Request for Bids
Plant
Design, Supply, and Installation
(Without Prequalification)

Procurement of Dominica Geothermal Risk Mitigation Project

PART 1 – Bidding Procedures

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Plant
Design, Supply& Installation
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Procurement of

Dominica Geothermal Risk Mitigation Project

RFB No: **DGDC-RFB-001**
Project: Dominica Geothermal Risk Mitigation Project
Employer: Dominica Geothermal Development Company Limited
Country: Commonwealth of Dominica
Issued on: 22 July 2019

Standard Procurement Documents

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Section I - Instructions to Bidders

A. General

1. Scope of Bid

1.1 In connection with the Specific Procurement Notice - Request for Bids (RFB), specified in the Bid Data Sheet (BDS), the Employer, as specified **in the BDS**, issues this bidding document for the Design, Supply and Installation of Plant as specified in Section VII, Employer's Requirements. The name, identification and number of lots (contracts) of this RFB are specified **in the BDS.**

1.2 Throughout this bidding document:

(a) the term "in writing" means communicated in written form (e.g. by mail, e-mail, fax, including if specified **in the BDS,** distributed or received through the electronic-procurement system used by the Employer) with proof of receipt;

(b) if the context so requires, "singular" means "plural" and vice versa; and

(c) "Day" means calendar day, unless otherwise specified as "Business Day." A Business Day is any day that is an official working day of the Borrower. It excludes the Borrower's official public holidays.

2. Source of Funds

2.1 The Borrower or Recipient (hereinafter called "Borrower") indicated **in the BDS** has applied for or received financing (hereinafter called "funds") from the World Bank (hereinafter called "the Bank") in an amount specified **in BDS**, toward the project named **in BDS**. The Borrower intends to apply a portion of the funds to eligible payments under the contract(s) for which this bidding document is issued.

2.2 Payment by the Bank will be made only at the request of the Borrower and upon approval by the Bank in accordance with the terms and conditions of the Loan (or other financing) Agreement. The Loan (or other financing) Agreement prohibits a withdrawal from the loan account for the purpose of any payment to persons or entities, or for any import of goods, equipment, plant, or materials, if such payment or import is prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations. No party other than the Borrower shall derive any rights from

the Loan (or other financing) Agreement or have any claim to the proceeds of the Loan (or other financing).

3. Fraud and Corruption

3.1 The Bank requires compliance with the Bank's Anti-Corruption Guidelines and its prevailing sanctions policies and procedures as set forth in the WBG's Sanctions Framework, as set forth in Section V.

3.2 In further pursuance of this policy, Bidders shall permit and shall cause their agents (where declared or not), subcontractors, subconsultants, service providers, suppliers, and their personnel, to permit the Bank to inspect all accounts, records and other documents relating to any initial selection process, prequalification process, bid submission, proposal submission and contract performance (in the case of award), and to have them audited by auditors appointed by the Bank.

4. Eligible Bidders

4.1 A Bidder may be a firm that is a private entity, a state-owned enterprise or institution subject to ITB 4.6, or any combination of such entities in the form of a joint venture (JV) under an existing agreement or with the intent to enter into such an agreement supported by a letter of intent. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the Bidding process and, in the event the JV is awarded the Contract, during contract execution. Unless specified **in the BDS**, there is no limit on the number of members in a JV.

4.2 A Bidder shall not have a conflict of interest. Any Bidder found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest for the purpose of this Bidding process, if the Bidder:

(a) directly or indirectly controls, is controlled by or is under common control with another Bidder; or

(b) receives or has received any direct or indirect subsidy from another Bidder; or

(c) has the same legal representative as another Bidder; or

(d) has a relationship with another Bidder, directly or through common third parties, that puts it in a position to influence

the Bid of another Bidder, or influence the decisions of the Employer regarding this Bidding process; or

(e) or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the Plant and Installation Services that are the subject of the Bid; or

(f) or any of its affiliates has been hired (or is proposed to be hired) by the Employer or Borrower as Project Manager for the Contract implementation; or

(g) would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the project specified in the BDS ITB 2.1 that it provided or were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm; or

(h) has a close business or family relationship with a professional staff of the Borrower (or of the project implementing agency, or of a recipient of a part of the loan) who: (i) are directly or indirectly involved in the preparation of the bidding document or specifications of the Contract, and/or the Bid evaluation process of such Contract; or (ii) would be involved in the implementation or supervision of such contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Bank throughout the Bidding process and execution of the Contract.

4.3 A firm that is a Bidder (either individually or as a JV member) shall not participate as a Bidder or as JV member in more than one Bid except for permitted alternative Bids. Such participation shall result in the disqualification of all Bids in which the firm is involved. However, this does not limit the participation of a Bidder as subcontractor in another Bid or of a firm as a subcontractor in more than one Bid.

4.4 A Bidder may have the nationality of any country, subject to the restrictions pursuant to ITB 4.8. A Bidder shall be deemed to have the nationality of a country if the Bidder is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall apply to the determination of the

nationality of proposed subcontractors or subconsultants for any part of the Contract including related Services.

4.5 A Bidder that has been sanctioned by the Bank, pursuant to the Bank's Anti-Corruption Guidelines, in accordance with its prevailing sanctions policies and procedures as set forth in the WBG's Sanctions Framework as described in Section VI paragraph 2.2 d., shall be ineligible to be prequalified for, initially selected for, bid for, propose for, or be awarded a Bank-financed contract or benefit from a Bank-financed contract, financially or otherwise, during such period of time as the Bank shall have determined. The list of debarred firms and individuals is available at the electronic address specified in the BDS.

4.6 Bidders that are state-owned enterprises or institutions in the Employer's Country may be eligible to compete and be awarded a Contract(s) only if they can establish, in a manner acceptable to the Bank, that they (i) are legally and financially autonomous (ii) operate under commercial law, and (iii) are not under supervision of the Employer.

4.7 A Bidder shall not be under suspension from Bidding by the Employer as the result of the operation of a Bid-Securing Declaration or Proposal-Securing Declaration.

4.8 Firms and individuals may be ineligible if so indicated in Section V and (a)as a matter of law or official regulations, the Borrower's country prohibits commercial relations with that country, provided that the Bank is satisfied that such exclusion does not preclude effective competition for the supply of goods or the contracting of works or services required; or (b)by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's country prohibits any import of goods or contracting of works or services from that country, or any payments to any country, person, or entity in that country. Where the procurement is implemented across jurisdictional boundaries (and more than one country is a Borrower, and is involved in the procurement), then exclusion of a firm or individual on the basis of ITB 4.8 (a) above by any country may be applied to that procurement across other countries involved, if the Bank and the Borrowers involved in the procurement agree.

4.9 A Bidder shall provide such documentary evidence of eligibility satisfactory to the Employer, as the Employer shall reasonably request.

4.10 A firm that is under a sanction of debarment by the Borrower from being awarded a contract is eligible to participate in this procurement, unless the Bank, at the Borrower's request, is satisfied that the debarment; (a) relates to fraud or corruption, and (b) followed a judicial or administrative proceeding that afforded the firm adequate due process.

5. Eligible Plant and Installation Services

5.1 The Plant and Installation Services to be supplied under the Contract and financed by the Bank may have their origin in any country in accordance with Section V, Eligible Countries.

5.2 For purposes of ITB 5.1 above, "origin" means the place where the plant, or component parts thereof are mined, grown, produced or manufactured, and from which the services are provided. Plant components are produced when, through manufacturing, processing, or substantial or major assembling of components, a commercially recognized product results that is substantially in its basic characteristics or in purpose or utility from its components.

B. Contents of Bidding Document

6. Sections of Bidding Document

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

PART 1. Bidding Procedures

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

PART 2. Employer's Requirements

- Section VII -Employer's Requirements

PART 3. Conditions of Contract and Contract Forms

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

6.2 The Specific Procurement Notice-Request for Bids (RFB) issued by the Employer is not part of the bidding document.

6.3 Unless obtained directly from the Employer, the Employer is not responsible for the completeness of the document, responses to requests for clarification, the Minutes of the pre-Bid meeting (if any), or Addenda to the bidding document in accordance with ITB 8. In case of any contradiction, documents obtained directly from the Employer shall prevail.

6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding document and to furnish with its Bid all information or documentation as is required by the bidding document.

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

7.1 A Bidder requiring any clarification of the bidding document shall contact the Employer in writing at the Employer's address indicated **in the BDS** or raise his enquiries during the pre-Bid meeting if provided for in accordance with ITB 7.4. The Employer will respond in writing to any request for clarification, provided that such request is received prior to the deadline for submission of Bids within a period specified **in the BDS**. The Employer shall forward copies of its response to all Bidders who have acquired the bidding document in accordance with ITB 6.3, including a description of the inquiry but without identifying its source. If so specified **in the BDS**, the Employer shall also promptly publish its response at the web page identified **in the BDS**. Should the clarification result in changes to the essential elements of the bidding document, the Employer shall amend the bidding document following the procedure under ITB 8 and ITB 23.22.

7.2 The Bidder is advised to visit and examine the site where the plant is to be installed and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the Bid and entering into a Contract for the provision of Plant and Installation Services. The costs of visiting the site shall be at the Bidder's own expense.

7.3 The Bidder and any of its personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the Bidder, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any

other loss, damage, costs, and expenses incurred as a result of the inspection.

7.4 If so specified **in the BDS**, the Bidder's designated representative is invited to attend a pre-Bid meeting and/or a site visit. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

7.5 The Bidder is requested to submit any questions in writing, to reach the Employer not later than one week before the meeting.

7.6 Minutes of the pre-Bid meeting, including the text of the questions raised without identifying the source, and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Bidders who have acquired the bidding document in accordance with ITB 6.3. If so specified **in the BDS,** the Employer shall also promptly publish the Minutes of the pre-Bid meeting at the web page identified **in the BDS**. Any modification to the bidding document that may become necessary as a result of the pre-Bid meeting shall be made by the Employer exclusively through the issue of an Addendum pursuant to ITB 8 and not through the minutes of the pre-Bid meeting. Nonattendance at the pre-Bid meeting will not be a cause for disqualification of a Bidder.

8. Amendment of Bidding Document

8.1 At any time prior to the deadline for submission of Bids, the Employer may amend the bidding document by issuing addenda.

8.2 Any addendum issued shall be part of the bidding document and shall be communicated in writing to all who have obtained the bidding document from the Employer in accordance with ITB 6.3. The Employer shall also promptly publish the addendum on the Employer's web page in accordance with ITB 7.1.

8.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer may, at its discretion, extend the deadline for the submission of bids, pursuant to ITB 23.2.

C. Preparation of Bids

9. Cost of Bidding

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

10. Language of Bid

10.1 The Bid, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the Employer, shall be

written in the language specified **in the BDS**. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified **in the BDS**, in which case, for purposes of interpretation of the Bid, such translation shall govern.

11. Documents Comprising the Bid

11.1 The Bid shall comprise the following:

(a) **Letter of Bid** prepared in accordance with ITB12.1;

(b) **Price Schedules** completed in accordance with ITB 12 and ITB 17;

(c) **Bid Security** or **Bid Securing Declaration,** in accordance with ITB 20;

(d) **Alternative Bid**, if permissible, in accordance with ITB 13;

(e) **Authorization**: written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 21.3;

(f) **Eligibility of Plant and Installation Services:** documentary evidence established in accordance with ITB 14.1 that the Plant and Installation Services offered by the Bidder in its Bid or in any alternative Bid, if permitted, are eligible;

(g) **Bidder's Eligibility and Qualifications:** documentary evidence in accordance with ITB 15.1 establishing the Bidder's eligibility and qualifications to perform the Contract if its Bid is accepted;

(h) **Conformity:** documentary evidence in accordance to ITB 16that the Plant and Installation Services offered by the Bidder conform to the bidding document;

(i) **Subcontractors**: list of subcontractors in accordance with ITB 16.2; and

(j) any other document required **in the BDS**.

11.2 In addition to the requirements under ITB 11.1, Bids submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful

Bid shall be signed by all members and submitted with the Bid, together with a copy of the proposed Agreement.

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

12. Letter of Bid and Price Schedules

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

13. Alternative Bids

13.1 Unless otherwise specified **in the BDS**, alternative Bids shall not be considered.

13.2 When alternatives to the Time Schedule are explicitly invited, a statement to that effect will be included **in the BDS**, and the method of evaluating different time schedules will be described in Section III, Evaluation and Qualification Criteria.

13.3 Except as provided under ITB 13.4 below, Bidders wishing to offer technical alternatives to the Employer's requirements as described in the bidding document must also provide: (i) a price at which they are prepared to offer a Plant meeting the Employer's requirements; and (ii) all information necessary for a complete evaluation of the alternatives by the Employer, including drawings, design calculations, technical specifications, breakdown of prices, and proposed installation methodology and other relevant details. Only the technical alternatives, if any, of the Bidder with the Most Advantageous Bid conforming to the basic technical requirements shall be considered by the Employer.

13.4 When Bidders are invited **in the BDS** to submit alternative technical solutions for specified parts of the facilities, such parts will be identified **in the BDS**, as will the method for their evaluation, and described in Section VII, Employer's Requirements.

14. Documents Establishing the Eligibility of the Plant and Installation Services

14.1 To establish the eligibility of the Plant and Installation Services in accordance with ITB 5, Bidders shall complete the country of origin declarations in the Price Schedule Forms, included in Section IV, Bidding Forms.

15. Documents Establishing the Eligibility and Qualifications of the Bidder

15.1 To establish its eligibility and qualifications to perform the Contract in accordance with Section III, Evaluation and Qualification Criteria, the Bidder shall provide the information requested in the corresponding information sheets included in Section IV, Bidding Forms.

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

16.1 The Bidder shall furnish the information stipulated in Section IV, Bidding Forms in sufficient detail to demonstrate substantial responsiveness of the Bidders' proposal to the work requirements and the completion time.

16.2 For major items of Plant and Installation Services as listed by the Employer in Section III, Evaluation and Qualification Criteria, which the Bidder intends to purchase or subcontract, the Bidder shall give details of the name and nationality of the proposed Subcontractors, including manufacturers, for each of those items. In addition, the Bidder shall include in its Bid information establishing compliance with the requirements specified by the Employer for these items. Quoted rates and prices will be deemed to apply to whichever Subcontractor is appointed, and no adjustment of the rates and prices will be permitted.

16.3 The Bidder shall be responsible for ensuring that any Subcontractor proposed complies with the requirements of ITB 4, and that any plant, or services to be provided by the Subcontractor comply with the requirements of ITB 5 and ITB 15.1.

17. Bid Prices and Discounts

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

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

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

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

Schedule No. 1: Plant (including Mandatory Spare Parts) Supplied from Abroad

Schedule No. 2: Plant (including Mandatory Spare Parts) Supplied from within the Employer's Country

Schedule No. 3: Design Services

Schedule No. 4: Installation Services

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

Schedule No. 6: Recommended Spare Parts

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

(a) Plant to be supplied from abroad (Schedule No. 1):

The price of the Plant shall be quoted on CIP-named place of destination basis as specified **in the BDS**.

(b) Plant manufactured within the Employer's Country (Schedule No. 2):

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

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

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

(d) Installation Services shall be quoted separately (Schedule No. 4) and shall include rates or prices for local transportation to named place of final destination as specified **in the BDS**, insurance and other services incidental to delivery of the plant, all labour, contractor's equipment, temporary works, materials, consumables and all matters and things of whatsoever nature, including operations and maintenance services, the provision of operations and maintenance manuals, training, etc., where identified in the bidding document, as necessary for the proper execution of the installation and other services, including all taxes, duties, levies and charges payable in the Employer's Country as of twenty-eight (28) days prior to the deadline for submission of Bids;

(e) Recommended spare parts shall be quoted separately (Schedule 6) as specified in either subparagraph (a) or (b) above in accordance with the origin of the spare parts.

17.6 The terms EXW, CIP, and other similar terms shall be governed by the rules prescribed in the current edition of Incoterms, published by the International Chamber of Commerce, as specified **in the BDS.**

17.7 The prices shall be either fixed or adjustable as specified **in the BDS.**

17.8 In the case of **Fixed Price**, prices quoted by the Bidder shall be fixed during the Bidder's performance of the contract and not subject to variation on any account. A Bid submitted with an adjustable price quotation will be treated as non-responsive and rejected.

17.9 In the case of **Adjustable Price**, prices quoted by the Bidder shall be subject to adjustment during performance of the contract to reflect changes in the cost elements such as labour, material, transport and contractor's equipment in accordance with the procedures specified in the corresponding Appendix to the Contract Agreement. A Bid submitted with a fixed price

quotation will not be rejected, but the price adjustment will be treated as zero. Bidders are required to indicate the source of labour and material indices in the corresponding Form in Section IV, Bidding Forms.

17.10 If so indicated in ITB 1.1, Bids are being invited for individual lots (contracts) or for any combination of lots (packages). Bidders wishing to offer any price reduction (discount) for the award of more than one Contract shall specify in their Letter of Bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package, and the manner in which the price reductions will apply.

17.11 Bidders wishing to offer any unconditional discount shall specify in their Letter of Bid the offered discounts and the manner in which price discounts will apply.

18. Currencies of Bid and Payment

18.1 The currency(ies) of the Bid and the currency(ies) of payments shall be the same. The Bidder shall quote in the currency of the Employer's country the portion of the Bid price that corresponds to expenditures incurred in the currency of the Employer's Country, unless otherwise specified **in the BDS**.

18.2 The Bidder may express the Bid price in any currency. If the Bidder wishes to be paid in a combination of amounts in different currencies, it may quote its price accordingly but shall use no more than three foreign currencies in addition to the currency of the Employer's Country.

19. Period of Validity of Bids

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

19.2 In exceptional circumstances, prior to the expiration of the Bid validity period, the Employer may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing. If a Bid Security is requested in accordance with ITB 20, the Bidder granting the request shall also extend the Bid Security for twenty-eight (28) days beyond the deadline of the extended validity period. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request shall not be required or permitted to modify its Bid, except as provided in ITB 19.3.

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

(a) in the case of **fixed price** contracts, the Contract price shall be the Bid price adjusted by the factor or factors specified **in the BDS**;

(b) in the case of **adjustable price** contracts, no adjustment shall be made; or

(c) in any case, Bid evaluation shall be based on the Bid price without taking into consideration the applicable correction from those indicated above.

20. Bid Security

20.1 The Bidder shall furnish as part of its Bid, either a Bid-Securing Declaration or a Bid Security as specified **in the BDS,** in original form and, in the case of a Bid Security, in the amount and currency specified **in the BDS**.

20.2 A Bid-Securing Declaration shall use the form included in Section IV Bidding Forms.

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

(a) an unconditional guarantee issued by a bank or non-bank financial institution (such as an insurance, bonding or surety company);

(b) an irrevocable letter of credit;

(c) a cashier's or certified check; or

(d) another security indicated **in the BDS**,

from a reputable source from an eligible country. If an unconditional guarantee is issued by a non-bank financial institution located outside the Employer's Country the issuing non-bank financial institution shall have a correspondent financial institution located in the Employer's Country to make it enforceable unless the Employer has agreed in writing, prior to Bid submission, that a correspondent financial institution is not required. In the case of a bank guarantee, the Bid Security shall be submitted either using the Bid Security Form included in Section IV, Bidding Forms, or in another substantially similar format approved by the Employer prior to Bid submission. The Bid Security shall be valid for twenty-eight (28) days beyond the

original validity period of the Bid, or beyond any period of extension if requested under ITB 19.2.

