari Peaking Power station . The Post landing Inspection of the materials/ equipment shall be conducted by BPDB's Inspectors or its authorized representative in the presence of the representative of the Contractor. The program of such Inspection shall be intimated to the representative of the Contractor by BPDB upon arrival of the materials/ equipment at above Power station store. "Receiving cum Inspection Report" will be prepared after Post Landing Inspection.	
GCC 54	Witnessing of manufacturing process and tests of the equipment/ materials and spares at manufacturers' works including transfer of technical know-how. It is agreed by the Contractor that BPDB shall send its personnel to carry out witnessing of manufacturing process, tests and training of concerned equipments/materials/ systems at manufacturers' works including transfer of technical know-how and engage a few personnel to inspect the work including training to be performed at Site under this Contract for compliance with the Contract requirements. The Contractor shall furnish all reasonable aid and	

	<p>assistance required by BPDB or inspectors, for the proper inspection, training and examination of the work and all parts thereof.</p> <p>The Contractor shall also bear the cost of round air tickets, hotel accommodations, per diem allowances, internal transportations and out of pocket expenses @ US \$100.00 per person per day for 7 (seven) days (excluding travel time) for the witnessing of manufacturing process and tests of concerned equipments/ materials and spares at manufacturers' works including transfer of technical know-how and training. The number of such personnel will be three (3) for the witnessing of manufacturing process and tests including training of concerned equipments/materials/system at manufacturers' works including transfer of technical know-how provided that all goods/system for the said test witnessing/ training shall be ready at a time. Otherwise number of such personnel will increase depending on number of readiness of the goods. Such witness / inspection shall not relieve the supplier from any obligation to supply the goods in accordance with contract documents.</p> <p>The programme of witnessing of manufacturing process, factory test and technical know-how transfer shall cover the following:</p> <ul style="list-style-type: none"> i) Introduction to the Equipment and Materials. ii) Familiarization with Production Line/Cycle and equipment used in such Cycle. iii) Standard of Production. iv) Production Procedure of the equipment. v) Quality Control System of produced equipment and goods. vi) Familiarization Standard of Testing Equipment. vii) Testing Procedure of the equipment manufactured. viii) Witnessing of Test as per standard and requirements of Contract Document. ix) Trainees will have to ensure and certify that the test results observed qualify the standard specified in the contract. x) Operation & Maintenance of the equipment after using it in the system of BPDB. xi) Any other related matters with Test of Equipment.
GCC 57.1	<p>The Defects liability / warranty shall cover the following :</p> <p>The Contractor warrants that each item of equipment/ materials and work furnished under this Contract will be as specified and will be free from defects in design to the extent the Contractor is responsible for design, workmanship and material. The warranties contained in this Contract document are in lieu of any other warranties and are the only warranties made by Contractor with respect to the materials, equipment and work. If within the warranty period set forth below any part of the material or work fails to meet the warranty BPDB will notify the Contractor and the Contractor shall promptly correct any defect including non-conformance with specifications by adjustment, repair or replacement of any and all defective parts or materials.</p> <p>Unless otherwise specified the Defects liability period/ warranty period hereunder shall begin from the date of issuance of Provisional Acceptance Certificate (PAC) by BPDB and shall end after 02(Two) years of operation until final acceptance.</p> <p>The Contractor shall pay all costs for correction of defects including shop and field labour and supervision, transportation, parts, supplies, all tackles and</p>

	<p>special tools.</p> <p>The Contractor will be given an opportunity to check the existence of the defect and he shall promptly do the correction within reasonable time. This section states the limit of the Contractor's liability for defects for which he is responsible.</p> <p>When it is necessary to dismantle piping, ducts, machinery, equipment or other work furnished or performed by the Contractor in order to obtain access to the work, the cost of all such dismantling and re-assembling will be paid by the Contractor.</p> <p>The Contractor shall extend the provisions of this warranty to cover all repaired and replacement parts furnished under the Defects liability/ warranty provisions for a period of Eighteen 02(Two) years of operation from the date of repair, replacement, commissioning thereof.</p> <p>If within twenty (20) days after BPDB gives the Contractor notice of a defect, the Contractor neglects to make or undertake with due diligence to make the necessary corrections, BPDB is hereby authorized to make the corrections himself or order the work to be done by a third party and cost of the corrections shall be paid by the Contractor. BPDB will be permitted to make repairs or replacements on equipment without affecting the warranty or without prior notice to the Contractor so long as the repairs or replacements involve the correct installation of spares. BPDB shall also be permitted to adjust or test equipment as outlined in instruction manuals provided by the manufacturer.</p> <p>In the case of an emergency where in the judgment of BPDB the delay resulting from giving formal notice would cause serious loss or damage which could be prevented by immediate action, defects may be corrected by BPDB or a third party chosen by BPDB without giving prior notice to the Contractor and cost of corrections shall be paid by the Contractor. In the event, such action is taken by BPDB, the Contractor will be notified promptly and the Contractor shall assist wherever possible in making the necessary corrections.</p> <p>The Contractor shall extend the provisions of the Defects Liability Period to cover all repaired and replacement parts furnished under the Defects Liability Period.</p>
GCC 66.1	<p>Payments</p> <p>Payments under this Contract shall be effected in the currency of the Tender for Foreign Currency and in Taka for local currency. Foreign currency payments shall be made through Letter of credit (L/C) and local currency through transfer of fund to Contractor's account or through cheque. Local currency shall be made through accounts office of the Procurement Entity or through CP & AA cell of BPDB.</p> <p>The charges within Bangladesh for establishment of the L/C shall be borne by BPDB but the L/C charges outside Bangladesh shall be borne by the Contractor. The Contractor shall have to bear all such charges both inside and outside Bangladesh in case of extension of L/C if done at the request of the contractor. An irrevocable L/C shall be opened by BPDB within 30 days upon signing of the Contract. BPDB shall pay to the Contractor in the following manner:</p>

	<p>a) Payments against CIF value of the Equipments/materials, spares and consumables (Foreign currency part of Schedule 1.1)</p> <p>1) 60% (Sixty percent) payment within 30 days upon Contractor's presentation of shipping documents to the negotiating bank and issuance of payment advice by the Director, Purchase of BPDB for each consignment.</p> <p>2) 20% (Twenty percent) upon presentation of Board's "Receiving cum Inspection Report" for each consignment delivered at site and a claim bill duly verified by consignee certified by the Engineer and issuance of payment advice by the Director, Purchase of BPDB.</p> <p>3) 10% (Ten percent) upon issuance of Provisional Acceptance Certificate and a claim bill duly verified by consignee certified by the Engineer and issuance of payment advice by the Director, Purchase of BPDB.</p> <p>4) 10% (Ten percent) upon issuance of Final Acceptance Certificate and a claim bill duly verified by consignee certified by the Engineer and issuance of payment advice by the Director, Purchase of BPDB</p> <p>b) Payment for Local currency part of Schedule 1.1</p> <p>100% upon submission of Receive cum Inspection report and a claim bill duly verified by consignee certified by the Engineer.</p> <p>Note: The Port handling charges and Inland Transportation shall be paid at actual but not exceeding the quoted amount.</p> <p>c) Payment for Service (Foreign currency part and local currency part; Schedule 1.2)</p> <p>1) 80% (Eighty percent) payment upon monthly progress according to the progress of the work at site and provided that the work is performed satisfactorily and in accordance with the stipulations of the Contract documents against submission of invoices/claim bill duly verified by consignee certified by the Engineer and issuance of payment advice by the Director, Purchase of BPDB.</p> <p>2) 10% (Ten percent) upon issuance of the Provisional Acceptance Certificate after successful completion of commissioning (to be certified by the consultant that the ETP fulfilled the DoE requirements) and handing over against submission of invoices/claim bill duly verified by consignee certified by the Engineer and issuance of payment advice by the Director, Purchase of BPDB.</p> <p>3) 10% (Ten percent) upon issuance of the Final Acceptance Certificate after successful completion of warranty period and removal of all defect(s) pointed out by the Board and/or the consignee against submission of invoices/claim bill duly verified by consignee certified by the Engineer and issuance of payment advice by the Director, Purchase of BPDB.</p>
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	<p>Procedure for Progress payment against Service</p> <p>On or about the first day of each month the Contractor will prepare a bill in prescribed form of the value (As per Breakdown estimate) of the service done up-to such date. The estimated cost of service which, do not conform to the specifications will be deducted from the billed amount. Payment will be made to the Contractor as stipulated above. Such intermediate payment shall be regarded as payment by way of advance against the final payment for work actually done and shall not preclude the requiring of bad, unsound and imperfect work to be removed and reconstructed. Such payments shall not be considered as admission that the Contract performance has been completed nor shall it indicate the accruing or any claim, or shall it conclude, determine or affect in any way the powers of BPDB under this Contract to final settlement and adjustment of the account or in any other way vary or affect the Contract.</p> <p>Contractor's Breakdown Estimate</p> <p>The Contractor shall prepare and submit to the Consignee for approval a breakdown estimate for and covering each lump-sum price stated in the Contract. The breakdown estimate, showing the value of each kind of service shall be certified by Consignee and approved by the Engineer before any partial payment estimate is prepared. Such items as bond premium, temporary facilities and plant may be listed separately in the breakdown estimate, provided that their cost can be substantiated.</p> <p>The sum of the items listed in any breakdown estimate shall equal the Contract lump-sum price or prices, overhead and profit shall not be listed as separate items.</p>
GCC 66.3	<p>The particulars of the Bank Account nominated are as follows :</p> <p>Title of the Account : [insert title to whom the Contract awarded]</p> <p>Name of the Bank : [insert name with code, if any]</p> <p>Name of the Branch : [insert branch name with code ,if any]</p> <p>Account Number : [insert number]</p> <p>Address : [insert location with district]</p> <p>Tel : </p> <p>Fax : </p> <p>e-mail address : </p> <p><i>[information furnished by the Contractor shall be substantiated by the concerned Bank and authenticated by the Procuring Entity]</i></p>
GCC 67	Contractor shall not be paid interest on the late/ delayed payment
GCC 69.1(m)	The following additional events shall also be the Compensation Events: None
GCC 71.1	The Contract is not subject to price adjustment.
GCC 72	The proportion of payments to be retained is : As mentioned in PCC (GCC 66.1)

GCC 73.1	<p>The liquidated damages for the whole of the Works are @ 0.1 of one % (Zero point one percent) of the final Contract price per day of delay.</p> <p>Total amount of liquidated damages shall not exceed ten (10) percent of the final Contract price for the whole of the Works.</p>
GCC 74.1	<p>The Bonus for the whole of the Works is None</p> <p>The maximum amount of Bonus for the whole of the Works is None</p>
GCC 75.1	The Advance Payment shall be Tk None
GCC 77.2	The percentage for adjustment of Provisional Sums is None
GCC 80.1	<p>After completion of the work, Provisional Acceptance Certificate (Completion Certificate) shall be issued as stated below:</p> <p><u>Provisional Acceptance Certificate (PAC)</u></p> <p>The work shall not be considered as complete provisionally until a PAC has been issued for the work, signed and dated by the Consignee and the Engineer and delivered to the Contractor. The PAC will be issued only after the final inspection and performance test has been carried out by a team of representatives of the Contractor and witness and accepted by the PAC committee of BPDB formed by the competent authority and the work has been judged complete and in compliance with the Contract Documents as well as to be certified by the consultant that the ETP fulfilled the DoE requirements. The test shall be performed as specified in the applicable Technical Requirements. Necessary testing equipment will be supplied by the Contractor. The final inspection and the performance test of equipments and the subsequent issuance of the PAC shall not be construed as a release to the Contractor from any Contractual liability or responsibility, such release being subject only to the provisions of the Release of Liability clause PCC [New clause GCC 98]. BPDB may take over completed portions of the work, prior to completion of the Contract, by written notice to the Contractor.</p> <p>The Provisional Acceptance Certificate shall not be unreasonably withheld nor shall BPDB delay the issuing of the PAC on account of minor omissions or defects, which do not affect the commercial operation without any serious risk to the plant, provided always that the Contractor undertakes to make good such omission and defects within a reasonable time. From the date of final inspection and test of completed works, at least three (3) weeks time should be taken for observation to the outcome of the work, after which Provisional Acceptance Certificate should be issued for the work, signed and dated by the Consignee and the Engineer and delivered to the Contractor, provided that no omissions or defects are found which may affect the commercial operation of the plant.</p> <p>The final inspection and test will commence upon a written notice from the Contractor stating that the power plant has successfully completed continuous initial commercial operation at different loads including full load for at least 72 hours without any trouble after turnkey work.</p> <p>After completion of the Defects Liability Period /Warranty period, Final Acceptance Certificate shall be issued as mentioned below:</p> <p><u>Final Acceptance Certificate (FAC)</u></p> <p>The work shall not be considered as completed until a Final Acceptance</p>

	Certificate (FAC) is signed and issued by the consignee and the Engineer on the basis of the successful report of FAC committee formed by the competent authority stating that all work has been finally completed to their satisfaction. The Final Acceptance Certificate (FAC) will be given by the consignee latest twenty eight (28) days after the expiration of the Defects liability period or if different guarantee periods shall become applicable to different parts of the work, after the expiration of the latest of such periods and as soon as any and all work to be made good is completed to the satisfaction of the Consignee/ Project Manager and the competent Authority.
GCC 84.1	The date by which “ as-built ” drawings are required is : Within one month from the date of PAC
	The date by which operating and maintenance manuals are required is : Within one month from the date of PAC
GCC 84.2	The amount to be withheld for failing to produce “ as-built ” drawings and/or operating and maintenance manuals by the date required is : No money will be withheld but Final Acceptance Certificate shall not be issued until the submission of “ as-built ” drawings and/or operating and maintenance manuals
GCC 90.1	The percentage to apply to the contract value of the works not completed, representing the Procuring Entity's additional cost for completing the uncompleted Works, is <i>twenty (20)</i> percent.
GCC 94.2 (b)	The Adjudicator jointly appointed by the parties is: Will be appointed as and when necessary. Name: Address: Tel No: Fax No: e-mail address:
GCC 94.2(b)	In case of disagreement between the parties, the Appointing Authority for the Adjudicator is the President of the Institution of Engineers, Bangladesh.
GCC 94.3 (b)	The arbitration shall be conducted in the place mentioned below; Dhaka, Bangladesh
New Clause GCC 95	Approval of Engineering Data Five (5) copies of each drawings and necessary data shall first be submitted to Engineer. Two copies of drawings and data shall be returned to the Contractor marked "APPROVED" "APPROVED AS NOTED", "RETURNED FOR CORRECTION" within 21 days after receipt from the Contractor. If drawings submitted for approval are not returned within 21 days after receipt by the Engineer, the Contractor shall notify Engineer of such fact, and if the drawings still have not been returned within 15 days after such notice the Contractor may proceed as if drawings have been returned approved. When the drawings and data are returned marked "APPROVED AS NOTED" or "RETURNED FOR CORRECTION" the corrections or changes shall be made and five (5) revised copies shall be submitted to Engineer. Two copies of the

