

**IRRIGATION DEPARTMENT
GOVERNMENT OF BALOCHISTAN**



**BALOCHISTAN INTEGRATED WATER RESOURCES
MANAGEMENT AND DEVELOPMENT PROJECT (BIWRMDP)**

**Request for Bids
Goods
(One-Envelope Bidding Process)
Procurement of Goods for Establishment
of Automatic Groundwater Monitoring Wells
(Phase-2)**

RFB No: PK-PMU-BIWRMDP-305089-GO-RFB

Project: Balochistan Integrated Water Resources Management and Development Project

Purchaser: Project Director, Balochistan Integrated Water Resources Management and Development Project

Country: *Islamic Republic of Pakistan*

Issued on: August 2022

**BALUCHISTAN INTEGRATED WATER RESOURCES MANAGEMENT &
DEVELOPMENT PROJECT**

REQUEST FOR BIDS (RFB) - GOODS

(One-Envelope Bidding Process)

Country: Islamic Republic of Pakistan

Contract Title: Procurement of Goods for Establishment of Automatic Groundwater Monitoring Wells (Phase-2).

Loan No./Credit No./ Grant No.: IDA 58850

RFB Reference No.: PK-PMU-BIWRMDP-305089-GO-RFB

1. The *Government of Pakistan* has received credit financing from the World Bank towards the cost of Baluchistan Integrated Water Resources Management and Development Project and intends to apply part of the proceeds toward payments under the contract for procurement of Goods for Establishment of Automatic Groundwater Monitoring Wells (Phase-2).
2. The Project Director, Baluchistan Integrated Water Resources Management and Development Project now invites sealed Bids from eligible Bidders for supply of following goods and related services:

Scope of Supply	Quantity
Design, supply, installation, testing, commissioning of automatic Groundwater Monitoring Wells complete in all respects.	15 No.

3. A Data Centre shall later be established in Quetta under a separate Contract. Accordingly, the intended equipment shall be synchronized with Data Centre through SaaS applications for data collection and management.
4. Bidding will be conducted through international competitive procurement using International Competitive Bidding (ICB) method as specified in the World Bank's Guidelines: Procurement of Goods, Works and Non-consulting Services under IBRD Loans and IDA Credits and Grants by World Bank Borrowers dated January 2011 revised July 2014 ("Procurement Guidelines") and is open to all eligible Bidders as defined in the Procurement Guidelines.
5. Interested eligible Bidders may obtain further information from Office of the Project Director, Baluchistan Integrated Water Resources Management and Development Project (BIWRMDP) at the address given below.
6. The bidding document in English can be downloaded from <http://www.biwrmdp.org.pk/form.php> or can be obtained from the office of Project Director BIWRMDP at the address given below. A soft copy can also be requested by sending an email at the address given below. No fee will be charged for Bidding Document sent in soft. The hard copies will be charged at Rs.3000 per set deposited in head of account C03434 over a green challan.
7. Bids must be delivered to the address below on or before 12:00 noon on 30th September 2022. Electronic Bidding will *not* be permitted. Late Bids will be rejected. Bids will be publicly opened in the presence of the Bidders' designated representatives or anyone who chooses to attend at 12:30 pm on the same day at the address given below.

8. Project will organize a virtual session on 05th September 2022 at 12:00 noon for helping bidders to submit a bid free of errors and to respond to their queries. Additionally, any questions/queries may be sent to the postal and email address given below in writing at least 10 days before the deadline for submission of bids.
9. All bids may be accompanied by a “Bid Securing Declaration using the form included in Section IV, Bidding Forms.
10. The address referred to above is:

Office of Project Director, Balochistan Integrated Water Resources Management & Development Project

18-B, Jinnah Town Samungli Road Quetta.

Attn: Mr. Barkatullah, Project Director

Tel: 081-2870705

Fax: 081-2870704

E-mail: bssip@yahoo.com

Web site: biwrmdp.org.pk

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PART 1 – Bidding Procedures

Section I - Instructions to Bidders

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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 Purchaser, as specified **in the BDS**, issues this bidding document for the supply of Goods and applicable, any Related Services incidental thereto, as specified in Section VII, Schedule of 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 Purchaser) 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”) **specified in the BDS** has applied for or received financing (hereinafter called “funds”) from the International Bank for Reconstruction and Development or the International Development Association (hereinafter called “the Bank”) in an amount **specified in the BDS**, toward the project named **in the BDS**. The Borrower intends to apply a portion of the funds to eligible payments under the contract 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, if such payment or import is prohibited by decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations. No party other than the Borrower shall derive any rights from the Loan (or other financing)

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

3. Fraud and Corruption

- 3.1 The Bank requires compliance with the Bank's Anti-Corruption Guidelines and its prevailing sanctions policies and procedures as set forth in the WBG's Sanctions Framework, as set forth in Section VI.
- 3.2 In further pursuance of this policy, bidders shall permit and shall cause its 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 prequalification process, bid 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 Purchaser 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 works 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 Purchaser or Borrower 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 in more than one Bid, except for permitted alternative Bids. This includes participation as a subcontractor. Such participation shall result in the disqualification of all Bids in which the firm is involved. A firm that is not a Bidder or a JV member, may participate as a subcontractor in more than one Bid.
- 4.4 A Bidder may have the nationality of any country, subject to the restrictions pursuant to ITB 4.8. A Bidder shall be deemed to have the nationality of a country if the Bidder is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed subcontractors or 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, and 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, bid 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 Purchaser'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 Purchaser.
- 4.7 A Bidder shall not be under suspension from Bidding by the Purchaser as the result of the operation of a Bid/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.
- 4.9 A Bidder shall provide such documentary evidence of eligibility satisfactory to the Purchaser, as the Purchaser 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 Goods and Related Services**
- 5.1 All the Goods and Related 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 this ITB, the term “goods” includes commodities, raw material, machinery, equipment, and industrial plants; and “related services” includes services such as insurance, installation, training, and initial maintenance.
- 5.3 The term “origin” means the country where the goods have been mined, grown, cultivated, produced, manufactured or processed; or, through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its components.

B. Contents of Request for Bids Document

- 6. Sections of Bidding Document**
- 6.1 The bidding document consist 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 - Bidding Data Sheet (BDS)
- Section III - Evaluation and Qualification Criteria
- Section IV - Bidding Forms
- Section V - Eligible Countries
- Section VI - Fraud and Corruption

PART 2 Supply Requirements

- Section VII - Schedule of Requirements

PART 3 Contract

- Section VIII - General Conditions of Contract (GCC)
- Section IX - Special Conditions of Contract (SCC)
- Section X - Contract Forms

- 6.2 The Specific Procurement Notice, Request for Bids (RFB), issued by the Purchaser is not part of this bidding document.
- 6.3 Unless obtained directly from the Purchaser, the Purchaser 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 Purchaser 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**
- 7.1 A Bidder requiring any clarification of the bidding document shall contact the Purchaser in writing at the Purchaser's address specified **in the BDS**. The Purchaser 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 Purchaser 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 Purchaser 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 Purchaser shall amend the bidding document following the procedure under ITB 8 and ITB 22.2.
- 8. Amendment of Bidding Document**
- 8.1 At any time prior to the deadline for submission of Bids, the Purchaser 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 Purchaser in accordance with ITB 6.3. The Purchaser shall also promptly publish the addendum on the Purchaser'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 Purchaser may, at its discretion, extend the deadline for the submission of Bids, pursuant to ITB 22.2.

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 Purchaser 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 Purchaser, 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 into 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 ITB 12;
 - (b) **Price Schedules**: completed in accordance with ITB 12 and ITB 14;
 - (c) **Bid Security** or **Bid-Securing Declaration**, in accordance with ITB 19.1;
 - (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 20.3;
 - (f) **Qualifications**: documentary evidence in accordance with ITB 17 establishing the Bidder's qualifications to perform the Contract if its Bid is accepted;
 - (g) **Bidder's Eligibility**: documentary evidence in accordance with ITB 17 establishing the Bidder's eligibility to bid;
 - (h) **Eligibility of Goods and Related Services**: documentary evidence in accordance with ITB 16, establishing the eligibility of the Goods and Related Services to be supplied by the Bidder;
 - (i) **Conformity**: documentary evidence in accordance with ITB 16 and 30, that the Goods and Related Services conform to the bidding document; 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 without any alterations to the text, and no substitutes shall be accepted except as provided under ITB 20.3. 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.
- 14. Bid Prices and Discounts**
- 14.1 The prices and discounts quoted by the Bidder in the Letter of Bid and in the Price Schedules shall conform to the requirements specified below.
- 14.2 All lots (contracts) and items must be listed and priced separately in the Price Schedules.
- 14.3 The price to be quoted in the Letter of Bid in accordance with ITB 12.1 shall be the total price of the Bid, excluding any discounts offered.
- 14.4 The Bidder shall quote any discounts and indicate the methodology for their application in the Letter of Bid, in accordance with ITB 12.1.
- 14.5 Prices quoted by the Bidder shall be fixed during the Bidder's performance of the Contract and not subject to variation on any account, unless otherwise specified **in the BDS**. A Bid submitted with an adjustable price quotation shall be treated as nonresponsive and shall be rejected, pursuant to ITB 29. However, if in accordance with **the BDS**, prices quoted by the Bidder shall be subject to adjustment during the performance of the Contract, a Bid submitted with a fixed price quotation shall not be rejected, but the price adjustment shall be treated as zero.
- 14.6 If so specified in ITB 1.1, Bids are being invited for individual lots (contracts) or for any combination of lots (packages). Unless otherwise specified **in the BDS**, prices quoted shall correspond to 100 % of the items specified for each lot and to 100% of the quantities

specified for each item of a lot. Bidders wishing to offer discounts for the award of more than one Contract shall specify in their Bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Discounts shall be submitted in accordance with ITB 14.4 provided the Bids for all lots (contracts) are opened at the same time.

14.7 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**.

14.8 Prices shall be quoted as specified in each Price Schedule included in Section IV, Bidding Forms. The disaggregation of price components is required solely for the purpose of facilitating the comparison of Bids by the Purchaser. This shall not in any way limit the Purchaser's right to contract on any of the terms offered. In quoting prices, the Bidder shall be free to use transportation through carriers registered in any eligible country, in accordance with Section V, Eligible Countries. Similarly, the Bidder may obtain insurance services from any eligible country in accordance with Section V, Eligible Countries. Prices shall be entered in the following manner:

- (a) For Goods manufactured in the Purchaser's Country:
 - (i) the price of the Goods quoted EXW (ex-works, ex-factory, ex warehouse, ex showroom, or off-the-shelf, as applicable), including all customs duties and sales and other taxes already paid or payable on the components and raw material used in the manufacture or assembly of the Goods;
 - (ii) any Purchaser's Country sales tax and other taxes which will be payable on the Goods if the Contract is awarded to the Bidder; and
 - (iii) the price for inland transportation, insurance, and other local services required to convey the Goods to their final destination (Project Site) specified **in the BDS**.
- (b) For Goods manufactured outside the Purchaser's Country, to be imported:
 - (i) the price of the Goods, quoted CIP named place of destination, in the Purchaser's Country, as specified **in the BDS**;

- (ii) the price for inland transportation, insurance, and other local services required to convey the Goods from the named place of destination to their final destination (Project Site) specified **in the BDS;**
- (c) For Goods manufactured outside the Purchaser's Country, already imported:
 - (i) the price of the Goods, including the original import value of the Goods; plus any mark-up (or rebate); plus any other related local cost, and custom duties and other import taxes already paid or to be paid on the Goods already imported;
 - (ii) the custom duties and other import taxes already paid (need to be supported with documentary evidence) or to be paid on the Goods already imported;
 - (iii) the price of the Goods, obtained as the difference between (i) and (ii) above;
 - (iv) any Purchaser's Country sales and other taxes which will be payable on the Goods if the Contract is awarded to the Bidder; and
 - (v) the price for inland transportation, insurance, and other local services required to convey the Goods from the named place of destination to their final destination (Project Site) specified **in the BDS.**
- (d) for Related Services, other than inland transportation and other services required to convey the Goods to their final destination, whenever such Related Services are specified in the Schedule of Requirements, the price of each item comprising the Related Services (inclusive of any applicable taxes).

15. Currencies of Bid and Payment

- 15.1 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 Purchaser's Country the portion of the Bid price that corresponds to expenditures incurred in the currency of the Purchaser's Country, unless otherwise specified **in the BDS.**
- 15.2 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 Purchaser's Country. The local bidder may familiarize with local banking

regulations prohibiting payment of foreign currency to locally registered bidders. Therefore, such payments shall be converted into PKR on the day of payment. The source of exchange rate shall be as specified in ITB 32.1 of Bid Data Sheet.

**16. Documents
Establishing the
Eligibility and
Conformity of the
Goods and Related
Services**

- 16.1 To establish the eligibility of the Goods and Related 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.
- 16.2 To establish the conformity of the Goods and Related Services to the bidding document, the Bidder shall furnish as part of its Bid the documentary evidence that the Goods conform to the technical specifications and standards specified in Section VII, Schedule of Requirements.
- 16.3 The documentary evidence may be in the form of literature, drawings or data, and shall consist of a detailed item by item description of the essential technical and performance characteristics of the Goods and Related Services, demonstrating substantial responsiveness of the Goods and Related Services to the technical specification, and if applicable, a statement of deviations and exceptions to the provisions of the Section VII, Schedule of Requirements.
- 16.4 The Bidder shall also furnish a list giving full particulars, including available sources and current prices of spare parts, special tools, etc., necessary for the proper and continuing functioning of the Goods during the period **specified in the BDS** following commencement of the use of the goods by the Purchaser.
- 16.5 Standards for workmanship, process, material, and equipment, as well as references to brand names or catalogue numbers specified by the Purchaser in the Schedule of Requirements, are intended to be descriptive only and not restrictive. The Bidder may offer other standards of quality, brand names, and/or catalogue numbers, provided that it demonstrates, to the Purchaser's satisfaction, that the substitutions ensure substantial equivalence or are superior to those specified in the Section VII, Schedule of Requirements.

**17. Documents
Establishing the
Eligibility and
Qualifications of the
Bidder**

- 17.1 To establish Bidder's eligibility in accordance with ITB 4, Bidders shall complete the Letter of Bid, included in Section IV, Bidding Forms.
- 17.2 The documentary evidence of the Bidder's qualifications to perform the Contract if its Bid is accepted shall establish to the Purchaser's satisfaction:

- (a) that, if required **in the BDS**, a Bidder that does not manufacture or produce the Goods it offers to supply shall submit the Manufacturer's Authorization using the form included in Section IV, Bidding Forms to demonstrate that it has been duly authorized by the manufacturer or producer of the Goods to supply these Goods in the Purchaser's Country;
- (b) that, if required **in the BDS**, in case of a Bidder not doing business within the Purchaser's Country, the Bidder is or will be (if awarded the Contract) represented by an Agent in the country equipped and able to carry out the Supplier's maintenance, repair and spare parts-stocking obligations prescribed in the Conditions of Contract and/or Technical Specifications; and
- (c) that the Bidder meets each of the qualification criterion specified in Section III, Evaluation and Qualification Criteria.