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

20.5 If a Bid Security is specified pursuant to ITB 20.1, the Bid Security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's furnishing of the Performance Security pursuant to ITB 47.

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

20.7 The Bid Security may be forfeited or the Bid-Securing Declaration executed:

(a) if a Bidder withdraws its Bid during the period of Bid validity specified by the Bidder on the Letter of Bid; or

(b) if the successful Bidder fails to:

(i) sign the Contract in accordance with ITB 46; or

(ii) furnish a Performance Security in accordance with ITB 47.

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

20.9 If a Bid Security is not required **in the BDS**: and

(a) if a Bidder withdraws its Bid during the period of Bid validity specified by the Bidder on the Letter of Bid , except as provided in ITB 19.2; or

(b) if the successful Bidder fails to:

(a) sign the Contract in accordance with ITB 46; or

(b) furnish a Performance Security in accordance with ITB 47;

the Borrower may**,** if provided for **in the BDS**, declare the Bidder disqualified to be awarded a contract by the Employer for a period of time as stated **in the BDS**.

21. Format and Signing of Bid

21.1 The Bidder shall prepare one original of the documents comprising the bid as described in ITB 11 and clearly mark it "Original." Alternative Bids, if permitted in accordance with ITB 13, shall be clearly marked "Alternative". In addition, the Bidder shall submit copies of the Bid, in the number specified in the BDS and clearly mark them "Copy." In the event of any discrepancy between the original and the copies, the original shall prevail.

21.2 Bidders shall mark as "Confidential" information in their Bids which is confidential to their business. This may include proprietary information, trade secrets or commercial or financially sensitive information.

21.3 The original and all copies of the Bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as specified in the BDS and shall be attached to the Bid. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Bid where entries or amendments have been made shall be signed or initialed by the person signing the Bid.

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

21.5 Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Bid.

D. Submission and Opening of Bids

22. Submission, Sealing and Marking of Bids

22.1 The Bidder shall deliver the Bid in a single, sealed envelope (one (1) envelope process). Within the single envelope the Bidder shall place the following separate, sealed envelopes:

(a) in an envelope marked "ORIGINAL", all documents comprising the Bid, as described in ITB 11; and

(b) in an envelope marked "COPIES", all required copies of the Bid; and

(c) if alternative Bids are permitted in accordance with ITB 13, and if relevant:

(iii) in an envelope marked "ORIGINAL–ALTERNATIVE BID" the alternative Bid; and

(iv) in the envelope marked "COPIES – ALTERNATIVE BID" all required copies of the alternative Bid.

22.2 The inner and outer envelopes shall:

(a) bear the name and address of the Bidder;

(b) be addressed to the Employer in accordance with ITB 23.1;

(c) bear the specific identification of this Bidding process indicated in accordance with ITB 1.1; and

(d) bear a warning not to open before the time and date for Bid opening.

22.3 If all envelopes are not sealed and marked as required, the Employer will assume no responsibility for the misplacement or premature opening of the Bid.

23. Deadline for Submission of Bids

23.1 Bids must be received by the Employer at the address and no later than the date and time indicated **in the BDS**. When so specified **in the BDS**, Bidders shall have the option of submitting their Bids electronically. Bidders submitting Bids electronically shall follow the electronic Bid submission procedures specified **in the BDS**.

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

24. Late Bids

24.1 The Employer shall not consider any Bid that arrives after the deadline for submission of Bids, in accordance with ITB 23. Any Bid received by the Employer after the deadline for submission of Bids shall be declared late, rejected, and returned unopened to the Bidder.

25. Withdrawal, Substitution, and

25.1 A Bidder may withdraw, substitute, or modify its bid after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the

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authorization in accordance with ITB 21.3, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the Bid must accompany the respective written notice. All notices must be:

(a) prepared and submitted in accordance with ITB 21 and ITB 22 (except that withdrawals notices do not require copies), and in addition, the respective envelopes shall be clearly marked "Withdrawal," "Substitution," "Modification"; and

(b) received by the Employer prior to the deadline prescribed for submission of Bids, in accordance with ITB 23.

25.2 Bids requested to be withdrawn in accordance with ITB 25.1 shall be returned unopened to the Bidders.

25.3 No Bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of Bids and the expiration of the period of Bid validity specified by the Bidder on the Letter of Bid or any extension thereof.

26. Bid Opening

26.1 Except as in the cases specified in ITB 24 and ITB 25.2, the Employer shall publicly open and read out in accordance with ITB 26.5 all Bids received by the deadline at the date, time and place specified **in the BDS** in the presence of Bidders' designated representatives and anyone who choose to attend. Any specific electronic Bid opening procedures required if electronic Bidding is permitted in accordance with ITB 23.1, shall be as specified **in the BDS**.

26.2 First, the written notice of withdrawal in the envelopes marked "Withdrawal" shall be opened and read out and the envelope with the corresponding Bid shall not be opened, but returned to the Bidder. No bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at Bid opening.

26.3 Next, envelopes marked "Substitution" shall be opened and read out and exchanged with the corresponding Bid being substituted, and the substituted Bid shall not be opened, but returned to the Bidder. No Bid substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at Bid opening.

26.4 Next, envelopes marked "Modification" shall be opened and read out with the corresponding Bid. No Bid modification shall be permitted unless the corresponding modification notice

contains a valid authorization to request the modification and is read out at Bid opening.

26.5 Next, all remaining envelopes shall be opened one at a time, reading out: the name of the Bidder and the Bid Price(s), including any discounts and alternative Bids, and indicating whether there is a modification; the presence or absence of a Bid Security or Bid-Securing Declaration, if required; and any other details as the Employer may consider appropriate.

26.6 Only Bids, alternative Bids and discounts that are opened and read out at Bid opening shall be considered further. The Letter of Bid and the Price Schedules are to be initialed by representatives of the Employer attending Bid opening in the manner specified **in the BDS**.

26.7 The Employer shall neither discuss the merits of any Bid nor reject any Bid (except for late Bids, in accordance with ITB 24.1).

26.8 The Employer shall prepare a record of the Bid opening that shall include, as a minimum:

(a) the name of the Bidder and whether there is a withdrawal, substitution, or modification;

(b) the Bid Price, per lot if applicable, including any discounts;

(c) any alternative Bids; and

(d) the presence or absence of a Bid Security or a Bid-Securing Declaration.

26.9 The Bidders' representatives who are present shall be requested to sign the record. The omission of a Bidder's signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders.

E. Evaluation and Comparison of Bids

27. Confidentiality

27.1 Information relating to the evaluation of Bids and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with the Bidding process until information on Intention to Award the Contract is transmitted to all Bidders in accordance with ITB 42.

27.2 Any effort by a Bidder to influence the Employer in the evaluation of the bids or Contract award decisions may result in the rejection of its Bid.

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

28. Clarification of Bids

28.1 To assist in the examination, evaluation, and comparison of the Bids, and qualification of the Bidders, the Employer may, at its discretion, ask any Bidder for a clarification of its Bid. Any clarification submitted by a Bidder that is not in response to a request by the Employer shall not be considered. The Employer's request for clarification and the response shall be in writing. No change in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Bids, in accordance with ITB 32.

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

29. Deviations, Reservations, and Omissions

29.1 During the evaluation of Bids, the following definitions apply:

(a) "Deviation" is a departure from the requirements specified in the bidding document;

(b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the bidding document; and

(c) "Omission" is the failure to submit part or all of the information or documentation required in the bidding document.

30. Determination of Responsiveness

30.1 The Employer's determination of a Bid's responsiveness is to be based on the contents of the Bid itself, as defined in ITB11.

30.2 A substantially responsive Bid is one that meets the requirements of the bidding document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:

(a) if accepted, would:

(i) affect in any substantial way the scope, quality, or performance of the Plant and Installation Services specified in the Contract; or

(ii) limit in any substantial way, inconsistent with the bidding document, the Employer's rights or the Bidder's obligations under the proposed Contract; or

(b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive Bids.

30.3 The Employer shall examine the technical aspects of the Bid in particular, to confirm that all requirements of Section VII, Employer's Requirements have been met without any material deviation, reservation, or omission.

30.4 If a Bid is not substantially responsive to the requirements of the bidding document, it shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

31. Nonmaterial Nonconformities

31.1 Provided that a Bid is substantially responsive, the Employer may waive any nonconformity in the Bid that does not constitute a material deviation, reservation or omission.

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

31.3 Provided that a Bid is substantially responsive, the Employer shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component in the manner specified **in the BDS**.

32. Correction of Arithmetical Errors

32.1 Provided that the Bid is substantially responsive, the Employer shall correct arithmetical errors on the following basis:

(a) where there are errors between the total of the amounts given under the column for the price breakdown and the amount given under the Total Price, the former shall prevail and the latter will be corrected accordingly;

(b) where there are errors between the total of the amounts of Schedule Nos. 1 to 4 and the amount given in Schedule No. 5 (Grand Summary), the former shall prevail and the latter will be corrected accordingly; and

(c) if there is a discrepancy between words and figures, the amount in words shall 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.

32.2 Bidders shall be requested to accept correction of arithmetical errors. Failure to accept the correction in accordance with ITB 32.1, shall result in the rejection of the Bid.

33. Conversion to Single Currency

33.1 For evaluation and comparison purposes, the currency(ies) of the Bid shall be converted into a single currency as specified **in the BDS**.

34. Margin of Preference

34.1 No margin of domestic preference shall apply.

35. Evaluation of Bids

35.1 The Employer shall use the criteria and methodologies listed in this ITB and Section III, Evaluation and Qualification criteria. No other evaluation criteria or methodologies shall be permitted. By applying the criteria and methodologies the Employer shall determine the Most Advantageous Bid. This is the Bid of the Bidder that meets the qualification criteria and that has been determined to be:

(a) substantially responsive to the bidding document; and

(b) the lowest evaluated cost.

35.2 **Technical Evaluation**. The Employer will carry out a detailed technical evaluation of the Bids not previously rejected to determine whether the technical aspects are in compliance with the bidding document. The Bid that does not meet minimum acceptable standards of completeness, consistency and detail, and the specified minimum (or maximum, as the case may be) requirements for specified functional guarantees, will be rejected for non-responsiveness. In order to reach its determination, the Employer will examine and compare the technical aspects of the Bids on the basis of the information supplied by the Bidders, taking into account the following:

(a) overall completeness and compliance with the Employer's Requirements; conformity of the Plant and Installation Services offered with specified performance

criteria, including conformity with the specified minimum (or maximum, as the case may be) requirement corresponding to each functional guarantee, as indicated in the Specification and in Section III, Evaluation and Qualification Criteria; suitability of the Plant and Installation Services offered in relation to the environmental and climatic conditions prevailing at the site; and quality, function and operation of any process control concept included in the Bid;

(b) type, quantity and long-term availability of mandatory and recommended spare parts and maintenance services; and

(c) other relevant factors, if any, listed in Section III, Evaluation and Qualification Criteria.

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

35.4 **Economic Evaluation**. To evaluate a Bid, the Employer shall consider the following:

(a) the Bid price, excluding provisional sums and the provision, if any, for contingencies in the Price Schedules;

(b) price adjustment for correction of arithmetic errors in accordance with ITB 32.1;

(c) price adjustment due to discounts offered in accordance with ITB 17.11;

(d) price adjustment due to quantifiable nonmaterial nonconformities in accordance with ITB 31.3;

(e) converting the amount resulting from applying (a) to (c) above, if relevant, to a single currency in accordance with ITB 33; and

(f) the evaluation factors specified **in the BDS** and in Section III, Evaluation and Qualification Criteria.

35.5 If price adjustment is allowed in accordance with ITB 17.7, the estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in Bid evaluation.

35.6 If this bidding document allows Bidders to quote separate prices for different lots (contracts), and the award to a single Bidder of multiple lots (contracts), the methodology to determine the lowest evaluated cost of the lot (contract) combinations, including any discounts offered in the Letter of Bid, is specified in Section III, Evaluation and Qualification Criteria.

36. Comparison of Bids

36.1 The Employer shall compare the evaluated costs of all substantially responsive Bids established in accordance with ITB 35.4 to determine the Bid that has the lowest evaluated cost.

37. Abnormally Low Bids

37.1 An Abnormally Low Bid is one where the Bid price, in combination with other elements of the Bid, appears so low that it raises material concerns as to the capability of the Bidder to perform the Contract for the offered Bid Price.

37.2 In the event of identification of a potentially Abnormally Low Bid, the Employer shall seek written clarifications from the Bidder, including detailed price analyses of its Bid price in correlation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the bidding document.

37.3 After evaluation of the price analyses, in the event that the Employer determines that the Bidder has failed to demonstrate its capability to deliver the contract for the offered tender price, the Employer shall reject the Bid.

38. Unbalanced or Front Loaded Bids

38.1 If the Bid that is evaluated as the lowest evaluated cost is, in the Employer's opinion, seriously unbalanced or front loaded the Employer may require the Bidder to provide written clarifications. Clarifications may include detailed price analyses to demonstrate the consistency of the Bid prices with the scope of works, proposed methodology, schedule and any other requirements of the bidding document.

38.2 After the evaluation of the information and detailed price analyses presented by the Bidder, the Employer may:

(a) accept the Bid; or

(b) if appropriate, require that the total amount of the Performance Security be increased, at the expense of the Bidder, to a level not exceeding twenty percent (20%) of the Contract Price; or

(c) reject the Bid.

39. Eligibility and Qualification of the Bidder

39.1 The Employer shall determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated cost and substantially responsive Bid is eligible and meets the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.

39.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 15.1.The determination shall not take into consideration the qualifications of other firms such as the Bidder's subsidiaries, parent entities, affiliates, subcontractors (other than Specialized Subcontractors if permitted in the bidding document) or any other firm(s) different from the Bidder.

39.3 An affirmative determination shall be a prerequisite for award of the Contract to the Bidder. A negative determination shall result in disqualification of the Bid, in which event the Employer shall proceed to the Bidder who offers a substantially responsive Bid with the next lowest evaluated cost to make a similar determination of that Bidder's qualifications to perform satisfactorily.

39.4 The capabilities of the manufacturers and subcontractors proposed in its Bid to be used by the Bidder with the Most Advantageous Bid for identified major items of supply or services will also be evaluated for acceptability in accordance with Section III, Evaluation and Qualification Criteria. Their participation should be confirmed with a letter of intent between the parties, as needed. Should a manufacturer or subcontractor be determined to be unacceptable, the Bid will not be rejected, but the Bidder will be required to substitute an acceptable manufacturer or subcontractor without any change to the Bid price. Prior to signing the Contract, the corresponding Appendix to the Contract Agreement shall be completed, listing the approved manufacturers or subcontractors for each item concerned.

40. Employer's right to Accept Any Bid and to Reject Any or All Bids

40.1 The Employer reserves the right to accept or reject any Bid, and to annul the Bidding process and reject all Bids at any time prior to Contract Award, without thereby incurring any liability to Bidders. In case of annulment, all Bids submitted and specifically, Bid securities shall be promptly returned to the Bidders.

41. Standstill Period

41.1 The Contract shall not be awarded earlier than the expiry of the Standstill Period. The Standstill Period shall be ten (10) Business Days unless extended in accordance with ITB 45. The Standstill

Period commences the day after the date the Employer has transmitted to each Bidder the Notification of Intention to Award the Contract. Where only one Bid is submitted, or if this contract is in response to an emergency situation recognized by the Bank, the Standstill Period shall not apply.

42. Notification of Intention to Award

42.1 The Employer shall send to each Bidder the Notification of Intention to Award the Contract to the successful Bidder. The Notification of Intention to Award shall contain, at a minimum, the following information:

(a) the name and address of the Bidder submitting the successful Bid;

(b) the Contract price of the successful Bid;

(c) the names of all Bidders who submitted Bids, and their Bid prices as readout, and as evaluated;

(d) a statement of the reason(s) the Bid (of the unsuccessful Bidder to whom the notification is addressed) was unsuccessful, unless the price information in c) above already reveals the reason;

(e) the expiry date of the Standstill Period; and

(a) instructions on how to request a debriefing and/or submit a complaint during the standstill period.

F. Award of Contract

43. Award Criteria

43.1 Subject to ITB 40, the Employer shall award the Contract to the successful Bidder. This is the Bidder whose Bid has been determined to be the Most Advantageous Bid. This is the Bid of the Bidder that meets the qualification criteria and whose Bid has been determined to be:

(a) substantially responsive to the bidding document; and

(b) the lowest evaluated cost.

44. Notification of Award

44.1 Prior to the expiration of the Bid Validity Period, and upon expiry of the Standstill Period, specified in ITB 41.1 or any extension thereof, and upon satisfactorily addressing any complaint that has been filed within the Standstill Period, the Employer shall notify the successful Bidder, in writing, that its Bid has been accepted. The notification of award (hereinafter and in the Contract Forms called the "Letter of Acceptance") shall specify the sum that the Employer will pay the Contractor

in consideration of the execution of the contract (hereinafter and in the Conditions of Contract and Contract Forms called "the Contract Price").

44.2 Within ten (10) Business Days after the date of transmission of the Letter of Acceptance, the Employer shall publish the Contract Award Notice which shall contain, at a minimum, the following information:

(a) name and address of the Employer;

(b) name and reference number of the contract being awarded, and the selection method used;

(c) names of all Bidders that submitted Bids, and their Bid prices as read out at Bid opening, and as evaluated;

(d) names of all Bidders whose Bids were rejected either as nonresponsive or as not meeting qualification criteria, or were not evaluated, with the reasons therefor;

(e) the name of the successful Bidder, the final total contract price, the contract duration and a summary of its scope; and

(f) successful Bidder's Beneficial Ownership Disclosure Form, if specified in BDS ITB 46.1.

44.3 The Contract Award Notice shall be published on the Employer's website with free access if available, or in at least one newspaper of national circulation in the Employer's Country, or in the official gazette. The Employer shall also publish the contract award notice in UNDB online.

44.4 Until a formal contract is prepared and executed, the Letter of Acceptance shall constitute a binding Contract

45. Debriefing by the Employer

45.1 On receipt of the Employer's Notification of Intention to Award referred to in ITB 42, an unsuccessful Bidder has three (3) Business Days to make a written request to the Employer for a debriefing. The Employer shall provide a debriefing to all unsuccessful Bidders whose request is received within this deadline..

45.2 Where a request for debriefing is received within the deadline, the Employer shall provide a debriefing within five (5) Business Days, unless the Employer decides, for justifiable reasons, to provide the debriefing outside this timeframe. In that case, the standstill period shall automatically be extended until five (5) Business Days after such debriefing is provided. If more than

one debriefing is so delayed, the standstill period shall not end earlier than five (5) Business Days after the last debriefing takes place. The Employer shall promptly inform, by the quickest means available, all Bidders of the extended standstill period.

45.3 Where a request for debriefing is received by the Employer later than the three (3)-Business Day deadline, the Employer should provide the debriefing as soon as practicable, and normally no later than fifteen (15) Business Days from the date of publication of Public Notice of Award of contract. Requests for debriefing received outside the three (3)-day deadline shall not lead to extension of the standstill period.