	<p>revised drawings and data will be returned to the Contractor by (15) days from the receipt of the same with due approval, if not anything otherwise specified.</p> <p>The approval by the Engineer of drawing and data submitted by the Contractor will cover only general conformity to the plans and specifications and the external connections and dimensions which affect the plant arrangement. This approval of drawings returned marked "APPROVED" or "APPROVED AS NOTED" will not constitute a blanket approval of all dimensions, quantities and details of the materials, equipment, device or item shown and does not relieve the Contractor from any responsibility for errors or deviations from the Contract requirements.</p> <p>All drawings and data after final procession by BPDB shall become a part of the Contract document and the work shown or described thereby shall be performed in conformity therewith unless otherwise required by BPDB</p> <p>When the work is completed, two copies of all final approved drawings on AO Size Paper and 1 (One) soft copy shall be sent by the Contractor to the Consignee/ Project Manager.</p>														
New Clause GCC 96	<p>Shipping Documents</p> <p>No goods will be shipped without prior instruction from the Procurement Entity. Each set of shipping documents will comprise the following:</p> <table border="0"> <tr> <td>1. Bill of Lading</td><td>1 copy</td></tr> <tr> <td>2. Invoice</td><td>1 copy</td></tr> <tr> <td>3. Shipping Specification</td><td>1 copy</td></tr> <tr> <td>4. Freight paid memo</td><td>1 copy</td></tr> <tr> <td>5. Insurance premium paid memo</td><td>1 copy</td></tr> <tr> <td>6. Packing list</td><td>1 copy</td></tr> <tr> <td>7. Manufacturer's test certificate</td><td>1 copy</td></tr> </table> <p>The invoices and shipping specifications shall bear the Insurance cover note number.</p> <p>The shipping documents described above shall be received by BPDB at the latest one week before arrival of cargoes at the port of destination. Set of shipping documents shall be submitted to as follows:</p> <ol style="list-style-type: none"> 1. Director, Purchase, BPDB, Dhaka. 2. Consignee/ Project Manager 3. Director, Clearance & Movement, BPDB, Chittagong. 4. Director, Finance, BPDB, Dhaka. 5. Deputy Director, Clearance & Movement, BPDB, Chittagong/ Dhaka/ Khulna. 6.. Deputy Director, Insurance, BPDB, Dhaka. 	1. Bill of Lading	1 copy	2. Invoice	1 copy	3. Shipping Specification	1 copy	4. Freight paid memo	1 copy	5. Insurance premium paid memo	1 copy	6. Packing list	1 copy	7. Manufacturer's test certificate	1 copy
1. Bill of Lading	1 copy														
2. Invoice	1 copy														
3. Shipping Specification	1 copy														
4. Freight paid memo	1 copy														
5. Insurance premium paid memo	1 copy														
6. Packing list	1 copy														
7. Manufacturer's test certificate	1 copy														
New Clause GCC 97	<p>Packing</p> <p>All equipment and materials shall be suitably coated, wrapped or duly covered in boxes for export shipment and to prevent damage during handling and storage at the site. Card-board containers shall be enclosed in a solid wooden container. Equipment and process materials shall be packed and semi-knocked down to the extent possible to facilitate handling and storage and to protect bearings and other machine surfaces from oxidation. Each container or bundle shall be reinforced with steel strapping in such a manner that</p>														

	<p>breaking of one strap will not cause complete failure of the packaging. The packing shall be of best standards to withstand rough handling and to provide suitable protection from tropical weather while in transit and while awaiting erection at the site.</p> <p>Equipment and materials in wooden cases or crates shall be properly cushioned to withstand the abuse of handling, transportation and storage. Packing shall include preservatives suitable to tropical conditions. All machine surfaces and bearing shall be coated with oxidation preventive compound. All parts subject to damage when in contact with water shall be coated with suitable grease and wrapped in heavy asphalt or tar impregnated paper.</p> <p>Crates and packing materials used for shipping will become the property of BPDB but the Contractor will be allowed to use the same for the work as needed but the remaining material shall be turned over to BPDB upon completion of the project.</p> <p>Packing or shipping units shall be designed within the limitations of the unloading facilities of the receiving ports and the ship which will be used. Ships with special heavy capacity unloading rigging may be required for large units of equipment.</p> <p>It shall be the Contractor's responsibility to investigate these limitations and to provide suitable packing and shipping to permit unloading at Chittagong / Dhaka.</p> <p>Each package or shipping unit shall be clearly marked or stenciled on at least two sides as follows :</p> <p>BANGLADESH POWER DEVELOPMENT BOARD Hathazari Peaking Power Station, Chittagong</p>
New Clause GCC 98	<p>Release of Liability</p> <p>The acceptance by the Contractor of the last payment shall operate as, and shall be, a release to the BOARD and every officer, agent and employee thereof, from all claims and liability hereunder for anything done or furnished for or relating to the work, or for any act or neglect of the BOARD or of any person relating to or the affecting the work.</p> <p>The last payment by the BOARD to the Contractor shall constitute final acceptance of all work performed under this Contract and shall release the Contractor and his surety, from all Contractual liabilities and responsibilities to the BOARD except these liabilities assumed under the Warranty clause PCC [GCC 57.1] of these Special Conditions or arising out of hidden defects.</p> <p>In the event a suit were to be instituted in Bangladesh against the BOARD and the Contractor as defendants neither shall be released from his respective liabilities under this Contract.</p>

Appendix to the Tender – Not Applicable

[In Tables below, the Procuring Entity shall indicate the source and base values with dates of Indexes, unless otherwise instructed to be quoted by the Tenderer, for the different Cost Components and mention its Weightings or Coefficients]

Table 1.1: Price Adjustment Data – Not Applicable

[ITT Sub Clause 27.10: To be provided by the Procuring Entity]

Index Descriptions	Base Value	Sources of Index

Note:

1. The sources of Indexes and its values with dates shall be Bangladesh Bureau of Statistics (BBS) unless otherwise mentioned by the Procuring Entity or instructed to be quoted by the Tenderer.
2. The Procuring Entity may require the Tenderer to justify its proposed Indexes, if quoted by the Tenderer.
3. The Base Value of the Indexes shall be those prevailing twenty eight (28) days prior to the deadline for submission of the Tenders.

Table 1.2: Price Adjustment Data – Not Applicable
 [GCC Sub Clause 71.1: To be provided by the Procuring Entity]

Item Group	Bill No. if applicable	Index Descriptions	Coefficients or Weightings for non-adjustable Cost Component	Coefficients or Weightings for adjustable Cost Components										Total
				a	b	c	d	e	f	g	h	i	j	
														1
														1
														1
														1
														1
														1

Note:
 The Weightings or Coefficients of the Cost Components shall be mentioned by the Procuring Entity based on the proportion of components involved in the work items caused to be impacted by rise and fall in its prices.

Section 5. Tender and Contract Forms

Form	Title
Tender Forms	
PW3 – 1	Tender Submission Letter
PW3 – 2	Tenderer Information
PW3 – 3	JV Partner Information (<i>if applicable</i>)
PW3 – 4	Subcontractor Information (<i>if applicable</i>)
PW3 – 5	Personnel Information
PW3 – 6	Bank Guarantee for Tender Security (<i>when this option is chosen</i>)
Contract Forms	
PW3 – 7	Notification of Award
PW3 – 8	Contract Agreement
PW3 – 9	Bank Guarantee for Performance Security (<i>when this option is chosen</i>)
PW3 –10	Bank Guarantee for Advance Payment (<i>if applicable</i>)
PW3 –11	Bank Guarantee for Retention Money Security (<i>when this option is chosen</i>)
PW3 –12	Deviation List

Forms **PW3 -1** to **PW3 -6**, & **PW3-12** comprises part of the Tender Format and should be completed as stated in ITT Clauses 24.

Forms **PW3 -7** to **PW3 -11** comprises part of the Contract as stated in GCC Clause 6.

Tender Submission Letter (Form PW3-1)

[This letter should be completed and signed by the Authorised Signatory preferably on the Letter-Head Pad of the Tenderer]

To:

Date:

[Contact Person]

[Name of Procuring Entity]

[Address of Procuring Entity]

Invitation for Tender No:

[indicate IFT No]

Tender Package No:

[indicate Package No]

This Package is divided into the following Number of Lots

[indicate number of Lot(s)]

We, the undersigned, offer to execute in conformity with the Conditions of Contract and associated Contract documents, the following Works and Physical services, viz:

In accordance with ITT Clauses 27 and 28, the following prices and discounts apply to our Tender:

The Tender Price is: *[in figures]*

(ITT Sub Clause 27.1) *[in words]*

The unconditional discount for being awarded more than one lot in this package is: Tk *[in figures]*
Taka *[in words]*

(ITT Sub Clause 27.6)

The methodology for application of the discount is: *[state the methodology]*.

The advance payment is: *[state the amount based on percentage of the Tender Price]*
(GCC Sub Clause 75.1)

and we shall accordingly submit an Advance Payment Guarantee in the format shown in Form **PW3-10**.

In signing this letter, and in submitting our Tender, we also confirm that:

- (a) our Tender shall be valid for the period stated in the Tender Data Sheet (ITT Sub Clause 33.1) and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (b) a Tender Security is attached in the form of a *[state pay order, bank draft, bank guarantee]* in the amount stated in the Tender Data Sheet (ITT Sub Clause 35.1) and valid for a period of twenty eight (28) days beyond the Tender validity date;

- (c) if our Tender is accepted, we commit to furnishing a Performance Security within the time stated under ITT Sub Clause 65.2 in the amount stated in the Tender Data Sheet (ITT Sub Clauses 64.1 and 64.1) and in the form specified in the Tender Data Sheet (ITT Sub Clause 65.1) valid for a period of twenty eight (28) days beyond the date of issue of the Completion Certificate of the Works;
- (d) we have examined and have no reservations to the Tender Document, issued by you on *[insert date]*; including Addendum to Tender Document No(s) *[state numbers]* , issued in accordance with the Instructions to Tenderers (ITT Clause 11). *[insert the number and issuing date of each addendum; or delete this sentence if no Addendum has been issued]*;
- (e) we, including as applicable, any JVCA partner or Subcontractor for any part of the contract resulting from this Tender process, have nationalities from eligible countries, in accordance with ITT Sub Clause 5.1;
- (f) we are submitting this Tender as a sole Tenderer in accordance with ITT Sub Clause 40.3
or
 we are submitting this Tender as the partners of a JVCA, comprising the following other partners in accordance with ITT Sub Clause 40.3;

	Name of Partner	Location & District of Partner
1		
2		
3		
4		

- (g) *we are not a Government owned entity as defined in ITT Sub Clause 5.3*
or
we are a Government owned entity, and we meet the requirements of ITT Sub Clause 5.3;
- (h) we, including as applicable any JVCA partner, declare that we are not associated, nor have been associated in the past, directly or indirectly, with a consultant or any other entity that has prepared the design, specifications and other documents in accordance with ITT Sub Clause 5.5;
- (i) we, including as applicable any JVCA partner or Subcontractor for any part of the contract resulting from this Tender process, have not been declared ineligible by the Government of Bangladesh on charges of engaging in corrupt, fraudulent, collusive or coercive practices in accordance with ITT Sub Clause 5.6;
- (j) furthermore, we are aware of ITT Clause 4 concerning such practices and pledge not to indulge in such practices in competing for or in executing the Contract;
- (k) we intend to subcontract an activity or part of the Works, in accordance with ITT Sub Clause 19.1, to the following Subcontractor(s);

Activity or part of the Works	Name of Subcontractor with Location and District

- (l) we, including as applicable any JVCA partner, confirm that we do not have a record of poor performance, such as abandoning the works, not properly completing contracts, inordinate delays, or financial failure as stated in ITT Clause 5.7, and that we do not have, or have had, any litigation against us, other than that stated in the Tenderer Information (**Form PW3-2**);
- (m) we are not participating as Tenderers in more than one Tender in this Tendering process. We understand that your written Notification of Award shall constitute the acceptance of our Tender and shall become a binding Contract between us, until a formal Contract is prepared and executed;
- (n) we, including as applicable any JVCA partner, confirm that we do not have a record of insolvency, receivership, bankrupt or being wound up, our business activities were not been suspended, and it was not been the subject of legal proceedings in accordance with ITT Sub Clause 5.8;
- (o) we, including as applicable any JVCA partner, confirm that we have fulfilled our obligations to pay taxes and social security contributions applicable under the relevant national laws and regulations of Bangladesh in accordance with ITT Sub Clause 5.9;
- (p) we understand that you reserve the right to reject all the Tenders or annul the Tender proceedings, without incurring any liability to Tenderers, in accordance with ITT Clause 60.