18. Period of Validity of Bids

- 18.1. Bids shall remain valid for the Bid Validity period specified **in the BDS**. The Bid Validity period starts from the date fixed for the Bid submission deadline (as prescribed by the Purchaser in accordance with ITB 22.1). A Bid valid for a shorter period shall be rejected by the Purchaser as nonresponsive.
- 18.2. In exceptional circumstances, prior to the expiration of the Bid validity period, the Purchaser 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 19, it shall also be extended for a corresponding 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 18.3.
- 18.3. If the award is delayed by a period exceeding fifty-six (56) days beyond the expiry of the initial Bid validity period, the Contract price shall be determined as follows:
- (a) in the case of fixed price contracts, the Contract price shall be the Bid price adjusted by the factor specified **in the BDS**;
 - (b) in the case of adjustable price contracts, no adjustment shall be made;

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

19. Bid Security

- 19.1. The Bidder shall furnish either Bid-Securing Declaration or Bid Security.

In case of Bid Securing Declaration, the Bidder shall furnish with its bid an original of Bid Securing Declaration using the form included in Section IV, Bidding Forms.

In case of Bid Security, the amount of Bid Security shall be minimum 2% of the Bid Value in the form of an unconditional Bank Guarantee or CDR issued by a Scheduled Bank of Pakistan.

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

- 19.3. If a Bid Security is specified pursuant to ITB 19.1, 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 specified **in the BDS**,

from a reputable source, and an eligible country. If an unconditional guarantee is issued by a non-bank financial institution located outside the Purchaser's Country, the issuing non-bank financial institution shall have a correspondent financial institution located in the Purchaser's Country to make it enforceable unless the Purchaser 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 Purchaser 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 18.2.

- 19.4. If a Bid Security is specified pursuant to ITB 19.1, any Bid not accompanied by a substantially responsive Bid Security shall be rejected by the Purchaser as non-responsive.

- 19.5. If a Bid Security is specified pursuant to ITB 19.1, the Bid Security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's signing the Contract and furnishing the Performance Security pursuant to ITB 46.
- 19.6. 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.
- 19.7. 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 in the Letter of Bid, or any extension thereto provided by the Bidder; or
 - (b) if the successful Bidder fails to:
 - (i) sign the Contract in accordance with ITB 45; or
 - (ii) furnish a Performance Security in accordance with ITB 46.
- 19.8. The Bid Security or Bid- Securing Declaration of a JV must 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 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.
- 19.9. If a Bid Security is not required **in the BDS**, pursuant to ITB 19.1, and
- (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: sign the Contract in accordance with ITB 45; or furnish a performance security in accordance with ITB 46;

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

20. Format and Signing of Bid

- 20.1 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.

- 20.2 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.
- 20.3 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.
- 20.4 In case 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.
- 20.5 Any inter-lineation, 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

21. Sealing and Marking of Bids

- 21.1 The Bidder shall deliver the Bid in a single, sealed envelope (one-envelope Bidding 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:
 - i. in an envelope marked “ORIGINAL - ALTERNATIVE”, the alternative Bid; and

- ii. in the envelope marked “COPIES – ALTERNATIVE BID” all required copies of the alternative Bid.

21.2. The inner and outer envelopes, shall:

- (a) bear the name and address of the Bidder;
- (b) be addressed to the Purchaser in accordance with ITB 22.1;
- (c) bear the specific identification of this Bidding process indicated in ITB 1.1; and
- (d) bear a warning not to open before the time and date for Bid opening.

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

22. Deadline for Submission of Bids

22.1. Bids must be received by the Purchaser at the address and no later than the date and time specified **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**.

22.2. The Purchaser 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 Purchaser and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

23. Late Bids

23.1. The Purchaser shall not consider any Bid that arrives after the deadline for submission of Bids, in accordance with ITB 22. Any Bid received by the Purchaser after the deadline for submission of Bids shall be declared late, rejected, and returned unopened to the Bidder.

24. Withdrawal, Substitution, and Modification of Bids

24.1. 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 authorization (the power of attorney) in accordance with ITB 20.3, (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 20 and 21 (except that withdrawal notices do not require copies), and in addition, the respective

envelopes shall be clearly marked “WITHDRAWAL,” “SUBSTITUTION,” or “MODIFICATION;” and

- (b) received by the Purchaser prior to the deadline prescribed for submission of Bids, in accordance with ITB 22.

24.2. Bids requested to be withdrawn in accordance with ITB 24.1 shall be returned unopened to the Bidders.

24.3. 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.

25. Bid Opening

25.1. Except as in the cases specified in ITB 23 and ITB 24.2, the Purchaser shall, at the Bid opening, publicly open and read out 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 chooses to attend Any specific electronic Bid opening procedures required if electronic bidding is permitted in accordance with ITB 22.1, shall be as specified **in the BDS**.

25.2. First, 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. If the withdrawal envelope does not contain a copy of the “power of attorney” confirming the signature as a person duly authorized to sign on behalf of the Bidder, the corresponding Bid will be opened. 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.

25.3. 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.

25.4. 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.

25.5. Next, all remaining envelopes shall be opened one at a time, reading out: the name of the Bidder and whether there is a modification; the total Bid Prices, per lot

(contract) if applicable, including any discounts and alternative Bids; the presence or absence of a Bid Security, if required; and any other details as the Purchaser may consider appropriate.

- 25.6. Only Bids, alternative Bids and discounts that are opened and read out at Bid opening shall be considered further in the evaluation. The Letter of Bid and the Price Schedules are to be initialed by representatives of the Purchaser attending Bid opening in the manner specified **in the BDS**.
- 25.7. The Purchaser shall neither discuss the merits of any Bid nor reject any Bid (except for late Bids, in accordance with ITB 23.1).
- 25.8. The Purchaser 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 (contract) if applicable, including any discounts;
 - (c) any alternative Bids;
 - (d) the presence or absence of a Bid Security or Bid-Securing Declaration, if one was required.
- 25.9. 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

26. Confidentiality

- 26.1 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 the information on Intention to Award the Contract is transmitted to all Bidders in accordance with ITB 40.
- 26.2 Any effort by a Bidder to influence the Purchaser in the evaluation or contract award decisions may result in the rejection of its Bid.
- 26.3 Notwithstanding ITB 26.2, from the time of Bid opening to the time of Contract Award, if any Bidder wishes to contact the Purchaser on any matter related to the Bidding process, it should do so in writing.

- 27. Clarification of Bids**
- 27.1 To assist in the examination, evaluation, comparison of the Bids, and qualification of the Bidders, the Purchaser may, at its discretion, ask any Bidder for a clarification of its Bid. Any clarification submitted by a Bidder in respect to its Bid and that is not in response to a request by the Purchaser shall not be considered. The Purchaser's request for clarification and the response shall be in writing. No change, including any voluntary increase or decrease, 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 Purchaser in the Evaluation of the Bids, in accordance with ITB 31.
- 27.2 If a Bidder does not provide clarifications of its Bid by the date and time set in the Purchaser's request for clarification, its Bid may be rejected.
- 28. Deviations, Reservations, and Omissions**
- 28.1 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.
- 29. Determination of Responsiveness**
- 29.1 The Purchaser's determination of a Bid's responsiveness is to be based on the contents of the Bid itself, as defined in ITB 11.
- 29.2 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 Goods and Related Services specified in the Contract; or
 - (ii) limit in any substantial way, inconsistent with the bidding document, the Purchaser's rights or the Bidder's obligations under the Contract; or

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

29.3 The Purchaser shall examine the technical aspects of the Bid submitted in accordance with ITB 16 and ITB 17, in particular, to confirm that all requirements of Section VII, Schedule of Requirements have been met without any material deviation or reservation, or omission.

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

30. Nonconformities, Errors and Omissions

30.1 Provided that a Bid is substantially responsive, the Purchaser may waive any nonconformities in the Bid.

30.2 Provided that a Bid is substantially responsive, the Purchaser may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the Bid related to documentation requirements. Such omission 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.

30.3 Provided that a Bid is substantially responsive, the Purchaser 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**.

31. Correction of Arithmetical Errors

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

- (a) if there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of the Purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the line item total as quoted shall govern and the unit price shall be corrected;
- (b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and

- (c) if there is a discrepancy between words and figures, the 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.

31.2 Bidders shall be requested to accept correction of arithmetical errors. Failure to accept the correction in accordance with ITB 31.1, shall result in the rejection of the Bid.

32. Conversion to Single Currency

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

33. Margin of Preference

33.1 Unless otherwise specified **in the BDS**, a margin of preference shall not apply.

34. Evaluation of Bids

34.1 The Purchaser 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 Purchaser 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.

34.2 To evaluate a Bid, the Purchaser shall consider the following:

- (a) evaluation will be done for Items or Lots (contracts), as specified **in the BDS**; and the Bid Price as quoted in accordance with ITB 14;
- (b) price adjustment for correction of arithmetic errors in accordance with ITB 31.1;
- (c) price adjustment due to discounts offered in accordance with ITB 14.4;
- (d) converting the amount resulting from applying (a) to (c) above, if relevant, to a single currency in accordance with ITB 32;
- (e) price adjustment due to quantifiable nonmaterial nonconformities in accordance with ITB 30.3; and

- (f) the additional evaluation factors are specified in Section III, Evaluation and Qualification Criteria.
 - 34.3 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.
 - 34.4 If this bidding document allows Bidders to quote separate prices for different 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.
 - 34.5 The Purchaser's evaluation of a Bid will exclude and not take into account:
 - (a) in the case of Goods manufactured in the Purchaser's Country, sales and other similar taxes, which will be payable on the goods if a contract is awarded to the Bidder;
 - (b) in the case of Goods manufactured outside the Purchaser's Country, already imported or to be imported, customs duties and other import taxes levied on the imported Good, sales and other similar taxes, which will be payable on the Goods if the contract is awarded to the Bidder;
 - (c) any allowance for price adjustment during the period of execution of the contract, if provided in the Bid.
 - 34.6 The Purchaser's evaluation of a Bid may require the consideration of other factors, in addition to the Bid Price quoted in accordance with ITB 14. These factors may be related to the characteristics, performance, and terms and conditions of purchase of the Goods and Related Services. The effect of the factors selected, if any, shall be expressed in monetary terms to facilitate comparison of Bids, unless otherwise specified **in the BDS** from amongst those set out in Section III, Evaluation and Qualification Criteria. The criteria and methodologies to be used shall be as specified in ITB 34.2(f).
- 35. Comparison of Bids**
- 35.1 The Purchaser shall compare the evaluated costs of all substantially responsive Bids established in accordance with ITB 34.2 to determine the Bid that has the lowest evaluated cost. The comparison shall be on the basis of CIP (place of final destination) prices for imported goods and EXW prices, plus cost of inland transportation and insurance to place of destination, for goods manufactured

within the Borrower's country, together with prices for any required installation, training, commissioning and other services. The evaluation of prices shall not take into account custom duties and other taxes levied on imported goods quoted CIP and sales and similar taxes levied in connection with the sale or delivery of goods.

36. Abnormally Low Bids

- 36.1 An Abnormally Low Bid is one where the Bid price, in combination with other constituent elements of the Bid, appears unreasonably low to the extent that the Bid price raises material concerns with the Purchaser as to the capability of the Bidder to perform the Contract for the offered Bid price.
- 36.2 In the event of identification of a potentially Abnormally Low Bid, the Purchaser shall seek written clarification from the Bidder, including a detailed price analyses of its Bid price in relation to the subject matter of the contract, scope, delivery schedule, allocation of risks and responsibilities and any other requirements of the bidding document.
- 36.3 After evaluation of the price analyses, in the event that the Purchaser determines that the Bidder has failed to demonstrate its capability to perform the contract for the offered Bid price, the Purchaser shall reject the Bid.

37. Qualification of the Bidder

- 37.1 The Purchaser shall determine, to its satisfaction, whether the eligible Bidder that is selected as having submitted the lowest evaluated cost and substantially responsive Bid, meets the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.
- 37.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 17. 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.
- 37.3 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 Purchaser 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.

- 38. Purchaser's Right to Accept Any Bid, and to Reject Any or All Bids**
- 38.1 The Purchaser 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.
- 39. Standstill Period**
- 39.1 The Contract shall be awarded not earlier than the expiry of the Standstill Period. The duration of the Standstill Period is **specified in the BDS**. Where only one Bid is submitted, the Standstill Period shall not apply.
- 40. Notice of Intention to Award**
- 40.1 When a Standstill Period applies, it shall commence when the Purchaser has transmitted to each Bidder (that has not already been notified that it has been unsuccessful) the Notification of Intention to Award the Contract to the successful Bidder. The Notification of Intention to Award shall contain, at a minimum, the following information:
- (a) the name and address of the Bidder submitting the successful Bid;
 - (b) the Contract price of the successful Bid;
 - (c) the names of all Bidders who submitted Bids, and their Bid prices as readout, and as evaluated;
 - (d) a statement of the reason(s) the Bid (of the unsuccessful Bidder to whom the letter is addressed) was unsuccessful, unless the price information in c) above already reveals the reason;
 - (e) the expiry date of the Standstill Period;
 - (f) instructions on how to request a debriefing and/or submit a complaint during the standstill period

F. Award of Contract

- 41. Award Criteria**
- 41.1 Subject to ITB 38, the Purchaser shall award the Contract to the Bidder offering the Most Advantageous Bid. The Most Advantageous Bid is the Bid of the Bidder that meets the qualification criteria and whose Bid has been determined to be:
- (a) substantially responsive to the bidding document; and
 - (b) the lowest evaluated cost.

42. Purchaser's Right to Vary Quantities at Time of Award

The maximum percentage by which quantities may be increased is: 15%.

The maximum percentage by which quantities may be decreased is: 15%

43. Notification of Award

43.1 Prior to the expiration of the Bid Validity Period and upon expiry of the Standstill Period, specified in BDS ITB 39.1 or any extension thereof, or upon satisfactorily addressing a complaint that has been filed within the Standstill Period, the Purchaser shall transmit the Letter of Acceptance to the successful Bidder. The Letter of Acceptance shall specify the sum that the Purchaser will pay the Supplier in consideration of the execution of the Contract (hereinafter and in the Conditions of Contract and Contract Forms called "the Contract Price").

43.2 At the same time, the Purchaser shall publish the Contract Award Notice which shall contain, at a minimum, the following information:

- (a) name and address of the Purchaser;
- (b) name and reference number of the contract being awarded, and the selection method used;
- (c) names of all Bidders that submitted Bids, and their Bid prices as read out at Bid opening, and as evaluated;
- (d) names of all Bidders whose Bids were rejected either as nonresponsive or as not meeting qualification criteria, or were not evaluated, with the reasons therefor; and
- (e) the name of the successful Bidder, the final total contract price, the contract duration and a summary of its scope.

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

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

44. Debriefing by the Purchaser

44.1 On receipt of the Purchaser's Notification of Intention to Award referred to in ITB 40.1, an unsuccessful Bidder has three (3) Business Days to make a written request to the Purchaser for a debriefing. The Purchaser shall provide a debriefing to all unsuccessful Bidders whose request is received within this deadline.

- 44.2 Where a request for debriefing is received within the deadline, the Purchaser shall provide a debriefing within five (5) Business Days, unless the Purchaser 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 Purchaser shall promptly inform, by the quickest means available, all Bidders of the extended standstill period
- 44.3 Where a request for debriefing is received by the Purchaser later than the three (3)-Business Day deadline, the Purchaser 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.
- 44.4 Debriefings of unsuccessful Bidders may be done in writing or verbally. The Bidder shall bear their own costs of attending such a debriefing meeting.