45.4 Debriefings of unsuccessful Bidders may be done in writing or verbally. The Bidder shall bear their own costs of attending such a debriefing meeting.

46. Signing of Contract

46.1 The Employer shall send to the successful Bidder the Letter of Acceptance including the Contract Agreement, and, if specified in the BDS, a request to submit the Beneficial Ownership Disclosure Form providing additional information on its beneficial ownership. The Beneficial Ownership Disclosure Form, if so requested, shall be submitted within eight (8) Business Days of receiving this request.

46.2 The successful Bidder shall sign, date and return to the Employer, the Contract Agreement within twenty-eight (28) days of its receipt.

46.3 Notwithstanding ITB 46.2 above, in case signing of the Contract Agreement is prevented by any export restrictions attributable to the Employer, to the country of the Employer, or to the use of the Plant and Installation Services to be supplied, where such export restrictions arise from trade regulations from a country supplying those Plant and Installation Services, the Bidder shall not be bound by its Bid, always provided, however, that the Bidder can demonstrate to the satisfaction of the Employer and of the Bank that signing of the Contact Agreement has not been prevented by any lack of diligence on the part of the Bidder in completing any formalities, including applying for permits, authorizations and licenses necessary for the export of the Plant and Installation Services under the terms of the Contract.

47. Performance Security

47.1 Within twenty-eight (28) days of the receipt of the Letter of Acceptance from the Employer, the successful Bidder shall furnish the Performance Security in accordance with the General Conditions GCC 13.3, subject to ITB 38, using for that purpose the Performance Security Form included in Section X, Contract

Forms, or another form acceptable to the Employer. If the Performance Security furnished by the successful Bidder is in the form of a bond, it shall be issued by a bonding or insurance company that has been determined by the successful Bidder to be acceptable to the Employer. A foreign institution providing a bond shall have a correspondent financial institution located in the Employer's Country, unless the Employer has agreed in writing that a correspondent financial institution is not required.

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

48. Procurement Related Complaint

48.1 The procedures for making a Procurement-related Complaint are as specified in the BDS.

Section II - Bid Data Sheet

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

A. General	
ITB 1.1	The reference number of the Request for Bids (RFB) is ***"DGDC-RFB-001"*** The Employer is Dominica Geothermal Development Company Limited. The name of the RFB is: Dominica Geothermal Risk Mitigation Project. There are no separable lots within this RFB.
ITB 1.2 (a)	An electronic-procurement system will not be used.
ITB 2.1	The Borrower is: The Commonwealth of Dominica. The Dominica Geothermal Development Company Limited is wholly owned by the Government of the Commonwealth of Dominica. The amount of the financing is: **US$32.5 million** The name of the Project is: Dominica Geothermal Risk Mitigation Project
ITB 4.1	Maximum number of members in the Joint Venture (JV) shall be three.
ITB 4.5	A list of debarred firms and individuals is available on the Bank's external website: http://www.worldbank.org/debarr.
B. Bidding Document	
ITB 7.1	For Clarification of Bid purposes only, the address is: Dominica Geothermal Development Company Limited, 18 Kennedy Avenue, Roseau, Dominica Attention Mr. Mark Tomkins (Project Manager) mark.tomkins@geodominica.com

	Requests for clarification should be received by the Employer no later than 10 days prior to bid closing date. Responses to clarifications and any amendments to the bidding documents will be advised to Bidders by email and posted on the following website: https://www.geodominica.dm/
ITB 7.4	A Pre-Bid meeting shall take place at the following date, time and place: Date: 14 August 2019 Time: 0900 Place: DGDC, 18 Kennedy Road, Roseau, Dominica. A site visit conducted by the Employer will be organized to immediately follow the pre-bid meeting.
ITB 7.6	The website that will be used to publish the Pre-Bid meeting minutes will be https://www.geodominica.dm/.
C. Preparation of Bids	
ITB 10.1	The language of the Bid is English
ITB 11.1 (j)	The Bidder shall submit the following additional documents in its Bid: 1. The Bidder's Corporate Environmental Social Health and Safety (ESHS) Policy (including a Code of Conduct), a draft Table of Contents of the planned project Contractor's Environmental Social Management System (C-ESMS), and the Bidder's ESHS Policy Statement to be applied to their responsibilities under the contract.
ITB 13.1	Alternative Bids shall not be considered.
ITB 13.2	Alternatives to the Time Schedule shall not be permitted.
ITB 13.4	Alternative technical solutions shall be permitted for the following parts of the Plant and Installation Services: Energy conversion technology and directly associated plant as further detailed in the Specification.

	The evaluation method is specified in Section III, Evaluation and Qualification Criteria.
ITB 17.1	Bidders shall quote for the following components or services on a single responsibility basis: the entire Plant and Installation Services
ITB 17.5 (a) and (d)	Place of destination: Dominica Geothermal Risk Mitigation Project Laudat Dominica
ITB 17.6	The Incoterms edition is: 2015
ITB 17.7	The prices quoted by the Bidder shall be subject to adjustment during the performance of the Contract.
ITB 18.1	The Bidder is not required to quote in the currency of the Employer's Country the portion of the Bid price that corresponds to expenditures incurred in that currency.
ITB 19.1	The Bid validity period shall be 180 days
ITB 19.3 (a)	No adjustment to the Bid price shall be made.
ITB 20.1	A Bid Security of United States Dollars six hundred and fifty thousand (USD 650,000) is required.
ITB 20.3 (d)	Other types of acceptable securities: none
ITB 21.1	In addition to the original of the Bid, one complete printed copy is required, plus one complete copy in electronic form on optical media (CD or DVD), plus one copy of the Schedule of Rates and Prices in Microsoft Excel format.
ITB 21.3	The written confirmation of authorization to sign on behalf of the Bidder shall consist of a valid Power of Attorney.
D. Submission and Opening of Bids	
ITB 23.1	For **Bid submission purposes** only, the Employer's address is: Dominica Geothermal Development Company Limited, 18 Kennedy Avenue, Roseau,

	Dominica Attention Mr. Mark Tomkins (Project Manager) The deadline for Bid submission is: Date: 22 October 2019 Time: 2.00 pm Atlantic Standard Time Bidders shall not have the option of submitting their Bids electronically.
ITB 26.1	The Bid opening shall take place at: Dominica Geothermal Development Company Limited, 18 Kennedy Avenue, Roseau, Dominica Date: 22 October 2019 Time: 2:00pm Atlantic Standard Time
ITB 26.6	The Letter of Bid and Schedule of Rates and Prices shall be initialed by two representatives of the Employer conducting the Bid opening.
E. Evaluation, and Comparison of Bids	
ITB 31.3	The adjustment shall be based on the highest price of each missing or non-conforming item or component as quoted in other substantially responsive Bids. If the price of the item or component cannot be derived from the price of other substantially responsive Bids, the Employer shall use its best estimate, based on prevailing market prices.
ITB 33.1	The currency that shall be used for Bid evaluation and comparison purposes to convert (at the selling exchange rate) all Bid prices expressed in various currencies into a single currency is: Eastern Caribbean Dollars (XCD). The source of exchange rate for major currencies shall be as published by the Eastern Caribbean Central Bank on the website https://www.eccb-centralbank.org/. The date for the exchange rate shall be twenty-eight (28) days in advance of the date of the deadline for bid submission stated in ITB 23.1, or any extended deadline as per ITB 23.2
ITB 35.4 (f)	The adjustments shall be determined using the following criteria, from amongst those set out in Section III, Evaluation and Qualification Criteria: (a) Deviation in Time for Completion: No

	(b) Life cycle costs: the projected operating and maintenance costs during the life of the goods or equipment: No (c) Functional Guarantees of the Facilities: Yes (d) Work, services, facilities, etc., to be provided by the Employer: Yes
ITB 46.1	The successful Bidder shall submit the Beneficial Ownership Disclosure Form.
ITB 48.1	The procedures for making a Procurement-related Complaint are detailed in "The World Bank Procurement Regulations for IPF Borrowers (Annex III)." If a Bidder wishes to make a Procurement-related Complaint, the Bidder should submit its complaint following these procedures, in writing (delivered by email), to: **For the attention**: Mr Mark Tomkins **Title/position**: Project Manager **Employer:** Dominica Geothermal Development Company Limited, 18 Kennedy Avenue, Roseau, Dominica **Email address:** mark.tomkins@geodominica.com **Phone: Telephone** +1 767 275 7408 In summary, a Procurement-related Complaint may challenge any of the following: 1. the terms of the Bidding Documents; and 2. the Employer's decision to award the Contract.

Section III - Evaluation and Qualification Criteria

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

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

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

(a) substantially responsive to the bidding document; and

(b) the lowest evaluated cost.

1. Evaluation

1.1 Technical Evaluation

In addition to the criteria listed in ITB 35.2 (a) – (c) the following factors shall apply:

None

1.2 Economic Evaluation

The following factors and methods will apply

(a) **Time Schedule**

N/A

(b) **Life Cycle Costs**

Life cycle costs will not be evaluated.

(c) **Functional Guarantees of the Facilities**

The minimum requirements stated in the Specification for functional guarantees required in the Specification are:

Functional Guarantee	Minimum (or Maximum, as appropriate) Requirement
1.Unit 1 Guaranteed Net Deliverable Capacity (GNDC) at NCR conditions	*3,000 kW minimum* *3,500 kW norm*
2.Unit 2 GNDC at NCR conditions	*3,000 kW minimum* *3,500 kW norm*

For the purposes of evaluation, for each percentage point that the functional guarantee of the proposed Plant and Installation Services is below the norm specified in the Specification and in the above table, but above the minimum acceptable levels also specified therein, an adjustment of USD 122,500 will be added to the Bid price. If the drop below the norm or the excess above the minimum acceptable levels is less than one percent, the adjustment will be prorated accordingly. E.g. the evaluated Bid price for an offer with GNDC at 3,000 kW shall have USD 1.75 million added per unit.

Any bid offering Unit GNDC Functional Guarantee values below the required minimum level will be evaluated as technically nonresponsive and rejected.

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

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

(e) **Sustainable procurement**

N/A

(f) **Alternative technical solutions for specified parts**

N/A

(g) **Specific additional criteria**

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

N/A

Any adjustments in price that result from the above procedures shall be added, for purposes of comparative evaluation only, to arrive at an "Evaluated Bid Price." Bid prices quoted by Bidders shall remain unaltered.

1.3 Multiple Contracts (ITB 35.6)

Not Applicable.

2. Qualification

Factor	1 Eligibility					
Sub-Factor	Criteria					Documentation Required
	Requirement	Bidder				
		Single Entity	Joint Venture (existing or intended)			
			All members combined	Each Partner	At least one Partner	
1.1 Nationality	Nationality in accordance with ITB 4.4.	Must meet requirement	Must meet requirement	Must meet requirement	N / A	Form ELI –1.1 and 1.2, with attachments
1.2 Conflict of Interest	No- conflicts of interests as described in ITB 4.2	Must meet requirement	Must meet requirement	Must meet requirement	N / A	Letter of Bid
1.3 Bank Ineligibility	Not having been declared ineligible by the Bank as described in 4.5.	Must meet requirement	Must meet requirement	Must meet requirement	N / A	Letter of Bid
1.4 State Owned Enterprise or Institution	Compliance with conditions of ITB 4.6	Must meet requirement	Must meet requirement	Must meet requirement	N / A	Form ELI –1.1 and 1.2, with attachments
1.5 Ineligibility based on a United Nations resolution or Borrower's country law	Not having been excluded as a result of the Borrower's country laws or official regulations, or by an act of compliance with UN Security Council resolution, in accordance with ITB 4.8and Section V.	Must meet requirement	Must meet requirement	Must meet requirement	N / A	Letter of Bid

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

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

[2] This requirement also applies to contracts executed by the Bidder as JV member.

Factor	2. Historical Contract Non-Performance					
Sub-Factor	Criteria					Documentation Required
	Requirement	Bidder				
		Single Entity	Joint Venture (existing or intended)			
			All members combined	Each member	At least one member	
2.2 Suspension	Not under suspension based on execution of a Bid Securing Declaration or Proposal Securing Declaration pursuant to ITB 4.7 and ITB 20.9	Must meet requirement	Must meet requirement	Must meet requirement	Must meet requirement	Letter of Bid
2.2 Pending Litigation	Bidder's financial position and prospective long-term profitability is still sound according to criteria established in 3.1 below and assuming that all pending litigation will be resolved against the Bidder	Must meet requirement	N / A	Must meet requirement	N / A	Form CON – 2
2.3 Litigation History	No consistent history of court/arbitral award decisions against the Bidder[3] since 1st January 2014	Must meet requirement	Must meet requirement	Must meet requirement	N / A	Form CON – 2

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

Factor	2. Historical Contract Non-Performance					
Sub-Factor	Criteria					Documentation Required
	Requirement	Bidder				
		Single Entity	Joint Venture (existing or intended)			
			All members combined	Each member	At least one member	
2.4 ESHS Past Performance	Declare any civil work contracts that have been suspended or terminated and/or performance security called by an employer for reasons related to the non-compliance of any environmental, or social, (including sexual exploitation and abuse (SEA) and gender-based violence (GBV)), or health or safety requirements or safeguard in the past five years[4].	Must make the declaration. Where there are Specialized Sub-contractor/s, the Specialized Sub-contractor/s must also make the declaration.	N/A	Each must make the declaration. Where there are Specialized Sub-contractor/s, the Specialized Sub-contractor/s must also make the declaration.	N/A	Form CON-3 ESHS Performance Declaration

[4] The Employer may use this information to seek further information or clarifications in carrying out its due diligence

Factor	3 Financial Situation					
Sub-Factor	Criteria					Documentation Required
	Requirement	Bidder				
		Single Entity	Joint Venture (existing or intended)			
			All members combined	Each member	At least one member	
3.1 Financial Capabilities	Submission of audited balance sheets or if not required by the law of the Bidder's Country, other financial statements acceptable to the Employer, for the last three (3) years to demonstrate the current soundness of the Bidder's financial position and its prospective long-term profitability.	Must meet requirement	N / A	Must meet requirement	N / A	Form FIN – 3.1 with attachments
3.2Average Annual Turnover	Minimum average annual turnover in construction sector of USD48M, calculated as total certified payments received for contracts in progress or completed, within the last five (5) years	Must meet requirement	Must meet requirement	Must meet thirty percent (30%) of the requirement	Must meet fifty percent (50%) of the requirement	Form FIN –3.2

Factor	3 Financial Situation					
Sub-Factor	Criteria					Documentation Required
	Requirement	Bidder				
		Single Entity	Joint Venture (existing or intended)			
			All members combined	Each member	At least one member	
3.3Financial Resources	The Bidder must demonstrate access to, or availability of, financial resources such as liquid assets, unencumbered real assets, lines of credit, and other financial means, other than any contractual advance payments to meet: (i) the following cash-flow requirement: USD8M and (ii) the overall cash flow requirements for this contract and its current commitments.	Must meet requirement	Must meet requirement	Must meet thirty percent (30%) of the requirement	Must meet fifty percent (50%) of the requirement	Form FIN –3.3

Factor	4 Experience					
Sub-Factor	Criteria					Documentation Required
	Requirement	Bidder				
		Single Entity	Joint Venture (existing or intended)			
			All members combined	Each member	At least one member	
4.1General Experience	Experience in civil, mechanical, electrical, structural, geotechnical and process engineering disciplines for industrial construction and development and geothermal power generation under contracts in the role of contractor, subcontractor, or management contractor for at least the last five years starting 1st January 2013.	Must meet requirement	N/A	Must meet requirement	N/A	Form EXP-4.1

4.2(a)Specific Experience	(a)Participation as contractor, joint venture member[5], management contractor, or subcontractor, in at least two (2) contracts within the last ten (10) years, that have been successfully and substantially[6]completed and that are similar to the proposed Plant and Installation Services. The similarity of the cumulative Specific Experience across the two (2) contracts shall be based on the following: Design, manufacture, procurement, construction, construction management, testing, supply, operations and maintenance of geothermal power plants including steamfield gathering facilities, of greater than 2.5MW power output per unit.	Must meet requirement	Must meet requirements[7]	N / A	N/A	Form EXP 4.2(a)
4.2(b) Specific Experience	(b) For the above or other contracts executed during the period stipulated in 4.2(a) above, a minimum experience in the following key activities: N/A	N/A	N/A	N / A	N/A	N/A

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

[6] Substantial completion shall be based on 80% or more plant and installation completed under the contract.

[7] In the case of JV, the value of contracts completed by its members shall not be aggregated to determine whether the requirement of the minimum value of a single co contract performed by each member shall satisfy the minimum value of a single contract as required for single entity. In determining whether the JV meets the require only the number of contracts completed by all members each of value equal or more than the minimum value required shall be aggregated.

2.5 Personnel

The Bidder must demonstrate that it will have the personnel for the key positions that meet the following requirements:

No.	Position	Total Work Experience (years)	Experience in Similar Works (years)
1	Project Manager	20	10
2	Site Manager	15	8
3	Commissioning Manager	20	10
4	Health, Safety & Environment (HSE) Manager (on site)	10	5
5	Operations Advisor	10	8
6	Maintenance Advisor (Mechanical)	10	5
7	Maintenance Advisor (Electrical)	10	5

The Bidder shall provide details of the proposed personnel and their experience records in the relevant Forms included in Section IV, Bidding Forms. Note that fluency in written and spoken English is considered essential for all the personnel listed above.

In addition, Bidders shall note that the Employer places greater emphasis on the Maintenance Advisors' ability as trainers, rather than technical troubleshooting. The candidate personnel shall meet the following criteria:

In the case of the Project Manager:

- Fluency in written and spoken English.
- A proven record of at least two successful project management assignments on similar projects.

In the case of the Site Manager:

- Fluency in written and spoken English.
- A proven record of successful assignments as a construction site manager on similar power projects.
- A proven record of managing similar construction sites with emphasis on environmental, health, safety and social aspects.

In the case of the Commissioning Manager:

- Fluency in written and spoken English.
- A proven record of successful commissioning assignments on similar power projects and with the power plant technology proposed for this project.

- Demonstrated successful experience of planning and directing multi-discipline pre-commissioning and commissioning activities.

In the case of the HSE Manager:

- Fluency in written and spoken English.
- A proven record of safety compliance, safety planning, monitoring and feedback systems implementation for all site activities.
- A proven track record and knowledge in the site Environmental, Social Management Plan requirements.
- Proven record of successful training assignments for HSE policies and procedures.

In the case of the Maintenance Advisors:

- Fluency in written and spoken English.
- Proven record of successful training assignments.
- Demonstrable personal attributes that are suitable for these training requirements.
- Completion of at least one relevant formal course on training techniques.
- Hands-on experience of 5 years on the maintenance of power plants in the relevant engineering discipline.

In the case of the Operation Advisor:

- Fluency in written and spoken English
- Proven record of successful training assignments on at least two previous similar projects.
- Completion of at least one relevant formal course on training techniques.
- Hands-on experience of 8 years in an operations role of geothermal power plants.

2.6 Equipment

The Bidder must demonstrate that it will have access to the key Contractor's equipment listed hereafter:

No.	Equipment Type and Characteristics	Minimum Number available for site
1	Concrete batching plant, 20 m^3 per hour	1
2	Concrete transit mixers, 4 m^3 minimum	2
3	Hydraulic excavator, 20T / 100kW minimum	2
4	Diesel welding machines, 300A minimum	4
5	Hydraulic Crane, 70T	2

The Bidder shall provide further details of proposed items of equipment using the relevant Form in Section IV.