Signature:	<i>[insert signature of authorised representative of the Tenderer]</i>
Name:	<i>[insert full name of signatory with National ID Number]</i>
In the capacity of:	<i>[insert capacity of signatory]</i>
Duly authorised to sign the Tender for and on behalf of the Tenderer	

[If there is more than one (1) signatory, or in the case of a JVCA, add other boxes and sign accordingly]. **Attachment 1:**

[ITT Sub Clause 40.3]

Written confirmation authorising the above signatory (ies) to commit the Tenderer

[and, if applicable]

Attachment 2:

[ITT Sub Clause 29.2(b)]

Copy of the JVCA Agreement / Letter of Intent to form JVCA with draft proposed Agreement

Tenderer Information (Form PW3-2)

[This Form should be completed only by the Tenderer, preferably on its Letter-Head Pad]

Invitation for Tender No: *[indicate IFT No]*
 Tender Package No: *[indicate Package No]*
 This Package is divided into the following Number of Lots: *[indicate number of Lot(s)]*

1.	Eligibility Information of the Tenderer [ITT –Clauses 5 & 29]	
1.1	Nationality of individual or country of registration	
1.2	Tenderer's legal title	
1.3	Tenderer's registered address	
1.4	Tenderer's legal status <i>[complete the relevant box]</i>	
	Proprietorship	
	Partnership	
	Limited Liability Concern	
	Government-owned Enterprise	
	Others <i>[please describe, if applicable]</i>	
1.5	Tenderer's year of registration	
1.6	Tenderer's authorised representative details	
	Name	
	National ID number	
	Address	
	Telephone / Fax numbers	
	e-mail address	
1.7	Litigation [ITT Cause 13]	
	If there is no history of litigation or no pending litigation then state opposite "None". If there is a history of litigation, or a number of awards, against the Tenderer provide details below	
	<u>A. Arbitration Awards made against</u>	

	Year	Matter in dispute	Value of Award	Value of Claim
	B. Arbitration Awards <u>pending</u>			
	Year	Matter in dispute	Value of Claim	
1.8	Tenderer to attach photocopies of the original documents mentioned aside		[All documents required under ITT Clauses 5 and 29]	
The following two information are applicable for National Tenderers				
1.9	Tenderer's Value Added Tax Registration (VAT) Number			
1.10	Tenderer's Tax Identification Number(TIN)			
[The foreign Tenderers, in accordance with ITT Sub Clause 5.1, shall provide evidence by a written declaration to that effect to demonstrate that it meets the criterion]				
2. Qualification Information of the Tenderer [ITT Clause 32]				
2.1 General Experience in Construction Works of Tenderer				
	Start Month Year	End Month Year	Years	Contract No and Name of Contract Name and Address of Procuring Entity Brief description of Works
				Role of Tenderer [Prime/Sub /Management]
2.2 Specific Experience in Construction Works of Tenderer				
Completed Contracts of similar nature, complexity and methods/construction technology				
Contract No		[insert reference no] of [insert year]		
Name of Contract		[insert name]		
Role in Contract [tick relevant box].		Prime Contractor	Subcontractor	Management Contractor
Award date		[insert date]		
Completion date		[insert date]		

	Position Name Years of General Experience	Years of Specific Experience	
[Tenderer to complete details of as many personnel as are applicable. Each personnel listed above should complete the Personnel Information (Form PW3-5)]			
2.7	Major Construction Equipments proposed to carry out the Contract [ITT Sub Clause 32.1(f)]		
	Item of Equipment	Condition (new, good, average, poor)	Owned, leased or to be purchased (state owner, lessor or seller)
[Tenderer to list details of each item of major construction equipment, as applicable]			

JVCA Partner Information (Form PW3-3)

[This Form should be completed by each JVCA partner].

Invitation for Tender No:

[indicate IFT No]

Tender Package No

[indicate Package No]

This Package is divided into the following Number of Lots

[indicate number of Lot(s)]

1. Eligibility Information of the JVCA Partner [ITT –Clauses 5 & 29]			
1.1	Nationality of Individual or country of Registration		
1.2	JVCA Partner's legal title		
1.3	JVCA Partner's registered address		
1.4	JVCA Partner's legal status <i>[complete the relevant box]</i>		
	Proprietorship		
	Partnership		
	Limited Liability Concern		
	Government-owned Enterprise		
	Other (please describe, if applicable)		
1.5	JVCA Partner's year of registration		
1.6	JVCA Partner's authorised representative details		
	Name		
	National ID number		
	Address		
	Telephone / Fax numbers		
	e-mail address		
1.7	Litigation [ITT Sub Cause 13]		
	If there is no history of litigation or no pending litigation then state "None". If there is a history of litigation, or a number of awards, against the JVCA Partner provide details below:		
	<u>A. Arbitration Awards made against</u>		
	Year	Matter in dispute	Value of
			Value of

			Award	Claim
	B. Arbitration Awards <u>pending</u>			
	Year	Matter in dispute	Value of Claim	
1.8	JVCA Partner to attach copies of the original documents mentioned aside		[All documents required under ITT Clauses 5 and 29]	
The following two information are applicable for national JVCA Partners only				
1.9	JVCA Partner's Value Added Tax Registration (VAT) Number			
1.10	JVCA Partner's Tax Identification Number (TIN)			
[The foreign JVCA Partners, in accordance with ITT Sub Clause 5.1, shall provide evidence by a written declaration to that effect to demonstrate that it meets the criterion]				
2. Key Activity(ies) for which it is intended to be joint ventured [ITT Sub Clause 18.2 & 18.3]				
	Elements of Activity		Brief description of Activity	
3. Qualification Information of the JVCA Partner [ITT Clause 32]				
3.1	General Experience in Construction Works of JVCA Partner			
	Start Month Year	End Month Year	Years	Contract No and & Name of Contract Name and Address of Procuring Entity Brief description of Works
				Role of JVCA Partner [Prime/Sub /Managem ent]
3.2	Specific Experience in Construction Works of JVCA Partner Completed Contracts of similar nature, complexity and methods/construction technology			
	Contract No		[insert reference no] of [insert year]	
	Name of Contract		[insert name]	

	Role in Contract [tick relevant box]	Prime Contractor	Subcontractor	Management Contractor
	Award date Completion date Total Contract Amount	[insert date] [insert date] [insert amount]		
	Procuring Entity's Name Address Tel / Fax <u>e-mail</u> Brief description with justifications of the similarity compared to the Procuring Entity's requirements	[state justification in support of its similarity compared to the proposed works]		
3.3	Average annual construction turnover [ITT Sub Clause 15.1 (a)] <i>[amount invoiced to Procuring Entity(s) for each year of work in progress or completed, using rate of exchange at the end of the period reported]</i>			
	Year	Amount & Currency	Taka or Equivalent Taka	
3.4	Financial Resources available to meet the construction cash flow [ITT Sub-Clause 15.1(b)]			
	No	Source of financing	Amount available	
	In order to confirm the above statements the JVCA Partner shall submit , as applicable, the documents mentioned in ITT Sub Clause 32.1 (a), (b), (c) & (d)			
3.5	Contact Details [ITT Sub Clause 32.1 (g) & (i)]			
	Name, address, and contact details of Tenderer's Bankers and other Procuring Entity(s) that may provide references if contacted by this Procuring Entity			

3.6	Qualifications and experience of key technical and administrative personnel proposed for Contract administration and management [ITT Sub Clause 32.1(e)]		
	Position Name Years of General Experience	Years of Specific Experience	
	<i>[Tenderer to complete details of as many personnel as are applicable. Each personnel listed above should complete the Personnel Information (Form PW3-5)]</i>		
3.7	Major items of Construction Equipment proposed for carrying out the works [ITT Sub-Clause 32.1(f)]		
	Item of Equipment	Condition (new, good, average, poor)	Owned, leased or to be purchased (state owner, leaser or seller)
<i>[Tenderer to list details of each item of Major equipment, as applicable]</i>			

Subcontractor Information (Form PW3-4)

[This Form should be completed by each Subcontractor, preferably on its Letter-Head Pad]

Invitation for Tender No: *[indicate IFT No]*
 Tender Package No *[indicate Package No]*
 This Package is divided into the following Number of Lots *[indicate number of Lot(s)]*

1. Eligibility Information of the Subcontractor [ITT –Clauses 5 & 29]		
1.1	Nationality of Individual or country of Registration	
1.2	Subcontractor's legal title	
1.3	Subcontractor's registered address	
1.4	Subcontractor's legal status <i>[complete the relevant box]</i>	
	Proprietorship	
	Partnership	
	Limited Liability Concern	
	Government-owned Enterprise	
	Other (please describe)	
1.5	Subcontractor's year of registration	
1.6	Subcontractor's authorised representative details	
	Name	
	Address	
	Telephone / Fax numbers	
	e-mail address	
1.7	Subcontractor to attach copies of the following original documents	All documents to the extent relevant to ITT Clause 5 and 29 in support of its qualifications
The following two information are applicable for national Subcontractors		
1.8	Subcontractor's Value Added Tax Registration (VAT) Number	
1.9	Subcontractor's Tax Identification Number(TIN)	

[The foreign Subcontractors , in accordance with ITT sub Clause 5.1, shall provide evidence by a written declaration to that effect to demonstrate that it meets the criterion]		
2. Key Activity(ies) for which it is intended to be Subcontracted [ITT Sub Clause 19.1]		
2.1	Elements of Activity	Brief description of Activity
2.2	List of Similar Contracts in which the proposed Subcontractor had been engaged	
	Name of Contract and Year of Execution Value of Contract Name of Procuring Entity Contact Person and contact details Type of Work performed	

Personnel Information (Form PW3-5)

[This Form should be completed for each person proposed by the Tenderer on Form PW3-2 & PW3-3, where applicable]

Invitation for Tender No:	[indicate IFT No]
Tender Package No	[indicate Package No]
This Package is divided into the following Number of Lots	[indicate number of Lot(s)]

A. Proposed Position (tick the relevant box)		
<input type="checkbox"/> Construction Project Manager	<input type="checkbox"/> Prime Candidate	<input type="checkbox"/> Alternative Candidate
<input type="checkbox"/> Key Personnel	<input type="checkbox"/> Prime Candidate	<input type="checkbox"/> Alternative Candidate
B. Personal Data		
Name		
Date of Birth		
Years overall experience		
National ID Number		
Years of employment with the Tenderer		
Professional Qualifications: 1. 2. 3. 4.		
C. Present Employment <i>[to be completed only if not employed by the Tenderer]</i>		
Name of Procuring Entity:		
Address of Procuring Entity:		
Present Job Title:		
Years with present Procuring Entity:		
Tel No:	Fax No:	e-mail address:

Contact <i>[manager/personnel officer]</i> :			
D. Professional Experience			
Summarise professional experience over the last twenty years, in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.			
	From	To	Company / Project / Position / Relevant technical and management experience.
1			
2			
3			
4			
5			

Manufacturer's Authorisation Letter (Form PW3 - 5A)

[The Tenderer shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer. The Tenderer shall include it in its tender, if so indicated in the TDS as stated under ITT Sub-Clause 24.1 (I)(1)]

Invitation for Tender No:	Date:
Tender Package No:	
Tender Lot No:	
To: Name and address of Purchaser]	

WHEREAS

We *[insert complete name of Manufacturer]*, who are official manufacturers of *[insert type of goods manufactured]*, having factories at *[insert full address of Manufacturer's factories]*, do hereby authorize *[insert complete name of Tenderer]* to supply the following Goods, manufactured by us *[insert name and or brief description of the Goods]*.

We hereby extend our full guarantee and warranty as stated under GCC Clause 57 of the General Conditions of Contract, with respect to the Goods offered by the above Tenderer.

Signed: *[insert signature(s) of authorized representative(s) of the Manufacturer]*

Name: *[insert complete name(s) of authorized representative(s) of the Manufacturer]*

Address: *[insert full address including Fax and e-mail]*

Title: *[insert title]*

Date: *[insert date of signing]*

Bank Guarantee for Tender Security (Form PW3-6)

[This is the format for the Tender Security to be issued by a scheduled bank of Bangladesh or by a foreign bank duly endorsed/authenticated by a scheduled bank of Bangladesh in accordance with ITT Clause 35 & 36]

Invitation for Tender No:

Date:

Tender Package No:

To:

[Name and address of the Procuring Entity]

TENDER GUARANTEE No:

We have been informed that *[name of Tenderer]* (hereinafter called “the Tenderer”) intends to submit to you its Tender dated *[date of Tender]* (hereinafter called “the Tender”) for the execution of the Works of *[description of works]* under the above Invitation for Tenders (hereinafter called “the IFT”).

Furthermore, we understand that, according to your conditions, the Tender must be supported by a Bank Guarantee for Tender Security.

At the request of the Tenderer, we *[name of bank]* hereby irrevocably undertake to pay you, without cavil or argument, any sum or sums not exceeding in total an amount of Tk *[insert amount in figures and words]* upon receipt by us of your first written demand accompanied by a written statement that the Tenderer is in breach of its obligation(s) under the Tender conditions, because the Tenderer:

- a. has withdrawn its Tender after opening of Tenders but within the validity of the Tender Security; or
- b. refused to accept the Notification of Award (NOA) within the period as stated under ITT; or
- c. failed to furnish Performance Security within the period stipulated in the NOA; or
- d. refused to sign the Contract Agreement by the time specified in the NOA; or
- e. did not accept the correction of the Tender price following the correction of the arithmetic errors as stated under ITT.

This guarantee will expire

- (a) if the Tenderer is the successful Tenderer, upon our receipt of a copy of the Contract Agreement signed by the Tenderer or a copy of the Performance Security issued to you in accordance with the ITT; or
- (b) if the Tenderer is not the successful Tenderer, twenty eight (28) days after the expiration of the Tenderer's Tender validity period, being *[date of expiration of the Tender validity plus twenty eight (28) days]*.

Consequently, we must receive at the above-mentioned office any demand for payment under this guarantee on or before that date.

Signature

Signature

Notification of Award (Form PW3-7)

Contract No:
To:

Date:

[Name of Contractor]

This is to notify you that your Tender dated *[insert date]* for the execution of the Works for *[name of project/Contract]* for the Contract Price of Tk *[state amount in figures and in words]*, as corrected and modified in accordance with the Instructions to Tenderers, has been approved by *[name of Procuring Entity]*.

You are thus requested to take following actions:

- i. accept in writing the Notification of Award within seven (7) working days of its issuance pursuant to ITT Sub Clause 63.1
- ii. furnish a Performance Security in the form as specified and in the amount of Tk *[state amount in figures and words]*, within fourteen (14) days of acceptance of this Notification of Award but not later than *(specify date)*, in accordance with ITT Clause 65.
- iii. sign the Contract within twenty eight (28) days of issuance of this Notification of Award but not later than *(specify date)*, in accordance with ITT Sub Clause 69.2.

You may proceed with the execution of the Works only upon completion of the above tasks. You may also please note that this Notification of Award shall constitute the formation of this Contract which shall become binding upon you.

We attach the draft Contract and all other documents for your perusal and signature.

Signed

Duly authorised to sign for and on behalf of
[name of Procuring Entity]

Date:

Contract Agreement (Form PW3-8)

THIS AGREEMENT made the *[day]* day of *[month]* *[year]* between *[name and address of Procuring Entity]* (hereinafter called "the Procuring Entity") of the one part and *[name and address of Contractor]* (hereinafter called "the Contractor") of the other part:

WHEREAS the Procuring Entity invited Tenders for certain works, viz, *[brief description of works]* and has accepted a Tender by the Contractor for the execution of those works in the sum of Taka *[Contract price in figures and in words]* (hereinafter called "the Contract Price").