45. Signing of Contract

- 45.1 Promptly upon Notification of Award, the Purchaser shall send the successful Bidder the Contract Agreement.
- 45.2 Within twenty-eight (28) days of receipt of the Contract Agreement, the successful Bidder shall sign, date, and return it to the Purchaser.
- 45.3 Notwithstanding ITB 45.2 above, in case signing of the Contract Agreement is prevented by any export restrictions attributable to the Purchaser, to the country of the Purchaser, or to the use of the products/goods, systems or services to be supplied, where such export restrictions arise from trade regulations from a country supplying those products/goods, systems or services, the Bidder shall not be bound by its Bid, always provided however, that the Bidder can demonstrate to the satisfaction of the Purchaser and of the Bank that signing of the Contract 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 products/goods, systems or services under the terms of the Contract.

**46. Performance
Security**

- 46.1 Within twenty-eight (28) days of the receipt of Letter of Acceptance from the Purchaser, the successful Bidder, if required, shall furnish the Performance Security in accordance with the GCC 18, using for that purpose the Performance Security Form included in Section X, Contract Forms, or another Form acceptable to the Purchaser. 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 Purchaser. A foreign institution providing a bond shall have a correspondent financial institution located in the Purchaser's Country, unless the Purchaser has agreed in writing that a correspondent financial institution is not required.
- 46.2 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 Purchaser may award the Contract to the Bidder offering the next Most Advantageous Bid.

Section II - Bid Data Sheet (BDS)

The following specific data for the goods 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.

ITB Reference	A. General
ITB 1.1	<p>The reference number of the Request for Bids (RFB) is: PK-PMU-BIWRMDP-305089-GO-RFB</p> <p>The Purchaser is: Project Director, Balochistan Integrated Water Resources Management and Development Project</p> <p>The name of the RFB is: Procurement of Goods for Establishment of Autoamtic Groundwater Monitoring Wells - Phase 2</p> <p>The number and identification of lots (contracts) comprising this RFB is: One Contract</p>
ITB 1.2(a)	<i>Not Applicable</i>
ITB 2.1	<p>The Borrower is: Islamic Republic of Pakistan</p> <p>Loan or Financing Agreement amount: 110 Million USD (United State Dollar).</p> <p>The name of the Project is: Balochistan Integrated Water Resources Management and Development Project.</p>
ITB 4.1	Maximum number of members in the Joint Venture (JV) shall be: <i>NA</i>
ITB 4.5	A list of debarred firms and individuals is available on the Bank's external website: http://www.worldbank.org/debarr .
	B. Contents of Bidding Document
ITB 7.1	<p>For <u>Clarification of Bid purposes in writing</u> only, the Purchaser's address is:</p> <p>Attention: Project Director, Balochistan Integrated Water Resources Management and Development Project.</p> <p>Street Address: 18-B, Jinnah Town, Samungli Road.</p> <p>Floor/ Room number: Not Applicable</p> <p>City : Quetta</p> <p>ZIP Code: 87300</p> <p>Country: Pakistan</p> <p>Phone: +92-81-2870705</p> <p>Facsimile: +92-81-2870704</p> <p>Electronic mail address: bssip@yahoo.com</p>

	<p>Requests for clarification should be received by the Purchaser no later than: 10 days prior to the deadline for bid submission. Clarification shall be in the form of hard copy letter. The clarification shall also be sent by fax or preferably as a scan of the letter attached to an email.</p> <p>Web page: www.biwrmdp.org.pk</p>
	C. Preparation of Bids
ITB 10.1	<p>The language of the Bid is: English</p> <p>All correspondence exchange shall be in English language.</p> <p>Language for translation of supporting documents and printed literature is: English.</p>
ITB 11.1 (j)	<p>The Bidder shall submit the following additional documents in its Bid:</p> <ol style="list-style-type: none"> i. Company Profile with details of the annual turnover, number of staff and year of Incorporation ii. Up to date Firm/Company Registration Certificate iii. Catalogue/Brochure and operating manuals, servicing and maintenance of each sub system including all block diagrams and detailed circuit diagrams of the equipment offered with detailed Technical literature/specifications. iv. Brand names / manufacturer represented v. The certification by the manufacturer that the equipment is brand new, latest and suitable for outdoor applications. vi. Manufacturer certificates for compliance with ISO 9001 & 14001 vii. Equipment compliant Certificate with 2014/30/EU, 2011/65/EU, EN 61326-1: 2013 and EN 50581:2012 standards in accordance with EN ISO/IEC 17050:2010. viii. Accreditation or registered or approved with European Union (EU) Declaration of Conformity or European Commission (EC) Declaration of Conformity or UK Conformity or equivalent, quality assurance certificates and references. ix. Compliance/Non-Compliance Statement. <p>The bidder shall submit a detailed item-wise compliances/non-compliance statement referring Para- wise to the requirements given in this document. The compliance statement shall be supported by original brochure (s) of the equipment or sub component from the manufacturer. In case the original brochure does not contain the description of any of the specification, it shall be supported by a compliance undertaking by the manufacturer. Make and models of all the equipment should be given. Compliance/non-compliance statement be submitted with hard and soft copy.</p>
ITB 13.1	Alternative Bids <i>shall not be</i> considered.
ITB 14.5	The prices quoted by the Bidder shall not be subject to adjustment during the performance of the Contracts.

ITB 14.6	Bid is being invited for one contract as specified in ITB 1.1. Prices quoted shall correspond to 100% of the items specified and 100% of the quantities specified in the price schedules.																																																																										
ITB 14.7	The Incoterms edition is: 2020 (Incoterm).																																																																										
ITB 14.8 (b)(i)	Place of destination: CIP Quetta / Lahore / Karachi, Pakistan (Incoterm 2020)																																																																										
ITB 14.8 (a)(iii), (b)(ii) and (c)(v)	<div>Final Destination (Project Tentative Sites): initially Project Director, BIWRMDP Office Quetta afterwards to various sites as stated below:</div> <table><tr><th colspan="4">Tentative Locations in Nari & Porali River Basins</th></tr><tr><th rowspan="2">Sr. #</th><th rowspan="2">Name of Station</th><th colspan="2">Co-ordinates</th></tr><tr><th>Easting</th><th>Northing</th></tr><tr><td colspan="4">Automated Groundwater Monitoring Stations</td></tr><tr><td>1</td><td>Irrigation Colony Loralai</td><td>68° 35' 54"</td><td>30° 22' 40"</td></tr><tr><td>2</td><td>Spin Masjid Loralai</td><td>68° 30' 52"</td><td>30° 23' 04"</td></tr><tr><td>3</td><td>Near DAD Irrigation</td><td>67° 43' 41"</td><td>30° 24' 14"</td></tr><tr><td>4</td><td>Tatai Masjid Duki</td><td>68° 34' 03"</td><td>30° 10' 34"</td></tr><tr><td>5</td><td>Sardar Yaqob Masjid Duki</td><td>68° 36' 45"</td><td>30° 08' 08"</td></tr><tr><td>6</td><td>Fatima Masjid Harnai</td><td>67° 55' 35"</td><td>30° 06' 30"</td></tr><tr><td>7</td><td>Khajak</td><td>68° 36' 45"</td><td>30° 08' 08"</td></tr><tr><td>8</td><td>Depal Road Sibi-1</td><td>67° 51' 10"</td><td>29° 33' 28"</td></tr><tr><td>9</td><td>Irrigation office Sibi</td><td>67° 53' 12"</td><td>29° 34' 55"</td></tr><tr><td>10</td><td>Lesbala University of Agri</td><td>66° 37' 32"</td><td>25° 50' 37"</td></tr><tr><td>11</td><td>Residential Collage Lesbala</td><td>66° 36' 46"</td><td>25° 52' 09"</td></tr><tr><td>12</td><td>Viaro Farm</td><td>66° 37' 20"</td><td>25° 49' 55"</td></tr><tr><td>13</td><td>Maviya Masjid Uthal</td><td>66° 37' 48"</td><td>25° 48' 43"</td></tr><tr><td>14</td><td>Jama Masjid Winder</td><td>66° 41' 45"</td><td>25° 27' 52"</td></tr><tr><td>15</td><td>Goth Safar Winder</td><td>66° 47' 01"</td><td>25° 24' 40"</td></tr></table>	Tentative Locations in Nari & Porali River Basins				Sr. #	Name of Station	Co-ordinates		Easting	Northing	Automated Groundwater Monitoring Stations				1	Irrigation Colony Loralai	68° 35' 54"	30° 22' 40"	2	Spin Masjid Loralai	68° 30' 52"	30° 23' 04"	3	Near DAD Irrigation	67° 43' 41"	30° 24' 14"	4	Tatai Masjid Duki	68° 34' 03"	30° 10' 34"	5	Sardar Yaqob Masjid Duki	68° 36' 45"	30° 08' 08"	6	Fatima Masjid Harnai	67° 55' 35"	30° 06' 30"	7	Khajak	68° 36' 45"	30° 08' 08"	8	Depal Road Sibi-1	67° 51' 10"	29° 33' 28"	9	Irrigation office Sibi	67° 53' 12"	29° 34' 55"	10	Lesbala University of Agri	66° 37' 32"	25° 50' 37"	11	Residential Collage Lesbala	66° 36' 46"	25° 52' 09"	12	Viaro Farm	66° 37' 20"	25° 49' 55"	13	Maviya Masjid Uthal	66° 37' 48"	25° 48' 43"	14	Jama Masjid Winder	66° 41' 45"	25° 27' 52"	15	Goth Safar Winder	66° 47' 01"	25° 24' 40"
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ITB 15.1	The Bidder <i>is</i> required to quote in the currency of the Purchaser’s Country the portion of the Bid price that corresponds to expenditures incurred in that currency.																																																																										
ITB 15.2	The local bidder may familiarize with local banking regulations prohibiting payment of foreign currency to locally registered bidders. Therefore, such payments shall be converted into PKR on the date of payment. The source of exchange rate shall be as specified in ITB 32.1 of Bid Data Sheet”.																																																																										
ITB 16.4	Period of time the Goods are expected to be functioning (for the purpose of spare parts): 10 Years																																																																										

ITB 17.2 (a)	Manufacturer's authorization is <i>required</i> . Authorization obtained from dealers/distributor is not acceptable.
ITB 17.2 (b)	After sales service is required for Two years In addition, the bidders shall train the Purchaser's team to independently take care of all the functionalities and smooth operations of installed system, it's software's, trouble shooting etc. Further details are provided in Specifications section of this document.
ITB 18.1	The Bid validity period shall be <i>119</i> days.
ITB 18.3 (a)	The Bid price shall be adjusted by the following factor(s): N/A
ITB 19.1	The Bidder shall furnish either Bid-Securing Declaration or Bid Security. In case of Bid Securing Declaration, the Bidder shall furnish with its bid an original of Bid Securing Declaration using the form included in Section IV, Bidding Forms. In case of Bid Security, the amount of Bid Security shall be minimum 2% of the Bid Value in the form of an unconditional Bank Guarantee or CDR issued by a Scheduled Bank of Pakistan.
ITB 19.3 (d)	None
ITB 19.9	N/A
ITB 20.1	In addition to the original of the Bid, the number of copies is: One original and Two hard copies and Two soft copies in separate CD/DVD. In the event of any discrepancy between the original and the copies, the original shall prevail.
ITB 20.3	The written confirmation of authorization to sign on behalf of the Bidder shall consist of: Power of Attorney signed by board of directors/ executive of the firm.
D. Submission and Opening of Bids	
ITB 22.1	For <u>Bid submission purposes</u> only, the Purchaser's address is: Attention: Project Director, Balochistan Integrated Water Resources Management and Development Project. Street Address: 18-B, Jinnah Town, Samungli Road. Floor/ Room number: Not Applicable City: Quetta ZIP Code: 87300 Country: Pakistan The deadline for Bid submission is: Date: 30th September 2022.

	Time: 12:00 a.m. (Pakistan Local Time)
ITB 25.1	<p>The Bid opening shall take place at: Street Address: 18-B, Jinnah Town, Floor/ Room number: Not Applicable City : Quetta ZIP Code: 87300 Country: Pakistan Date: 30th September 2022. Time: 12:30 p.m. (Pakistan Local Time)</p>
ITB 25.6	<p>The Letter of Bid and Price Schedules shall be initialed by members of the bid opening committee / representatives of the Purchaser conducting Bid opening. <i>Each Bid shall be initiated by all representatives and shall be numbered, any modification to the unit or total price shall be initiated by the representative of the Purchaser</i></p>
E. Evaluation and Comparison of Bids	
ITB 30.3	<p>The adjustment shall be based on the average price of the 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 Purchaser shall use its best estimate.</p>
ITB 32.1	<p>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: Pak Rupee.</p> <p>The source of exchange rate shall be the Telegraphic Transfer and Over Draft (TT&OD) Selling Rates published or authorized by the State Bank of Pakistan</p> <p>The date for the exchange rate shall be: 28 days prior to the lastest day for submission of bids.</p>
ITB 33.1	<p>A margin of domestic preference shall not apply.</p>
ITB 34.2(a)	<p>“Bids will be evaluated for all items together and the Contract will comprise all items awarded to the successful Bidder. If Price Schedules show items listed but not priced, their prices shall be assumed to be included in the prices of other items. An item not listed in the Price Schedules shall be assumed to be not included in the Bid, and provided that the Bids are substantially responsive, the average price of the item quoted by substantially responsive Bidders will be added to the Bids prices and the equivalent total cost of the Bids so determined will be used for price comparison.</p>

ITB 34.6	<p>The adjustments shall be determined using the following criteria, from amongst those set out in Section III, Evaluation and Qualification Criteria:</p> <ul style="list-style-type: none"> (a) Deviation in Delivery schedule: No. (b) Deviation in payment schedule: N/A (c) the cost of major replacement component, mandatory spare parts, and service: N/A (d) the availability in the Purchaser's Country of spare parts and after-sales services for the equipment offered in the Bid: No. (e) Life cycle costs: the costs during the life of the goods or equipment: N/A (f) the performance and productivity of the equipment offered: No
ITB 39.1 Standstill Period	<p>The Standstill Period is 10 Business Days from the date the Purchaser / Employer has transmitted to all Bidders that submitted Bids, the Notification of its Intention to Award the Contract (s) to the successful Bidder (s).</p>
	F. Award of Contract
ITB 42	<p>The maximum percentage by which quantities may be increased is: 15%</p> <p>The maximum percentage by which quantities may be decreased is: 15%</p>

Section III - Evaluation and Qualification Criteria

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

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3. Qualification (ITB 37).....	42

1. Margin of Preference (ITB 33)

Not Applicable

2. Evaluation (ITB 34)

2.1. Evaluation Criteria (ITB 34.6)

The Purchaser's evaluation of a Bid may take into account, in addition to the Bid Price quoted in accordance with ITB 14.8, one or more of the following factors as specified in ITB 34.2(f) and in BDS referring to ITB 34.6, using the following criteria and methodologies.

- (a) Delivery schedule. (As per Incoterms specified in the BDS)

The Goods specified in the List of Goods are required to be delivered within the acceptable time range (after the earliest and before the final date, both dates inclusive) specified in Section VII, Schedule of Requirements. No credit will be given to deliveries before the earliest date, and Bids offering delivery after the final date shall be treated as nonresponsive.