2.7 Subcontractors

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

Item No.	Description of Item	Minimum Criteria to be met
1	Synchronous Generator	10 years' operational experience with similar sized units
2	Turbine (geothermal steam or binary cycle fluid)	10 years' operational experience with offered or similar model
3	Hot well pump / major pumps	10 years' manufacturing experience
4	Steam Scrubber	Three geothermal applications in past 10 years
5	Cooling tower / Air Cooled Condenser	10 years' operational experience

Failure to comply with this requirement will result in rejection of the subcontractor.

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

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Letter of Bid

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

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

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

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

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

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

To: **[*insert complete name of Employer*]**

(a) **No reservations:** We have examined and have no reservations to the bidding document, including Addenda issued in accordance with ITB 8;

(b) **Eligibility**: We meet the eligibility requirements and have no conflict of interest in accordance with ITB 4;

(c) **Bid-Securing Declaration:** We have not been suspended nor declared ineligible by the Employer based on execution of a Bid Securing Declaration or Proposal-Securing Declaration in the Employer's Country in accordance with ITB 4.7;

(d) **Conformity**: We offer to provide design, supply and installation services in conformity with the bidding document of the following: [*insert a brief description of the Plant, Design, Supply and Installation Services*];

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

Option 1, in case of one lot: Total price is: [*insert the total price of the Bid in words and figures, indicating the various amounts and the respective currencies*];

Or

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

(f) **Discounts:** The discounts offered and the methodology for their application are:

(i) The discounts offered are: [*Specify in detail each discount offered.*]

(ii) The exact method of calculations to determine the net price after application of discounts is shown below: [*Specify in detail the method that shall be used to apply the discounts*];

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

(h) **Performance Security:** If our Bid is accepted, we commit to obtain a Performance Security in accordance with the bidding document;

(i) **One Bid Per Bidder:** We are not submitting any other Bid(s) as an individual Bidder, and we are not participating in any other Bid(s) as a Joint Venture member, and meet the requirements of ITB 4.3, other than alternative Bids submitted in accordance with ITB 13;

(j) **Suspension and Debarment**: We, along with any of our subcontractors, suppliers, consultants, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the World Bank Group or a debarment imposed by the World Bank Group in accordance with the Agreement for Mutual Enforcement of Debarment Decisions between the World Bank and other development banks. Further, we are not ineligible under the Employer's Country laws or official regulations or pursuant to a decision of the United Nations Security Council;

(k) **State-owned enterprise or institution**: [*select the appropriate option and delete the other*] [*We are not a state-owned enterprise or institution*] / [*We are a state-owned enterprise or institution but meet the requirements of ITB 4.6*];

(l) **Commissions, gratuities and fees**: We have paid, or will pay the following commissions, gratuities, or fees with respect to the Bidding process or execution of the Contract: *[insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]*

Name of Recipient	Address	Reason	Amount

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

(m) **Binding Contract**: We understand that this Bid, together with your written acceptance thereof included in your Letter of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed;

(n) **Not Bound to Accept:** We understand that you are not bound to accept the lowest evaluated cost Bid, the Most Advantageous Bid or any other Bid that you may receive; and

(o) **Fraud and Corruption:** We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf engages in any type of Fraud and Corruption.

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

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

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

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

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

Schedule of Rates and Prices

Bidders shall provide a complete and itemized Schedule of Rates and Prices for Bid evaluation purposes. Bidder shall provide a reasonable level of price breakdown and shall structure the schedule generally as indicated below to facilitate Bid evaluation.

Bidders shall provide a full breakdown of the items listed below to a more detailed level within the Schedule of Rates and Prices to show the buildup of prices. For example, the Steam Gathering System items of piping, valves and fittings shall include unit pricing broken down by type, size, rating, etc.

Schedule No. 1. Plant and Mandatory Spare Parts Supplied from Abroad

Item	Description	Code[1]		Qty.	Unit Price[2]		Total Price[2]
						CIP	
				(1)	*(2)*	*(3)*	*(1) x (3)*
1	**SGS (Steam Gathering System)**						
1.1	**Mechanical**						
1.1.1	Production well (WW-P1) two-phase pipeline, cladding, fittings and supports						
1.1.2	Production well (WW-P1) two-phase pipeline valves						
1.1.3	Production wellpad (WW-P1) separator vessel						
1.1.4	Production well (WW-P1) steam pipeline, cladding, fittings and supports						
1.1.5	Production well (WW-P1) steam valves						
1.1.6	Steam vent valve and rupture disk station						
1.1.7	Steam vent rock muffler						
1.1.8	Production well (WW-P1) brine pipeline, cladding, fittings and supports						
1.1.9	Production well (WW-P1) brine pipeline valves						

1.1.10	Condensate piping and fittings to reinjection well (WW-03) incl pipe supports (if required)						
1.1.11	Brine pumping system and ancillaries						
1.1.12	Atmospheric flash tank incl piping and fittings						
1.2	**Electrical and Instrumentation**						
1.2.1	SGS Electrical distribution system for production wellpad location including brine pump station						
1.2.2	SGS Earthing systems including lightning protection, extended earth grid (where required)						
1.2.3	SGS Control system including separator level, steam pressure, brine level controls						
1.2.4	SGS Instrumentation						
1.3	**Platforms and Structures**						
1.3.1	All SGS operator platforms						
1.3.2	Production well cellar drains and gratings						
1.4	**Other**						
1.4.1	Other items (Bidder to list)						
2	**Brine Reinjection Pipeline & Reinjection Wellpads**						
2.1	**Mechanical**						

2.1.1	Brine reinjection cross country pipeline to reinjection wellpads (WW-01 & WW-R1) piping, cladding, fittings and supports						
2.1.2	Brine reinjection cross country pipeline to reinjection wellpads (WW-01 & WW-R1) valves						
2.1.3	Reinjection wellpad (WW-01) piping, cladding, pipe supports, valves & fittings						
2.1.4	Reinjection well (WW-01) cellar drains and gratings						
2.1.5	Reinjection wellpad (WW-R1) piping, cladding, pipe supports, valves & fittings						
2.1.6	Reinjection well (WW-R1) cellar drains and gratings						
2.1.7	Wellpad (WW-01 & WW-R1) platforms (if required)						
2.1.8	Fencing (WW-01 & WW-R1)						
2.1.9	Pipe bridges and culverts						
2.1.9.1	Pipe bridge Type 1 (refer dwgs RZ042100-SC-DRG-0005, 0006)						
2.1.9.2	Pipe bridge Type 2 (refer dwgs RZ042100-SC-DRG-0020,0021, 0022)						
2.1.9.3	Suspension bridge (refer dwgs RZ042100-SC-DRG-0030, 0031, 0032)						

2.1.9.4	Cliff bridge/truss structure (refer dwgs RZ042100-SC-DRG-0010, 0011)						
2.1.9.5	Pipe road crossing culverts (refer dwg RZ042100-SC-DRG-0015)						
2.1.10	Miscellaneous pipe structures						
2.2	**Electrical, Control & Instrumentation**						
2.2.1	Reinjection wellpad (WW-01) AC and DC power supplies, wellpad lighting and enclosures						
2.2.2	Reinjection wellpad (WW-01) instrumentation and control system						
2.2.3	Reinjection wellpad (WW-R1) AC and DC power supplies, wellpad lighting, control system and enclosures						
2.2.4	Reinjection wellpad (WW-R1) instrumentation and control system						
2.2.5	Cross country fibre communications from Power Plant to reinjection well locations						
2.3	**Other**						
2.3.1	Other items (Bidder to list)						
3	**Power Plant**						
3.1	**Mechanical**						
3.1.1	Raw water supply, supply tank and distribution system						

3.1.2	Utility and instrument air system						
3.1.3	Plant drains system						
3.1.4	Firefighting and protection systems incl main fire water tank						
3.1.5	Air conditioning system						
3.1.6	All permanent cranes and lifting facilities						
	Steam Turbine Condensing Plant option						
3.1.7	Steam scrubber						
3.1.8	Steam system piping, valves and fittings						
3.1.9	Condensing steam turbine, lube and control oil system and ancillaries						
3.1.10	Turbine to generator gearbox (if required)						
3.1.11	Condenser						
3.1.12	Hotwell pumps						
3.1.13	Condensate reinjection system incl pumps, piping, pipe supports, valves and fittings						
3.1.14	Main cooling water system piping and fittings (if applicable)						
3.1.15	Cooling tower complete (including fans, vibration protection, lightning and fire protection, casing structure,						

	pumps, and make up water supply system)						
3.1.16	Auxiliary cooling system						
3.1.17	Circulating water treatment system including condensate pH treatment						
3.1.18	Non-condensable gas removal system						
	Binary Plant option						
3.1.19	Steam and brine system piping, valves and fittings						
3.1.20	Working fluid (hydrocarbon) system piping, valves and fittings						
3.1.21	Working fluid (hydrocarbon) supply, handling and storage						
3.1.22	Turbine including lube and control oil system and ancillaries						
3.1.23	Feed pump system and ancillaries						
3.1.24	Heat exchangers						
3.1.25	Recuperators						
3.1.26	Condensers						
3.2	**Electrical, Control & Instrumentation**						
3.2.1	Generator and exciter with auxiliaries						
3.2.2	Synchronizing equipment						
3.2.3	Auxiliary transformers						

3.2.4	Other transformers						
3.2.5	Unit Switchboards						
3.2.6	Emergency diesel generator						
3.2.7	Cables, cabling and cable support systems						
3.2.8	Medium voltage Switchboards for DOMLEC interconnect and electrical protection systems						
3.2.9	Low voltage switchboards and MCCs						
3.2.10	Cable ladder, ladder supports, conduits, cable terminations						
3.2.11	Uninterruptable power supply (UPS) systems						
3.2.12	Battery & DC power systems						
3.2.13	Earth grid and integrated earthing system						
3.2.14	Lightning protection system						
3.2.15	Lighting and small power incl emergency lighting						
3.2.16	Distributed Control System (DCS) complete incl operator workstations, control communications and related equipment						
3.2.17	Instrumentation						
3.2.18	H_2S monitoring system						
3.2.19	Safety instrument systems						

3.2.20	Communication systems including Permanent fiber optic communications, PABX, telephones, LAN system						
3.2.21	Site CCTV system incl local and remote monitors						
3.3	**General**						
3.3.1	Startup Accessories						
3.3.2	All special tools, appliances and vehicles for maintenance and operational work on the Facility						
3.3.3	Consumables for the first six months of the Defect Liability Period						
3.3.4	First fill fluids incl lube oil, control oil, working fluids (for binary plants), etc						
3.4	**Other**						
3.4.1	Other items (Bidder to list)						
4	**Spare Parts**						
4.1.1	Recommended spare parts (Bidder to list)						
4.1.2	Mandatory Spare Parts (Bidder to list)						
5	**Other**						
5.1.1	Site Fencing						
5.1.2	Other items (Bidder to complete)						

TOTAL (to Schedule No. 6. Grand Summary)	

Signature of Bidder _____

Name of Bidder _____

[1] Bidders shall enter a code representing the country of origin of all imported plant and equipment.

[2] Specify currency. Create and use as many columns for Unit Price and Total Price as there are currencies.

Country of Origin Declaration Form

Item	Description	Code	Country

Schedule No. 2. Plant and Mandatory Spare Parts Supplied from Within the Employer's Country

Item	Description	Qty. *(1)*	EXW Unit Price[1] *(2)*	EXW Total Price[1] *(1) x (2)*
1	Bidders to list			
			TOTAL (to Schedule No. 6. Grand Summary)	

Name of Bidder _____

Signature of Bidder _____

[1] Specify currency in accordance with ITB 18

Schedule No. 3. Design Services

Item	Description	Qty.	Unit Price[1]		Total Price[1]
			Local Currency Portion	Foreign Currency Portion	
		(1)	*(2)*	*(optional)*	*(1) x (2)*
1.	**Key Design Deliverables**				
1.1	Document Register / Schedule				
1.2	Critical Path Schedule				
1.3	Project Management Plan				
1.4	Equipment Purchase Specifications				
1.5	Geotechnical Report				
1.6	Seismic Report				
1.7	Earthing Design Report				
1.8	Civil and Structural Design Report				
1.9	Electrical System Design Report				
1.10	Construction, Operability and Maintainability Report				
1.11	Process, Control and Energy HAZOP Report				
1.12	Design and Construction Manual				
1.13	Operation and Maintenance Management System				
1.14	Operation and Maintenance Manual				
1.15	Training Programme & Lesson Plans				
1.16	Training Manuals				
1.17	Schedule of Operational Consumables				
1.18	Spare Parts List				
1.19	Painting Specification				
1.20	Corrosion Control Report				
1.21	Colour Scheme for Plant				
1.22	Transport Study				

1.23	Drainage & Flood Design Report				
1.24	Road and Bridge Design Report				
1.25	Fire Protection Report				
1.26	Pipe Stress Analysis Report				
1.27	Overall Inspection and Test Plan including works and subcontractor test procedures and QA systems				
1.28	Site Inspection, Testing & Commissioning Plan				
1.29	Process and Instrument Diagrams (P&IDs)				
1.30	Heat & Mass Balance, Process Flow Diagrams (PFD)				
1.31	Layout drawings				
1.32	Power plant pipe route drawings and isometrics				
1.33	Electrical single line diagrams				
1.34	Relay and instrumentation diagrams				
1.35	Electrical power flow, volt drop and fault analysis reports				
1.36	Electrical protection coordination study report				
1.37	Electrical earthing study report				
1.38	Control system architecture drawings				
1.39	Other (Bidder to list)				
2	**SGS (Steam Gathering System)**				
2.1	SGS Design Intent Report				
2.2	Mechanical and pipework drawings				
2.3	Civil works				
2.4	Electrical, Control & Instrumentation				
3	**Brine Reinjection Pipeline & Reinjection Wellpads**				
3.1	**Process**				
3.2	Mechanical and pipework drawings				
3.3	Civil works general				
3.4	Pipe bridge drawings				

3.5	Electrical, Control & Instrumentation				
3.6	Other (Bidder to list)				
4	**Power Plant Design**				
4.1	Civil & Structural				
4.2	Buildings & Building Services				
4.3	Mechanical (incl main rotating plant)				
4.4	Electrical System Design				
4.5	Control & Instrumentation				
	Other (Bidder to list)				
TOTAL (to Schedule No. 6. Grand Summary)					

Name of Bidder _____

Signature of Bidder _____

Schedule No. 4. Installation and Other Services

Bidders shall include in this schedule a breakdown of the local currency portion for each task.

Item	Description	Qty.	Unit Price[1]		Total Price[1]	
			Foreign Currency Portion	Local Currency Portion	Foreign	Local
		(1)	*(2)*	*(3)*	*(1) x (2)*	*(1) x (3)*
1	**Preliminary and General**					
1.1	Establishment of ESHS-MSIPs prior to commencing site works					
1.2	Construction Environmental Management Plans & Procedures					
1.3	Occupational safety, health and Labour management procedures					
1.4	Chance Find Procedure					
1.5	Emergency preparedness and response procedure					
1.6	Noise and vibration management plan					
1.7	Recycling plan					
1.8	Landscape management plan					
1.9	Landslide stabilization and subsidence risk management plans					
1.10	Traffic management plan					
1.11	Establishment of Contractor's site office and fully functional construction facilities					
1.12	Establishment of Owner's site facilities					
1.13	Establishment of labour camp					
1.14	Establishment of construction power supply					
1.15	Other services (Bidder to list)					
2	**Geotechnical and Civil Works**					
2.1	Geotechnical works and surveys					
2.2	Civil works (SGS and Power Plant bulk earthworks)					
2.3	Civil works (brine reinjection pipeline, access roads)					

2.4	Site development including site roading, pavements, drainage, landscaping and fencing					
2.5	Retaining walls					
2.6	Upgrade of existing main site access road including drainage					
2.7	Other civil works (Bidder to list)					
3	**SGS (Steam Gathering System)**					
3.1	Thermal pond					
3.2	Foundations for separator vessel, scrubber, atmospheric flash tank, vent valves, brine pump station and similar					
3.3	Mechanical piping, cladding and fittings installation incl supports: two phase piping					
3.4	Mechanical piping, cladding and fittings installation incl supports: steam piping					
3.5	Mechanical piping, cladding and fittings installation incl supports: brine piping					
3.6	Mechanical piping, cladding and fittings installation incl supports: condensate piping (if required)					
3.7	Brine pump station installation					
3.8	Electrical installation					
3.9	Control and instrumentation installation					
3.10	Other SGS installation works (Bidder to list)					
4	**Brine Reinjection Pipeline & Reinjection Wellpads**					
4.1	Brine reinjection cross country pipeline installation incl supports					
4.2	Pipe bridges and culverts' installation:					
4.3	Pipe bridge Type 1 (refer dwgs RZ042100-SC-DRG-0005, 0006)					
4.4	Pipe bridge Type 2 (refer dwgs RZ042100-SC-DRG-0020,0021, 0022)					

4.5	Suspension bridge (refer dwgs RZ042100-SC-DRG-0030, 0031, 0032)					
4.6	Cliff bridge/truss structure (refer dwgs RZ042100-SC-DRG-0010, 0011)					
4.7	Pipe road crossing culverts (refer dwg RZ042100-SC-DRG-0015)					
4.8	Brine sumps rehabilitation					
4.9	Reinjection Wellpad (WW-01) piping, cladding and fittings installation incl supports					
4.10	Reinjection Wellpad (WW-01) electrical, control and instrumentation installation					
4.11	Reinjection Wellpad (WW-R1) piping, cladding and fittings installation incl supports					
4.12	Reinjection wellpad (WW-01 & WW-R1) sump rehabilitation					
4.13	Reinjection Wellpad (WW-R1) electrical, control and instrumentation installation					
4.14	Other services (Bidder to list)					
5	**Power Plant**					
5.1	Turbine hall - condensing plant option (includes foundations and pedestal)					
5.2	Cooling tower foundations - condensing plant option					
5.3	Binary plant turbine hall (includes foundations)					
5.4	Cooling tower foundations - binary plant option					
5.5	Miscellaneous Buildings:					
5.5.1	Operations Building incl foundations and services					
6.5.2	MV Switchroom incl foundations and services					
6.5.3	Visitor and Education Centre incl foundations and services					
5.6	Power Plant mechanical installation					

5.7	Power Plant electrical installation					
5.8	Turbine hall crane installed and operating					
5.9	Operating and maintenance platforms					
5.10	Other Power Plant installation services (Bidder to list)					
6	**Testing, Commissioning**					
6.1	Pre-commissioning					
6.2	Commissioning of facilities					
6.3	Performance Testing					
6.4	Operator & Maintenance Training					
6.5	Operation and Maintenance Support Services (2 year post operational acceptance)					
7	Other (Bidder to list)					
					TOTAL (to Schedule No. 6. Grand Summary)	

Name of Bidder _____

Signature of Bidder _____

[1] Specify currency in accordance with ITB 18

Schedule No. 5. Operation and Maintenance Support

For details on these requirements refer to the following: Section VII – Employer's Requirements, Volume 1, Part2, Specification, section 1.12, "Operation and Maintenance Systems and Support".