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the General Conditions of Contract hereafter referred to.
2. The documents forming the Contract shall be interpreted in the following order of priority:
 - (a) the signed Contract Agreement
 - (b) the Notification of Award
 - (c) the completed Tender and the appendices to the Tender
 - (d) the Particular Conditions of Contract
 - (e) the General Conditions of Contract
 - (f) the Technical Specifications
 - (g) the General Specifications
 - (h) the Drawings
 - (i) the priced Bill of Quantities and the Schedules
 - (j) any other document listed in the PCC forming part of the Contract.
3. In consideration of the payments to be made by the Procuring Entity to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Procuring Entity to execute and complete the works and to remedy any defects therein in conformity in all respects with the provisions of the Contract.
4. The Procuring Entity hereby covenants to pay the Contractor in consideration of the execution and completion of the works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of Bangladesh on the day, month and year first written above.

For the Procuring Entity

For the Contractor

Signature
Name

National ID No.
Title

In the presence
of
Name
Address

Bank Guarantee for Performance Security (Form PW3-9)

[This is the format for the Performance Security to be issued by a scheduled bank of Bangladesh or by a foreign bank duly endorsed/authenticated by a scheduled bank of Bangladesh in accordance with ITT Clause 64, 65, 66 & 67]

Contract No: [insert reference number]

Date: [insert date]

To:

[insert Name and address of Procuring Entity]

PERFORMANCE GUARANTEE No:

We have been informed that *[name of Contractor]* (hereinafter called “the Contractor”) has undertaken, pursuant to Contract No *[insert reference number of Contract]* dated *[insert date of Contract]* (hereinafter called “the Contract”), the execution of works *[description of works]* under the Contract.

Furthermore, we understand that, according to your conditions, the Contract must be supported by a Bank Guarantee for Performance Security.

At the request of the Contractor, we *[name of bank]* hereby irrevocably undertake to pay you, without cavil or argument, any sum or sums not exceeding in total an amount of Tk *[insert amount in figures and in words]* upon receipt by us of your first written demand accompanied by a written statement that the Contractor is in breach of its obligation(s) under the Contract conditions, without you needing to prove or show grounds or reasons for your demand of the sum specified therein.

This guarantee is valid until *[date of validity of guarantee]*, consequently, we must receive at the above-mentioned office any demand for payment under this guarantee on or before that date.

Signature

Signature

Bank Guarantee for Advance Payment (Form PW3-10) - Not Applicable

[This is the format for the Advance Payment Guarantee to be issued by a scheduled bank of Bangladesh or by a foreign bank duly endorsed/authenticated by a scheduled bank of Bangladesh in accordance with GCC Clause 75]

Contract No: [insert reference number]

Date: [insert date]

To:

[insert Name and address of the Procuring
Entity]

ADVANCE PAYMENT GUARANTEE No:

We have been informed that *[name of Contractor]* (hereinafter called “the Contractor”) has undertaken, pursuant to Contract No *[insert reference number of Contract]* dated *[insert date of Contract]* (hereinafter called “the Contract”), the execution of works *[description of works]* under the Contract.

Furthermore, we understand that, according to your Conditions of Contract under GCC Clause 75, the Advance Payment on Contract must be supported by a Bank Guarantee.

At the request of the Contractor, we *[insert name of bank]* hereby irrevocably undertake to pay you, without cavil or argument, any sum or sums not exceeding in total an amount of Tk *[insert amount in figures and in words]* upon receipt by us of your first written demand accompanied by a written statement that the Contractor is in breach of its obligation(s) under the Contract conditions, without you needing to prove or show grounds or reasons for your demand of the sum specified therein.

We further agree that no change, addition or other modification of the terms of the Contract to be performed, or of any of the Contract documents which may be made between the Procuring Entity and the Contractor, 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 is valid until *[insert date of validity of guarantee]*, consequently, we must receive at the above-mentioned office any demand for payment under this guarantee on or before that date.

Signature

Signature

Bank Guarantee for Retention Money Security (Form PW3-11) – N/A

[This is the format for the Retention Money Guarantee to be issued by a scheduled bank of Bangladesh or by a foreign bank duly endorsed/authenticated by a scheduled bank of Bangladesh in accordance with GCC Sub Clause 72.3]

Demand Guarantee

[Bank's Name, and Address of Issuing Branch or Office]

Beneficiary: [insert Name and Address of the Procuring Entity]

Date: [insert date]

RETENTION MONEY GUARANTEE No.: [insert number]

We have been informed that [insert name of Contractor] (hereinafter called "the Contractor") has entered into Contract Number [insert reference number of the Contract] dated [insert date] with you, for the execution of [insert name of Contract and brief description of Works] (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, when the Taking-Over Certificate has been issued for the Works and the first half of the Retention Money has been certified for payment, payment of Tk. [insert the amount of the second half of the Retention Money] which becomes due after the Defects Liability Period has passed and certified in the form of Defects Correction Certificate, is to be made against a Retention Money Guarantee.

At the request of the Contractor, we [insert name of Bank] hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of Tk. [insert amount in figures] (Taka [insert amount in words]) upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation under the Contract because the Contractor failed to properly correct the defects duly notified in respect of the Works.

It is a condition for any claim and payment under this guarantee to be made that the payment of the second half of the Retention Money referred to above must have been received by the Contractor on its account number [insert A/C no] at [name and address of Bank].

This guarantee is valid until [insert the date of validity of Guarantee that being twenty eight (28) days beyond the Defects Liability Period]. Consequently, we must receive at the above-mentioned office any demand for payment under this guarantee on or before that date.

Signature

Signature

Deviation List (Form PW3-12)

[If Tenderer has any reservations on terms and conditions, Tenderer has to mention his reservations in Deviation list]

Sl. No.	Reference No./ Clause No.	Proposed Deviation	Remarks

[Add rows if necessary]

Signature:

[insert signature of authorised representative of the Tenderer]

Name:

[insert full name of signatory]

In the capacity of:

[insert designation of signatory]

Duly authorised to sign the Tender for and on behalf of the Tenderer

Section 6. Bill of Quantities

Section 6. Bill of Quantities (Price Schedules)
Schedule-1.1:

Materials/ Equipments & Consumables for Supply, Installation, Testing & Commissioning of Effluent Treatment Plant including Supply of all spares of Hathazari Peaking Power Plant, Chittagong, BPDB on turnkey basis.

(Detailed list of materials, spares and consumables and item wise price is to be mentioned)

Sl. No.	Name of Spare parts, Materials and consumable's as per Section 7	Qty.	Name of manufacturer & Country of Origin	Unit FOB in FC ()	Total FOB in FC ()	Freight in FC ()	Marine Insurance in FC ()	Total CIF in FC ()	Inland Transportation, Port Handling Charges and others (B.Tk)	Insurance for Local Transportation (B.Tk)	Total cost	
											FC ()	LC (B.Tk)
1	2	3	4	5	6	7	8	9	10	11	12=9	13=10+11
1.	Bar Screen, MSEP 1000 mm x 800 mm	01 No.										
2.	Sluice Gate, CI 500 mm x 500 mm	01 No.										
3.	Flow Meter (Magnetic type)	01 No.										
4.	DAF (MSEP) 30 m3/hr	01 No.										
5.	DAF Feed Pumps with Motors (3HP), 30 m3/hr @ 15 m Head	02 Nos										
6.	DAF Recirculation Pumps with Motors (4 HP), 10 m3/hr @ 50 m Head	02 Nos.										
7.	Air Compressor 50 m3/hr @ 3 bar	02 Nos.										
8.	DOPE dosing tank(HDPE) with Agitator- SS-304 50 m3/hr @ 3 bar	02 Nos.										
9.	Dosing pumps	02										

Sl. No.	Name of Spare parts, Materials and consumable's as per Section 7	Qty.	Name of manufacturer & Country of Origin	Unit FOB in FC ()	Total FOB in FC ()	Freight in FC ()	Marine Insurance in FC ()	Total CIF in FC ()	Inland Transportation, Port Handling Charges and others (B.Tk)	Insurance for Local Transportation (B.Tk)	Total cost	
											FC ()	LC (B.Tk)
1	2	3	4	5	6	7	8	9	10	11	12=9	13=10+11
	0-20 lph	Nos.										
10.	Filter Feed pumps with Motors (8HP), 35 m3/hr @ 30 m Head	02 Nos.										
11.	Rain water transfer pumps, submersible 10 m3/hr @ 15 m Head	02 Nos.										
12.	Air Blowers with Motors (35 HP), 1200 m3/hr @ 5000 mmwc	02 Nos.										
13.	NRV 250 NB	02 Nos										
14.	B/F Valve	02 Nos										
15.	Diffusers EPDM, Fine bubble	120										
16.	Sludge Recirculation pump with Motors (5 HP), 30 m3/hr @ 20 m Head	02 Nos										
17.	NRV 200 NB	02 Nos										
18.	B/F Valve	02 Nos										
19.	pH indicator	01 No										
20.	Clarifier Mechanism	01										

Sl. No.	Name of Spare parts, Materials and consumable's as per Section 7	Qty.	Name of manufacturer & Country of Origin	Unit FOB in FC ()	Total FOB in FC ()	Freight in FC ()	Marine Insurance in FC ()	Total CIF in FC ()	Inland Transportation, Port Handling Charges and others (B.Tk)	Insurance for Local Transportation (B.Tk)	Total cost	
											FC ()	LC (B.Tk)
1	2	3	4	5	6	7	8	9	10	11	12=9	13=10+11
	(Tube Settler Media) 5 M x 4 M X 2 M	No.										
21.	Thickener Mechanism 2 m Dia	01 No										
22.	Sludge Transfer pumps, screw type 2 m3/ hr @ 15 m Head	02 Nos										
23.	Pressure Sand Filter, 35 M3/hr , 1800 mm x2200 mm	01 No										
24.	Activated Carbon Filter 2000 mm x 2400 mm	01 No										
25.	Flash Mixer Agitator, SS-304 1 HP	01 No.										
26.	Flocculation Tank internals 2 HP	01 No.										
27.	Coagulant dosing pumps 0-20 lph	02 Nos										
28.	Coagulant dosing Tank with Agitator , SS-304 500 ltrs	01 No.										
29.	Flocculant dosing pump 0- 20 lph	02 Nos										
30.	Flocculant Dosing Tank with Agitator, SS-	01 No.										

Sl. No.	Name of Spare parts, Materials and consumable's as per Section 7	Qty.	Name of manufacturer & Country of Origin	Unit FOB in FC ()	Total FOB in FC ()	Freight in FC ()	Marine Insurance in FC ()	Total CIF in FC ()	Inland Transportation, Port Handling Charges and others (B.Tk)	Insurance for Local Transportation (B.Tk)	Total cost	
											FC ()	LC (B.Tk)
1	2	3	4	5	6	7	8	9	10	11	12=9	13=10+11
	304 500 Litres											
31.	Nutrient Dosing Pumps 0 - 20 lph	02 Nos										
32.	Dosing Tank with Agitators 10 Ltrs	01 No										
33.	Air Diffusers Capacity: Disc	12 Nos										
34.	Filter Press Feed Pumps 2 m3/hr	02 Nos										
35.	Filter Press , Hydraulic type 2 m3/hr	01 No.										
36.	Piping, Pipe supports, Valves, Fittings	Lot										
37.	MCC	01 Set										
38.	LT Cables	Lot										
39.	LPBS	4										
40.	Earthing	2										
41.	Plant lighting	4										
42.	Cable Tray & accessories	1										
43.	Final Treated water disposal pumps with Motors	2										

Sl. No.	Name of Spare parts, Materials and consumable's as per Section 7	Qty.	Name of manufacturer & Country of Origin	Unit FOB in FC ()	Total FOB in FC ()	Freight in FC ()	Marine Insurance in FC ()	Total CIF in FC ()	Inland Transportation, Port Handling Charges and others (B.Tk)	Insurance for Local Transportation (B.Tk)	Total cost	
											FC ()	LC (B.Tk)
1	2	3	4	5	6	7	8	9	10	11	12=9	13=10+11
	(9 HP), 35 m3/hr @ 40 m Head											
44.	2 Years Mandatory spares											
45.	Laboratory Equipment	01 Lot										
46.	Others (If Any)											
	Total											

N.B: 1. Add rows as many as required if any optional / recommended materials/equipments to be included in the tender by the tenderer. Item wise price is to be mentioned

N.B: 2. Wherever Lot or Set is mentioned, a detailed list shall be provided by the Tenderer. The Tenderer may add as many rows & details as there are needed.

Schedule-1.2(A) : Services

Service for Supply, Installation, Testing & Commissioning of Effluent Treatment Plant for Hathazari Peaking Power Plant, Chittagong, BPDB on turnkey basis.

Installation, testing & commissioning work should be performed as per following description with specifications including supply of required materials, equipments, spares & consumables, their transportation to the power station site at Hathazari in Bangladesh.

SI No.	Description of Service/ work (As per 7.0 Scope of Works, Section 7)	Quantity	Cost in foreign currency ()		Cost in Local Currency (B.Tk)		Insurance for Service/ Work (B.Tk.)	Total Cost	
			Unit cost	Total cost	Unit cost	Total cost		foreign currency ()	Local Currency (B.Tk)
1	2	3	4	5	6	7	8	9 = 5	10 = 7+8
1.	Design & Engineering	01 Lot							
2.	Testing & Commissioning	01 Lot							
3.	Training on Job Site								
4.	Others Related Services (if any)	01 Lot							
	Total:								

N.B: 1. Add rows as many as required if any other recommended works to be included in the tender by the tenderer. Item wise price is to be mentioned

Schedule-1.2(B) : Civil Construction & Erection Works

Service for Supply, Installation, Testing & Commissioning of Effluent Treatment Plant for Hathazari Peaking Power Plant, Chittagong, BPDB on turnkey basis.

Installation, testing & commissioning work should be performed as per following description with specifications including supply of required materials, equipments, spares & consumables, their transportation to the power station site at Hathazari in Bangladesh.

SI No.	Description of Service/ work (As per 7.0 Scope of Works, Section 7)	Quantity	Cost in foreign currency ()		Cost in Local Currency (B.Tk)		Insurance for Service/ Work (B.Tk.)	Total Cost	
			Unit cost	Total cost	Unit cost	Total cost	Total cost	foreign currency ()	Local Currency (B.Tk)
1	2	3	4	5	6	7	8	9 = 5	10 = 7+8
1.	Civil Construction (Screen Chamber, Raw Effluent Collection Sump, Flash Mixing Tank, Flocculation tank, DAF Tank, Aeration Tank, Tube Settler tank, Clarified Water Tank, Sludge Recirculation Sump, Sludge Holding Tank, MCC Room, cum Blower Room with one toilet facility, Filter Press Room, Foundation for Filters & Pumps, Internal Roads & Drain, Float oil collection tank, Final treated water sump)	01 Lot							
2.	Erection work of ETP Mechanical	01 Lot							
3.	Erection work of ETP Electrical	01 Lot							
4.	Others Related works (if any)	01 Lot							
	Total:								

N.B: 1. Add rows as many as required if any other recommended works to be included in the tender by the tenderer. Item wise price is to be mentioned

Schedule-2 :

Summary of Prices for Supply, Installtion, Testing & Commissioning of Effluent Treatment Plant for Hathazari Peaking Power Plant, Chittagong, BPDB on turnkey basis.