- (b) Deviation in payment schedule: N/A
- (c) Cost of major replacement components, mandatory spare parts, and service: N/A
- (d) Availability in the Purchaser's Country of spare parts and after sales services for equipment offered in the Bid: The supplier shall make the spare parts available to the Purchaser as and when required in accordance with the Contract Agreement.
- (e) Life Cycle Costs: N/A
- (g) Performance and productivity of the equipment: The goods must meet requirements illustrated in Technical Specifications. Non-compliance may result in rejection of bid.

2.2. Multiple Contracts (ITB 34.4) N/A

2.3. Alternative Bids (ITB 13.1) N/A

3. Qualification (ITB 37)

3.1 Qualification Criteria (ITB 37.1)

After determining the substantially responsive Bid which offers the lowest-evaluated cost in accordance with ITB 34, and, if applicable, the assessment of any Abnormally Low Bid (in accordance with ITB 36) the Purchaser shall carry out the post-qualification of the Bidder in accordance with ITB 37, using only the requirements specified. Requirements not included in the text below shall not be used in the evaluation of the Bidder's qualifications.

- (a) If the Bidder is a manufacturer:

(i) Financial Capability

The Bidder shall furnish documentary evidence that it meets the following financial requirement(s):

1. Annual average turnover of at least the amount of US\$ 1.0 Million over the last three years.

(ii) Experience and Technical Capacity

The Bidder shall furnish documentary evidence to demonstrate that it meets the following experience requirement(s):

1. Bidder must have experience in manufacturing of goods similar to the goods in the bid for a period of at least five (05) years prior to the deadline for bid submission. The bidder must submit the proof of existence of business in past five years.
2. The bidder shall submit references for not less than two (02) successfully completed contracts for supply and services of goods similar to the goods specified in price schedules during the past five (05) years.

(iii) Documentary Evidence

The Bidder shall furnish documentary evidence to demonstrate that the Goods it offers meet the following usage requirement:

3. The Goods shall meet all the requirements of Section VII-Schedule of Requirements.

(b) If Bidder is not a manufacturer:

If a Bidder is not a manufacturer, but is offering the Goods on behalf of the Manufacturer under Manufacturer's Authorization Form (Section IV, Bidding Forms), the Manufacturer shall demonstrate the above qualifications (i), (ii), (iii) and the Bidder shall demonstrate that it has successfully completed at least two (2) contracts of similar goods in the past five (05) years.

Section IV - Bidding Forms

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Letter of Bid

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

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

Request for Bid No.: *[insert identification]*

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

To: *[insert complete name of Purchaser]*

- (a) **No reservations:** We have examined and have no reservations to the bidding document, including Addenda issued in accordance with Instructions to Bidders (ITB 8);
- (b) **Eligibility:** We meet the eligibility requirements and have no conflict of interest in accordance with ITB 4;
- (c) **Bid/Proposal-Securing Declaration:** We have not been suspended nor declared ineligible by the Purchaser based on execution of a Bid/Proposal Securing Declaration in the Purchaser's Country in accordance with ITB 4.7;
- (d) **Conformity:** We offer to supply in conformity with the bidding document and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods: *[insert a brief description of the Goods and Related Services]*;
- (e) **Bid Price:** The total price of our Bid, excluding any discounts offered in item (f) below is:

Total price is: *[insert the total price of the Bid 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 18.1 (as amended, if applicable) from the date fixed for the Bid submission deadline specified in BDS 22.1 (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, or as a subcontractor, 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 Purchaser'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, 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) **Purchaser 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 the Bidder]*

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

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

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

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

*: In the case of the Bid submitted by a Joint Venture specify the name of the Joint Venture as Bidder.

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

Bidder Information Form

[The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted.]

Date: *[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]*

Page _____ of _____ pages

1. Bidder's Name <i>[insert Bidder's legal name]</i>
3. Bidder's actual or intended country of registration: <i>[insert actual or intended country of registration]</i>
4. Bidder's year of registration: <i>[insert Bidder's year of registration]</i>
5. Bidder's Address in country of registration: <i>[insert Bidder's legal address in country of registration]</i>
6. Bidder's Authorized Representative Information Name: <i>[insert Authorized Representative's name]</i> Address: <i>[insert Authorized Representative's Address]</i> Telephone/Fax numbers: <i>[insert Authorized Representative's telephone/fax numbers]</i> Email Address: <i>[insert Authorized Representative's email address]</i>
7. Attached are copies of original documents of <i>[check the box(es) of the attached original documents]</i> <input type="checkbox"/> 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. <input type="checkbox"/> In case of state-owned enterprise or institution, in accordance with ITB 4.6 documents establishing: <ul style="list-style-type: none"> • Legal and financial autonomy • Operation under commercial law • Establishing that the Bidder is not under the supervision of the Purchaser
2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

Bidder's JV Members Information Form (Not Applicable)

[The Bidder shall fill in this Form in accordance with the instructions indicated below. The following table shall be filled in for the Bidder and for each member of a Joint Venture].

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

RFB No.: [insert number of Bidding process]

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

Page _____ of _____ pages

1. Bidder's Name: <i>[insert Bidder's legal name]</i>
2. Bidder's JV Member's name: <i>[insert JV's Member legal name]</i>
3. Bidder's JV Member's country of registration: <i>[insert JV's Member country of registration]</i>
4. Bidder's JV Member's year of registration: <i>[insert JV's Member year of registration]</i>
5. Bidder's JV Member's legal address in country of registration: <i>[insert JV's Member legal address in country of registration]</i>
6. Bidder's JV Member's authorized representative information Name: <i>[insert name of JV's Member authorized representative]</i> Address: <i>[insert address of JV's Member authorized representative]</i> Telephone/Fax numbers: <i>[insert telephone/fax numbers of JV's Member authorized representative]</i> Email Address: <i>[insert email address of JV's Member authorized representative]</i>
7. Attached are copies of original documents of <i>[check the box(es) of the attached original documents]</i>

Price Schedule Forms

*The Bidder shall fill in these Price Schedule Forms in accordance with the instructions indicated. The list of line items in column 1 of the **Price Schedules** shall coincide with the List of Goods and Related Services specified by the Purchaser in the Schedule of Requirements.*

GRAND SUMMARY OF COST**PROCUREMENT OF GOODS FOR ESTABLISHMENT OF
AUTOAMTIC GROUNDWATER MONITORING WELLS
PHASE -2****(RFB No: PK-PMU-BIWRMDP-305089-GO-RFB)**

Sr. No.	Price Schedule	Total Bi Price		Foreign Currency Exchange Rate	Total Bid Price in PKR
		PKR	Foreign Currency		
(1)	(2)	(3)	(4)	(5)	(6) = (3) + (4) x (5)
1a	Goods Manufactured Outside the Purchaser's Country, to be Imported				
1b	Goods Manufactured Outside the Purchaser's Country, already Imported				
1c	Goods Manufactured in the Purchaser's Country		N.A	N.A	
2	Price and Completion Schedule - Related Services (including Provisional Sums)				
Grand Total [Carried to Letter of Bid]					

The Source and Date of Exchange Rate shall be in accordance with ITB 32.1.

Price Schedule 1a: Goods Manufactured Outside the Purchaser's Country, to be Imported to be filled by the bidder

Line Item No.	Description of Goods	Country of Origin	Delivery Date as defined by Incoterms	Qty	Physical Unit	Unit price CIP [Project Director Office, BIWRMDP] in accordance with ITB 14.8(b)(i)		CIP Price per line item		Price per line item for inland transportation and other services required in the Purchaser's Country to convey the Goods to their final destination specified in BDS	Total Price per Line item	
						PKR	Foreign Currency	PKR	Foreign Currency	PKR	PKR	Foreign Currency
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) = (5) x (7)	(10) = (5) x (8)	(11)	(12) = (9) + (11)	(13) = (10)
	Groundwater Monitoring Wells at Ziarat, Loralai, Duki & Harnai (6 Nos.)											
1.1	Supply of Automatic Groundwater Monitoring Wells with Conductivity, Temperature and Depth data logging / Data logger (CTD) with 260 m special cable, steel rope for lowering sensor (s), telemetry / transmission system with sim card, internal memory for data storage, onsite data display and download facility, including all accessories, softwares, connections complete in all respect (see Section VII - Schedule of Requirements for detail) with 2 years replacement warranty - Monitoring range 260 m.			6	No.							
1.2	Supply of Solar Power Pack for 24 hours un-interrupted operation of the automatic groundwater monitoring wells. PV panels German/ USA brand or equivalent with spill proof maintenance free rechargeable battery German/ USA brand or equivalent of suitable rating, for 30 days backup. (See Section VII - Schedule of Requirements) with 2 years replacement warranty.			6	No.							
1.3	Supply of Panel/ Enclosure for data logger and Battery including gasket and all mounting accessories. (See Section VII - Schedule of Requirements) with 2 years replacement warranty.			6	No.							
	Groundwater Monitoring Wells at Sibi & Dhadar (3 Nos.)											
1.4	Supply of Automatic Groundwater Monitoring Wells with Conductivity, Temperature and Depth data logging / Data logger (CTD) with 150 m special cable, steel rope for lowering sensor (s), telemetry / transmission system with sim card, internal memory for data storage, onsite data display and download facility, including all accessories, softwares, connections complete in all respect (see Section VII - Schedule of Requirements for detail) with 2 years replacement warranty - Monitoring range 150 m.			3	No.							

Line Item No.	Description of Goods	Country of Origin	Delivery Date as defined by Incoterms	Qty	Physical Unit	Unit price CIP [Project Director Office, BIWRMDP] in accordance with ITB 14.8(b)(i)		CIP Price per line item		Price per line item for inland transportation and other services required in the Purchaser's Country to convey the Goods to their final destination specified in BDS	Total Price per Line item	
						PKR	Foreign Currency	PKR	Foreign Currency	PKR	PKR	Foreign Currency
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) = (5) x (7)	(10) = (5) x (8)	(11)	(12) = (9) + (11)	(13) = (10)
1.5	Supply of Solar Power Pack for 24 hours un-interrupted operation of the automatic groundwater monitoring wells. PV panels German/ USA brand or equivalent with spill proof maintenance free rechargeable battery German/ USA brand or equivalent of suitable rating, for 30 days backup. (See Section VII - Schedule of Requirements) with 2 years replacement warranty.			3	No.							
1.6	Supply of Panel/ Enclosure for data logger and Battery including gasket and all mounting accessories. (See Section VII - Schedule of Requirements) with 2 years replacement warranty.			3	No.							
	Groundwater Monitoring Wells at Lesbela, Uthal and Winder (6 Nos.)											
1.7	Supply of Automatic Groundwater Monitoring Wells with Conductivity, Temperature and Depth data logging / Data logger (CTD) with 125 m special cable, steel rope for lowering sensor (s), telemetry / transmission system with sim card, internal memory for data storage, onsite data display and download facility, including all accessories, softwares, connections complete in all respect (see Section VII - Schedule of Requirements for detail) with 2 years replacement warranty - Monitoring range 125 m.			6	No.							
1.8	Supply of Solar Power Pack for 24 hours un-interrupted operation of the automatic groundwater monitoring wells. PV panels German/ USA brand or equivalent with spill proof maintenance free rechargeable battery German/ USA brand or equivalent of suitable rating, for 30 days backup. (See Section VII - Schedule of Requirements) with 2 years replacement warranty.			6	No.							
1.9	Supply of Panel/ Enclosure for data logger and Battery including gasket and all mounting accessories. (See Section VII - Schedule of Requirements) with 2 years replacement warranty.			6	No.							
	Recommended Spares											
1.10	Supply of 3.6V 1.2AH Lithium Battery for Data Logger			14	No.							
1.11	Supply of Desiccant 1/6 Unit Bags for Data Logger enclosure as per Supplier's Recommendations			7	Bags							

Line Item No.	Description of Goods	Country of Origin	Delivery Date as defined by Incoterms	Qty	Physical Unit	Unit price CIP [Project Director Office, BIWRMDP] in accordance with ITB 14.8(b)(i)		CIP Price per line item		Price per line item for inland transportation and other services required in the Purchaser's Country to convey the Goods to their final destination specified in BDS	Total Price per Line item	
						PKR	Foreign Currency	PKR	Foreign Currency	PKR	PKR	Foreign Currency
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) = (5) x (7)	(10) = (5) x (8)	(11)	(12) = (9) + (11)	(13) = (10)
1.12	Supply of Pressure Transducer Replacement Desiccant Tube as per Supplier's Recommendations			7	No.							
1.13	Calibration Solution as per Supplier's Recommendations			1	LS							
1.14	Nylon Brush 3/8 dia 4 Inch Brush Length			7	No.							
1.15	Supply of Water quality samplers complete in all respect as per manufacturer recommendations			7	No.							
Total Price (Carried to Grand Summary)												

Name of Bidder *[insert complete name of Bidder]* Signature of Bidder *[signature of person signing the Bid]* Date *[Insert Date]*

Price Schedule 1b: Goods Manufactured Outside the Purchaser's Country, already imported* to be filled by the bidder

[illegible]

[illegible]

Line Item No.	Description of Goods	Country of Origin	Delivery Date as defined by Incoterms	Qty	Physical Unit	Unit price including Custom Duties and Import Taxes paid, in accordance with ITB 14.8(c)(i)		Custom Duties and Import Taxes paid per unit in accordance with ITB 14.8(c)(i) i) , [to be supported by documents]	Unit Price net of custom duties and import taxes, in accordance with ITB 14.8 (c) (iii)		Price per line item net of Custom Duties and Import Taxes paid, in accordance with ITB 14.8(c)(i)		Price per line item for inland transportation and other services required in the Purchaser's Country to convey the Goods to their final destination specified in BDS	Sales and other taxes paid or payable per item if Contract is awarded (in accordance with ITB 14.8(c)(iv)	Total Price per Line item	
						PKR	Foreign Currency	PKR	PKR	Foreign Currency	PKR	Foreign Currency	PKR	PKR	PKR	Foreign Currency
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10) = (7)-(9)	(11) = (8)	(12) = (5) x (10)	(13) = (5) x (11)	(14)	(15)	(16) = (12) + (14)	(17) = (13)
	Recommended Spares															
1.10	Supply of 3.6V 1.2AH Lithium Battery for Data Logger			14	No.											
1.11	Supply of Desiccant 1/6 Unit Bags for Data Logger enclosure as per Supplier's Recommendations			7	Bags											
1.12	Supply of Pressure Transducer Replacement Desiccant Tube as per Supplier's Recommendations			7	No.											
1.13	Calibration Solution as per Supplier's Recommendations			1	LS											
1.14	Nylon Brush 3/8 dia 4 Inch Brush Length			7	No.											
1.15	Supply of Water quality samplers complete in all respect as per manufacturer recommendations			7	No.											
Total Bid Price (Carried to Grand Summary)																

Name of Bidder *[insert complete name of Bidder]* Signature of Bidder *[signature of person signing the Bid]* Date *[insert date]*

* *[For previously imported Goods, the quoted price shall be distinguishable from the original import value of these Goods declared to customs and shall include any rebate or mark-up of the local agent or representative and all local costs except import duties and taxes, which have been and/or have to be paid by the Purchaser. For clarity the Bidders are asked to quote the price including import duties, and additionally to provide the import duties and the price net of import duties which is the difference of those values.]*