Item	Description	Qty.	Unit Price[1]		Total Price[1]	
			Foreign Currency Portion	Local Currency Portion	Foreign	Local
		(1)	*(2)*	*(3)*	*(1) x (2)*	*(1) x (3)*
1	Establishment fee equal to 2.4 times the monthly fee rate (items 2 and 3 below)	1				
2	Monthly fee for management and profit	24				
3	Monthly fee for the direct costs of the personnel employed.	24				
TOTAL (to Schedule No. 6. Grand Summary)						

Name of Bidder _____

Signature of Bidder _____

Schedule No. 6. Grand Summary

Item	Description	Total Price[1]	
		Foreign	Local
	Total Schedule No. 1. Plant, and Mandatory Spare Parts Supplied from Abroad		
	Total Schedule No. 2. Plant, and Mandatory Spare Parts Supplied from Within the Employer's Country		
	Total Schedule No. 3. Design Services		
	Total Schedule No. 4. Installation and Other Services		
	Total Schedule No. 5. O&M Support		
TOTAL (to Bid Form)			

Name of Bidder _____

Signature of Bidder _____

[1]Specify currency in accordance with ITB 18. Create and use as many columns for Foreign Currency requirement as there are foreign currencies

Schedule No. 7. Recommended Spare Parts

Item	Description	Qty.	Unit Price		Total Price
			CIF or CIP (foreign parts)	EXW (local parts)	
		(1)	*(2)*	*(3)*	*(1) x (2) or(3)*

Schedule No. 8. Unit rates for SGS reinjection pipe route (Contractor to list).

The unit rates provided in this schedule will form the price basis of any variation claim based on adjustment in quantities for the reinjection brine line following the Contractor's detailed design of the brine reinjection pipeline. Line items shall present rates for piping, pipe supports, fittings, valves, civil works and similar. The reinjection brine pipeline presented in the Employer's Requirements is a preliminary design only.

Item	Description	Qty.	Unit Price		Total Price
			CIF or CIP (foreign parts)	EXW (local parts)	
		(1)	*(2)*	*(3)*	*(1) x (2) or(3)*

Price Adjustment

Prices payable to the Contractor, in accordance with the Contract, shall be subject to adjustment during performance of the Contract to reflect changes in the cost of labour and material components, in accordance with the following formula:

$$P_1 = P_0 \times \left(a + b\frac{L_1}{L_0} + c\frac{M_1}{M_0}\right) - P_0$$

in which:

P_1 = adjustment amount payable to the Contractor

P_0 = Contract price (base price)

a = percentage of fixed element in Contract price (a = 15%)

b = percentage of labour component in Contract price (b= 30%)

c = percentage of material and equipment component in Contract price (c= 55%)

L_0, L_1 = labour indices applicable to the appropriate industry in the country of origin on the base date and the date for adjustment, respectively

M_0, M_1= material and equipment indices in the country of origin on the base date and the date for adjustment, respectively

N.B. a+b+c= 100%

Conditions Applicable To Price Adjustment

The Bidder shall indicate the source of labour, source of exchange rate and materials indices and the base date indices in its bid. Bidders shall identify the specific index name, reference number, code and website address (if any), together with the full name and address of the organization responsible for producing those indices.

Item	Source of Indices Used	Base Date Indices

The base date shall be the date twenty-eight (28) days prior to the Bid closing date.

The date of adjustment shall be the mid-point of the period of manufacture or installation of component or Plant.

The following conditions shall apply:

(a) No price increase will be allowed beyond the original delivery date unless covered by an extension of time awarded by the Employer under the terms of the Contract. No price increase will be allowed for periods of delay for which the Contractor is responsible. The Employer will, however, be entitled to any price decrease occurring during such periods of delay.

(b) If the currency in which the Contract price, P0, is expressed is different from the currency of the country of origin of the labour and/or materials indices, a correction factor will be applied to avoid incorrect adjustments of the Contract price. The correction factor shall be: Z0 / Z1, where,

Z_0 = the number of units of currency of the origin of the indices which equal to one unit of the currency of the Contract Price P_0 on the Base date, and

Z_1 = the number of units of currency of the origin of the indices which equal to one unit of the currency of the Contract Price P_0 on the Date of Adjustment.

(c) No price adjustment shall be payable on the portion of the Contract price paid to the Contractor as an advance payment.

Technical Proposal

Bidders shall provide a Technical Proposal which, at a minimum, covers the following

1) Site Organization, including, but not limited to:
    a) Project organization chart.
    b) Site organization chart showing personnel names, roles and responsibilities.
    c) Estimated number of Contractor's staff on site during various phases of the project on a quarterly basis, including estimated number of local labour and services components.
    d) The Contractor shall where practical maximise the use of local Dominica labour, suppliers and services during the execution of the project. Local Dominican labour shall include non-skilled, semi-skilled and skilled labour as well as Dominica based service providers. Service providers shall include labour hire companies, local civil contracting companies, catering and transport services and the like. Furthermore, Bidders shall provide a methodology statement on how local labour, suppliers and services will be sourced and engaged as well as the proposed conditions of engagement.

2) Method Statement, including, but not limited to:
    a) General methodology and approach to deliver the project in compliance with the Specification.
    b) Methodology of transport and handling plans to deliver major equipment to site.
    c) Concrete batching plant plan and methodology.
    d) Reinjection line construction methodology including specific detail for all bridges and cliff support structures.
    e) Water supply and construction power supply.
    f) Lifting and handling of turbine / generator / stator.

3) Project Execution Schedule in MS Project GANTT chart format including, but not limited to:
    a) Mobilisation schedule including key personnel.
    b) Construction Schedule showing main task dependencies with sufficient detail of the project activities including main construction and delivery milestones.

4) Contractor's Environmental Social Management System (C-ESMS)

a) The Bidder shall submit Environmental, Social, Health and Safety Management Strategies and Implementation Plans as required by ITB 11.1 (j) of the Bid Data Sheet.

In developing these strategies and plans, the Bidder shall have regard to the ESHS provisions of the Contract including those as may be more fully described in the Employer's Requirements described in Section VII.

5) Code of Conduct (ESHS)

a) The Bidder shall submit the Code of Conduct that will apply to the Contractor's employees and subcontractors as required by ITB 11.1 (j) of the Bid Data Sheet. The Code of Conduct shall ensure compliance with the ESHS provisions of the contract, and address risks associated with: labour influx particularly from non-local and foreign workers, spread of communicable diseases, sexual harassment, gender-based violence, sexual exploitation and abuse, illicit behavior and crime, and maintaining a safe environment, including those as may be more fully described in the Employer's Requirements described in Section VII.

b) In addition, the Bidder shall submit an outline of how this Code of Conduct will be implemented. This will include: how it will be introduced into conditions of employment/engagement, what training will be provided, how it will be monitored and how the Contractor proposes to deal with any breaches.

6) Plant Description, including, but not limited to:

a) General Plant Layouts and Arrangement including solution offered with respect to compliant technical alternatives in Specification.
b) A detailed description of the process plant proposed.

7) Contractor's Equipment Schedule, including proposed major equipment to be utilised by the Contractor in the construction of the project.

8) Proposed Subcontractors for Major Items of Plant and Installation Services

9) Others

10) Technical Schedules as detailed below.

Site Organisation

Method Statement

Project Execution Schedule

Contractor's Environmental Social Management System (C-ESMS)

Plant Description

Proposed Subcontractors

Others

Technical Schedules

Introduction

The following Technical Schedules shall be provided by the Bidder for Bid evaluation purposes.

The Technical Schedules are intended as a guide for Bidders to provide the minimum information for evaluation. Bidders may and should offer supplementary information that will be useful for clarifying the technical and scope items of the Bid.

Bidders shall provide completed tables within the Technical Schedule according to their proposed technology offering with respect to the compliant alternatives outlined in the Specification.

1. Performance Data

1.1 Heat and Mass Balance Diagrams

The Bidder shall submit heat and mass balance diagrams for the plant system offered at the conditions applicable for Nominal Continuous Rating (NCR).

The Bidder shall provide heat and mass balance diagrams for the plant system offered for the following conditions:

1) NCR Operation 100% load, all plant available.
2) Operation at maximum ambient wet bulb temperature, 100% load, all plant available.
3) Operation at minimum ambient wet bulb temperature, 100% load, all plant available.
4) Repeat diagrams 1, 2 and 3 above for the case with one cooling tower cell out of service (or the Air-Cooled Condenser is operating with 75% working fans online).
5) Repeat diagrams 1, 2 and 3 above for one hotwell pump out of service (if applicable).
6) Repeat diagrams 1, 2 and 3 above for any other single plant item out of service that is not provided with 100% redundancy.

1.2 Correction Curves

The Bidder shall provide the correction curves listed in Appendix 8 to the Contract Agreement that shall be used in the calculation of Guarantee Test results as appropriate.

Each of the correction curves shall cover the entire range of values from minimum to maximum as indicated in the Interface Schedule. Any limitation of the range of operation for the Plant shall be clearly indicated on the correction curves.

2. Drawings and Design Documentation

2.1 Layouts and Arrangements

In addition to specific arrangement drawings required throughout these Schedules, the Bidder shall include additional layout and arrangement drawings (plans, elevations and sections as required) of the Facilities as required to describe in sufficient detail the intended arrangement of the Facilities. The following aspects are to be covered:

1) General arrangement of main plant items indicating access routes for operation, maintenance and safety.
2) Arrangements showing access for initial installation of major components including electrical panels and control room equipment.
3) General arrangement of the Facilities indicating traffic flow, areas for dismantling, inspecting, repair and laydown of plant items as required during maintenance.
4) Arrangement drawings showing craneage provision for the initial installation and subsequent maintenance of all plant items.
5) Arrangements of all buildings indicating intended main equipment layout and confirming adequate space for efficient operation and maintenance of the Facilities.
6) Pipe route arrangements and pipe bridge preliminary design for the brine reinjection pipeline up to the reinjection wellheads.
7) Civil works descriptions covering site establishment and enabling.

2.2 Drawings and Diagrams

The Bidder shall include the following documents for the Bid evaluation:

1) The Bidder shall supply a full set of process and instrument diagrams (P&IDs) in sufficient detail to fully describe the Plant being supplied.
2) Process Flow Diagrams
3) Electrical Single Line diagrams
4) Relay and Instrumentation Diagrams
5) Control System Architecture drawings

3. Turbine and Auxiliaries

Note that all items are to be completed

3.1 Turbine

3.1.1	Type				
3.1.2	Manufacturer				
3.1.3	Model				
3.1.4	Rating at the following conditions:		NCR		1 CT cell out of service, NCR atmospheric conditions
	a) Output	kW	*	*	*
	b) Speed (nominal dependant on technology offer)	RPM	3000	3000	3000
	c) Steam/Working Fluid consumption	kg/hr	*	*	*
	d) Steam/Working Fluid Pres. At MSV	bara			
	e) Steam/Working Fluid Temp. at MSV	°C			
	f) Condenser Pressure	bara	*	*	*
	g) Non condensable gas content	%w/w	0.75	0.75	0.75
3.1.5	Minimum load capable of being sustained continuously	kW			
3.1.6	Maximum maintenance weight (state item)	tonnes			

3.2 Blading

3.2.1	Type		
3.2.2	Manufacturer		
3.2.3	Blading design type		□ Impulse □ Reaction
3.2.4	Number of stages		
3.2.5	Internal Efficiency		
	a) Efficiency at 60% NCR	%	
	b) Efficiency at 80% NCR	%	
	c) Efficiency at 100% NCR	%	

3.3 Shaft Glands

Condensing Steam Technology only

			Drive End	Free End
3.3.1	Type			
3.3.2	Manufacturer			
3.3.3	No of stages per gland			
3.3.4	Pressure of gland steam	bara		

3.4 Turbine Stop Valves and Governing Valves

			Stop Valve	Governor Valve
3.4.1	Type			
3.4.2	Manufacturer			
3.4.3	Number			
3.4.4	Size	mm		
3.4.5	Actuation (e.g. hydraulic)			
3.4.6	% reduction in load during stem-free test	kW		

3.5 Turbine Bypass Valve

Organic Rankine Cycle Technology only

			Bypass Valve
3.5.1	Type		
3.5.2	Manufacturer		
3.5.3	Number		
3.5.4	Size	mm	
3.5.5	Actuation (e.g. hydraulic)		
3.5.6	% reduction in load during stem-free test	kW	

3.6 Overspeed Trip

			Main	Secondary
3.6.1	Type			
3.6.2	Range of adjustment	rpm		
3.6.3	Method of adjusting trip speed			

3.7 Governor

3.7.1	Type		
3.7.2	Manufacturer		

3.8 Barring Gear (if supplied)

3.8.1	Type		
3.8.2	Manufacturer		
3.8.3	Turbine speed when barring	rpm	
3.8.4	Automatic disconnect speed	rpm	
3.8.5	Motor capacity	kW	

3.9 Main Bearings

			Turbine	**Generator/ Exciter**
3.9.1	Type			
3.9.2	Manufacturer			

3.10 Lubricating Oil Service Tank

3.10.1	Manufacturer		
3.10.2	Net Capacity	m^3	
3.10.3	Dimensions (LxBxH)	m	
3.10.4	Material		

3.11 Lubricating Oil System

3.11.1	Manufacture		
3.11.2	Total oil volume in system	m^3	
3.11.3	Bearing oil pressure	barg	
3.11.4	Lube oil type/specification		

3.12 Lubricating Oil Cooler

3.12.1	Type		
3.12.2	Manufacturer		
3.12.3	Number		
3.12.4	Capacity at full load	kW	
3.12.5	Tube material		
3.12.6	Tubeplates material		

3.13 Lubricating Oil Filters

3.13.1	Type		
3.13.2	Manufacturer		
3.13.3	Number per bank		
3.13.4	Filter medium		
3.13.5	Nominal rating	micron	
3.13.6	Maximum pressure differential	bar	

3.14 Main Oil Pump

3.14.1	Type		
3.14.2	Manufacturer		
3.14.3	Number per unit		
3.14.4	Discharge pressure	barg	
3.14.5	Nominal power	kW	
3.14.6	Nominal speed	rpm	

3.15 Turbine Gearbox (if supplied)

3.15.1	Type		
3.15.2	Manufacturer		
3.15.3	Rating		
3.15.4	Input shaft speed	rpm	
3.15.5	Output shaft speed	rpm	

3.16 Steam Scrubber in Main Steam Line

3.16.1	Type		
3.16.2	Manufacturer		
3.16.3	Design steam flow	tonnes/hr	
3.16.4	Design steam quality		
	a) at inlet	%	
	b) at outlet	%	
3.16.5	Vessel design pressure	barg	
3.16.6	Material of shell		
3.16.7	Material of internals		

3.17 Material Schedule

The Bidder shall submit a comprehensive material schedule for the following:

	a) Turbine	
	- Fore and After Casing	
	- Rotor	
	- Nozzle Pieces	
	- Moving Blades	
	- Shroud	
	- Diaphragms	
	b) Valves	
	- Chest/Body	
	- Valve Seats	
	- Disc	
	- Stem/Shaft	

3.18 Other Information

The following information shall be provided in the Bid:

1) Provisions to minimise scaling and build-up of deposits. Estimate of rate of degradation of performance per year due to scaling in two parts: recoverable and non-recoverable.
2) Method of inspection and cleaning recommended for geothermal steam deposits. Estimate of frequency of in-situ inspections, and the duration of each inspection.
3) Criteria signifying need to shut down machine for cleaning. Estimate of frequency of shut downs and duration of cleaning operation.

4) Provisions to inspect blades and nozzles in situ without significant dismantling.
5) Sectional illustrations of:
   - turbine (including rotor showing whether bored or unbored).
   - Turbine governor and stop valves and actuators
   - main steam condenser (Condensing Steam Technology only)
   - oil reservoir
6) Illustrations or descriptive matter on:
   - governor control system
   - oil purifier
   - safety trips and protective devices
   - blading types, method of attachment of blading to rotor and to diaphragms, clearance details
   - thrust bearing and journal bearings, showing methods of measuring wear
   - controls and instruments
   - steam scrubber vessel for inlet steam
7) Schematics of major plant systems
8) A drawing of the laydown area showing the arrangement of dismantled turbine parts and main cooling water pump parts.

3.19 Standards Used

The Bidder shall list the standards proposed for the equipment covered under this Technical Schedule, noting the hierarchy of standards given in Employer's Requirements.

Equipment	**Proposed Standards**
Turbine	
Governor	
Lube oil pumps	
Lube oil coolers	
Steam scrubber	
Other *{Bidder to list}*	

4. Heat Exchangers Including Air Cooled Condenser

Organic Rankine Cycle only

4.1 Heat Exchangers Technical Data

The heat exchangers to be provided for the Organic Rankine Cycle technology shall be the following:

1. Preheater
2. Evaporator
3. Recuperator
4. Condenser (Air Cooled Condenser).

The heat exchangers data sheet shall be provided in the Bid and it shall contain the following:

1. Type and Manufacturer
2. Number of units
3. Tema configuration
4. Fluid definition
   (a) Shell / tube side
   (b) Hot / cold side
5. Process conditions for both Hot and Cold side
   (a) Flow rate (kg/s)
   (b) Inlet temperature and pressure (degC – bara)
   (c) Outlet temperature and pressure (degC – bara)
   (d) Fouling (m^2*K/W)
6. Exchanger performance
   (a) U heat transfer coefficient (W/m^2*K) at shell side
   (b) U heat transfer coefficient (W/m^2*K) at tube side
   (c) EMTD (deg C)
   (d) Duty (kW th)
   (e) Area (m^2)
   (f) Dimensions (L x W x H mm)
   (g) Over design (%)

4.2 Standards Used

The Bidder shall list the standards proposed for the equipment covered under this Technical Schedule, noting the hierarchy of standards given in Employer's Requirements.

Equipment	**Proposed Standards**
Heat Exchanger	
Other *{Bidder to list}*	

In addition to the items above supplied for the Air Cooled Condensers, the following information requested in Sections 4.3 to 4.8 shall also be supplied relating to the Air Cooled Condensers:

4.3 General

4.3.1	Manufacturer and Model			
4.3.2	Type			
4.3.3	Number of cells			
4.3.4	Type of fill			
4.3.5	Performance		NCR	
	Flow	m^3/h		
	Hot fluid temperature in	°C		
	Cooled fluid temperature out	°C		
	Design dry bulb temperature	°C		
	Absorbed power	kW		
4.3.6	Material			
	Specification			
	Design Code			

4.4 Structural Design

4.4.1	Standards		
	a) Design Loadings		
	b) Structural Steel Design		
	c) Structural FRP Design		
4.4.2	Design Criteria		
	a) Gravity Loads		
	Fan Deck		
	i) Uniform Dead Load	kPa	
	ii) Point Dead Load	kN	
	iii) Uniform Live Load	kPa	
	iv) Point Live Load	kN	
	v) Others		
	b) Wind Resistance Design		
	i) Dynamic Wind Pressure	kPa	
	ii) Force Coefficients:		
	– Tower Frontal Area		

	– Tower Body Transverse		
	– Point Dead Load		
	iii) Effective Frontal Area:		
	– Tower Body Longitudinal	m^2	
	– Tower Body Transverse	m^2	
	– Point Dead Load	m^2	
	iii) Centre of Resistance Above Anchorages		
	– Tower Body Longitudinal	m	
	– Tower Body Transverse	m	
	– Fan Cylinder	m	

4.5 Fan

4.5.1	Description		
	a) Manufacturer and Model No.		
	b) Speeds	rpm	
	c) Motor power (rated)	kW	
	d) Absorbed power at design conditions	kW	
4.5.2	Materials		
	a) Blades		
	b) Protective coatings		

4.6 Support Frames

4.6.1	Type:		
4.6.2	Manufacturer		
4.6.3	Material		

4.7 Ancillary Equipment

4.7.1	Vibration cut-out device		
	a) Manufacturer		
	b) Size		
	c) Type		

4.8 Additional Information to be Supplied with Bid

4.8.1	Schedule of similar air cooled condensers supplied for use in geothermal power stations including test results.
4.8.2	General arrangement and cross section drawings of the cooling towers.
4.8.3	Description, including drawings and material specifications of the proposed NCG dispersion system.