SI No.	Description	Total F.C ()	Total Bangladeshi Taka
1	2	3	4
1	Sch. 1.1	Sch. 1.1 Total of Column 12 will be forwarded here	Sch. 1.1 Total of Column 13 will be forwarded here
2	Sch. 1.2(A)	Sch. 1.2(A) Total of Column 9 will be forwarded here	Sch. 1.2(A) Total of Column 10 will be forwarded here
3	Sch. 1.2(B)	Sch. 1.2 (B) Total of Column 9 will be forwarded here	Sch. 1.2(B) Total of Column 10 will be forwarded here
	Grand Total :		
	In Word:		

Section 7. General Specification

Technical Requirements

Discription of Plant

Hathazari Power Station is situated in the district of Chittagong. The power station has 11 nos HFO Fired engine generator set each with capacity 8.924 MW. The type of Generator is ABB AMG 1120MP08DSE, Manufacturer: ABB Helsinki, Finland and the Engine Type is W20V32, Manufacturer: Wartsila, Finland.

a) Project Manager & Engineers shall have the following qualifications and experience: (Ref. ITT 16.1 (a))

- Qualification: B.Sc Engineering (Electrical)
- Experience: 3 years experience in related field.
- Foreman, Semi skilled & unskilled technicians as required

7.1 Scope of works

Supply of all mechanical items & material, dismantling of existing ETP (if required), design, engineering, installation, testing, commissioning of new Effluent Treatment Plant on Turn Key basis also supply required consumables/materials for engineering, installation, testing, commissioning work.

The scope of works have been furnished below but not limited to the followings:

- a) Planning and designing of the Effluent treatment plant as per latest standard laid down by DoE.
- b) Execution of works includes all electrical, mechanical, civil, plumbing processing equipments etc. including manufacture, supply and erection.
- c) Any other allied work required for the functioning of the treatment plant conforming to the Statutory Acts, Rules, Standards etc.
- d) Equipment and connecting piping shall be so installed as to prevent any obstruction for general movement.
- e) Equipment shall be installed in a manner to provide adequate ventilation for all motors.
- f) Adequate provision shall be made in the equipment mounting to prevent excessive noise transmission directly or through piping and structures.
- g) Overall design factor for individual elements shall be as per the Manual of Effluent, DoE.
- h) All work shall be planned, designed and executed based on latest standard codes of practice and other relevant codes applicable to civil/electrical/mechanical/ plumbing works.
- i) The sludge will be handled properly so that the cakes are formed.
- j) The tenderer will submit offer on turnkey basis along with schematic and process scheme consumable, power etc. required along with cost of maintenance.

The Tenderer is required to furnish the following documents along with the Bid

- iii. Flow diagram and plan layout
 - iv. hydraulic design with component sizing and head loss calculation
- k) All the civil works to be executed by the successful Tenderers shall be certified by BPDB for release of payment corresponding to that piece of work.

Civil work

- a. Civil structures of the Effluent Treatment Plant will be designed and constructed for the total Effluent flow of 720 KL/day.
- b. Cost of structural design and drawings for civil works will deem to be included in the quoted price of work.
- c. The Tenderer have to provide Architectural and working drawings of Fencing around the treatment plant battery limits, entry gate, storm water outlets, Rain Protection Canopies on Electrical Drives, All manholes, vent pipes, railings & supports as required.

Without restricting to the generality of the foregoing, the work shall consist of:-

Electrical Equipment

Design, Supply, Erection, Commissioning and Testing of all Electrical equipment generally comprising of:

- a) Electric motors for all equipments as required.
- b) Motor control center complete with all internal wiring and accessories.
- c) Electrical cables from M.C.C panel to all electric motors and units.
- d) Electric earthing stations as per I.E.E. rules.
- e) All internal lighting & exhaust system etc.

Piping work

Laying of all piping work as per detailed designs and generally for:

- a) All above mentioned civil structure and tanks.
- b) For the interconnection of the various equipments, sludge sump, pump house and control room.
- c) All interconnecting piping between various units bypass etc.

Effluent piping within limits as per the drawings.

7.2.1 Specific Conditions:

- a. The design shall be as per final architectural approval and final architectural planning requirements. Space available around 2000 sq.ft. . Proper arrangements for passage shall have to be provided accordingly.
- b. It is proposed to utilize the entire treated effluent for “flushing and Horticulture” purpose. Therefore the system components have to be provided accordingly.
- c. For sludge handling, a proper sludge handling equipment (must be Filter press capable of de-watering more than 90%) shall be provided as per the requirement, and it is recommended to

collect the dewatered compressed sludge into HDPE bags for disposal to the final destination as per the approval of the Pollution Authorities.

- d. Disposal of Solid Waste: The disposal of all solid waste including from sludge handling network as generated from the ETP during construction and commissioning shall be responsibility of the contractor. The solid waste shall be disposed of in accordance DoE.
- e. The successful Tenderer has to provide an acoustic enclosure for ETP and shall ensure no foul smell or noise is emitted during the commissioning of the plant.
- f. A successful Tenderer has to secure necessary approval from DoE for the Effluent treatment plant and confirm that the treated effluent is within limits for recirculation to Horticulture, flushing or to recharge ground water.
- g. During execution of work, if any other work is required to be done and/or additional spares / materials/hardware/consumables are required for successful completion of installation of ETP, the contractor has to perform the supply of the materials/ items/ spares whether it is listed or not and execute the work, in all respect within the quoted price.
- h. Total Completion time for Supply, Installation, testing & commissioning work including supply of materials is 120 days from the date of L/C Opening.

7.2.2 Power & Water

Power & Water for erection, testing and commissioning shall be provided at one point near the site of work. The contractor shall extend the lines as required to his site of work at his cost.

7.2.3 Performance Criteria of the Plant

It shall be the Contractor's responsibility to ensure the quality of the treated Effluent to comply with the local Authorities requirement for the various applications and the following characteristics whichever is stringent.

The treatment plant shall be designed to treat the influent based on the following parameters and expected to fulfill the DoE requirement as described below:

S. No	Description	Consultant's Requirement/ Recommendation
1	Flow Capacity	
	Total daily ultimate flow in cum/day	720 KL per day
	Peak factor	2
2	Quality of the Untreated Effluent	
	BOD	600 PPM
	Total Suspended solids	400-450 PPM
	COD	1400 PPM
	pH	6 to 8
	TDS	1200 PPM
	Oil & grease	180 PPM
	DO	Nil
3	Quality of the Treated Effluent	

	BOD	< 30 PPM
	Total Suspended solids	< 10 PPM
	COD	< 150 PPM
	pH	6.5 to 8.5
	TDS	1200 PPM
	DO	>4.5 to 8.0 ppm
	Oil & Grease	< 10 PPM
4	Other Design Data	
	F/M ratio	> 0.9
5	Treatment Methodology	Physico-chemical and Biological

Treated Effluent shall be connected to a tertiary filtration treatment and shall be treated for use for irrigation and flushing purpose. The contractor shall carefully consider the operation loading for the Effluent Treatment Plant.

7.2.4 Basic Design Consideration for Effluent Treatment Plant

The project of effluent treatment is to stabilize decomposable organic matter and oil & grease present in Effluent so as to produce an effluent and sludge which can be disposed of in the environment without causing health hazards or nuisance. The Tenderer has to account following special parameters while designing the ETP.

a. Degree of treatment :

The degree of treatment will mostly will be decided by the regulatory agencies and the extent to which the final products of treatment are to be utilized. But in this case, as a precaution treated water must meet with the parameters as mentioned in this tender document.

b. Design period:

The Tenderers has to design Effluent treatment to meet the requirements over a 30 year period after its completion.

c. Oil and Grease

Main concern of the effluent treatment plant is removing Oil and Grease to less than 10 ppm. Source of these oil and greases are from Oil & Grease separator, engine leakage, dispersed oil during transportation, oil mixed rain water etc. Oil and Grease present in the effluent are in dispersed and emulsified or dissolved form.

d. Biochemical Oxygen Demand :

The Biochemical Oxygen Demand (BOD) of Effluent or of polluted water is the amount of oxygen required for the biological decomposition of biodegradable organic matter under aerobic conditions. The oxygen consumed in the process is related to the amount of decomposable organic putrescibility of the Effluent is to be determined. The standard BOD test is carried out for a period of 5 days at 20°C and is expressed as BOD5. In this plant BOD are relatively hard-BOD (large molecule, may takes more time to degraded).

e. Chemical Oxygen Demand :

The Chemical Oxygen Demand (COD) test gives a measure of the oxygen required for chemical oxidation. This does not differentiate between biologically oxidisable and non-oxidisable material. However, the ratio of the BOD does not change significantly for a particular waste and hence this test could be used conveniently for interpreting performance efficiencies of the treatment units. In situations where the presence of toxic materials is like to interfere with the BOD, this test is very useful.

7.2.5 Technology Certificate: The supplier shall issue a certificate stating that-

- a) The Effluent Treatment Plant-720 is of the latest technology. In support of this, Tenderer shall furnish design validation from DoE.

7.2.6 Warranty:

- i. Tenderer shall be fully responsible for the manufacturer's warranty in respect of proper quality and workmanship of all the components of Effluent Treatment Plant-720 KLD etc. covered by the tender for a period of 18 months from the date of satisfactory installation of the Effluent Treatment Plant-720 KLD equipment. The provision for extended warranty with terms and conditions thereof, if any, may also be specifically mentioned.
- ii. The supplier shall be responsible to replace free of cost (including transportation and insurance expenses) to the BPDB, whole or any part of supplies which under normal and proper use becomes dysfunctional within one week from the BPDB Lodging such a complaint or informing the supplier in this regard.

7.2.7 Permits & Licenses

The Contractor shall obtain all permits and/or licenses, if required, for any part of the work from government Authorities and client to pay for any and all fees required for the same.

7.2.8 Training:

The Tenderer have to train BPDB staff during commissioning of Effluent Treatment Plant-720 KLD.

7.2.9 Tests to be conducted:

- 1) Check the Effluent Generation per day.
- 2) Compare Design Flow Rate with installed ETP.
- 3) Check the Treated Effluent Characteristics.
- 4) For analysis the following tests to be conducted but not limited.
 - a) Chemical Oxygen Demand (COD)
 - b) Dissolved Oxygen (Winkler Method)
 - c) Biochemical Oxygen Demand (BOD)
 - d) Total Suspended Solids (TSS)
 - e) Total Dissolved Solids (TDS)
 - f) Oil & Grease Content
 - g) Jar Testing

7.3 Detailed Scope of Work:

1. ETP SCHEME AND PROCESS DESCRIPTION (30M³/HR)

Coarse screen & Chamber:

1.0 nos. of Coarse screen are to be provided upstream to inlet well for removal of floating and over sized material coming with the effluent. The screen shall be manually operated. The coarse screen shall be inclined bar screen. It should be of sturdy design to take care of all sorts of materials envisaged in the gravity sewer. The bar screen shall be of Mild steel flat construction with Epoxy painting.

The bars shall be sloped to the horizontal at 60 or less. The velocity in the screen chamber shall not be more than 0.9 m/sec at average flow. The screen openings shall not be more than 20 MM. Necessary approach ladder shall be provided. Suitable screen pit shall be provided adjacent to the screen chamber for temporary storage of screened material. Hand railing shall be provided all around the screen chamber. Necessary arrangement for manual cleaning of the screen and lifting arrangement of the screened material shall also be provided. The screen chamber along with screen pit shall be of RCC construction.

Raw Effluent Collection Sump:

Screened effluent after coarse screening enters into the collection sump. The capacity of the wet well should be kept such that adequate detention time is available during average and peak flow conditions. The capacity of the sump is to be kept that HRT should not be less than 5 hours of average flow. There will be one partition wall in the sump for cleaning of the sump.

Flow measurement:

A flow measurement unit of magnetic type shall be provided in the common header of the Raw effluent lifting pumps.

Flash Mixer: Tank will be in MS with epoxy painted. HRT of minimum 5 minutes shall be given for sufficient mixing of the coagulant. MOC of Agitator shall be SS-304 with suitable Motor rating.

Flocculator : Tank will be in MS with epoxy painted and HRT of minimum 30 minutes for flocculation and MOC of Agitator shall be SS-304 with suitable motor rating.

Dissolved Air Floatation Unit: MOC of the tank shall be in CS with epoxy painted and will consist of all accessories like compressor, recirculation pumps , Scraper, aeration valves, pressure vessels , gear reducer etc and oil collection tank of 4 m³ capacity in CSEP.

Extended Aeration Activated sludge Process :

The effluent requires proper treatment to remove organics .

The biological process will be Extended Aeration activated sludge process.

In the Aeration Tank, the effluent will be contacted with microorganisms in presence of dissolved oxygen. The floor of the Aeration tanks will be covered with submerged fine bubble air diffusers. Compressed air will be supplied through positive displacement (roots type) air blowers located outside the tank. The submerged air diffusers will provide the oxygen required by the microorganisms to oxidize the organics present in the sewage. The blowers will be sized to maintain dissolved oxygen level of approximately 1.5 - 2.0 mg/l in the Aeration Tanks. The microorganisms will assimilate organic impurities and reduce the BOD and COD present in the wastewater.

Sludge Recirculation system will be provided to maintain the desired MLSS in the Aeration tank.

Chlorination system:

Treated effluent from the Secondary clarifier unit shall be collected in a chlorination tank where sodium hypo-chlorite solution will be added for disinfection at suitable dosing rate for minimum residual chlorine of 0.2 – 0.3 ppm in the effluent. Suitable overhead tank shall be planned to store water used for preparation of solution. Mixing is done mechanically with agitator. Baffle walls shall be provided in the tank to facilitate hydraulic mixing of treated effluent. Adequate reaction time shall be considered for while selecting the chlorination tank volume to ensure proper disinfection of treated effluent.