Price Schedule 1c: Goods Manufactured in the Purchaser's Country to be filled by the bidder

Line Item No.	Description of Goods	Delivery Date as defined by Incoterms	Qty	Physical Unit	Unit price EXW	Total EXW price per line item	Price per line item for inland transportation and other services required in the Purchaser's Country to convey the Goods to their final destination	Cost of local labor, raw materials and components from with origin in the Purchaser's Country % of Col. 7	Sales and other taxes payable per line item if Contract is awarded (in accordance with ITB 14.8(a)(ii))	Total Price per line item
					PKR	PKR	PKR	PKR	PKR	PKR
(1)	(2)	(3)	(4)	(5)	(6)	(7) = (4) x (6)	(8)	(9)	(10)	(11) = (7) + (8)
	Groundwater Monitoring Wells at Ziarat Loralai, Duki & Harnai (6 Nos.)									
1.1	Supply of Automatic Groundwater Monitoring Wells with Conductivity, Temperature and Depth data logging / Data logger (CTD) with 260 m special cable, steel rope for lowering sensor (s), telemetry / transmission system with sim card, internal memory for data storage, onsite data display and download facility, including all accessories, softwares, connections complete in all respect (see Section VII - Schedule of Requirements for detail) with 2 years replacement warranty - Monitoring range 260 m.		6	No.						
1.2	Supply of Solar Power Pack for 24 hours un-interrupted operation of the automatic groundwater monitoring wells. PV panels German/ USA brand or equivalent with spill proof maintenance free rechargeable battery German/ USA brand or equivalent of suitable rating, for 30 days backup. (See Section VII - Schedule of Requirements) with 2 years replacement warranty.		6	No.						
1.3	Supply of Panel/ Enclosure for data logger and Battery including gasket and all mounting accessories. (See Section VII - Schedule of Requirements) with 2 years replacement warranty.		6	No.						
	Groundwater Monitoring Wells at Sibi & Dhadar (3 Nos.)									
1.4	Supply of Automatic Groundwater Monitoring Wells with Conductivity, Temperature and Depth data logging / Data logger (CTD) with 150 m special cable, steel rope for lowering sensor (s), telemetry / transmission system with sim card, internal memory for data storage, onsite data display and download facility, including all accessories, softwares, connections complete in all respect (see Section VII - Schedule of Requirements for detail) with 2 years replacement warranty - Monitoring range 150 m.		3	No.						

Line Item No.	Description of Goods	Delivery Date as defined by Incoterms	Qty	Physical Unit	Unit price EXW	Total EXW price per line item	Price per line item for inland transportation and other services required in the Purchaser's Country to convey the Goods to their final destination	Cost of local labor, raw materials and components from with origin in the Purchaser's Country % of Col. 7	Sales and other taxes payable per line item if Contract is awarded (in accordance with ITB 14.8(a)(ii))	Total Price per line item
					PKR	PKR	PKR	PKR	PKR	PKR
(1)	(2)	(3)	(4)	(5)	(6)	(7) = (4) x (6)	(8)	(9)	(10)	(11) = (7) + (8)
1.5	Supply of Solar Power Pack for 24 hours un-interrupted operation of the automatic groundwater monitoring wells. PV panels German/ USA brand or equivalent with spill proof maintenance free rechargeable battery German/ USA brand or equivalent of suitable rating, for 30 days backup. (See Section VII - Schedule of Requirements) with 2 years replacement warranty.		3	No.						
1.6	Supply of Panel/ Enclosure for data logger and Battery including gasket and all mounting accessories. (See Section VII - Schedule of Requirements) with 2 years replacement warranty.		3	No.						
	Groundwater Monitoring Wells at Lesbela, Uthal and Winder (6 Nos.)									
1.7	Supply of Automatic Groundwater Monitoring Wells with Conductivity, Temperature and Depth data logging / Data logger (CTD) with 125 m special cable, steel rope for lowering sensor (s), telemetry / transmission system with sim card, internal memory for data storage, onsite data display and download facility, including all accessories, softwares, connections complete in all respect (see Section VII - Schedule of Requirements for detail) with 2 years replacement warranty - Monitoring range 125 m.		6	No.						
1.8	Supply of Solar Power Pack for 24 hours un-interrupted operation of the automatic groundwater monitoring wells. PV panels German/ USA brand or equivalent with spill proof maintenance free rechargeable battery German/ USA brand or equivalent of suitable rating, for 30 days backup. (See Section VII - Schedule of Requirements) with 2 years replacement warranty.		6	No.						
1.9	Supply of Panel/ Enclosure for data logger and Battery including gasket and all mounting accessories. (See Section VII - Schedule of Requirements) with 2 years replacement warranty.		6	No.						

Line Item No.	Description of Goods	Delivery Date as defined by Incoterms	Qty	Physical Unit	Unit price EXW	Total EXW price per line item	Price per line item for inland transportation and other services required in the Purchaser's Country to convey the Goods to their final destination	Cost of local labor, raw materials and components from with origin in the Purchaser's Country % of Col. 7	Sales and other taxes payable per line item if Contract is awarded (in accordance with ITB 14.8(a)(ii))	Total Price per line item
					PKR	PKR	PKR	PKR	PKR	PKR
(1)	(2)	(3)	(4)	(5)	(6)	(7) = (4) x (6)	(8)	(9)	(10)	(11) = (7) + (8)
	Groundwater Monitoring Wells at Sibi & Dhadar (3 Nos.)									
1.10	Supply of 3.6V 1.2AH Lithium Battery for Data Logger		14	No.						
1.11	Supply of Desiccant 1/6 Unit Bags for Data Logger enclosure as per Supplier's Recommendations		7	Bags						
1.12	Supply of Pressure Transducer Replacement Desiccant Tube as per Supplier's Recommendations		7	No.						
1.13	Calibration Solution as per Supplier's Recommendations		1	LS						
1.14	Nylon Brush 3/8 dia 4 Inch Brush Length		7	No.						
1.15	Supply of Water quality samplers complete in all respect as per manufacturer recommendations		7	No.						
Total Bid Price (Carried to Grand Summary)										

Name of Bidder *[insert complete name of Bidder]* Signature of Bidder *[signature of person signing the Bid]* Date *[insert date]*

Price and Completion Schedule - Related Services

The Bidder can add up to three foreign currencies in accordance with ITB 15								Date: _____	
								RFB No: _____	
								Page N° _____ of _____	
Service No.	Description of Services	Country of Origin	Delivery Date at place of Final destination	Qty	Physical Unit	Unit price		Total Price per Service	
						PKR	Foreign Currency	PKR	Foreign Currency
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) = (5) x (7) or estimate	(10) = (5) x (8) or estimate
	Installation of Automatic Groundwatr Monitoring Wells (15 Nos.)								
2.1	Design, installation, erection, testing, commissioning of automatic groundwater monitoring wells supplied as per Price Schedule for Goods including supply and construction of concrete pad over the groundwater monitoring well, supply and installation of 1.5" inner dia (heavy duty) and 7 ft high G.I Pipe in concrete pad, installation of solar panels and enclosure over the GI pipe including clamps, etc. complete in all respects etc. as approved by the Purchaser (See Section VII - Schedule of Requirements).			15	Nos.				
2.2	Construction / Fabricaton of security hub with lock system struck proof, fire proof and unbreakable (3") material size (5 ' x 5' x 8') with preparaing of base (7' x 7' x 6") and door (2.5' x 6') fiber made superior quality including carraige from source to site fixing at site and color finishing, display plate (Stainless steel) for safety of automic groundwater monitoring data logger complete in all respects etc. as approved by the Purchaser (See Section VII - Schedule of Requirements)			15	Nos.				
2.3	Supply of User Manuals, Technical Manuals (software and Hardware), Administration Manuals, Operation and Maintenance Manual, Troubleshooting Manuals and Equipment Manuals ((See Section VII - Schedule of Requirements)			1	Job				
2.4	Supply of As Built Drawings (See Section VII - Schedule of Requirements)			1	Job				
2.5	Supply of Operational Management Plan, Station Management Plan, Calibration Procedures and Spare Parts Strategy (See Section VII - Schedule of Requirements)			1	Job				
2.6	Training of Purchaser's Staff during FAT, installation, inspection, caliberation including 5 day post installation training section in Quetta (See Section VII - Schedule of Requirements).			1	Job				

The Bidder can add up to three foreign currencies in accordance with ITB 15								Date: _____	
								RFB No: _____	
								Page N ^o _____ of _____	
Service No.	Description of Services	Country of Origin	Delivery Date at place of Final destination	Qty	Physical Unit	Unit price		Total Price per Service	
						PKR	Foreign Currency	PKR	Foreign Currency
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) = (5) x (7) or estimate	(10) = (5) x (8) or estimate
2.7	Operation and maintenance visits during the two years after sale service priod including preparation and submission of site visit reports and equipment condition survey reports. (See Section VII - Schedule of Requirements). The No of visits is provisional subject to prior approval from Purchaser.			4	Nos.				
2.8	Monthly Billing of data transmission through GSM for the period of two year			-	PS	500,000			
2.9	Payment for Duties and tax will be made in accordance with Special Conditions of Contract Clause 17.4.			-	PS	20,000,000			
	Construction of Groundwater Monitoring Wells at Ziarat, Loralai, Duki & Harnai (6 Nos)								
2.10	Resistivity survey and report			6	Job		N.A		N.A
2.11	Mobilization, demobilization of equipment and personnel. The equipment should be sufficient to meet the time schedule.			6	LS		N.A		N.A
2.12	Drilling of 150 mm dia boring for monitoring wells in all types of soils including shingle, gravel and rock from ground bed to 260 m depth including sinking and withdrawing casing pipe & disposal of excavated material within 30m lead (depth my vary after geologist recommendation on site)								
	(a) Ordinary soil			390	RM		N.A		N.A
	(b) Shingle Gravel			585	RM		N.A		N.A
	(c) Hard Rock			585	RM		N.A		N.A
2.13	Provide well borehole log and strata identification			6	Job		N.A		N.A
2.14	Compressor test till cleaning of water in presence of Engineer (time may vary) upto 1.5 Cfs discharge			288	Hrs		N.A		N.A

The Bidder can add up to three foreign currencies in accordance with ITB 15								Date: _____	
								RFB No: _____	
								Page N° _____ of _____	
Service No.	Description of Services	Country of Origin	Delivery Date at place of Final destination	Qty	Physical Unit	Unit price		Total Price per Service	
						PKR	Foreign Currency	PKR	Foreign Currency
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) = (5) x (7) or estimate	(10) = (5) x (8) or estimate
2.15	Provide laboratory testing for water samples (two bottles)			6	Set		N.A		N.A
2.16	Design and installation of monitoring wells including design of depth, Well blind pipe, strainer, gravel / filter pack and seal over gravel / filter pack complete in all respects.			6	Job		N.A		N.A
2.17	Providing and installing UPVC (Dia 50 mm, Class D, 1st quality) blind pipe of approved make registered with PSQCA in monitoring bore hole (length may vary after geologist recommendation on site). The cost of specials in included in the unit rate.			1170	RM		N.A		N.A
2.18	Providing and installing UPVC (Dia 50 mm, Class D, 1st quality) strainer in monitoring well bore hole including sockets and solvent registered with PSQCA of the nominal inner diameter. (Length may vary after geologist recommendation on site). The cost of specials in included in the unit rate.			354	RM		N.A		N.A
2.19	Providing and installation of UPVC bail plug in monitoring well bore hole 6m long (Dia 50 mm, Class D, 1st quality)			36	RM		N.A		N.A
2.20	Place gravel / filter pack (6" long) under the bottom of the well screen and around casing upto 2-feet above the top of the well screen			8	Cu.m		N.A		N.A
2.21	Place gravel / filter pack seal - Bentonite Pellet Seal (Plug) above filter pack upto ground surface			11860	Kg		N.A		N.A
	Construction of Groundwater Monitoring Wells at Sibi & Dhadar (3 Nos)								
2.22	Resistivity survey and report			3	Job		N.A		N.A
2.23	Mobilization, demobilization of equipment and personnel. The equipment should be sufficient to meet the time schedule.			3	LS		N.A		N.A
2.24	Drilling of 150 mm dia boring for monitoring wells in all types of soils including shingle, gravel and rock from ground bed to 150 m depth including sinking and withdrawing casing pipe & disposal of excavated material within 30m lead (depth my vary after geologist recommendation on site)								

The Bidder can add up to three foreign currencies in accordance with ITB 15								Date: _____	
								RFB No: _____	
								Page N° _____ of _____	
Service No.	Description of Services	Country of Origin	Delivery Date at place of Final destination	Qty	Physical Unit	Unit price		Total Price per Service	
						PKR	Foreign Currency	PKR	Foreign Currency
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) = (5) x (7) or estimate	(10) = (5) x (8) or estimate
	(a) Ordinary soil			113	RM		N.A		N.A
	(b) Shingle Gravel			169	RM		N.A		N.A
	(c) Hard Rock			169	RM		N.A		N.A
2.25	Provide well borehole log and strata identification			3	Job		N.A		N.A
2.26	Compressor test till cleaning of water in presence of Engineer (time may vary) upto 1.5 Cfs discharge			144	Hrs		N.A		N.A
2.27	Provide laboratory testing for water samples (two bottles)			3	Set		N.A		N.A
2.28	Design and installation of monitoring wells including design of depth, Well blind pipe, strainer, gravel / filter pack and seal over gravel / filter pack complete in all respects.			3	Job		N.A		N.A
2.29	Providing and installing UPVC (Dia 50 mm, Class D, 1st quality) blind pipe of approved make registered with PSQCA in monitoring bore hole (length may vary after geologist recommendation on site). The cost of specials in included in the unit rate.			338	RM		N.A		N.A
2.30	Providing and installing UPVC (Dia 50 mm, Class D, 1st quality) strainer in monitoring well bore hole including sockets and solvent registered with PSQCA of the nominal inner diameter. (Length may vary after geologist recommendation on site). The cost of specials in included in the unit rate.			94	RM		N.A		N.A
2.31	Providing and installation of UPVC bail plug in monitoring well bore hole 6m long (Dia 50 mm, Class D, 1st quality)			18	RM		N.A		N.A
2.32	Place gravel / filter pack (6" long) under the bottom of the well screen and around casing upto 2-feet above the top of the well screen			3	Cu.m		N.A		N.A
2.33	Place gravel / filter pack seal - Bentonite Pellet Seal (Plug) above filter pack upto ground surface			3600	Kg		N.A		N.A
	Construction of Groundwater Monitoring Wells at Lesbela, Uthal and Winder (6 Nos)								
2.34	Resistivity survey and report			6	Job		N.A		N.A