5. Working Fluid Pumps

Organic Rankine Cycle only

5.1 Working Fluid Pump Technical Data

The working fluid pump data sheet shall be provided in the bid and it shall contain the following:

1. Type
2. Number of units
3. Standard API 610
4. Fluid definition
5. Process parameter
   (a) Flow rate (kg/s)
   (b) Suction pressure (bara)
   (c) Delivery pressure (bara)
   (d) Nominal speed (rpm)
   (e) NPSH
6. Drive motor parameter
   (a) Rated power (kW)
   (b) Consumption at nominal operation (kW)
   (c) Motor under VSD
7. Mechanical seal parameter
   (a) Type
   (b) Manufacture
   (c) Material

5.2 Standards Used

The Bidder shall list the standards proposed for the equipment covered under this Technical Schedule, noting the hierarchy of standards given in Employer's Requirements.

Equipment	**Proposed Standards**
Hydrocarbon pump	
Electric motor	
Seal	
Other *{Bidder to list}*	

6. Hydrocarbon Working Fluid

Organic Rankine Cycle only

6.1 Hydrocarbon Working Fluid Technical Data

The working fluid and the storage tank data sheet shall be provided in the bid and it shall contain the following:

1. Type of fluid
2. Hazardous data
   (a) Health hazard grade
   (b) Physical hazard grade
   (c) Other hazard grade
3. Fluid total volume in the Plant
4. Handling and storage facilities
   (a) Layout of the location shall be attached
5. Storage
   (a) Design with standard ASME Boiler and Pressure Vessel Code Section VIII (Div. 1)
   (b) Manufacturer
   (c) Number of storage tank
   (d) Net volume of each tank (m^3)

6.2 Standards Used

The Bidder shall list the standards proposed for the equipment covered under this Technical Schedule, noting the hierarchy of standards given in Employer's Requirements.

Equipment	**Proposed Standards**
Hydrocarbon fluid	
Storage tank	
Other *{Bidder to list}*	

7. Condensing and Gas Extraction Systems

Note: All items to be completed where applicable

7.1 Direct Contact Condenser

Condensing Steam Technology only

7.1.1	Type		
7.1.2	Manufacturer		
7.1.3	Number		
7.1.4	Design standards		
7.1.5	Pressure Vessel design conditions	Full Vacuum to 1 barg	
7.1.6	Testing and performance standards		
7.1.7	Design parameters (at NCR):	Unit	Value
	a) Water flow to condenser	m^3/h	
	b) Water flow to gas cooler	m^3/h	
	c) Total water outlet from condenser	m^3/h	
	d) Make-up clean water	m^3/h	
	e) Condenser pressure	bara	
7.1.8	Steam flow from turbine	kg/h	
7.1.9	Condenser heat load	kW_{th}	
7.1.10	Gas cooler heat load	kW_{th}	
7.1.11	Water inlet temperature	°C	
7.1.12	Water outlet temperature	°C	
7.1.13	Gas approach temperature difference	°C	
7.1.14	Condenser and gas cooler dimension, LxWxH	m	
7.1.15	Operating weight:	kg	
7.1.16	Materials:		
	a) Shell b) Cladding c) Internal fittings		

7.2 Gas Extraction System

Condensing Steam Technology only

7.2.1	Type		
7.2.2	Manufacturer		
7.2.3	Number		
7.2.4	Design Standards		
7.2.5	Design parameters (at NCR):		
	1st Stage Ejectors		
	Total steam consumption	kg/h	
	Suction pressure	bara	
	Inter condenser pressure	bara	
	Inter condenser cooling water flow	kg/h	
	Inter condenser gas outlet temperature	°C	
	Inter condenser CW outlet temperature	°C	
	2nd Stage LRVP:		
	Model No.	-	
	Rotating speed	rpm	
	Power consumption at NCR	kW	
	2nd Stage Standby Ejector:		
	Steam consumption	kg/h	
	Suction pressure	bara	
	After condenser pressure	bara	
	After condenser cooling water flow	kg/h	
	After condenser gas outlet flow (geothermal gas/air/water vapour)	kg/h	
	After condenser gas outlet temperature	°C	
	After condenser CW outlet temperature	°C	
7.2.6	Dimensions:		
	First stage ejectors L x W x H	mm	
	Intercondensers L x W x H	mm	
	second stage standby steam ejector L x W x H	mm	
	LRVP L x W x H	mm	
	Aftercondenser L x W x H	mm	
7.2.7	Weight at operating conditions	kg	
7.2.8	Materials:		
	Ejectors		

	Inter and after condenser and LRVP separator		
	LRVP		

7.3 Additional Information to be Supplied

7.3.1	Schedule of similar gas extraction systems supplied for use in geothermal power stations.
7.3.2	Gas extraction system performance curves for normal operation as follows:
	a) Suction and discharge pressures versus ejector steam consumption.
	b) Condensing system pressure versus time to evacuate condenser on start-up.
	c) Suction pressure versus dry air equivalent capacity.
	d) LRVP power demand versus non-condensable gas content at NCR.
7.3.3	General arrangement drawing of the gas extraction system.
7.3.4	Drawings including cross-section drawings of ejectors, LRVP, inter and after condensers, and LRVP separator.
7.3.5	Drawings of the overhead gas discharge piping to the cooling towers.

7.4 NCG Extraction system

Organic Rankine Cycle Technology only

7.4.1	Type		
7.4.2	Manufacturer		
7.4.3	Number		
7.4.4	Design standards		
7.4.5	Dimensions, L x W x H	mm	
7.4.6	Weight	kg	
7.4.7	Materials		
	a) Shell		
	b) Internal pipe		
	c) Chiller		

7.5 Standards Used

The Bidder shall list the standards proposed for the equipment covered under this Technical Schedule, noting the hierarchy of standards given in Employer's Requirements.

Equipment	**Proposed Standards**
Condenser	
Steam jet ejectors	
LRVP	
LRVP gear unit	
Inter and After condensers and LRVP separator	

Equipment	**Proposed Standards**
Other (Bidder to list)	

8. Cooling Towers

Note: All items to be completed.

Condensing Steam Turbine plant to complete with information below.

If Binary technology is proposed with Air Cooled Condenser, include details of the Air Cooled Condenser in previous Heat Exchangers section.

8.1 General

8.1.1	Manufacturer and Model			
8.1.2	Type			
8.1.3	Number of cells			
8.1.4	Type of fill			
8.1.5	Performance		NCR	
	Water flow	m^3/h		
	Hot water temperature (Tower inlet)	°C		
	Cold water temperature (Tower outlet)	°C		
	Design wet bulb temperature	°C		
	Evaporation loss	m^3/h		
	Drift loss	m^3/h		
	Make-up water	m^3/h		
	Absorbed power	kW		
8.1.6	Material			
	Specification			
	Design Code			

8.2 Structural Design

8.2.1	Standards		
	d) Design Loadings		
	e) Structural Steel Design		
	f) Structural FRP Design		
8.2.2	Design Criteria		
	c) Gravity Loads		
	Fan Deck		
	vi) Uniform Dead Load	kPa	
	vii) Point Dead Load	kN	
	viii) Uniform Live Load	kPa	
	ix) Point Live Load	kN	

	x) Others		
	d) Wind Resistance Design		
	iv) Dynamic Wind Pressure	kPa	
	v) Force Coefficients:		
	– Tower Frontal Area		
	– Tower Body Transverse		
	– Point Dead Load		
	vi) Effective Frontal Area:		
	– Tower Body Longitudinal	m^2	
	– Tower Body Transverse	m^2	
	– Point Dead Load	m^2	
	iv) Centre of Resistance Above Basin Anchorages		
	– Tower Body Longitudinal	m	
	– Tower Body Transverse	m	
	– Fan Cylinder	m	
8.2.3	Cooling Tower Basin Dimensions (Basin Inside dimensions) L x W x H	m	

8.3 Fan

8.3.1	Description		
	e) Manufacturer and Model No.		
	f) Speeds	rpm	
	g) Motor power (rated)	kW	
	h) Absorbed power at design conditions	kW	
8.3.2	Materials		
	c) Blades		
	d) Protective coatings		

8.4 Support Frames

8.4.1	Type:		
8.4.2	Manufacturer		
8.4.3	Material		

8.5 Basin Outlet Screens

8.5.1	Type:		
8.5.2	Manufacturer		
8.5.3	Material		

8.6 Ancillary Equipment

8.6.1	Vibration cut-out device		
	d) Manufacturer		
	e) Size		
	f) Type		

8.7 Additional Information to be Supplied with Bid

8.7.1	Schedule of similar cooling towers supplied for use in geothermal power stations including details of fill and test results.
8.7.2	General arrangement and cross section drawings of the cooling towers.
8.7.3	Description, including drawings and material specifications of the proposed NCG dispersion system.

8.8 Standards Used

The Bidder shall list the standards proposed for the equipment covered under this Technical Schedule, noting the hierarchy of standards given in Employer's Requirements.

Equipment	**Proposed Standards**
Cooling Tower	
FRP	
Fans	
Gear boxes	
Valves	
Other *{Bidder to list}*	

9. Cooling Water System

Note: All items to be completed with the bid for water cooled condenser options with cooling tower.

9.1 Pumps

The Bidder shall complete this schedule for all pumps to be supplied and shall attach a copy of the pump curve, showing the rated point.

9.1.1	Type		
9.1.2	Manufacture		
9.1.3	Design flow rate	m3/h	
9.1.4	Design pressure	barg	
9.1.5	Motor Power (rated)	kW	
9.1.6	Absorbed Power at rated conditions	kW	
9.1.7	Heaviest Maintenance Lift	kg	
9.1.8	Materials:		
	a) Casing		
	b) Impeller		
	c) Shaft		
	d) Shaft Sleeves		

9.2 FRP Piping

The Bidder shall complete this schedule for each duty and pipe size:

9.2.1	Type		
9.2.2	Manufacturer		
9.2.3	Design Pressure	barg	
9.2.4	Design Temperature	°C	
9.2.5	Flow Rate	m^3/s	

9.3 Expansion Compensators/Bellows Units

The Bidder shall provide the following particulars for each duty and size of compensator/bellows unit.

Location				
Material				
Manufacturer				
Type				

9.4 Additional Information to be Supplied with Bid

1) Schedule of similar cooling water systems supplied for use in geothermal power stations.
2) General arrangement drawing of hotwell pumps, showing civil details and elevations.
3) Deviations to API 610 for any pumps.

9.5 Standards Used

The Bidder shall list the standards proposed for the equipment covered under this Technical Schedule, noting the hierarchy of standards given in Employer's Requirements.

Equipment	**Proposed Standards**
Hot well pumps	
CW & Reinjection pumps	
FRP Piping	
Coolers	
Valves	
Other *{Bidder to list}*	

10. Compressed Air System

Note: All items to be completed.

10.1 Compressor

10.1.1	Type and number		
10.1.2	Manufacturer		

10.2 After Coolers

10.2.1	Type and number		
10.2.2	Manufacturer		
10.2.3	Material		

10.3 Air Receivers

10.3.1	Type and number		
10.3.2	Manufacturer		
10.3.3	Material		

10.4 Air Dryers

10.4.1	Type		Heatless Regenerative
10.4.2	Manufacturer		
10.4.3	Number		2
10.4.4	Material		

10.5 Standards Used

The Bidder shall list the standards proposed for the equipment covered under this Technical Schedule, noting the hierarchy of standards given in Employer's Requirements.

Equipment	**Proposed Standards**
Compressor	
Coolers	
Air receivers	
Other *{Bidder to list}*	

11. Pipework and Valves

11.1 Pipework

The Bidder shall supply piping specifications for all main systems detailing design standards, material selection and welding standards – including for the SGS and Power Plant.

11.2 Valves

For manual valves the Bidder shall provide a brief description of the valve specification for each service including materials of construction, type and size – including for the SGS and Power Plant.

The Bidder shall complete these schedules for all control valves:

11.2.1	Service/Duty		
11.2.2	Number Required		
11.2.3	Fluid		
11.2.4	Manufacturer and Model No.		
11.2.5	Type of Valve		
11.2.6	Nominal Diameter	Mm	
11.2.7	Manual or Power Operated		
11.2.8	Valve Construction		
11.2.9	Pressure Rating	Barg	
11.2.10	Temperature Rating	°C	
11.2.11	End detail (indicate flange detail)		
11.2.12	Bonnet Type		
11.2.13	Body Type		
11.2.14	Materials:		
	a) Body		
	b) Plug/Dish		

The following sections are to be completed for all power operated valves:

11.2.15	Valve Operation:		
	a) Type of Control (open/shut or modulating)		
	b) Type of Actuator		
	c) Air Pressure Requirements (if pneumatic)	barg	
11.2.16	Operating Time (full travel)	Seconds	

12. Main Generators and Exciters

12.1 Generator				
Item	**Description**			
12.1.1	*Type			
12.1.2	*Manufacturer			
12.1.3	*Manufacturer's type reference			
12.1.4	*Primary cooling medium			
12.1.5	Speed	rpm	3000	
12.1.6	Frequency	Hz	50	
	a) Number of phases		3	
	b) Number of poles		2	
12.1.7	Connection		Star	
	a) Maximum continuous rating (MCR) at rated 0.85 power factor (lagging) and at cooling water temperature	MVA °C		
	b) MCR at 0.85 pf lag and above temperature	MW		
12.1.8	*Rated terminal voltage and range	kV		
12.1.9	Rated power factor			
	a) lagging		0.85	
	b) leading		0.95	
12.1.10	*Rated phase current	A		
12.1.11	*Have identical generators been manufactured and type tested?			
12.1.12	*Generator capability diagram			
	*stator winding per phase at 20°C	ohms		
12.1.13	*Short circuit ratio			
12.1.14	*Generator efficiency:		Rated p.f.	Unity p.f.
	a) NCR	%		
	b) 80% NCR	%		
	c) 60% NCR	%		
12.1.15	Generator length	m		

12.2 Stator			
Item	**Description**		
12.2.1	*Type		
12.2.2	*Manufacturer		
12.2.3	*Type of winding		
12.2.4	*Insulation class:		
	a) *Global VPI of stator windings and core	yes/no	
12.2.5	Core Plate material		
12.2.6	*Heat dissipated at rated load	kW	
12.2.7	*Type of temperature detectors		
12.2.8	*Number of temperature detectors:		
	a) in slots		
	b) in teeth		
	c) in stator core		
	d) in cooling air outlet		
	e) in cooling air inlet		
	f) in exciter cooling air inlet		
	g) in exciter cooling air outlet		
	h) bearing housings		
	i) others		
12.2.9	Space heaters:		
	a) number fitted		
	b) total rating	kW	

12.3 Rotor			
Item	**Description**		
12.3.1	*Type of rotor		
12.3.2	*Manufacturer		
12.3.3	Method of cooling winding		
12.3.4	Insulation class:		
	a) *class		
	b) *temperature rise at rated load	K	

12.3.5	End rings – material		
12.3.6	Method of securing end rings		
12.3.7	Excitation current at:		
	a) rated voltage and no-load		
	b) rated load and power factor		
12.3.8	Max. excitation voltage at rated load and power factor		
12.3.9	Heat dissipated at rated load and power factor	kW	
12.3.10	Method of cooling		

12.4 Exciter			
Item	**Description**		
12.4.1	*Type		
12.4.2	*Manufacturer		
12.4.3	*Speed	rpm	
12.4.4	Type of drive		
12.4.5	Rated current	A	
12.4.6	Rated voltage	V	
12.4.7	*Stator insulation class		
12.4.8	*Rotor insulation class		
12.4.9	Space heaters:		
	a) Number fitted		
	b) Total rating	kW	

12.5 Main Rectifier			
Item	**Description**		
12.5.1	*Type		
12.5.2	*Manufacturer		
12.5.3	Number of diodes in series		
12.5.4	Number of series strings in parallel		
12.5.5	Total number of diodes		
12.5.6	Diode nameplate date:		
	a) Manufacturer		
	b) Manufacturer's type reference		
	c) Current rating (120° conduction)	A	

12.5.7	Diode fuses:		
	a) Manufacturer and type reference		
	b) Type of fuse		
	c) Rating	V/A	
12.5.8	Type of diode failure detector		
12.5.9	Type of fuse failure detector		

12.6 Voltage Regulators			
Item	**Description**		
12.6.1	*Automatic voltage regulator:		
12.6.2	*Type		
12.6.3	*Manufacturer		
12.6.4	*Number of channels		
	a) Automatic		
	b) Manual		
12.6.5	*Block diagram of AVR including constants of transfer functions for control & stabilising current. Time constant of exciter to be included.		

12.7 Generator Cooling System			
Item	**Description**		
12.7.1	*Number of coolers on generator		
12.7.2	*Type		
12.7.3	*Manufacturer		
12.7.4	*Quantity of air circulated	kg/hr	
12.7.5	*Maximum cooler water inlet temperature	°C	
12.7.6	*Maximum cooler water outlet temperature	°C	
12.7.7	*Materials: -		
	a) Tubes		
	b) Shell		
	c) Water boxes		
	d) Tube plates		

12.8 Lengths			
Item	**Description**		
12.8.1	*Overall length of generator	m	
12.8.2	*Additional length for straight rotor withdrawal	m	
12.8.3	*Outline arrangement drawing		

12.9 Static Weights			
Item	**Description**		
12.9.1	*Generator Stator complete	kg	
12.9.2	*Generator Rotor	kg	
12.9.3	*Total - Generator/Bedplate/Exciter, Coolers	kg	

12.10 Earthing Transformer			
Item	**Description**		
12.10.1	*Type		
12.10.2	*Manufacturer		
12.10.3	*Rated Primary Voltage (achieving ≤ 0.6pu of knee point flux density at full field forcing voltage)	kV	
12.10.4	*Rated Secondary Voltage	V	
12.10.5	*Insulation Class		

12.11 Neutral Current Transformers			
Item	**Description**		
12.11.1	*Type		
12.11.2	*Manufacturer		
12.11.3	*No. of 3 phase protection cores		
12.11.4	*No. of 3 phase metering cores		
12.11.5	*No. of 3 phase AVR/Indication cores		
12.11.6	*Class/accuracy limiting factor		

12.12 Surge Arrestors			
Item	**Description**		
12.12.1	*Manufacturer		
12.12.2	*Type		
12.12.3	Arrester Classification	kV	

12.13 Surge Capacitors			
Item	**Description**		
12.13.1	*Manufacturer		
12.13.2	*Type		
12.13.3	Capacitance		

12.14 Standards Used

The Bidder shall list the standards proposed for the equipment covered under this Technical Schedule, noting the hierarchy of standards given in Employer's Requirements.