Tertiary Treatment system:**Multi Grade Filter:**

In MGF filtration Graded Sand will be used as the filtration media. Filter is filled with multi grade sand media which are to be provided in specific proportion to achieve maximum surface area and requisite bed depth. The bed consists of graded pebbles of specified sizes as support media. Water flows downwards through the filter bed and the suspended solids are retained on the sand surface and between the sand grains immediately below the surface. The filtered water is evenly collected by bottom collecting system.

The unit consists essentially of a mild steel pressure vessel. It is externally fitted with necessary pipe work, valves, pressure gauges, and sampling points at the inlet and outlet.

Filter will be operated in manual mode. When the pressure drop across the filter exceeds the preset limit, the filter must be backwashed to remove dust and dirt.

Filter shall be designed at filtration rate not more than 15 m/hr velocity.

Activated carbon Filter:

Activated carbon filter is filled with special grade carbon media which are to be provided in specific proportion to achieve maximum surface area and requisite bed depth. The bed consists of graded pebbles of specified sizes as support media. Water flows downwards through the bed.

The treated water is evenly collected by bottom collecting system.

The unit consists essentially of a mild steel pressure vessel. It is externally fitted with necessary pipe work, valves, pressure gauges, and sampling points at the inlet and outlet.

Filter shall be designed at filtration rate not more than 12 m/hr velocity.

Sludge Handling System:

The excess sludge from the secondary clarifier shall go to the sludge thickener.

The thickened sludge shall be pumped to Filter Press of suitable capacity for dewatering of sludge.

An Electrical Panel room cum Blower room of adequate size shall be provided, this room shall have toilet facility and laboratory.

The tentative flow diagram for the proposed Effluent treatment plant is shown in the enclosed drawing.

Topography of the site:

The contour plans of the area where the effluent treatment plant will be located are not available. The bidders are requested to visit the site, do the survey in their own if required, and offer accordingly. No extra claim due to ignorance of the site condition afterward of the contract in this respect will be entertained.

Free Board:

For all tanks, sumps, units etc. minimum free board shall be 500 mm unless otherwise specifically mentioned. All underground sumps/tanks irrespective of their liquid levels shall be at least 500 mm above ground level / terrace level.

Design Basis:**Screen Chamber:**

Flow (average)	: 30 m ³ /hr
Peak factor	: 2
Quantity	: 01 Nos. (One)
MOC	: RCC, M-20
Size	: 1.8 m (L) x 1.2 m (W)
Invert level	: Approx. 1.5 m from GL

Screen:

	: Coarse
Operation	: Manual
Spacing of Bars	: < 20 mm
Velocity through screen	: < 0.8 m/sec
MOC	: MSEP
Quantity	: 01 No. (one)

Raw Effluent Collection Sump:

Quantity	: 01 No (One)
MOC	: RCC, M-25
Size	: 8.7 m x 8.7 m x 2 m SWD
Invert Level is approx. 1.5 m from GL	

Raw effluent lifting Pumps:

Pumps capacity	: 36 m ³ /hr
Head	: 12- 15 M, Minimum
Type	: Submersible
Liquid handled	: Effluent
Efficiency	: More than 60 %
Quantity	: 02 Nos. (1 w + 1 s)
Motor Rating	: As per manufacturer's design

Flash Mixer

HRT	: 5 minutes , minimum
MOC of tank	: MSEP
MOC of Agitator	: SS-304

Motor	: ≥ 1.5 HP
Chemical dosing system	
Capacity of Dosing tank	: 500 Ltrs.
MOC of tank	: MSRL
Agitator	: SS-304
Dosing pumps	: Metering type , 0-20 lph @ 20 m Head
Quantity	: 02 nos.
Chemicals	: Coagulant & DOPE

Flocculator

HRT	: Minimum 30 minutes
MOC of Mixer	: SS-304
MOC of tank	: MSEP
Motor	: ≥ 2.5 HP
Gear Box	: 01

Chemical dosing system

Capacity of Dosing tank	: 500 Ltrs.
MOC of tank	: MSRL
Agitator	: SS-304
Dosing pumps	: Metering type , 0-10 lph @ 15 m Head
Quantity	: 02 nos.
Chemicals	: Suitable flocculant

Dissolved Air Floatation:

This unit will be designed for peak flow of effluent.

It will consist all associated accessories like gear reducer, scrapper, compressors (02 nos.), recirculation pumps (02 no.s), pressure vessel, nozzles, skimmer etc.

Flow , average	: 30 m ³ /hr
MOC of tank	: CSEP
Scrapper	: SS-304
Shaft	: CSEP
Shaft bearing	: CI
Weir plate	: CSEP
Flexible hose	: Rubber Braided
Nuts, Bolts, Fasteners (wetted parts)	: GI
Aeration valves	: SS-304
Motor encloser	: TEFC
Inlet Oil	: 180 ppm
Outlet	: < 10
Inlet Suspended solids (SS)	: 450 ppm
Outlet SS	: < 200 ppm

Extended Aeration Activated Sludge Process with diffusers and Air Blowers:

Process design:

The biological treatment section comprising extended aeration activated sludge process technology has to be installed and equipped for the present average flow. The complete biological system has to be designed for handling peak flow capacity. Activated sludge process basins will be constructed as per IS 3370. RCC staircase of suitable width will be provided to each basin for access from the ground level to the operating platforms. All platforms and walkways shall be provided hand railings as per IS specifications.

The system should work on a continuous gravity influent condition. The system should be designed for maximum F/M ratio of 0.1 – 0.15 kg BOD/kg MLSS/day.

Average flow	: 30 m ³ /hr
Inlet BOD	: 400 ppm
No. of basin	: One
Minimum basin size	: 18 m x 10 m
Max. liquid depth	: 3.5 M
Min. free board	: 0.5 M
MOC of basin	: RCC, M-30

Sludge Recirculation Sump:

Sludge sump shall be provided to collect the sludge from where it will be recycled back to the Aeration tank for maintaining the desired MLSS and excess sludge will be gone to the sludge holding sump for dewatering.

Sludge sump shall be constructed as per IS 3370.

Number of units	: 01 (one)
Size of sump	: 1.5 m x 1.5 m x 2.0 m SWD + 0.5 m FB
Free board	: 0.5 M
MOC	: RCC, M-20

Sludge Recirculation Pumps:

Pumps capacity and head	: 30m ³ /hr
Head	: 15 - 20 M
Type	: Horizontal, centrifugal- Non clog
Liquid handled	: Sludge
Efficiency	: More than 60 %
Quantity	: 02 Nos(1 w + 1 s)

Sludge Transfer Pumps:

Pumps capacity and head	: 2 m ³ /hr
Head	: 15 - 20 M
Type	: Screw pump
Liquid handled	: Sludge
Efficiency	: More than 60 %
Quantity	: 02 Nos.(1 w + 1 s)
Motor Rating	: As per manufacturer's design

Aeration System:

The aeration facility shall be installed for average flow.

Minimum aeration equipment design capacity installed shall be on the basis of minimum 12 hours aeration per day per basin.

Only fine bubble EPDM membrane diffusers shall be acceptable with minimum membrane diffuser to floor coverage area.. Diffusers shall be submerged fine bubble / fine pore, high transfer efficiency, non-buoyant type. Diffusers shall be tubular type. The grid supports shall of adjustable type made of SS-304. The air blower arrangement shall be capable of handling total water level and bottom water level operation conditions.

Each set of blower shall have at least one dedicated standby. Minimum one working air blower in each set while others may be operating at a fixed constant speed. The blower for air diffusers shall be positive displacement (root) type and head for blowers shall be decided on the basis of efficiency of diffusers and maximum liquid depth in tank duly considering the losses governing point of delivery (diffusers) and the blowers. Blowers shall be complete with motors and accessories like base frame, anti vibratory pad, silencer, non return valve, air filter etc. as per requirements. Vibration due to operation of blowers shall be to avoid damage to structure. Further, blowers shall have acoustics to ensure that the noise level at 3m from blowers is below 80 db. The blower room shall have sufficient ventilation, lighting and working space. The room shall also have rolling shutter.

The main air header / ring main shall be in MSEP as per manufacturer's recommendations. The header / ring main shall be supported on saddled at suitable intervals or will be protected against external corrosion in case there are laid below ground. The header shall supply air to diffusers grid at various locations through air supply pipes. Air supply pipe above water level shall be in MSEP and below water level it shall be in HDPE as per relevant standards. All under water lateral pipes shall be of HDPE. Junction between air header and air supply pipe shall be suitably protected against corrosion due to dissimilar materials.

All other accessories whether specified or not , but required for completeness shall from part of contractors scope.

Blower capacity	: Minimum 1200 Nm ³ /hr
Discharge pressure	: 0.5 kg/cm ² , minimum
Number of blowers	: 02 Nos. (1 w + 1 s)
Type of blower	: Twin lobe
Acoustic hood	: One
Motor Rating	: As per manufacturer's design

Filter Feed pumps:

Pumps capacity and head	: 40 m ³ /hr
Type	: Horizontal centrifugal
Liquid handled	: Effluent
Efficiency	: More that 60 %
Quantity	: 02 Nos. (1 w + 1 s)
MOC of Impeller	: CI
Shaft	: SS-304
Motor	: TEFC, IP-55
Motor Rating	: As per manufacturer's design

Multi Grade Filter:

Type	: Down flow
Filtration rate should not be more than	: 38 m/hr
Shell Thickness	: 8 mm
Dish end thickness	: 10 mm
Operating pressure	: 2.5 – 3.5 bar
MOC of filter	: MSEP
Media	: Sand & Gravel
Operation	: Manual

Activated Carbon Filter:

Type	: Down flow
Filtration rate should not be more than	: 38 m/hr
Shell thickness	: 8 mm
Dish End thickness	: 10 mm
MOC of filter	: MSEP
Operation	: Manual
Operating pressure	: 2.5 – 3.5 bar
Media	: Activated Carbon with Iodine value not less than 900

Sludge Thickener:

Surface loading rate	: 50 m ³ / m ² /day, maximum
Number of units	: 01 (one)
Size	: 2 m Dia x 3 m SWD
Free board	: 0.5 M
MOC of tank	: RCC, M-20
MOC of mechanism	: MSEP
Motor	: ≥2 HP
Walkway bridge with plates	: MSEP

Sludge Holding sump:

Sludge sump shall be provided to collect the excess sludge from activated sludge process. Sludge sump shall be constructed as per IS 3370. The sump shall be equipped with coarse bubble air grid made from HDPE / PVC pipes and Air Blower assembly to facilitate mixing of contents of sludge sump on continuous basis. Air can be tapped from the Process Air blower for Aeration tank.

Number of units	: 01 (one)
Size of sump	: 2 m x 2 m x 2.5 m
Free board	: 0.5 M
MOC	: RCC, M-20

Filter Press Feed pumps:

Sludge transfer pumps shall be provided in sludge sump to feed secondary sludge to mechanical dewatering device. The pump shall be of screw type suitable for handling biological sludge of 1-2 % solids consistency.

Pumps capacity and head	: 2 m ³ /hr @ 10 M Head
Type	: Screw type
Liquid handled	: Bio- sludge of 1-2% solids consistency

Solid size	: 100 mm, max.
Efficiency	: More than 50 %
Installation	: Fixed
Quantity	: 02 Nos. (1 w + 1 s)
Motor Rating	: As per manufacturer's design

All other accessories, whether specified or not, but required for completeness shall form part of contractor's scope.

Mechanical Dewatering Device:

Filter Press:

Type	: Plate & Frame
Operation	: Hydraulic
Capacity	: 2 m ³ /hr
Quantity	: 01 No.
No. of plates	: Bidder's design
MOC	: CS
Room Size	: 5m x 4m

The dewatered sludge should be truck-able and be suitable for disposal by open body truck and should have a minimum solid concentration of 25% or more.

Clarified water cum Chlorination Tank:

For chlorination of treated effluent a provision shall be made so that no harm is caused to the receiving water body. Treated water from Clarifier shall be taken to chlorine contact tank by RCC channel / pipe. Tank shall be provided for dosing of chlorine from the chlorination system. Baffle walls shall be provided to achieve proper disinfection. The baffle walls shall be constructed in concrete and 20cm thick plaster in CM 1:3 on either side. The inlet and outlet pipe shall be designed for peak flow.

Design flow	: 30m ³ /hr
No. of units	: 1 (One)
Detention time	: Minimum 40 minutes of average flow
Free board	: 0.5 M
MOC	: RCC, M-20

Final Treated water sump:

Design flow	: 30 m ³ /hr
No. of units	: 1 (One)
Detention time	: Minimum 5 hrs. of average flow
Free board	: 0.5 M
MOC	: RCC, M-20

Final Treated water Pumps:

Pumps capacity and head	: 35 m ³ /hr @ 40 M Head
Type	: Horizontal centrifugal

Liquid handled	: Treated effluent
Efficiency	: More than 70 %
Installation	: Fixed
Quantity	: 02 Nos. (1 w + 1 s)
Motor Rating	: As per manufacturer's design

Buildings:

MCC cum Blower room with one toilet facility:

Size : 12 m x 6 m , minimum
Indoor lighting and ventilation, One number (01) of steel shutter of suitable size , aluminium window, doors will be in bidder's scope.

EXPECTED RAW EFFLUENT QUALITY

PH	: 6 - 8
TSS	: 400 – 450 PPM
OIL & GREASE	: 180 PPM
BOD	: 600 PPM
COD	: 1400 PPM
TDS	: 1200 PPM
FLOW (AVERAGE)	: 720 KLD
PEAK FACTOR	: 2

REQUIRED TREATED WATER QUALITY:

PH	: 6.5 - 8.5
OILS & GREASE	: < 10 PPM
BOD	: < 30 PPM (TEST AT 3 DAYS 27°C)
COD	: < 150 PPM
TSS	: < 10 PPM
TDS	: < 1200 PPM
DO	: 4.5 - 8.0 PPM

ELECTRICAL

SCOPE OF WORK:

Design, manufacture, testing and inspection at places of manufacturer, painting, supply, delivery to site, storage at site, installation / erection, final painting, testing and commissioning of the electrical equipment listed below:

It is not the intent to specify herein all the details pertaining to the design, selection of material/ equipment, procurement, manufacture, installation, testing and commissioning, however, the same shall be of high standard of engineering and shall comply to all currently applicable standards, regulations and safety codes.

The BPDB shall supply the required electricity upto the MCC panel which will be located at site. The bidder will submit the electrical load list along with the technical bid.

The contractor's scope will start from the MCC to provide electricity at the ETP. The contractor shall arrange all necessary equipments for electricity distribution at plant site.