The Bidder can add up to three foreign currencies in accordance with ITB 15								Date: _____	
								RFB No: _____	
								Page N ^o _____ of _____	
Service No.	Description of Services	Country of Origin	Delivery Date at place of Final destination	Qty	Physical Unit	Unit price		Total Price per Service	
						PKR	Foreign Currency	PKR	Foreign Currency
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) = (5) x (7) or estimate	(10) = (5) x (8) or estimate
2.35	Mobilization, demobilization of equipment and personnel. The equipment should be sufficient to meet the time schedule.			6	LS		N.A		N.A
2.36	Drilling of 150 mm dia boring for monitoring wells in all types of soils including shingle, gravel and rock from ground bed to 125 m depth including sinking and withdrawing casing pipe & disposal of excavated material within 30m lead (depth may vary after geologist recommendation on site)								
	(a) Ordinary soil			188	RM		N.A		N.A
	(b) Shingle Gravel			281	RM		N.A		N.A
	(c) Hard Rock			281	RM		N.A		N.A
2.37	Provide well borehole log and strata identification			6	Job		N.A		N.A
2.38	Compressor test till cleaning of water in presence of Engineer (time may vary) upto 1.5 Cfs discharge			288	Hrs		N.A		N.A
2.39	Provide laboratory testing for water samples (two bottles)			6	Set		N.A		N.A
2.40	Design and installation of monitoring wells including design of depth, Well blind pipe, strainer, gravel / filter pack and seal over gravel / filter pack complete in all respects.			6	Job		N.A		N.A
2.41	Providing and installing UPVC (Dia 50 mm, Class D, 1st quality) blind pipe of approved make registered with PSQCA in monitoring bore hole (length may vary after geologist recommendation on site). The cost of specials is included in the unit rate.			563	RM		N.A		N.A
2.42	Providing and installing UPVC (Dia 50 mm, Class D, 1st quality) strainer in monitoring well bore hole including sockets and solvent registered with PSQCA of the nominal inner diameter. (Length may vary after geologist recommendation on site). The cost of specials is included in the unit rate.			151	RM		N.A		N.A

The Bidder can add up to three foreign currencies in accordance with ITB 15								Date: _____	
								RFB No: _____	
								Page N° _____ of _____	
Service No.	Description of Services	Country of Origin	Delivery Date at place of Final destination	Qty	Physical Unit	Unit price		Total Price per Service	
						PKR	Foreign Currency	PKR	Foreign Currency
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) = (5) x (7) or estimate	(10) = (5) x (8) or estimate
2.43	Providing and installation of UPVC bail plug in monitoring well bore hole 6m long (Dia 50 mm, Class D, 1st quality)			36	RM		N.A		N.A
2.44	Place gravel / filter pack (6" long) under the bottom of the well screen and around casing upto 2-feet above the top of the well screen			4	Cu.m		N.A		N.A
2.45	Place gravel / filter pack seal - Bentonite Pellet Seal (Plug) above filter pack upto ground surface			600	Kg		N.A		N.A
Total Bid Price (Carried to Grand Summary)									

Name of Bidder *[insert complete name of Bidder]* Signature of Bidder *[signature of person signing the Bid]* Date *[Insert Date]*

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: *[Purchaser to insert its name and address]*

RFB No.: *[Purchaser 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 Request for Bids No. _____ ("the RFB").

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 Applicant:

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

Form of Bid-Securing Declaration

[The Bidder shall fill in this Form in accordance with the instructions indicated.]

Date: *[date (as day, month and year)]*

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

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

To: *[complete name of Purchaser]*

We, the undersigned, declare that:

We understand that, according to your conditions, Bids must be supported by a Bid-Securing Declaration.

We accept that we will automatically be suspended from being eligible for Bidding or submitting proposals in any contract with the Purchaser for the period of time of 2 years starting on date of receipt of Employer's letter of blacklisting [date], if we are in breach of our obligation(s) under the Bid conditions, because we:

- (a) have withdrawn our Bid during the period of Bid validity specified in the Letter of Bid; or
- (b) having been notified of the acceptance of our Bid by the Purchaser during the period of Bid validity, (i) fail or refuse to sign the Contract; or (ii) fail or refuse to furnish the Performance Security, if required, in accordance with the ITB.

We understand this Bid Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Bidder; or (ii) twenty-eight days after the expiration of our Bid.

Name of the Bidder* _____

Name of the person duly authorized to sign the Bid on behalf of the Bidder**

Title of the person signing the Bid

Signature of the person named above

Date signed _____ day of _____, _____

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

Manufacturer's Authorization

*[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer. The Bidder shall include it in its Bid, if so indicated in the **BDS**.]*

Date: *[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 Purchaser]*

WHEREAS

We *[insert complete name of Manufacturer]*, who are official manufacturers of *[insert type of goods manufactured]*, having factories at *[insert full address of Manufacturer's factories]*, do hereby authorize *[insert complete name of Bidder]* to submit a Bid the purpose of which is to provide the following Goods, manufactured by us *[insert name and or brief description of the Goods]*, and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 28 of the General Conditions of Contract, with respect to the Goods offered by the above firm.

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

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

Title: *[insert title]*

Dated on _____ day of _____, _____ *[insert date of signing]*

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

Under ITB 4.8(a) and ITB 5.1: The country with which Government of Islamic Republic of Pakistan prohibits the commercial relations.

Under ITB 4.8(b) and ITB 5.1: 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 with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations.

Section VI - Fraud and Corruption

(Section VI shall not be modified)

1. Purpose

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

2. Requirements

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

2.2 To this end, the Bank:

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

- b. Rejects a proposal for award if the Bank determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
- c. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring misprocurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;
- d. Pursuant to the Bank's Anti- Corruption Guidelines, and in accordance with the Bank's prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or otherwise benefit from a Bank-financed contract, financially or in any other manner;¹ (ii) to be a nominated² 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, consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents personnel, permit the Bank to inspect³ all accounts, records and other documents relating to the submission of bids and contract performance, and to have them audited by auditors appointed by the Bank.

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.

PART 2 – Supply Requirements

Section VII - Schedule of Requirements

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1. List of Goods and Delivery Schedule

Line Item No	Description of Goods	Qty	Physical unit	Final (Project Site) Destination	Delivery Date		
					Earliest Delivery Date following the date of effectiveness the Contract	Latest Delivery Date following the date of effectiveness the Contract	Bidder's offered Delivery date [<i>to be provided by the bidder</i>]
<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>	<i>G</i>	<i>H</i>
1.1 to 1.9	Delivery of equipment for Automatic Groundwater Monitoring Wells with mounting accessories, power cables, nut, bolts, etc. and other related items complete ready for installation according to price schedule and specifications.	As per Price Schedule for Goods and approved by Purchaser		For project sites, please refer SCC	90 days	150 days	
1.10 to 1.15	Delivery of Mandatory Spares, Tools & Accessories including equipment for Water Quality Sampling & Testing	As per Price Schedule for Goods and approved by Purchaser		At location as advised by the Purchaser	90 days	150 days	

2. List of Related Services and Completion Schedule

Service No.	Description of Activity and Service	Quantity	Physical Unit	Place where Services shall be performed	Final Completion Date(s) of Services
-	Minutes of the Kick-off meeting including, documentation plan and project plans	-		Project Director Office, Quetta	Within one week after the meeting.
2.1 to 2.2	Submission of design documents of the System Hardware & Software Configuration complete according to the Specifications and as per requirements of the Contract (Design Phase).	As per Specifications		Project Director Office, Quetta	Within 30 days and 45 days respectively after effective date for draft and final design documents
-	Establishment of necessary management facilities, physical facilities for installation services, and trained staffing for Installation Services	As per Requirements		As per Requirements	As per requirements
2.1 to 2.2	Pre-shipment inspection, Factory training, Factory testing.	As per Specifications		As per approved work program	As per approved work program
2.1 to 2.2	Complete Installation, erection, testing, commissioning, calibrations and Related Services of Automatic Groundwater Monitoring Wells complete in all respect according to specifications.	As per Price and Completion Schedule for Related Services and actual approved services		For project sites, please refer to SCC	240 days after effective date
2.3 to 2.6	Supply of manual and drawings including user manuals, technical manuals (software and hardware), administration manuals, as built drawings, troubleshooting manuals, training documentations and equipment manuals.	As per Price and Completion Schedule for Related Services and actual approved services		Project Director Office, Quetta	240 days after effective date
2.7	Operation and Maintenance of all Wells installed at Site including training of Purchaser's Personnel.	As per Price and Completion Schedule for Related Services and actual approved services		All Installed Wells at Site	02 years after provisional acceptance of the supplied goods after successful installation and Commissioning
2.10 to 2.45	Construction of Groundwater Monitoring Wells	As per Price and Completion Schedule for Related Services and actual approved services		All Installed Wells at Site	240 days after effective date

3. Technical Specifications

Technical Specifications provided herein under shall apply and are arranged into following parts:

- | | |
|----------|--|
| PART I | Special Provisions |
| PART II | Supply, Installation, Testing and Commissioning of Automatic Groundwater Monitoring Wells including Supply of Mandatory Spares |
| PART III | Technical Specifications for Civil Works |
| PART IV | Operational and Maintenance of the System including Submission of Supplier's Documents and Training of Purchaser's Staff |
| PART V | Technical Specifications for Construction of Automatic Groundwater Monitoring Wells |

TECHNICAL SPECIFICATIONS

PART I - SPECIAL PROVISIONS

1 The Requirements

1.1 General

Project Management Unit (PMU) Irrigation Department, has planned for Installation of Automatic Groundwater Monitoring Wells under the Balochistan Integrated Water Resources and Development Project (BIWRMDP) funded by World Bank.

The requirements as set out in this contract pertaining to Phase-2 are briefly outlined as below. Accordingly, a Data Centre in Quetta shall also be established as separate Contract as Package 2 of 2 of Phase-1 and the intended equipment shall be synchrozed with Data Centre through SaaS application for data collection and Management.

The Drilling and Groundwater Directorate, Irrigation Department, Government of Balochistan was operating and maintaining a network of groundwater monitoring wells installed in various parts of the Province of Balochistan. These wells are now abandoned. It is required to install Automatic Groundwater Monitoring Wells with GSM/GPRS transmission channels for transmission of data.

The Automatic Groundwater Monitoring Wells should provide automatic groundwater monitoring data (water level, temperature and conductivity) through GSM/ GPRS network at scheduled intervals and through data fetching commands. The Automatic Groundwater Monitoring Wells shall also facilitate collection of groundwater samples and testing by manual methods at regular intervals.

The groundwater monitoring data (water level, temperature and conductivity) generated will be transferred, stored and processed at the server/ Data Center to be established at Quetta, Pakistan through separate Contract as Package 2 of 2 of Phase-1.

1.2 Codes and Standards

All the material and equipment shall be brand new, latest and suitable for outdoor applications having ISO (International Standards Organization) Certification, WMO (World Meteorological Organization) Certification, USDA (United States Department of Agriculture), CE (European Conformity) or equivalent, quality assurance certificates and references.

List of Key Reference Documents

A list of key reference documents and standards belonging to the group of the above mentioned codes and standards is provided herein below. The below list is not comprehensive. Any code and or standard belonging to the group of the above code and standards given in Section 1.2 above may be referred during the supply, installation, testing and commissioning of the equipment.

Whenever requested by the Purchaser, in writing, the Supplier shall procure and provide free of cost to the Purchaser two English copies of any standards used in the Supply, Installation, testing and commissioning of equipment. The supplier shall refer the relevant sections of the below documents or any other approved standard and code whenever required, rather than quoting or preparing the text.

1. World Meteorological Organization. Guide to the Global Observing System: WMO-No. 488. Geneva, Switzerland: WMO, 2010 [Updated in 2013].

- 2. World Meteorological Organization.** Manual on the Global Observing System: WMO-No. 544. Geneva: WMO, 2015 [updated 2017].
- 3.** Guide to Meteorological Instruments and Methods of Observation [WMO-No. 8]. Geneva, Switzerland: s.n., 2014.
- 4.** Manual on the WMO Integrate Global Observing System (WMO-No. 1160). Geneva: WMO, 2015.
- 5. International Civil Aviation Organization.** Annex 3 to the Convention on International Civil Aviation: Meteorological Service for International Air Navigation. Montreal, Quebec, Canada: ICAO, 2016.
- 6.** International Civil Aviation Organization (ICAO). Manual on Automatic Meteorological Observing Systems at Aerodromes (Doc 9837). Montreal, Canada: ICAO, 2011.
- 7.** EN ISO 9001:2008 and 2015 – Quality Management System Requirements
- 8.** EN ISO 14001:2004 and 2015 – Environmental management systems - Requirements with guidance for use
- 9.** EMC-Directive 2014/30/EU and 2011/65/EU
- 10.** LVD-Directive 2014/35/EU and 2006/95/EC
- 11.** EN 61326-1: 2013 - Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements
- 12.** EN 50581:2012 - Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances
- 13.** EN ISO/IEC 17050-1:2010 - Conformity assessment - Supplier's declaration of conformity - Part 1: General requirements (ISO/IEC 17050-1:2004, corrected version 2007-06-15)

1.3 Environmental Conditions

The equipment and hardware to be provided under this Contract shall be capable of withstanding the worst possible conditions, without deterioration or distortion, expected in the Project area. The following environmental parameters indicate typical conditions:

- | | |
|--------------------------------------|-----------------------|
| • Altitude | 100 to 2500 m |
| • Maximum outdoor shade temperature | + 60 °C |
| • Minimum outdoor temperature | - 40 °C |
| • Relative humidity | 0% to 100% |
| • Maximum wind speed (3.5 sec. gust) | 80/120 km/hr |
| • Atmosphere | Occasional dust laden |
| • Terrain | Semi mountainous |

1.4 Design of System Hardware and Software Configuration

The supplier shall be responsible for the design of system hardware configuration including sitting arrangement of the automatic groundwater monitoring wells, sensors and other equipment according to the technical specifications, standard guidelines and as directed by the Purchaser. The Supplier shall prepare and submit draft design document to the Purchaser for review and comments. The Supplier shall submit Final Design Document after receipt of the comments from the Purchaser.

The draft design document of system hardware configuration shall consider the factors like access to the sites, site topography, geology, hydrogeology, site conditions, performance of the equipment, ease in operation and maintenance of the equipment, etc.

The draft design document of the system hardware configuration shall include all calculations, data, analysis and drawings (single line diagrams, schematic drawings, plan and profile drawings, etc.) related to the system hardware configuration.

The draft design document shall also include details specifications of the proposed sensors and other equipment to be supplied under the Contract, reference standards, WMO and other required certifications from the manufacturers, factory testing and training, user and technical manuals, installation procedures and limitations, WMO requirements for sitting arrangement of each sensor and other equipment and the supplier's proposed sitting arrangements and all other related details.

The Supplier shall consider the following requirements in the design of system hardware configuration.

- All equipment to be provided under this Contract shall be manufactured, constructed, assembled and finished with workmanship of the highest quality throughout, and all components shall be new and of the class most suitable for the required application. State-of-the-art shall be applied in all aspects of the work. The equipment shall be designed and manufactured to ensure a useful service life of at least 10 years under the specified working conditions.
- High precision sensors, data loggers, calibration and other ancillary equipment should be of high grade applicable for rugged and harsh environmental conditions, manufactured from reputable firms / companies like Campbell Scientific, Solist, SEBA Vaisala or equivalent.
- Standardized in-factory quality control shall, as far as possible, be applied to all components of the equipment. The components shall not be subjected to any service conditions outside the operational values given in the manufacturer's published data.
- The equipment shall be designed to ensure that:
 - a. The reliable operation of the components is guaranteed. No degradation of performance results under the specified conditions.
 - b. The changes in component values and parameters which may occur during the operational life of the equipment are either negligible or adequately compensated.
- Compensations through adjustable controls shall be minimized. Wherever un-avoidable, complete and clear descriptions of such controls shall be furnished.
- The equipment shall be designed to ensure that in case of replacement of any part, only minor adjustments are required.