Equipment	**Proposed Standards**
Generator	
Stator	
Rotor	
Exciter	
Rectifier	
{Bidder to list}	

13. 11 kV and 415 V Switchboards

13.1 11kV Switchboards

Item	Description		
13.1.1	*Manufacturer		
13.1.2	*Type reference		
13.1.3	*Metal clad (Yes/No)		
13.1.4	*Rated voltage	kV	
13.1.5	*Rated frequency	Hz	
13.1.6	*Rated normal current (busbars)	A	
13.1.7	*Degree of protection:		
	a) enclosure		
	b) partitions		
	c) shutters		
13.1.8	*Material of busbars		
13.1.9	Busbar insulation material		
13.1.10	*Overall length of switchboard	mm	
13.1.11	*Overall height of switchboard	mm	
13.1.12	*Overall depth of switchboard	mm	

13.2 Circuit Breaker Performance Data

Item	Description		
13.2.1	*Type		
13.2.2	*Manufacturer		
13.2.3	Opening time (IEC 62271)	ms	
13.2.4	*Frequency of maintenance required		
13.2.5	*Description of maintenance procedures		
13.2.6	*Time required for maintenance procedures		

13.3 11kV Circuit Breaker Construction Features

Item	Description		
13.3.1	*Method of closing		
13.3.2	*Method of tripping		
13.3.3	Rated voltage for spring winding motor for closing	V ac	
13.3.4	Closing release coil voltage	V dc	
13.3.5	*Material of tank or container		
13.3.6	*Interrupting medium		

13.4 11kV Vacuum Contactors

Item	Description		
13.4.1	*Manufacturer		
13.4.2	*Type reference		
13.4.3	Type latched/unlatched		
13.4.4	*Utilisation category		
13.4.5	Full load current rating	A	

13.5 H.V. Fuses

Item	Description		
13.5.1	*Manufacturer		
13.5.2	*Type		
13.5.3	Current Rating	A	
13.5.4	Prospective peak current	kA	

13.6 Neutral Earthing Resistor 11kV

Item	Description		
13.6.1	*Type		
13.6.2	*Manufacturer		
13.6.3	Enclosure rating	IP	

13.7 415 V Switchboards

Item	Description		
13.7.1	*Manufacturer		
13.7.2	*Operating voltage		
13.7.3	*Type reference		
13.7.4	*Type test certificate reference		
13.7.5	*Overall dimensions	mm	
13.7.6	*Overall weight	kg	
13.7.7	Busbar insulating material		
13.7.8	Busbar conductor material		
13.7.9	Classification to IEC 61439-1		

13.8 415 V Air Circuit Breakers

Item	Description		
13.8.1	Manufacturer		
13.8.2	Type Reference		
13.8.3	Type		
13.8.4	Continuous current rating	A	
13.8.5	Breaking capacity	rms kA	
13.8.6	Peak asymmetrical	kA	
13.8.7	Short time current	rms kA/Secs	
13.8.8	Type Test Certificate No.		
13.8.9	Weight of circuit breaker	kg	

13.9 415 V Motor Starters

Item	Description		
13.9.1	*Manufacturer		
13.9.2	*Type reference		
13.9.3	*Type (withdrawable/fixed)		

13.10 415 V Contactor

Item	Description		
13.10.1	*Manufacturer		
13.10.2	*Type Reference		
13.10.3	Current ratings	A	
13.10.4	Voltage at which electrically held contactor will drop out	V	
13.10.5	Category and class to BS.5424 Part 1.		

13.11 415 V Motor Protection Relay

Item	Description		
13.11.1	*Manufacturer		
	Type Reference		

13.12 415V Motor Overload Device

Item	Description		
13.12.1	*Manufacturer		
13.12.2	Type reference		

13.13 Switch Fuses / Moulded Case Circuit Breakers

Item	Description		
13.13.1	*Manufacturer		
13.13.2	Type reference		
13.13.3	Current ratings at site	A	
	Ambient	°C	
13.13.4	Break ratings	A	

13.14 Indicating Lamps

Item	Description		
13.14.1	*Manufacturer		
13.14.2	Type reference		

13.15 Instruments

Item	Description		
13.15.1	*Manufacturer		
13.15.2	Type reference		

13.16 Current Transformers

Item	Description		
13.16.1	*Manufacturer		
13.16.2	Type reference		
13.16.3	Class		

13.17 Voltage Transformers

Item	Description		
13.17.1	*Manufacturer		
13.17.2	Type Reference		
13.17.3	Class		

13.18 Meters

Item	Description		
13.18.1	*Manufacturer		
13.18.2	Type reference		
13.18.3	Accuracy class		

13.19 Standards Used

The Bidder shall list the standards proposed for the equipment covered under this Technical Schedule, noting the hierarchy of standards given in Employer's Requirements.

Equipment	**Proposed Standards**
11 kV Switchboards	
11 kV Motor Starters	
415 V Switchboards	
415 V Motor Starters	
Other *{Bidder to list}*	

13.20 Transformers

13.21 Auxiliary Transformers

Item	**Description**		**Unit Aux Transformer**	**Other Transformers Contractor to complete**	
13.21.1	*Manufacturer				
13.21.2	*Type				
13.21.3	Type of cooling		ONAN	ONAN	
13.21.4	Type of voltage control equipment		On load	Off load	
13.21.5	*Continuous maximum rating (CMR) at site.	kVA			
13.21.6	*Nominal no-load voltage:				
	a) MV winding	kV			
	b) LV winding	kV			
	c) Tap range	%			
	d) Tap steps	%			
13.21.7	*Fixed losses at nominal ratio	kW			
13.21.8	*Types of windings:				
	a) MV				
	b) LV				
13.21.9	*Insulation of:				
	a) MV winding				
	b) LV winding				
13.21.10	*Insulation of:				

	a) tappings				
	b) tapping connections				
13.21.11	*Total oil required	1			
13.21.12	*Drawing showing preliminary outline arrangement of transformer				

14. Cabling and Earthing

14.1	11kV XLPE Insulated Cables		
14.1.1	*Manufacturer		
14.1.2	*Manufacturing standards		
14.1.3	Conductor material		
14.1.4	Conductor Screen material		
14.1.5	Insulation type		
14.1.6	Core Screen material		
14.1.7	Outer sheath material		

14.2	415 Volt Cables		
14.2.1	*Manufacturer		
14.2.2	*Manufacturing standards		
14.2.3	Conductor material		
14.2.4	Insulation material		
14.2.5	Outer sheath material		

14.3	Multicore Control Cables		
14.3.1	*Manufacturer		
14.3.2	*Manufacturing standards		
14.3.3	Voltage	V	
14.3.4	Conductor material		
14.3.5	Insulation material		
14.3.6	Outer sheath material		

14.4	Instrumentation Cables		
14.4.1	*Manufacturer		
14.4.2	*Manufacturing standards		
14.4.3	Pairs: Number of pairs	No.	
14.4.4	Conductor material	mm	
14.4.5	Insulation material		
14.4.6	Outer sheath material		

14.5	Earthing		
14.5.1	Type		
14.5.2	Manufacturer		
14.5.3	Main buried earthing grid conductor material		

15. DC Systems and Secure AC System

15.1	**D.C. System**		
15.1.1	*Overall schematic for DC system		
	Batteries		
15.1.2	*Manufacturer		
15.1.3	*Number of banks of batteries		
15.1.4	*Number of batteries per bank		
15.1.5	*Type of battery		
15.1.6	Nominal voltage	V	
15.1.7	Number of cells		
15.1.8	Type of rectifiers		
15.1.9	Output voltage range:		
	a) on trickle charge	V	
	b) on boost charge	V	
15.2	**Secure A.C. Systems**		
15.2.1	*Make		
15.2.2	*No. of UPS Units		
15.2.3	No. of chargers:		
	a) float		
	b) boost		
15.2.4	Type of rectifiers		
15.2.5	Output voltage range	V	
15.2.6	*Size	mm	
15.2.7	*Weight	kg	
15.2.8	*Manufacturer's Specification Sheets		

15.3	**D.C. Distribution Switchboard**		
15.3.1	*Manufacturer		
15.3.2	*Voltage rating, maximum	V	
15.3.3	*Busbar site rating	A	
15.3.4	*Busbar material		

15.4	Secure A.C. Distribution Switchboard		
15.4.1	*Manufacturer		
15.4.2	*Voltage rating, maximum	V	
15.4.3	*Busbar site rating	A	
15.4.4	*Busbar material		

16. Control and Instrumentation

16.1 Distributed Control System

Item	Description	
16.1.1	*Manufacturer	
16.1.2	*Manufacturer Type/Model	
16.1.3	*Evidence of life cycle phase of control system technology and basis of compliance with 20 year support requirement.	
16.1.4	*Architecture (drawing)	
16.1.5	*Processors	
	a) Model	
	b) Power Supply (Volts/amps)	
16.1.6	*Serial I/O	
	a) Model	
	b) Interfaces	
	c) Protocols	
16.1.7	*Control System LAN	
	a) Type	
	b) Media	
	c) Speed	
	d) Topology	
16.1.8	*General information	
	a) Operable ambient temperature range	
	b) Hydrogen sulphide protection i.e Conformal Coated?	
	c) Operable humidity range	
	d) Electromagnetic compatibility	
16.1.9	*Description of configuration software package including details functional capability	
16.1.10	*Details of on-line diagnostics	
16.1.11	*Details of how software is documented, backed up, and restored following replacement of operating hardware	

16.2	Operator Workstations	
	Operator Workstations, Engineering Workstation and Remote Access Workstation (DOMLEC) Bidder to complete a table for each of these operator interfaces.	
16.2.1	*Manufacturer	
16.2.2	*Make/Model	
16.2.3	*Quantity	
16.2.4	*Operating system software	
16.2.5	*Full details of Process Control software (MMI package) including as a minimum details of:- graphic capability, data collection/logging options, reporting options, alarm handling, trending options, and method of programming.	

16.3	Pressure Transmitter	
16.3.1	*Manufacturer	
16.3.2	*Model	
16.3.3	Specification Sheet	

16.4	Flow Transmitter	
16.4.1	*Manufacturer	
16.4.2	*Model	
16.4.3	Specification Sheet	

16.5	Level Transmitter	
16.5.1	*Manufacturer	
16.5.2	*Model	
16.5.3	Specification Sheet	

16.6	Level Gauge and associated Level Transmitters/Switches	
16.6.1	*Manufacturer	
16.6.2	*Model	
16.6.3	Specification Sheet	

16.7	pH Measurement	
16.7.1	*Manufacturer	
16.7.2	Model	
16.7.3	Specification Sheet	

16.8	List all other instruments	
16.8.1	*Manufacturer	
16.8.2	*Model	
16.8.3	Specification Sheet	

16.9	Local Gauges, FI, TI, PI, DPI etc.	
16.9.1	*Manufacturer	
16.9.2	Model	
16.9.3	Specification Sheet	

16.10 Hydrogen Sulphide Detection System

Note: All items to be completed

16.10.1 General

16.10.1	Sensitivity to H_2S	ppm	
16.10.2	Response time to above	ms	
16.10.3	Proposed positions of detectors		
16.10.4	Manufacturer and Make of equipment		
16.10.5	Specification sheets		

16.10.2 Standards Used

16.10.3 The Bidder shall list the standards proposed for the equipment covered under this Technical Schedule, noting the hierarchy of standards given in Employer's Requirements.

Equipment	Proposed Standards
{Bidder to list}	

17. Steam Gathering System Specific

The Bidder shall provide the following information specific to Steam Gathering System equipment.

17.1 Steam Separator

Item	Description	Units	Value
17.1.1	Type / Configuration		
17.1.2	Design standard reference and material specifications		
17.1.3	Quantity		
17.1.4	Design steam flow	Tonnes/hr	
17.1.5	Design brine flow	Tonnes/hr	
17.1.6	Liquid Retention Time		
17.1.7	Design wetness of steam at outlet	%	
17.1.8	Vessel design pressure	barg	
17.1.9	Vessel design temperature	°C	
17.1.10	Inside diameter	mm	
17.1.11	Thickness of shell	mm	
17.1.12	Thickness of head	mm	
17.1.13	Corrosion allowance	mm	
17.1.14	Overall height	mm	
17.1.2	2-Phase inlet nozzle size		
17.1.15	Steam outlet nozzle size		
17.1.16	Material of shell/head		
17.1.17	Nozzle Material		
17.1.18	Flange class		
17.1.19	Vessel weight (dry)	kg	
17.1.20	Means to prevent erosion of internals		
17.1.21	Material of insulation		
17.1.22	Material of cladding		
17.1.23	Details of External Corrosion Protection System		

17.2 Flash Vessel

Item	Description	Units	Value
17.2.1	Material		
17.2.2	Design standard reference and material specifications		
17.2.3	Type of construction		
17.2.4	Inside diameter		
17.2.5	Thickness of shell		
17.2.6	Overall height		
17.2.7	Means to prevent erosion of internals		
17.2.8	Details of External Corrosion Protection System		

17.3 Pressure Relief Devices

Item	Description	Value
17.3.1	Type	
17.3.2	Manufacturer	
17.3.3	Model	
17.3.4	Number off	
17.3.5	Size	
17.3.6	Material	
17.3.7	Capacity	
17.3.8	Characteristic	

17.4 Steam Scrubber

Item	Description	Unit	Value
17.4.1	Type		
17.4.2	Design steam flow	Tonnes/hr	
17.4.3	Design wetness of steam		
17.4.4	a) At inlet	%	
17.4.5	b) At outlet	%	
17.4.6	Pressure drop	Bar	
17.4.7	Vessel design pressure	Barg	
17.4.8	Inside diameter	mm	
17.4.9	Thickness of shell	mm	
17.4.10	Overall height	mm	
17.4.11	Material of shell		
17.4.12	Material of internals		
17.4.13	Major components and total weight	kg	

17.5 Steam Gathering System pumps

Bidder to present information of all pumps proposed for use as part of the Steam Gathering System.

Item	Description	Units	Value
17.5.1	Type		
17.5.2	Manufacture		
17.5.3	Design flow rate	m3/h	
17.5.4	Design pressure	barg	
17.5.5	Design temperature		
17.5.6	Motor Power (rated)	kW	
17.5.7	Absorbed Power at rated conditions	kW	
17.5.8	Heaviest Maintenance Lift	kg	
17.5.9	Materials:		
	a) Casing		
	b) Impeller		
	c) Shaft		
	d) Shaft Sleeves		

17.6 Standards Used

Item	Equipment	Proposed Standard
17.6.1	Steam Separator Vessel	
17.6.2	Flash Vessel	
17.6.3	Pumps	
17.6.4	[Bidder to list]	

18. Buildings and Support Facilities

Note: All items to be completed

18.1 Building General Arrangements

Bidder to provide plan and elevation drawings to demonstrate the dimensions of the Bidder's offer as well as general arrangements of facilities contained within each building.

18.2 CCTV

18.2.1	Manufacturer/model CCTV units as well as operator supervisory facilities		

18.3 Waste Water Treatment

Bidder shall provide details of the proposed packaged plant to treat foul water discharge from kitchen, toilets, wash hand basins and showers. Including manufacturer, type, capacity, design standard.

18.4 Emergency Diesel Generator

Item	Description	Units	Value
18.4.1	Type		
18.4.2	Manufacturer and Model		
18.4.3	Rating kW		
18.4.4	Fuel Consumption at Rated Output l/h		
18.4.5	Basis of Rating	Rating kW	Load Factor %

18.5 Lab Equipment

Bidder to list information of lab equipment to undertake testing as outlined in the Specification.

19. Cranes, Hoists and Vehicles

19.1 Travelling Cranes

The Bidder shall complete the following section for each travelling crane supplied.

19.1.1	*Type and number		
19.1.2	*Manufacturer		
19.1.3	Design and testing standards		
19.1.4	Maximum height of lift	m	
19.1.5	Length of beam	m	
19.1.6	*Heaviest lift required for removal/ reinstatement of main plant item covered (repeat for each significant item)		
	a) Item		
	b) Weight	tonne	
19.1.7	*Operating speeds and capacity		
	a) Hoist rated capacity	tonne	

19.2 Vehicles

Details of each of the vehicles being supplied (Hoist Truck, Fork Lift Truck and Boom Lift) is to be provided.

19.3 Additional Information to be Supplied with the Bid

19.3.1	Outline drawing of each crane including runway beam, clearance requirements and supporting steel structure.
19.3.2	Loading data for building steelwork.

20. Training

20.1 Training of Employer's Staff

The Bidder shall provide details of the formal as well as the "on the job" training to be provided in accordance with the Specification. Bidder to provide the following:

1. Description of training programme.
2. Draft training schedule outlining expected subjects, durations and disciplines of the Employer's key staff to be involved.

Duration of offshore training included for Employer's key staff	
Duration of training delivered on Site for Employer's key staff	

20.2 Operation and Maintenance Personnel

The Bidder shall list the number of test and commissioning staff to be provided, as well as the Contractor's staff required for the two-year Operation and Maintenance Support.

21. Quality Assurance

The Bidder shall provide, with their bid, their Company quality assurance policy document and certification.

22. Health and Safety

The Bidder shall provide an example table of contents for a complete health and safety system management plan for a project of equivalent scale and complexity to this one. The intention is for Bidder to demonstrate compliance with and relevant experience with the requirements of the ESMP.

The Bidder shall provide their Company Safety, Health and Environmental policy documents and certifications.

23. Tools

List all tools to be supplied as required to maintain and operate the Facilities.

Note this list is to include all necessary standard and special tools required by the Employer to undertake all necessary operation and maintenance activities through the life of the Facilities.

24. Spare Parts

24.1 Mandatory Spare Parts Schedule

The Bidder shall complete the schedule of Mandatory Spare Parts for the entire Works making necessary adjustments to reflect the installed equipment. Any changes made to this schedule shall be reflected in the corresponding price schedule.