The scope also includes further power distribution, indoor & outdoor lighting system, earthing system and cable carrier system. The contractor shall work out the details based on his equipment's power consumption.

The execution should take care of Electricity rules, Electricity Board's requirement and other local authorities and site condition.

The contractor shall ensure workmanship of good quality and shall assign qualified supervisor / engineers and competent labour who are skilled, careful and experienced in carrying out similar works.

BPBD shall reserve the right to reject non-competent person/s employed by the contractor, if the workmanship is found unsatisfactory.

Utilization Voltages:

Plant power distribution voltage	:415 V, 50 Hz, 3 phase,4 wire
Main LT Panel control voltage	: 230 V, 50 Hz, 1 phase,2 wire
DC alarm, control, protection	: 30 V DC, 2 wire
Potential transformer secondary	: 110 V, 3 phase, 50 Hz, AC
Motors < 0.37 kW	: 230V, 50Hz, 1 phase
Motors > 0.37 kW < 350 kW	: 415V, 50Hz, 3 phase
Electric Heaters < 3kW	: 230V, 50Hz, 1 phase
Welding Receptacles	: 415V, 50Hz, 3 phase, 4 wire
Lighting Power Distribution	: 415V, 50Hz, 3 phase, 4 wire
Lighting Fixtures	: 230V, 50Hz, 1 phase, 2 wire
Lighting Receptacles	: 230V, 50Hz, 1 phase, 2 wire

CABLES:

LT Cables shall be 600/1000V grade PVC insulated aluminum cored.All cables less than 4 sq.mm. shall be copper conductor PVC insulated, PVC sheathed, round G.I. wire armoured.All cables above and

including 4 sq.mm. shall be aluminum conductor PVC insulated, PVC sheathed, strip/round G.I. wire armoured.

LIGHTING SYSTEM:

The lighting system inside and outside plant units shall be designed taking into consideration the desired illumination level, architectural arrangement, building dimensions including mounting height, environmental conditions, ease of maintenance and reliability of the lighting distribution network.

The illumination system shall be designed to minimize direct glare and shall be free from shadows. Maximum and minimum illumination at any point shall be within + 15% of the average illumination of the area under consideration.

EARTHING:

Plant earthing system will be designed to ensure effective operation of protective gears in case of earth faults. The total earthing resistance shall be less than one ohm.

MOTOR CONTROL CENTRE(MCC) PANEL:

The remote control panel shall be of dust-damp-vermin proof 14 SWG sheet steel construction having lockable hinged door, neoprene gaskets at all mating surfaces. The panel shall be suitable for indoor installation & floor mounted type. The panel shall have undrilled gland plates at top & bottom for the cable entries. The panel shall be complete with equipment required for changing operation, which shall include the following. However, the contractor shall give the detailed list of equipment provided on the panel.

- Main switch for incoming supply
- Auto / Off / Manual selector switch
- Automatic voltage control relay
- Auxiliary relays, timers, required for satisfactory operation
- Tap position indicator
- Raise / Lower push buttons
- "Tap change in Progress" signal lamp for Raise & Lower
- "Supply ON" signal lamp
- Alarm hooter for OLTC trouble
- 20W fluorescent Cubicle lamp with MCB
- Convenience socket outlet 15A SP & E, 230V AC controlled by DP MCB
- Thermostat operated 50W Space heater controlled by DP MCB

LOCAL PUSH BUTTON STATION:

Standards:

- a. The design, manufacture and performance of the equipment to be supplied under the scope of this specification shall comply with latest revisions of relevant Indian Standards and rules.
- b. The design and workmanship shall be in accordance with best engineering practices as applicable to industrial electrical equipment enclosures.

Construction:

- a. Industrial Local Control Station enclosure shall be of Cast Aluminium LM6 alloy enclosure having minimum 3 mm thickness.
- b. The enclosure shall be weatherproof, IP-55 suitable for outdoor installation. All mating surfaces of industrial LCS shall be with continuous non-deteriorating type special rubber gaskets/neoprene gaskets. An additional 2MM thick Aluminium canopy shall be provided to give adequate protection against weather.

Wiring:

All internal wiring upto the terminal block in the Local Control Station shall be carried out with 1.5 sq.mm. stranded copper conductors. Wires shall be PVC insulated type of 650/1100V grade. The wire shall be terminated with crimping type lugs only and shall be provided with ferrules at both the ends.

MECHANICAL WORKS**SCOPE OF MECHANICAL WORKS:**

The scope of the work shall include but not be limited to the following:

GENERAL

The contract includes design, manufacture, testing at works, supply and delivery at site, unloading, storing till the time of erection, installation, testing and commissioning of mechanical equipment as mentioned in the technical specifications.

Materials – General:

All materials incorporated in the Works shall be the most suitable for the duty concerned and shall be new and of reputed make/approved quality, free from imperfections and selected for long life and minimum maintenance. Non-destructive tests, if called for in the specification, shall be carried out.

All submerged moving parts of the Plant, or shafts spindles, etc. of the submerged moving parts or faces etc. in contact with various chemicals, shall be corrosion resistant materials. All parts in direct contact with various chemicals shall be completely resistant to corrosion or abrasion by these chemicals and shall maintain their properties without aging due to the passages of time, exposure to light or any other cause.

Workmanship – General :

Workmanship and general finish shall be of first class quality and in accordance with best workshop practice.

All similar items of the Plant and their component parts shall be completely interchangeable. Spare parts shall be manufactured from the same materials as the originals and shall fit all similar items. Machining fits on renewable parts shall be accurate and to specified tolerances so that replacements made to may be readily installed.

All equipment shall operate without excessive vibration and with minimum noise. All revolving parts shall be truly balanced both statically and dynamically so that when running at normal speeds at any load up to the maximum there shall be no vibration due to lack of balance. All parts, which can be worn or damaged by dust shall be totally enclosed in dust proof housings. All materials incorporated in the work shall be most suitable for duty concerned, free from imperfections, selected for long life and minimum maintenance. All necessary accessories required for satisfactory and safe operation of the plant shall be supplied by the Contractor unless it is specifically excluded from his scope. All valves shall be closing on clockwise rotation of the hand wheel. All flanges shall be drilled in accordance with requirements of AS PER STANDARD. All flanges shall be full or spot faced on the backside. The flange thickness be uniform throughout. Flange outside periphery shall be concentric with the bore. Flanges shall be finished smooth on periphery also. Castings and fabricated materials shall be finished smooth all over.

Pipes & Specials :

All interconnecting piping included in these tenders are of CI except for potable water supply and chemical piping. The pipe shall be as per the specifications. Use of tailpiece will be allowed for adjustment of length.

The piping for chemical dosing shall be UPVC/ SS-316, whichever is best suited. The piping includes joints, gasket and supports. The fasteners and washers used shall be of GI

Valves :

All the valves shall be hydraulically tested open ended. Valves bodies for all valves shall be tested for either side (except for non return valves, where it will be one side) to one and half times the maximum pressure or twice the working pressure, whichever is higher, for a duration of 10 mts, during which there should not be any leakage.

Sluice valves shall be double-flanged and shall have disks (gates) manufactured in close-grained cast iron or equal material unless otherwise specified. The seats and faces shall be of bronze and rings shall be forced fitted. Sluice valves of nominal dia 300 mm and above shall be provided with gunmetal "shoe" and "channel" arrangement so that the gate shall be guided throughout its travel. Total side clearance between shoe and channel shall be less than 1.5 mm. Valve spindles shall have thrust flange to take up axial thrust.

The spindle shall be of high tensile brass.

The valves shall be suitably designed to protect the disk edge from corrosion and erosion.

Non-return valves on the main pump delivery branches shall possess non-slam characteristics with minimum shock on closing.

Packed glands shall be arranged for easy replacement of the packing, which shall be accessible without removal of the valve from the pipe. Precautions shall be taken to prevent corrosion of the valve spindles in contact with the gland packing. Sluice valves shall have seat arrangement for ease of maintenance.

Each valve or its operating equipment shall bear an approved nameplate stating its function. All operating spindles, gears and headstocks shall be provided with adequate points for lubrication. All gate valves shall have non-rising spindles.

Support of Pipe Network & Valves:

All necessary supports, saddles, slings, fixing bolts and foundation bolts shall be supplied to support the pipe work and its associated equipment in an approved manner. Valves, meters, strainers and other devices mounted in the pipe work shall be supported independently of the pipes to which they connect. All brackets or other forms of support, which can conveniently be

so designed, shall be rigidly built up of steel by riveting or welding in preference to the use of castings. No point of passage of pipes through floor or walls shall be used as a point of support, except with the approval of the Engineer in charge.

Design Life :

The works as a whole shall be new, of sound workmanship, robustly designed for a long reliable operating life and shall be capable of 24 hours per day continuous operation for prolonged period in the climatic and working conditions prevailing at the site, and with the minimum of maintenance. Particular attention shall be given to temperature changes, the stability of paint finish for high temperatures, the rating of engines, electrical machinery, thermal overload services, cooling systems and the choice of lubricants for possible high and prolonged operating temperatures. The Contractor shall be called upon to demonstrate this for any component part either by service records or evidence of similar equipment already installed elsewhere or relevant type test. Routine maintenance and repair shall as far as possible not require the services of highly skilled personnel.

The Plant shall be designed to provide easy access to and replacement of component parts, which are subject to wear, without the need to replace whole units. No parts in the contact with water shall have a life from new to replacement or repair of less than five years. Where major dismantling is unavoidable to replace a part, the life of such part shall not be less than ten years. Design features shall include the protection of plant against damage caused by vermin, dirt, dust and dampness and to reduce risk of fire. Plant shall operate without undue vibration, and parts shall be designed to withstand the maximum stresses under the most severe condition of normal service. Materials shall have a high resistance to change in their properties due to the passage of time, exposure to light temperature and any other cause, which may have a detrimental effect upon the performance, or life of the works.

Nuts, Bolts , Studs & Washers:

Nuts, bolts studs and washers for incorporation in the plant shall conform to the requirements of the appropriate standard. Nuts and bolts shall be of the best quality of specified grade, machined on the shank and under the head and nut. Bolts shall be of one-piece construction and shall be of sufficient length so that only one thread shall show through the nut in the fully tightened condition.

Fitted bolts shall be a light driving fit in the reamed holes they occupy, shall have the screwed portion of such a diameter that it will not be damaged in driving and shall be marked in a conspicuous position to ensure correct assembly at Site.

Washers, locking devices and anti-vibrations arrangements shall be provided where necessary and shall be subjected to the approval of the Engineer-in-Charge. Jointing hardware for the entire plant shall be provided with sufficient spares to cater for site losses.

Where bolts pass through structural members taper washers shall be fitted, where necessary, to ensure that no bending stress is caused in the bolt. Where there is a risk of corrosion due to bolts nuts and studs shall be designed so that the maximum stress does not exceed half the yield stress of the material under any conditions. All bolts nuts and washers, which are subject to frequent adjustment or removal in the course of maintenance and repair, shall be made of nickel-bearing stainless steel.

The Contractor shall supply all holding down, alignment and leveling bolts complete with anchorage's, nuts, washers and packing required to attach the plant to its foundations, and all bed

plates, frames and other structural parts necessary to spread the loads transmitted by the Plant to concrete foundations without exceeding the design stresses.

The material of nut, bolts, studs and washers for wetted/submerged areas shall be of SS: 316 and others shall be of GI (specifically nut bolts of Aerators, bridge, Filter press, gates, screens, CL2 doser, sludge agitator should be only of S.S. either submerged stage or open in air).

MECHANICAL EQUIPMENT

The contract includes design, manufacture, testing at works, supply and delivery at site, unloading, storing till the time of erection, installation, testing and commissioning of mechanical equipment as mentioned in the following sections. The scope of the work shall include but not be limited to the following:

Submersible Pumps:

General:

- a) The total head capacity curve shall be continuously rising towards the shut off with the highest at shut off.
- (b) Pumps shall be suitable for single as well as parallel efficient operation at any point in between the maximum and minimum system resistance.
- (c) The pumps shall be designed to handle solid sizes of up to 75 mm for handling raw Effluent and 50 mm for handling sludge.
- (d) Pumps shall run smooth without undue noise and vibration.

The pump set shall be suitable for starting with discharge valve open and/or closed.
The pump set shall be capable of withstanding the accidental rotation in reverse direction.

Features of Construction

- (a) Pump shall be centrifugal, vertical spindle, nonclog, and wear resisting, single stage type.
- (b) Pump casing shall be of robust construction. Liquid passages shall be finished smooth and designed as to allow free passage of solids. The volute tongue shall be filed to a smooth rounded edge.
- (c) Double Mechanical seals shall be provided to protect the motor from ingress of sewage along the shaft. The preliminary and secondary seals shall be oil-lubricated with tungsten carbide or silicon-carbide faces and they shall be equipped with an electrical monitoring system for seal failure detection.
- d) Impeller shall be non-clog enclosed type with smooth blunt edges and large water ways so as to allow free passage of the large size solids. It shall be free from sharp corners and projections likely to catch and hold rags and stringy materials.
- (e) The critical speed of the rotor shall be at least 30% above the operating speed.
- (f) Pump sets shall have double bearings. The bearing life shall be minimum 40,000 hrs of operation.
- (g) Each pump shall be complete with a cast iron delivery connection arrangement for fixing to the concrete floor of the suction well. The joint between the pump discharge flange and the

delivery piping shall be made by merely lowering the pump into guide rails / rope from access level. It shall be provided with all necessary fixings for guiding the pumps during lifting/lowering. Each pump shall be provided with a stainless steel lifting chain conforming to BS 1663 and BS 4942.

Materials of construction for submersible pumps:

Impeller	: SS , ASTM A743 CF8M
Casing	: CI As Per Standard
Shaft	: SS to BS 970 Gr.316

HORIZONTAL PUMPS

The pumps shall be of end suction, horizontal dry-pit type, non-clog, centrifugal type. The volute and impeller will be of cast iron with 1.5% to 2% Nickel. The pump shall be capable of handling solids of not less than 40-mm sphere size.

The pump coupling shall be flexible type and shall be provided with coupling guard. The suction and delivery shall be suitable for flange connection.

The pump shall include base frame, electric motor, coupling, coupling guard, etc. The motor shall be TEFC, 415V, 3-phase AC 50 c/s. The base frame shall be fabricated from structural steel sections. The motor HP shall be at least 10% more than required at duty point.