- The interactions between sensors shall be minimized and it shall be ensured that the adjustment of any parameter shall not affect the stability of other parameters as far as possible. Similarly, it shall be ensured that a component fault is confined as closely as possible to the faulty component and other components are protected from consequential damage.
- The components generating significant amount of heat shall be adequately spaced from other components. If necessary, heat sinks shall also be provided. All equipment shall be natural convection cooled. Forced air cooling shall not be utilized.
- The equipment shall be designed and constructed to incorporate standard parts to the maximum extent feasible. Small modular packages that can be removed and replaced easily shall be used. Rapid positive fault detection and isolation of defective circuits and modules shall be facilitated. The circuit boards should be easily removable/ replaceable without causing any damage and without interfering with the operation of the rest of the equipment. Switching-off of the power supplies should not be necessary while changing circuit boards.
- All equipment shall be designed to operate without undue vibrations, dissipation of heat, and with the least amount of noise.
- The equipment shall be designed for ease of maintenance.
- The equipment shall be modularly constructed. Equipment shall be totally solid-state designed around state-of-the-art families of semiconductors. Use of electromechanical components other than sensors shall be restricted to a minimum possible level.
- Enclosure and outer finish shall be according to the relevant international standards. Safety shall be provided against splashes, dust and fungus etc.

The supplier shall also be responsible for the design and supply of all softwares as required for the proper function of the equipment according to the technical specifications, WMO guidelines and as required by the Purchaser.

1.4.1 Site Surveys and Site Data Requirements

The Supplier shall carryout desk studies of geology and hydrogeology maps, performs site surveys and collects all the site data which he required for sitting of automatic groundwater monitoring wells and design of wells. The Purchaser shall provide all information and data which will be readily available with him; however, the Supplier shall be responsible for the collection of all other information and data.

The approval of the Suppliers Design documents shall in any way release the Supplier from any Warranty or other obligation under the Contract. The Supplier shall be fully responsible for the supply of goods and execute the related services according to the Contract and as directed by the Purchaser.

The Supplier's costs related to the site surveys, data collection, preparation and submission of the draft and final design documents shall be deemed to be included in the unit rates and prices provided for other items in the price schedules. No separate payment shall be made to the supplier in this respect. The Supplier at minimum shall conduct the following activities:

- Geological, hydrogeological and geophysical based desk studies, surveys and investigations to collect sufficient information required for selection of bore hole location, design of groundmonitoring wells for the depth, casing, screens and filter media, development and testing.

1.5 Drawings

1.5.1 Bid Drawings

Drawings provided with the Biddings Documents are Bid drawings. Bid Drawings show the scope of the work to be performed by the Supplier. The Bid Drawings shall not be used as a basis for fabrication or installation but may be used as a basis for placing preliminary orders for materials, subject to corrections based on the future issue of drawings issued for Installation. Any other drawings if issued through Addenda, before opening of Bids, shall be part of the Bid Drawings.

The Bidding Drawings shall form part of the Contract Agreement.

1.5.2 Copies of Bidding Drawings, and Specifications

One complete set of Contracts Documents including Bidding Drawings and Technical Specifications will be issued to the Supplier free of charge. The Supplier may make further copies to suit to his requirements.

1.5.3 Working Drawings

The Supplier shall supply working drawings as part of the design of the hardware and software configurations at no additional costs to the Purchaser.

The Supplier shall incorporate in the working drawings all openings, ducts, recesses, anchor holes, etc. as required for the civil, mechanical and electrical installations.

Each drawing shall include title block and shall show the Supplier's name and the descriptive name of the Works shown on the drawing. Equipment / materials and equipment / material Standards shall be indicated on the drawings.

Drawings from Sub-Suppliers shall be checked signed and stamped by the Supplier being forwarded to the Purchaser, who shall deal in all respects only with the Supplier.

When the Purchaser or his representative approves Working Drawings, he shall return a copy marked "Approved" to the Supplier, who shall then insert the date of approval on the tracing and furnish the purchaser with three prints of the working drawings as approved.

Approval of working drawings by the Purchaser will only signify his general approval of the design and shall not make him liable for any error of the Supplier in details or lack of strength or efficiency of any part. Where errors, deviations and / or omissions are discovered later, they shall be made good by the Supplier at his own expense irrespective of any approval by the Purchaser.

1.6 Factory Training and Testing

1.6.1 Factory Training

The Supplier shall deliver training on the system to the Purchaser's Personnel before factory acceptance testing, during installation, commissioning and site acceptance tests as well as during the operation and maintenance period. The Purchaser will delegate to the Supplier a team of Purchaser engineers and technicians to be trained on various sections of the operation, testing and commissioning of the equipment. The Supplier shall prepare training documentation for the Purchaser review and approval in this regard.

The training documents and factory training shall enable the Purchaser's trained personnel to perform the following tasks:

- a. Packing and unpacking
- b. Understanding of operations.
- c. Maintenance and trouble-shooting after expiry of after sales service period.

The Supplier shall report to the Purchaser in writing in monthly intervals detailing the activities, attendance, performance and ability of each member of the team.

1.6.2 Factory Testing

The system shall be subjected to the factory acceptance tests, to be witnessed by the personnels of Purchaser / Employer, to ascertain compliance with the performance limits defined in the specifications. The Supplier shall be required to test the entire system hardware and software in the factory. The Supplier shall build up the entire system in the factory including the software. The Supplier shall also prepare the factory acceptance test (FAT) document. Furthermore, the Supplier shall also prepare Draft Site Acceptance Test (SAT) Document at this stage.

The Purchaser shall review and approve the FAT document. Accordingly, the Supplier shall execute the FAT. The purchaser shall sign the FAT documents and Supplier shall then submit signed FAT document with three prints. The FAT report shall be the part of acceptance certificate.

1.7 Supply of Documentations

1.7.1 Supply of Manuals

The Supplier shall be responsible to supply the below mentioned manuals at timings as per Supplier's approved work program and completion schedule.

- User Manuals
- Technical Manuals (software and Hardware)
- Administration Manuals
- Troubleshooting Manuals
- Equipment Manuals

The Supplier shall submit to the Purchaser as per the approved work program, triplicate draft copies of the above mentioned manuals in English language for all sections of the Equipment.

Following the Purchaser Review, the draft copies, suitably corrected where necessary, shall be assembled into their final form and shall be submitted to the Purchaser for approval.

The Supplier shall provide six copies of the final manuals, in English language.

Any additions, alterations or deletions which may be required by the Purchaser following the experience gained during the periods of running and further maintenance shall be incorporated in these six copies in the form of additional or complete replacement pages and the cost of these amendments shall be deemed to be included in the Contract Price.

The issue of the Completion Certificate shall be subject to receipt and approval by the Purchaser of the above draft manuals.

1.7.2 Supply of As-Built Drawings

After Equipment erection has been completed, the Supplier shall submit to the Purchaser four copies of the following ‘As Erected’ and ‘As Fitted’ drawings for approval.

- i. Drawings showing the internal construction of the major items, with parts list and reference numbers for ordering spares.
- ii. Complete assembly drawings of data loggers, sensors, solar panels, and ancillary equipment.
- iii. General arrangement drawings showing all mechanical and electrical equipment include cabling, conduiting/ tray work, etc.
- iv. Detailed arrangement of any conduit work buried in floors, walls, ceilings, in any structure.
- v. Detailed wiring, overhead line and underground cable routes and electrical layout and schematic diagrams of the main circuits.
- vi. Diagrams of connections between all items of equipment (e.g. sensors, data logger, solar panel and allied equipment’s, etc., with component values and types suitably marked thereon).
- vii. Detailed revised specification and schedules of the equipment as actually installed.

The above requirements shall be fulfilled to the satisfaction of the Purchaser before the Completion Certificate is issued. When items (i) to (vii) inclusive have been approved by the Purchaser, the Supplier shall provide two black and white prints of each on thick paper for the use of the Purchaser together with one full plate negative of each.

All reproducible record drawings shall be on durable and unbearable plastic film or linen.

The Supplier shall also provide, suitably framed and protected for wall mounting.

- i. One copy of drawings showing the location and position of each automatic groundwater monitoring wells, all correctly numbered with matching numbers on the equipment.
- ii. One copy of site overhead line and underground cable diagrams showing the location and position of all cable runs and termination positions all suitably numbered.

1.7.3 Supply of Equipment List

The Supplier shall provide complete list of the equipment before shipping to site of installations. All the equipment shall of required standard, factory tested.

1.8 Site Preparation, Installation, Testing and Commissioning

The Supplier shall follow the following procedures during the site preparation, installation, testing and commissioning of the equipment.

1.8.1 Site Preparation Plan

The Supplier shall prepare site preparation plan before start of the drilling activities and installation at any site. The Site installation plan shall be approved from the Purchaser.

1.8.2 Site Installations

The Supplier shall perform all site installations according to the manufacture recommendations; Supplier approved design of the hardware and software configuration and approved working drawings. The Supplier shall perform the site installation through relevant experts. The Supplier shall provide the CV's of installation experts for approval.

1.8.3 Civil Works related to Installation of Equipment

The site installations shall include but not limited to the following works:

- Furnishing of labor, material and constructional plant for the construction of droundwater monitoring wells, construction of security hub and all anciliary works according to the specification and as required by the Purchaser.
- Any other related Work.

1.8.4 Inspections and Site Acceptance Tests

After installation of the equipment, inspections and site acceptance tests shall be carried of all the sensors, masts, allied structures and equipment as per requirements of the technical specifications, WMO guidelines and other relevant standards. The Supplier shall prepare a document for the site inspection and site acceptance test (SAT) procedures. The Document shall be reviewed by the Purchaser. The accepted SAT document shall be used during the site inspection and site acceptance tests.

1.8.5 On Site Reliability Testing and Warranty Period

Upon completion of the installation, the Supplier shall adjust, align and test (On Site Reliability Test (OSRT)) the system to verify the overall system performance. After satisfactory completion of the OSRT, the Purchaser / Employer will provisionally accept the system. At this stage, the security of the installed equipment shall be handed over to the Purchaser. However, during the reliability testing period, the supplier shall be responsible to ensure no external damage occurs to the equipment.

The Supplier shall submit an outline of the OSRT, schedule to the Purchaser / Employer for approval at least two weeks prior to commencement of such tests and shall conduct all the tests after approval of the Purchaser / Employer.

Following provisional acceptance of the System, a two months Reliability Test shall commence. This period shall also be considered to be the Warranty Period. The system shall demonstrate a continuous availability of not less than 95%. Down time will be accumulated by the Purchaser on a loss of function basis and will be reported to the Supplier on agreed by periods. During the continuous 2-months warranty period, the availability (A) shall be calculated as:

$$A (\%) = (1440 - \text{loss of function time in hours}) \times 100 / 1440$$

Loss of function is defined as the inability of the system to perform the data collection and data processing functions due to a failure of component(s) in the system. Failure of any component of the system that does not affect data collection and data processing will not be counted as loss time in, availability calculation.

Any repairs, servicing, trouble shooting, testing etc. requested by the Purchaser / Employer, or initiated by the Supplier during the 2-month reliability period shall be performed by the Supplier at his expenses.

If at any time during the 2-month reliability tests, the accumulated loss of function time exceeds 5 %, the system will have failed the reliability test. At this time the system shall be repaired, retested, - etc. as required. Once the system is put back in operation, a new 2-month reliability test shall commence.

The Purchaser / Employer will not require full time service engineering during the reliability test. The Supplier shall train the Employer's personnel (prior to the test), who will normally perform the repair of the equipment during the test (and the warranty period). Any repair beyond the scope of Employer's personnel, will be the responsibility of the Supplier's service engineer. Because of the distances between stations and difficulty of accessing various sites, failure time will be the time to repair the equipment exclusive of travel time. The time to repair will include the time to identify and repair the fault and put the system back in operation. For this, reason the Supplier shall provide sufficient number of spare parts to repair the equipment. Spare parts used during the reliability test shall be at the expense of the Supplier.

Upon successful completion of the 2-month reliability test, the system will be formally accepted by the Purchaser.

The entire cost of maintenance support during the Warranty Period shall be included in the basic price of the Contract, and no separate payment over and above the Contract shall be made for Warranty services.

The Supplier shall assist the Purchaser / Employer to maintain a complete inventory of spares required to keep the system functional in its stores. If at any time, a certain spare is not available with the Purchaser which is needed for repair, the same shall be supplied by the Supplier accordance with Clause GCC 28 of the General Conditions of the Contract.

Prior to Final Acceptance at the end of successful Waareenty Period, the Supplier shall replace at his own cost, all spares that have been consumed during the Warranty Period so that the original inventory of spares supplied is completely restored. The defective components/modules shall become the property of the Supplier after they have been replaced.

1.9 Tools and Accessories Including Equipment for Testing and Measurement

Special tools and measuring equipment required for installation, testing, commissioning, service and maintenance shall be provided as part of the Contract. List of such tools/test equipment is given in the List of Goods and Delivery Schedule in Section VII and any other testing tools required for Maintenance and repairing must be added in the list given by bidder.

1.10 Mandatory Spares

The tentative number of mandatory spares is provided in the price schedule. However, all components or subassemblies with finite MTBF shall be supplied as spare parts. The quantity of spares shall be the maximum from amongst the following three methods of calculations:

- a. Ten percent (10%) of the total number of supplied components/subassemblies.
- b. One (1), if the total number of supplied components/subassemblies is less than 10.
- c. Manufacturer's recommendation for 10 years of operation.

The Bidder shall submit the list of spare parts, with quantities, in his bid. Justification of the quantities shall be provided conforming to the above criteria. If at any stage, during the execution of the Contract, it is found that the quantity of the spare parts fall short of the criteria specified above, the Supplier shall supply the balance spare parts at no extra cost to the Purchaser.

2 Location

The Project area is spread over the Nari and Polari River Basin and Catchment area. The Supplier shall be responsible for the supply of machinery and equipment and execute related services at the locations as given in Clause 1 - Definitions (Ref. GCC Clause 1.1 (o)) of Special Conditions of Contract.

3 Climate

The Supplier shall be deemed to have taken into account all possible weather conditions when preparing his Tenders and his program of Works, and he will not be entitled to any additional payments whatsoever as a result of meteorological phenomena.

The Supplier shall make suitable arrangements to protect the Goods, Temporary Works, Constructional Plant and materials stored on site against the effects of the weather.

No work will be performed by the Supplier when in the opinion of the Purchaser such work is liable to be affected by the weather. The Supplier shall not be entitled to any additional payment on account of loss alleged to have been sustained as a result of the Purchaser declining to permit such work to start or to continue or ordering any work which has been affected by the weather to be removed and re-executed, or made good.

4 Site Description

The site will include public and private roads and lands and shall mean the minimum extent of each such public and private lands as in the opinion of the Purchaser is necessary or practicable for the supply of goods and related services.

The Supplier shall make records to be agreed by the Purchaser of the condition of the surfaces of the Site immediately before entering upon them for the purpose of execution of the supplies and related services.

4.1 Site Conditions

The Supplier is required to attain all the requisite information of the prevailing Site Conditions before quoting his rates and prices for the Bid. The Supplier shall not be allowed to put any claims regarding the site conditions.