1) Steam Turbine / Organic Rankine Cycle & Auxiliaries (modified by bidder to suit applicable technology selection)	
Rotor and blades including fixings (*list all stages and number of blades per stage*)	1 rotor, assembled with blades
Interstage diaphragms – for each Stage, including fixings (*list all stages and number of segments per stage*)	1 set
Turbine, generator and exciter main journal bearings (*list each bearing*)	1 set
Turbine thrust bearing pads (*indicate number per set*)	1 set
Turbine main gland packing and springs	2 sets
Turbine diaphragm packing and springs (*if applicable*)	2 sets
Oil baffle strips	1 set
Packing, bushes and seal rings for stop valve	2 sets
Packing, bushes and seal rings for governor valve	2 sets
Main oil pump spares (*list items included*)	1 set
Emergency oil pump spares (*list items included*)	1 set
Auxiliary oil pump spares (*list items included*)	1 set
Jacking oil pump spares (if applicable) (*list items included*)	1 set
Oil filters	8 sets
Oil drain sight glasses	1 set
Gearbox bearings and seals *(if applicable)*	1 set
Bearing temperature RTDs	1 set
Overspeed governor bolts or rings complete with spring (*if applicable*)	1 set
Bearings for motors and fans (each type) (*List Types*)	2 sets
For each type of vibration detection device	2 items
For each type of proximity detector	2 items
Speed detector	2 items
Other Instrumentation, as section below	-
2) Condensing and Gas Extraction Systems	
Level gauge (and level transmitter as applicable.)	1 set

Condenser and gas cooler spray nozzles	10% of 1 set
Steam ejector nozzles	1 set
Inter and after condenser nozzles	1 set
Relief bursting discs (whether fitted to condenser or turbine)	2 sets
LRVP gearbox bearings and seals	1set
LRVP motor bearings	2 sets
LRVP bearings & seals	2 sets
3) Cooling Towers	
Fan motor, gearbox and driveshaft	1 set
Fan blades	2 sets
Monitoring and Protection Devices (*List items)*	1 set
Drift eliminators	1 cell
Fill & protection layer	1 cell
Distribution nozzles	1 cell
Wetting pump seal and bearings *(if applicable)*	2 sets
Louvre sheets (if applicable)	1 cell
Casing sheets	1 cell
pH monitoring sensing cells	2 sets
pH monitoring calibration equipment	1 set
4) Cooling Water Systems	
Hotwell pump complete, (except for cast-in can)	1
Hotwell pump motor	1
Hotwell pumps mechanical seal with shaft sleeve	2 sets
Hotwell pumps shaft and thrust bearing with shaft sleeves	2 sets
Hotwell pumps impeller and bowl wear rings and fixings	2 sets
Hotwell pumps seal and bearing lubrication water filters	2 sets
Hotwell pumps gasket, glands, washers and packings	2 sets
Hotwell pump motor bearings	2 sets
Gas cooler cooling water inlet strainer elements *(if applicable)*	1 set
Auxiliary cooling water pumps mechanical seal and shaft sleeve	2 sets
Auxiliary cooling water pumps shaft and thrust bearing with shaft sleeves	2 sets
Auxiliary cooling water pumps impeller and casing wear ring and fixings	2 sets
Auxiliary cooling water pumps - seal water filters	2 sets
Auxiliary cooling water pumps - suction strainer elements	1 set
Auxiliary cooling water pump motor bearing	2 sets

CW valve and actuator spares, for each type & size (list items included)	2 sets
Condensate Reinjection Pumps: mechanical seal with shaft sleeve; shaft and thrust bearing with shaft sleeves; impeller and casing wear rings and fixings.	2 sets
5) Control and Instrumentation	
Control valve with auxiliaries (for each type) (*List types*)	1 item complete
Control valve pneumatic or hydraulic actuators (for each type) (*List types*)	1 item
Electric control valve actuator (for each type) (*List types*)	1 item
For each range and type of transmitter (*Provide List*)	1 item
For each range and type of switch (*Provide List*)	2 items
For each range and type of gauge (*Provide List*)	2 items
For each type of pressure gauge isolation valve	2 items
For each type of control system I/O card (*List cards*)	2 sets
For each type of control system processor, communication, or other speciality card (*List Cards*) for DCS including rack power supplies	2 sets
For each type of control system cards for the AVR, Governor	1 set
6) Main Generators	
Rotor earthing brush & brush holder (if applicable)	2 sets
Rotating rectifier diodes, fuses, and surge protection	2 full sets
Generator air cooler	1
Stator RTD	6
Exciter Field Switch Close & Trip Coils	1 set
Lamps and fuses of each type	50
7) Transformers	
Main bushing (*list each type*)	1
neutral bushing (*list each type)*	1
transformer gaskets (*List each transformer)*	1 set
11kV surge arrester, for 3 phases	1 set
11kV VT	1 item
11kV CT of each type	1 item
Cooling fans (if required)	1 complete

8) Switchgear	
Each type of Closing Coil	3 sets
Each type of Tripping Coil	3 sets
Lamps and fuses of each type	50
Microswitches of each type	3 items
Auxiliary relays of each type	3 items
VT HV fuses of each type	3 items
3- pole contactor of each type, 415V	3 items
3- pole contactor, 11kV	1 item
Protection relay of each type	2 items
9) DC Systems and Secure AC System	
Lamps and fuses of each type	50
Battery Chargers: control cards	1 set
Inverters: control cards	1 set
10) Manual Valves and Piping	
Manual valves 6” NPS and larger, for each type	1 item
Manual valves less than 6” NPS, for each type	4 items
Steam traps, for each type	2 items
Gaskets, 6” NPS and larger, for each type	4 items
Gaskets, less than 6” NPS, for each type	16 items
11) Building Services and Miscellaneous	
Motor bearings, for each type	2 sets
Air filters	1 set
H2S Scrubbing Media	1 recharge
CCTV cameras, for each type	1 item
Street Lighting, for each luminaire	1 lamp set
12) Software	
For each type of device requiring software for calibration or configuration, one set of licensed software preloaded on a suitable laptop computer, as required by the Specification	-

24.2 Recommended Spare Parts

The Bidder shall complete a schedule of Recommended Spare Parts for the entire Works. The format of the list is at the Bidder's discretion but shall be arranged in a logical fashion broken down by plant item.

24.3 Consumables

The Bidder shall complete a schedule of operational consumable items, listing the items and the quantities required per month of operation of the plant supplied under this Contract.

Contractor's Equipment

Form EQU

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

Item of equipment		
Equipment information	Name of manufacturer	Model and power rating
	Capacity	Year of manufacture
Current status	Current location	
	Details of current commitments	
Source	Indicate source of the equipment ☐ Owned ☐ Rented ☐ Leased ☐ Specially manufactured	

Omit the following information for equipment owned by the Bidder.

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

Functional Guarantees

Form FUNC

The Bidder shall copy in the left column of the table below, the identification of each functional guarantee required in the Employer's Requirements and stated by the Employer in para. 1.2 (c) of Section III, Evaluation and Qualification Criteria, and in the right column, provide the corresponding value for each functional guarantee of the proposed plant and equipment.

Required Functional Guarantee	**Value of Functional Guarantee of the Proposed Plant and Equipment**
1.Unit 1 GNDC at NCR conditions	
2.Unit 2 GNDC at NCR conditions	

Personnel

Form PER -1

Proposed Personnel

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

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

*As listed in Section III.

Form PER-2

Resume of Proposed Personnel

Name of Bidder

Position		
Personnel information	**Name**	**Date of birth**
	Professional qualifications	
Present employment	**Name of employer**	
	Address of employer	
	Telephone	**Contact (manager / personnel officer)**
	Fax	**E-mail**
	Job title	**Years with present employer**

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

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

Proposed Subcontractors for Major Items of Plant and Installation Services

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

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

Major Items of Plant and Installation Services	Proposed Subcontractors/Manufacturers	Nationality
Synchronous Generator		
Turbine		
Hotwell Pump / Major Pumps		
Steam Scrubber		
Cooling Tower / Air Cooled Condenser		

Bidders Qualification without prequalification

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

Form ELI 1.1

Bidder Information Sheet

Date: _____

RFB No.: _____

Page _____ of _____ pages

1. Bidder's Legal Name
2. In case of JV, legal name of each party:
3. Bidder's actual or intended Country of Registration:
4. Bidder's Year of Registration:
5. Bidder's Legal Address in Country of Registration:
6. Bidder's Authorized Representative Information Name: Address: Telephone/Fax numbers: Email Address:
7. Attached are copies of original documents of: ☐ Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITB 4.4 ☐ In case of JV, letter of intent to form JV or JV agreement, in accordance with ITB 4.1 ☐ In case of state-owned enterprise or institution, in accordance with ITB 4.6, documents establishing: • Legal and financial autonomy • Operation under commercial law • Establishing that the Bidder is not under the supervision of the Employer
8. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership. *[If required under BDS ITB 46.1, the successful Bidder shall provide additional information on beneficial ownership, using the Beneficial Ownership Disclosure Form.]*

Form ELI 1.2

Party to JV Information Sheet

Date: _____

RFB No.: _____

Page _____ of_ _____ pages

1. Bidder's Legal Name:
2. JV's Party legal name:
3. JV's Party Country of Registration:
4. JV's Party Year of Registration:
5. JV's Party Legal Address in Country of Registration:
6. JV's Party Authorized Representative Information Name: Address: Telephone/Fax numbers: Email Address:
7. Attached are copies of original documents of: Articles of Incorporation or Registration of firm named in 1, above, in accordance with ITB 4.1 and ITB 4.4. In case of state-owned enterprise or institution from the Employer's Country, documents establishing legal and financial autonomy and compliance with the principles of commercial law and is not under the supervision of the Employer, in accordance with ITB 4.6.

Form CON – 2

Historical Contract Non-Performance

Bidder's Legal Name: _____ Date: _____

JV Member Legal Name: _____ _____

RFB No.: _____

Page _____ of _____ pages

Non-Performed Contracts in accordance with Section III, Evaluation and Qualification Criteria			
☐ Contract non-performance did not occur since 1st January *[insert year]* specified in Section III, Evaluation and Qualification Criteria, Sub-Factor 2.1. ☐ Contract(s) not performed since 1st January *[insert year]* specified in Section III, Evaluation and Qualification Criteria, requirement 2.1			
Year	**Non-performed portion of contract**	**Contract Identification**	**Total Contract Amount (current value, currency, exchange rate and US$ equivalent)**
[insert year]	*[insert amount and percentage]*	Contract Identification: *[indicate complete contract name/ number, and any other identification]* Name of Employer: *[insert full name]* Address of Employer: *[insert street/city/country]* Reason(s) for nonperformance: *[indicate main reason(s)]*	*[insert amount]*
Pending Litigation, in accordance with Section III, Evaluation and Qualification Criteria			
☐ No pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3. ☐ Pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3 as indicated below.			

Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), USD Equivalent (exchange rate)
		Contract Identification: _____ Name of Employer: _____ Address of Employer: _____ Matter in dispute: _____ Party who initiated the dispute: ____ Status of dispute: _____	
		Contract Identification: Name of Employer: Address of Employer: Matter in dispute: Party who initiated the dispute: Status of dispute:	
Litigation History in accordance with Section III, Evaluation and Qualification Criteria			
☐ No Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4. ☐ Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4 as indicated below.			

Year of award	Outcome as percentage of Net Worth	Contract Identification	Total Contract Amount (currency), USD Equivalent (exchange rate)
[insert year]	*[insert percentage]*	Contract Identification: [indicate complete contract name, number, and any other identification] Name of Employer: *[insert full name]* Address of Employer: *[insert street/city/country]* Matter in dispute: *[indicate main issues in dispute]* Party who initiated the dispute: *[indicate "Employer" or "Contractor"]* Reason(s) for Litigation and award decision *[indicate main reason(s)]*	*[insert amount]*

Form CON – 3

Environmental, Social, Health, and Safety Performance Declaration

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

Bidder's Legal Name: _____ Date: _____

JV Member Legal Name: _____ _____

RFB No.: _____

Page _____ of _____ pages

Environmental, Social, Health, and Safety Performance Declaration in accordance with Section III, Qualification Criteria, and Employer's Requirements			
☐ **No suspension or termination of contract**: An employer has not suspended or terminated a contract and/or called the performance security for a contract for reasons related to Environmental, Social, Health, or Safety (ESHS) performance since the date specified in Section III, Qualification Criteria, and Requirements, Sub-Factor 2.4. ☐ **Declaration of suspension or termination of contract**: The following contract(s) has/have been suspended or terminated and/or Performance Security called by an employer(s) for reasons related to Environmental, Social, Health, or Safety (ESHS) performance since the date specified in Section III, Qualification Criteria, and Requirements, Sub-Factor 2.5. Details are described below:			
Year	**Suspended or terminated portion of contract**	**Contract Identification**	**Total Contract Amount (current value, currency, exchange rate and US$ equivalent)**
[insert year]	*[insert amount and percentage]*	Contract Identification: *[indicate complete contract name/ number, and any other identification]* Name of Employer: *[insert full name]* Address of Employer: *[insert street/city/country]* Reason(s) for suspension or termination: *[indicate main reason(s) e.g. for GBV/ SEA breaches]*	*[insert amount]*
[insert year]	*[insert amount and percentage]*	Contract Identification: *[indicate complete contract name/ number, and any other identification]*	*[insert amount]*

		Name of Employer: *[insert full name]* Address of Employer: *[insert street/city/country]* Reason(s) for suspension or termination: *[indicate main reason(s)]*	
…	…	*[list all applicable contracts]*	…
Performance Security called by an employer(s) for reasons related to ESHS performance			
Year	Contract Identification		Total Contract Amount (current value, currency, exchange rate and US$ equivalent)
[insert year]	Contract Identification: *[indicate complete contract name/ number, and any other identification]* Name of Employer: *[insert full name]* Address of Employer: *[insert street/city/country]* Reason(s) for calling of performance security: *[indicate main reason(s) e.g. for GBV/ SEA breaches]*		*[insert amount]*

Form CCC

Current Contract Commitments / Works in Progress

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

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

Form FIN – 3.1

Financial Situation

Historical Financial Performance

Bidder's Legal Name: _____ Date: _____

JV Member Legal Name: _____ RFB No.: _____

Page _____ of _____ pages

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

Financial information in US$ equivalent	Historic information for previous _____ (__) years (US$ equivalent in 000s)						
	Year 1	Year 2	Year 3	Year …	Year n	Avg.	Avg. Ratio
Information from Balance Sheet							
Total Assets (TA)							
Total Liabilities (TL)							
Net Worth (NW)							
Current Assets (CA)							
Current Liabilities (CL)							
Information from Income Statement							
Total Revenue (TR)							

Financial information in US$ equivalent	Historic information for previous _____ (__) years (US$ equivalent in 000s)						
	Year 1	Year 2	Year 3	Year …	Year n	Avg.	Avg. Ratio
Profits Before Taxes (PBT)							

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

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

(b) Historic financial statements must be audited by a certified accountant

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

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

Form FIN – 3.2

Average Annual Turnover

Bidder's Legal Name: _____ Date: _____

JV Member Legal Name: _____RFB No.: _____

Page _____ of _____ pages

Annual turnover data		
Year	Amount and Currency	US$ equivalent
*Average Annual Turnover		

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

Form FIN3.3

Financial Resources

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

Source of financing	Amount (US$ equivalent)
1.	
2.	
3.	
4.	

Form EXP 4.1

Experience

General Experience

Bidder's Legal Name: _____ Date: _____

JV Member Legal Name: _____ RFB No.: _____

Page _____ of _____ pages

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

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

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

Form EXP –4.2(a)

Specific Experience

Bidder's Legal Name: _____ Date: _____

JV Member Legal Name: _____ RFB No.: _____

Page _____ of _____ pages

Similar Contract Number: ___ of ___ required.	**Information**		
Contract Identification			
Award date Completion date			
Role in Contract	☐ Contractor	☐ Management Contractor	☐ Subcontractor
Total contract amount	US$_____		
If member in a JV or subcontractor, specify participation of total contract amount	_____%	US$_____	
Employer's Name:			
Address: Telephone/fax number: E-mail:			

Form EXP –4.2(a) (cont.)

Specific Experience (cont.)

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

JV Member Legal Name: _____

Similar Contract No. [*insert specific number***]**	**Information**
Description of the similarity in accordance with Sub-Factor 4.2a) of Section III:	
Amount	
Physical size	
Complexity	
Methods/Technology	
Physical Production Rate	

Form EXP –4.2(b)

Specific Experience in Key Activities

Bidder's Legal Name: _____ Date: _____

JV Member Legal Name: _____ RFB No.: _____

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

	Information		
Contract Identification			
Award date Completion date			
Role in Contract	☐ Contractor	☐ Management Contractor	☐ Subcontractor
Total contract amount	US$_____		
If member in a JV or subcontractor, specify participation of total contract amount	_____%	US$_____	
Employer's Name:			
Address: Telephone/fax number: E-mail:			

Form EXP –4.2 (b)(cont.)

Specific Experience in Key Activities (cont.)

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

JV Member Legal Name: _____

Subcontractor's Legal Name: _____

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

Form of Bid Security

Form of Bid Security – Bank Guarantee

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

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: *[Employer to insert its name and address]*

RFB No.:*[Employer to insert reference number for the Request for Bids]*

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

Date:*[Insert date of issue]*

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

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

We have been informed that *[insert name of the Bidder, which in the case of a joint venture shall be the name of the joint venture (whether legally constituted or prospective) or the names of all members thereof]*(hereinafter called "the Applicant") has submitted or will submit to the Beneficiary its Bid (hereinafter called "the Bid") for the execution of _____ under RFB No. _____

Furthermore, we understand that, according to the Beneficiary's conditions, Bids must be supported by a Bid guarantee.

At the request of the Applicant, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____ (_____) upon receipt by us of the Beneficiary's complying demand, supported by the Beneficiary's statement, whether in the demand itself or a separate signed document accompanying or identifying the demand, stating that either the Bidder:

(a) has withdrawn its Bid during the period of Bid validity set forth in the Bidder's Letter of Bid ("the Bid Validity Period"), or any extension thereto provided by the Bidder; or

(b) having been notified of the acceptance of its Bid by the Beneficiary during the Bid Validity Period or any extension thereto provided by the Applicant, (i) has failed to execute the Contract Agreement, or (ii) has failed to furnish the Performance Security, in accordance with the Instructions to Bidders ("ITB") of the Beneficiary's bidding document.

This guarantee will expire: (a) if the Applicant is the successful Bidder, upon our receipt of copies of the contract agreement signed by the Applicant and the Performance Security issued to the Beneficiary in relation to such contract agreement; or (b) if the Applicantis not the successful Bidder, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the Bidding process; or (ii) twenty-eight days after the end of the Bid Validity Period.

Consequently, any demand for payment under this guarantee must be received by us at the office indicated above on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758.

_____

[Signature(s)]

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

Manufacturer's Authorization

Date: _____

RFB No.: _____

To: _____

WHEREAS

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

We hereby extend our full guarantee and warranty in accordance with Clause 27 of the General Conditions, with respect to the goods offered by the above firm.

Signed: _____

Name: _____

Title:_____

Duly authorized to sign this Authorization on behalf of:
_____

Dated on _____ day of _____, _____

Section V - Eligible Countries

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

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

Under ITB 4.8 and 5.1: none

Section VI - Fraud and Corruption

(this Section shall not be changed)

1. Purpose

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

2. Requirements

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

2.2 To this end, the Bank:

a. Defines, for the purposes of this provision, the terms set forth below as follows:

i. "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;

ii. "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;

iii. "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;

iv. "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;

v. "obstructive practice" is:

(c) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or

(d) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under paragraph 2.2 e. below.

b. Rejects a proposal for award if the Bank determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;

c. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring misprocurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;

d. Pursuant to the Bank's Anti- Corruption Guidelines and in accordance with the Bank's prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or otherwise benefit from a Bank-financed contract, financially or in any other manner;[1] (ii) to be a nominated[2] sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract; and (iii) to receive the proceeds of any loan made by the Bank or otherwise to participate further in the preparation or implementation of any Bank-financed project;

e. Requires that a clause be included in bidding/request for proposals documents and in contracts financed by a Bank loan, requiring (i) Bidders (applicants/proposers), consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents personnel, permit the Bank to inspect[3] all accounts,

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

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

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

records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the Bank.