Data:

Temperature	: Ambient
Specific gravity	: 1.05
Total Head	: As per design
Capacity	: As per design
Pump model	: As per Manufacturer
Mounting	: Horizontal
Type	: Non clog
MOC	
Casing	: CI, As per Standard
Impeller	: CI, As per Standard
Shaft	: SS, As Per Standard
Base Plate	: MS, As Per Standard
Pump efficiency	: Minimum 70 %
Motor	
Type	: TEFC, Squirrel Cage, Induction Motor
HP	: As per manufacturer
Rating, kW	: As per manufacturer
Speed, RPM	: As per manufacturer

ERECTION

The Contractor's staff shall include at least one competent erection engineer with proven, suitable, previous experience on similar contracts to supervise the erection of the Works and sufficient skilled, semi skilled and unskilled labour to ensure completion of the works in time. The Contractor shall not remove any representative, erector or skilled labour from the site without the prior approval of the Engineer-in-Charge.

One erection engineer who shall be deemed to be the Contractor's representative shall be

conversant with the erection and commissioning of the complete works. Should there be more than one erector, one shall be in charge and the Contractor shall inform the Engineer-in-Charge in writing which erector is designated as his representative and is in charge. Erection engineer is to report progress and planning to the Engineer or his representative who will have one mobile phone with him.

The Contractor's erection staff shall arrive on the site on date to be agreed by the Engineer-in-Charge. Before they proceed to the Site, however, the Contractor shall first satisfy himself, as necessary, that sufficient plant of his (or his sub-contractors) supply has arrived on site so that there will be no delay on this account.

Erection of Plant shall be phased in such a manner so as not to obstruct the work being done by other Contractors or operating staff who may be present at the time. Before commencing any erection work, the Contractor shall check the dimensions of structures where the various items of Plant are to be installed and shall bring any deviations from the required positions, lines or dimensions to the notice of the Engineer. Plant shall be erected in a neat and workmanlike manner on the foundations and at the locations shown on the approved drawings. unless otherwise directed by the Engineer, the Contractor shall adhere strictly to the aforesaid approved drawings. If any damage is caused by the Contractor during the course of erection to new or existing plant or buildings or any part thereof, the Contractor shall, at no additional cost to the Employer, make good, repair or replace the damage, promptly and effectively as directed by the Engineer and to the Engineer's satisfaction.

During erection of the plant the Engineer will inspect the installation from time to time in the presence of the Contractor's site representative to establish conformity with the requirements of the specification. Any deviations and deficiencies found or evidence of unsatisfactory workmanship shall be corrected as instructed by the Engineer.

CONSTRUCTION DOCUMENTS

The Construction Documents are certified Drawings submitted by the Contractor to the Employer or Engineer-in-Charge during the course of the Contract for approval.

The Engineer-in-Charge may require the Contractor to submit for approval additional drawings if they are necessary to enable him to satisfy himself that the items are well designed, that they comply with the Employer's Requirements and that they are suitable for their intended purpose. These drawings shall form the agreed basis for the execution of the Works. If an approved drawing is revised, revised copies shall be submitted for approval as above and no such revised drawing shall be used for the purposes of the Contract until it has been approved in place of the earlier issue of the drawing.

AS-BUILT DRAWINGS

These drawings shall be compiled by the Contractor and shall constitute a permanent record of the Works as executed. These shall include all such drawings, schedules, documentation and calculations as necessary for a complete understanding of the Work design, operation and maintenance.

2. Filter Press

Sludge produced from the Primary and secondary clarifier is sent to the Filter Press and the finally filter press dewater the sludge. Dry cake sludge will be stored in sludge storage godown. Finally the sludge will be disposed off to the local land disposal site.

The Tank Sizes of the various units are given below in table Area table for 30m³/hr Physico-Chemical & biological ETP

LIST OF MAJOR CIVIL UNITS FOR 30 m ³ /hr ETP at BPDB					
SL. NO.	UNITS	DIMENSIONS	Quantity	MOC	Grade
1	Screen Chamber	1.8 m x 1.2 m x 3 m	1	RCC	M-20
2	Raw Effluent Collection Sump	8.7 m x 8.7 m x 3.5 m	1	RCC	M-30
3	Flash Mixing Tank	1.63 m Dia x 1.2 m SWD + 0.5 m FB	1	MSEP	
4	Flocculation tank	3.1 m Dia x 2 m SWD + 0.5 m FB	1	MSEP	
5	DAF Tank	4 M dia x 1.5 m SWD + 0.5 m FB	2	MSEP	
6	Aeration Tank	18 m x 10 m x 3.5 m SWD + 0.5 m FB	1	RCC	M-30
7	Tube Settler tank	5 m x 4 m x 2 m SWD + 0.5 m FB	1	MSEP	
8	Clarified Water Tank	3 m x 2.5 m x 3.0 m SWD + 0.5 m FB	1	RCC	M-30
9	Sludge Recirculation Sump	1.5 m x 1.5 x 2 m SWD + 0.5 m FB	1	RCC	M-30
10	Sludge Holding Tank	2 m x 2 m x 2.5 m SWD + 0.5 m FB	1	RCC	M-20
11	MCC Room, cum Blower Room with one toilet facility	10 m x 6 m	1	Brick	AS per std. Engg. Practice
12	Filter Press Room	5 m x 4 m	1	Brick	AS per std. Engg. Practice
13	Foundation for Filters & Pumps		Lot		M-20
14	Internal Roads & Drain		Lot		AS per std. Engg. Practice
15	Float oil collection tank	1.5 m Dia x 2 m (H)	1	MSEP	
16	Final treated water sump	8.7 m x 8.7 m x 3.5 m	1	RCC	M-30

7.4 Scope of Supply:

Material/Items & Consumables are required for Supply, Installation, Testing & Commissioning of ETP for Hathazari Peaking Power Plant, Hathazari, BPDB on turnkey basis.

SI	Description Of Items	Quantity required
1.	Bar Screen, MSEP 1000 mm x 800 mm	01 No.
2.	Sluice Gate, CI 500 mm x 500 mm	01 No.
3.	Flow Meter (Magnetic type)	01 No.
4.	DAF (MSEP) 30 m ³ /hr	01 No.
5.	DAF Feed Pumps with Motors (3HP), 30 m ³ /hr @ 15 m Head	02 Nos
6.	DAF Recirculation Pumps with Motors (4 HP), 10 m ³ /hr @ 50 m Head	02 Nos.
7.	Air Compressor 50 m ³ /hr @ 3 bar	02 Nos.

SI	Description Of Items	Quantity required
8.	DOPE dosing tank(HDPE) with Agitator- SS-304 50 m3/hr @ 3 bar	02 Nos.
9.	Dosing pumps 0-20 lph	02 Nos.
10.	Filter Feed pumps with Motors (8HP), 35 m3/hr @ 30 m Head	02 Nos.
11.	Rain water transfer pumps, submersible 10 m3/hr @ 15 m Head	02 Nos.
12.	Air Blowers with Motors(35 HP), 1200 m3/hr @ 5000 mmwc	02 Nos.
13.	NRV 250 NB	02 Nos
14.	B/F Valve	02 Nos
15.	Diffusers EPDM, Fine bubble	120
16.	Sludge Recirculation pump with Motors (5 HP),30 m3/hr @ 20 m Head	02 Nos
17.	NRV 200 NB	02 Nos
18.	B/F Valve	02 Nos
19.	pH indicator	01 No
20.	Clarifier Mechanism (Tube Settler Media) 5 M x 4 M X 2 M	01 No.
21.	Thickener Mechanism 2 m Dia	01 No
22.	Sludge Transfer pumps, screw type 2 m3/ hr @ 15 m Head	02 Nos
23.	Pressure Sand Filter, 35 M3/hr , 1800 mm x2200 mm	01 No
24.	Activated Carbon Filter 2000 mm x 2400 mm	01 No
25.	Flash Mixer Agitator, SS-304 1 HP	01 No.
26.	Flocculation Tank internals 2 HP	01 No.
27.	Coagulant dosing pumps 0-20 lph	02 Nos
28.	Coagulant dosing Tank with Agitator , SS-304 500 ltrs	01 No.
29.	Flocculant dosing pump 0- 20 lph	02 Nos
30.	Flocculant Dosing Tank with Agitator, SS-304 500 Litres	01 No.
31.	Nutrient Dosing Pumps 0 - 20 lph	02 Nos
32.	Dosing Tank with Agitators 10 Ltrs	01 No
33.	Air Diffusers , Capacity: Disc	12 Nos
34.	Filter Press Feed Pumps 2 m3/hr	02 Nos
35.	Filter Press , Hydraulic type 2 m3/hr	01 No.

SI	Description Of Items	Quantity required
36.	Piping, Pipe supports, Valves, Fittings	Lot
37.	MCC	01 Set
38.	LT Cables	Lot
39.	LPBS	4
40.	Earthing	2
41.	Plant lighting	4
42.	Cable Tray & accessories	1
43.	Final Treated water disposal pumps with Motors (9 HP), 35 m3/hr @ 40 m Head	2
44.	2 Years Mandatory spares	
45.	Laboratory Equipment	01 Lot

Note: Tenderer may offer additional items which are not mentioned here as optional items with specification and price to complete the system on turn-key basis

7.5 RESPONSIBILITIES OF THE CONTRACTOR

- Contractor shall be responsible for examining all the shipment and notify BPDB Engineer immediately if any damage, shortage, discrepancy etc., for the purpose of engineers' information. The contractor shall submit a report every week detailing in this regard.
- For timely completion of the job, the contractor may have to work in one or more shifts. He will not be eligible for any extra charges on this account.

7.6 WORK SAFETY REGULATIONS

- The contractor shall ensure the safety of all the workmen, materials, and equipment either belonging to him or to others working at site.
- The contractor will notify the Engineer/ Plant Manager of his intention to bring on to site any equipment or any container, with liquid or gaseous Fuel or other substances which may create hazard. The Engineer/Plant manager shall have the right to inspect any construction plant and to forbid its use, if in his opinion, it is unsafe. No claim due to such prohibition shall be entertained by BPDB.
- Where it is necessary to provide and/or store petroleum products or petroleum mixtures or any other, the contractor shall be responsible for safe keeping.

7.7 FACILITIES TO BE PROVIDED BY BPDB (if available)

- Special Tools, equipment and facilities at Shahjibazar 2×35MW Gas Turbine Plant will be provided free of charge by BPDB if available.
- Electricity and Water required for complete said work will be provided by BPDB, required arrangement to be done by the contractor.
- Available technical data, drawings, manuals will be provided by BPDB.
- BPDB will assist the experts to obtain all export/import permit etc.
- Accommodation of food, transport will be arranged by contractor within his own cost.

7.8. FACILITIES TO BE PROVIDED BY THE CONTRACTOR

- i. The contractor shall be responsible to provide all necessary facilities like residential accommodation, transport, distribution of water and power, medical insurance etc. as required under the various labour laws and other statutory rules and regulations as applicable at site for their staff, labour.
- ii. The contractor will make his own arrangement for his communication needs at his site office.
- iii. Contractor shall deploy labour at site strictly in accordance with the approval of Plant authority.
- iv. Overhead Crane (if available) shall be arranged /provided by the contractor/BPDB for material handling.
- v. For movement of cranes, trailers or any other vehicle/equipment are required, the same shall be arranged by contractor at his own cost.

7.9. SAFETY

1. Contractor shall strictly follow all safety conditions. Non-conformity of safety rules and safety appliances will be viewed seriously.
2. The contractor will arrange for gate passes and any other permits required for carrying out his work from the respective agencies at his own cost at Plant area. He will also comply with regulations of security within the plant premises.

7.10. PROGRESS OF WORK

1. The contractor shall submit daily, weekly and monthly progress reports, manpower reports, material reports, consumables report and other reports considered necessary by the Engineer/Plant manager.
2. The progress reports shall indicate the progress achieved against planned with reasons indicating delays if any, shall also furnish in details the reasons for the same and shall give remedial action.
3. The contractor shall arrange for weekly progress review meetings with the “Plant manager” at site during which actual progress during the week vis-à-vis scheduled programme shall be discussed for action to be taken for achieving targets. The programme for subsequent week shall also be presented by contractor for discussions. The contractor shall constantly update/revise his works programme to meet the overall requirement and suit the material availability.

7.11. LABOUR AND SUPERVISORY STAFF

1. The contractor shall engage specially skilled labour eg. Foreman, electrician etc. for works under this contract. The contractor in addition has to provide experienced supervisors for the period of contract.

2. The supervisory staff employed by the contractor shall ensure out-turn work and discipline on the part of the labour put on the job by the contractor and in general see that the works are carried out in a safe and proper manner and in co-ordination with labour and staff employed directly by BPDB.
3. It will be the responsibility of the contractor to ensure lifting of the equipment taking due precaution to avoid any accidents and damage to other equipment and personnel. The contractor shall be responsible to make good the damages to personnel, equipment or other materials arising out of accidents, during executing of the work by him.

7.12. RETURN OF SURPLUS ITEMS

All the surplus, damaged, unused materials, package materials/containers etc, shall be returned to BPDB Plant Store by the Contractor. The loading and unloading of these items at BPDB stores should be done by the contractor at no extra cost.

7.13. OTHER RESPONSIBILITIES OF THE CONTRACTOR

1. The contractor shall have total responsibility for all equipment and materials in his custody, stores, loose, semi-assembled, assembled or erected by him at site.
2. The contractor shall make suitable security arrangement including employment of security personnel to ensure the protection of all materials/equipments and works from theft, fire pilferage and any other damage and loss.
3. The contractor shall ensure that the packing materials and protection devices used for the various equipment during transit and storage are removed before these equipments are installed.
4. All equipments shall be handled very carefully to prevent any damage or loss.
5. The work covered under this scope of work is of highly sophisticated mature requiring best quality, proven workmanship engineering and construction management. It should also ensure successful and timely operation of equipment installed. The contractor must have adequate quantity of precision tools, construction aids in possession. Contractor must also have adequate trained, qualified and experienced supervisory staff and skilled personnel.
6. All the necessary certificates and licenses required to carry out this scope of works are to be arranged by the contractor then and there at no extra cost.
7. The Contractor shall take all reasonable care to protect the materials and work till such time the installed equipment has been taken over by BPDB.
8. The contractor shall be responsible for taking all safety precautions during the construction and leaving the site safe at all items. When the work is temporarily suspended he shall protect all construction materials, equipments and facilities from causing damage to existing property interfering with the operation of the station when it goes into service. The contractor shall comply with all applicable provisions of the safety regulations clean-up programme and other precautionary measures.

Section 8. Particular Specifications

None

Section 9. Drawings