4.2 Site in Public and Private Land

The Purchaser will serve the necessary notices to permit the installation of the equipment in public and private lands in accordance with the agreed program of work and the Supplier shall not enter on those lands until given permission by the Purchaser. The Supplier shall temporarily fence the Site where the supplies and related services are to be or are being rendered to the satisfaction of the Purchaser and the Supplier shall confine all the works plant, labour, materials and transport within the Site so fenced. The Supplier shall use the Site only for the supply of Goods and execution of the related services.

4.3 Right of Way

Right of way shall be the area (s) allocated to the Supplier to enable execution of the Supplies and related services in accordance with the Contract. Due to physical statutory other special conditions the working width of Right of Way may be restricted (including restricted access to working sites). The Supplier is deemed to have included in Contract Price all costs encountered for complying with such restrictions.

All fences, walls structures, buildings, etc. affected by the Supplier's work shall be reinstated to the satisfaction of the owner and the Purchaser.

4.4 Security of the Goods & Persons

Watching and security of the Goods shall be provided by the Supplier at his own expense. However, after successful installation, commissioning and provisional acceptance of goods and sites, the security of the goods and sites shall be transferred / handover to the Purchaser.

The Supplier shall provide to the Goods and Installations an adequately supported temporary screen or fence in accordance with local bye-laws and to the approval of the Purchaser.

All excavation shall be adequately lit at night complete with hazard warning lights to pedestrians and traffic in accordance with applicable Traffic Police Regulations.

Unfenced openings and surface obstructions shall be attended by days and night and shall be adequately lit at night.

5. Setting Out of Works

It shall be the Supplier's responsibility to obtain from the Purchaser before commencing the installation work co-ordinates and levels of setting out points, which have already been established by the Purchaser. The Supplier shall use these to establish additional temporary bench marks as necessary throughout the project area. These shall be of a form approved by the Purchaser and maintained until the completion of related services.

The Supplier shall be responsible for the setting out of the installation works. All dimensions and levels shown on the drawings or referred to in any document forming part of the Contract shall be verified by the Supplier on Site. He shall be responsible for pointing out promptly any discrepancy or error in such dimensions or levels.

The Supplier shall prepare detailed setting out drawings and data sheets as necessary and submit them to the Purchaser or his Representative for approval. Any modification of these drawings or data sheets required by the Purchaser shall be made by the Supplier and resubmitted for final approval.

6. Supplier's Compounds

No separate item is provided in the price schedules to cover the cost to the Supplier of providing and maintaining the offices, compounds, workshop and housing necessary for the proper organization and superintendence of the supplies of goods and execution of related services. These are deemed to be included in all other items of works. The Supplier shall be responsible to arrange the necessary land for the compounds at his own expense.

The Supplier has to submit to the Purchaser the layout and design of his compounds showing areas required for workshops, garages, concrete yards, stores, housing etc., for his approval.

The compounds and their contents shall be dismantled and cleared away by the Supplier at the completion of the Contract.

The Supplier shall provide, erect and maintain sign boards at his own expense at locations to be indicated by the Purchaser. They shall be lettered in Balochi and English and be not smaller than 3 m x 2 m in size. The wording shall be as directed by the Purchaser.

7. Water Supply (Temporary)

The Supplier shall provide at his own expense a temporary supply of potable and other water required, for execution, installation, testing and related services. He shall provide, operate and maintain the supply throughout the duration of the Contract. Quality of water shall be to the satisfaction of the Purchaser.

8. Electricity Supply for Power and Lighting (Temporary)

The Supplier shall arrange for and pay all costs in connection with the temporary supply of electricity he may need for the duration of the Contract. If the Supplier intends to provide his own electricity supply, the regulations of the Pakistan WAPDA are to be observed and the permission of this Authority is to be obtained.

9. Sanitary Arrangements

The Supplier shall provide and maintain sufficient sanitary conveniences for all operatives and site staff engaged on the supplies of goods, installation and related services. These shall be in accordance with any requirements and regulations of the Government of the Pakistan and subject to the approval of the Purchaser. The ground shall be disinfected at the end of the Contract.

The Supplier shall ensure that all operatives and staff are aware that the sanitary conveniences must be used by all personnel, and the Purchaser reserves the right to require dismissal of any person committing a nuisance on or about the site by failing to use the conveniences provided.

10. Fencing of the Works

The Supplier shall fence the works site (s) in a manner sufficient for the protection of the public and livestock and property during the progress of the installation works and shall satisfy the Purchaser or his Representative in this respect.

The Supplier shall erect and maintain adequate safety measures around all trenches and other open excavations in a manner sufficient to provide maximum safety to pedestrians and vehicles at all times.

11. Control of Construction Noise

The Supplier shall employ the best practical means to minimize noise and vibration produced by his operations. These shall include but not be limited to the following:

- (a) All vehicle and mechanical plant shall be fitted with effective exhaust silencers and shall be maintained in good and efficient working order.
- (b) All compressors shall be “sound reduced” models fitted with lined and sealed acoustic covers which shall be kept closed whenever the machines are in use and all ancillary pneumatic percussion tools shall be fitted with mufflers or silencers. Dampened bits shall be fitted to percussion tools.
- (c) Machines in intermittent use shall be turned off or throttled down when not in use.
- (d) All pumps shall be fitted with effective exhaust silencers where appropriate, and maintained in good and efficient working order. Pumps running overnight shall be effectively silenced. Alternatively the Supplier shall use electrically driven pumps if necessary.
- (e) All stationary plant shall be screened where possible.

12. Safety Measures and Services

The Supplier shall be responsible for the safety and health of the all workmen and other persons in or around the Installation and related works, to the satisfaction of the Purchaser. Such measures shall include, but not be limited to, the following:

- Provision of proper safety and emergency regulations, fire, gas and electric shock prevention, stretchers and first aid box together with rescue facilities generally at each place of work.
- Adequate supports and braces for all excavations.
- Provision of sufficient safety helmets for all personnel including the Purchaser, his staff, and any authorized visitor to the Site.
- Safe control of water including the provision of standby pumping plant.
- Provision and maintenance of safe, sound ropes, slings, pulleys and other lifting equipment, each having an up-to-date test certificate.
- Provision and maintenance of safe, sound mechanical frames, hoists, cranes, and vehicles for transporting materials, with an up-to-date test certificate for each item.
- Provision of good and safe access to the Works.

- Provision of warning notices to the public in English, Balochi and Urdu warning them of the existence of any dangers from the Works.

The Supplier shall ensure that employees are available at each site to administer emergency first aid and that all employees are aware of their names. The Supplier shall provide for the transport of serious cases to hospital. All medical facilities shall also be to the satisfaction of any properly appointed medical officer authorized by the Government of the Balochistan to inspect medical facilities at Site.

The Supplier shall ensure that all his employees are fully conversant with regulations and emergency procedures, and shall enforce the rule that any employee committing a serious breach of such regulations shall be immediately dismissed and shall not be re-employed.

13. Other Services

The Supplier shall make his own arrangements for and shall provide and pay for any services required during the duration of the Contract.

14. Working Hours

The Supplier shall perform his work only during the standard working hours on installation sites which are 48 hours, distributed over 6 days per weeks, except on holidays.

Should the Supplier wish to carry out works outside normal working hours or on Sunday and public holidays; he shall comply with related requirements and shall do so only after the Supplier has given the Purchaser at least 48 hours' notice in writing.

15 Damage to Services

The Supplier will be held responsible and shall pay all costs related to damages to private property or roads, bridges, irrigation ditches, mains, pipes, electric cables, lines or services of any kind caused by him or any of his sub-suppliers during the execution of the Contract.

The Supplier shall make good or arrange to make good at his own expense any damage without delay, and shall carry out any further remedial work ordered by the Purchaser.

16. Entry to Private Land

Where it is necessary to enter on privately owned land for the purpose of making temporary road diversions, or for any other reason, the landowner or occupier shall first be consulted by the Supplier and his written permission obtained.

The Supplier shall ensure that, in case the landowner or occupier refuses access, the Purchaser is informed at least 6 weeks before the intended start of work in the area concerned.

Care shall be taken that no undue damage is caused to land, and at the completion of the work, the land shall be left in a tidy and restored (if appropriate) condition to the satisfaction of the landowner or occupier and the Purchaser.

17. Working Program

Before commencing installation services, the Supplier shall record any existing damage to adjacent buildings and notify the Purchaser thereof. Failing to do so, the Supplier may become liable to make good such damage at his own expense as it may be considered a result of result of his activities.

18. Language of Records

All time sheets, records, notes, drawings, documents, etc. shall be in the English language. If the original documents are in another language a certified translation in English shall be submitted to the Purchaser.

19. Connection to Public Services

The Supplier shall be responsible to obtain in time all necessary approvals from the relevant Balochistan / Federal Government Authorities/ Network providers to connect the groundwater monitoring wells in such a manner as required and approved by these Authorities. The costs involved are deemed to be included in the Contract Price.

20 Supplier's Monthly Reports**20.1 Progress Reports**

The Supplier shall report monthly progress to the Purchaser on charts submitted in triplicate showing actual work done superimposed on copies of his agreed program. He shall provide an explanation for any deviation from his program and shall in the case of delays propose strategies for improving progress.

The reports shall be delivered to the Purchaser within one week after the end of each month from commencement until the last month for completion of after sales service period.

20.2 Labour and Plant Returns

The Supplier shall include with his monthly reports details of all equipment, (including their values) and labour force employed on the Site together with a description of their deployment. He shall also provide list of all materials and equipment intended for use at the Site related to the supply of goods and to execute the related services.

20.3 Photographic Records

The Supplier shall provide a photographic record of the supply of goods at the site and execution of the related services by having photographs taken during the factory training and factory acceptance tests, delivery of equipment at site, installation, testing, inspections, commissioning, operation and maintenance, etc. as the purchaser may specify from time to time. The number of such photographs shall not exceed ten per month.

The Supplier shall supply three sets of colour prints, size 9x13 cm mounted on album sheets, dated and described.

All the costs related to the preparation and providing of progress report and photographic records shall be deemed to be covered in the contract price.

21 Compensation included in the Contract price

The rates and prices entered in the Priced Schedules for Goods and Related Services constitute the Contract Price.

The Contract Price shall, except insofar as it is otherwise provided under the Contract include all costs of Supplier's plant, labour, supervision, materials, equipment, machinery, transportation, erection, electricity and fuel, execution, insurance, profit, taxes and duties, together with all general risks, liabilities and obligations set out or implied in the Contract.

The Contract Price shall include the maintenance costs during Defects Notification Period (After sales service Period) of Two (02) years and training of Purchaser's staff.

The Schedules do not generally give a full description of the equipment to be supplied and the related services to be performed under each item. Supplier shall be deemed to have read the Schedule of Requirements, Technical Specifications and other sections of the Bidding Document to ascertain the full scope of the requirements included in each item prior to filling in the rates and prices. The entered rates and prices shall be deemed to cover the full scope as aforesaid, including overheads and profit.

The Supplier shall supply complete equipment for automatic groundwater monitoring wells including data loggers, sensors, enclosures, masts, mounting devices, solar panels, battery backup, , fitting materials and accessories, etc. as shown in Price schedule and or specified in the Technical Specifications. The costs of power cables, fitting materials and accessories, tools, nut bolts and other mechanical and electrical accessories if required for a complete system but not specifically mentioned in the Price Schedules shall be covered in the unit rates and prices of other supply items. These shall not be paid separately.

The Related services are grounded per stations. The Supplier shall be responsible to perform all related activities including drilling for wells, design and construction of wells, foundations and installation. The Supplier shall provide all the material, labour, constructional plant, drilling tools, etc. to execute the related Services and Civil Works such as geological, hydrogeological and geophysical surveys and investigation, design of wells, foundation, erection of mast and sensors and other equipment and slope protection. The Supplier shall do all the related civil Works through a specialist sub-contractor, if he does not possess the required experience. The Supplier shall be required prior approval of the specialist sub-contractor.

The Supplier shall facilitate the Purchaser's personnel / team to inspect the equipment at the Factory outlet and attend the Factory Acceptance Tests (FAT) and Factory training.

The Supplier shall provide the user manual, technical manuals and other manuals as well as the As-built drawings as specified in the Technical Specification and Price Schedules. Lump sum items have been provided in the Price schedules for this purpose.

Lists of special tools and accessories & equipment for testing and measurements as well as for the mandatory spars is included in the Price Schedules. The Lists are generic in nature which shall be finalized based on the manufacture's recommendations after award of the Contract.

TECHNICAL SPECIFICATION
PART II –SUPPLY, INSTALLAATION, TESTING AND COMMISSIONING
OF AUTAMTIC GROUNDWATER MONITORING WELLS
INCLUDING SUPPLY OF MANDATORY SPARES

1. SCOPE

Supply, installation, testing and commissioning of automatic Groundwater Monitoring Wells as described in the “Price Schedules, Delivery and Completion Schedule”.

In order to meet the above requirements, the Supplier shall provide equipment and services for the following facilities:

- Responsibility to execute the project by taking up to the installation of 15 Nos. Automatic Groundwater Monitoring Wells on sites and at locations as shown in SCC Sub Clause 1.1 (o). The no. of wells and the locations are tentative and can be altered/shifted as per site requirement and as directed by the Purchaser.
- Identify a suitable GSM/GPRS Service provider for the mobile subscriber network for all the above sites.
- Installation of Data Loggers based on GSM/GPRS and sensors at Monitring stations to obtain Water level, Temperature & Conductivity parameters etc.
- Integration and synchronization of all the above automatic Ground monitoring wells with Server within the Data Centre to be established at Quetta for data collection and processing. Provision shall be made to directly import data in the soft from the automatic groundwater monitoring wells downloaded manually from the data loggers.
- Installation, integration, calibration and commissioning of all sensors with all required accessories including transportation of all the equipment at site is Supplier’s responsibility.
- The storage and security of equipment at the sites will be the responsibility of the Suppliers till it is handed over to the PMU (BIWRMDP) after successful installation, testing, commissioning and provsional acceptance of the Sensors & Equipment.

2. Requirements for Automatic Groundwater Monitoring Wells

- The equipment should incorporate the state-of the-art technology and provide capability for unattended operation using solar panels with reacharable battery backup. The battery shall be capable to run the system for minimum of 30 days during total cloudy conditions.
- The Equipment (RTU/Data Loggers, Sensors, Tools & Accessories including Equipment for Testing & Measurement) etc. must be provided/supplied along with all the Accessories required for installation, testing & commissioning etc.
- All equipment should be qualified according to the specifications and suitable for outdoor applications in extreme conditions.
- The Automatic groundwater moiotring equipment installed above ground level must be housed in IP66/IP67 & NEMA-4 weather-proof enclosure and shall meet all specified environment

specification of international standards. The proposed enclosure must guarantee: dust protection and protected against low pressure water jets from any direction.

- Data loggers must have certification from WMO for functional operation.
- Data Loggers must be remotely configurable as per requirements, through web.
- The system should have in-built memory of storing data for at least one year period.
- PCMCIA (Personal Computer Memory Card International Association) memory card slot/ USB (Universal Serial Bus) or any other commercially available latest technology memory device for data retrieval and transfer of set up of the system shall be provided. All set up and configuration files should be transferable through the solid-state memory device to the data logger and vice versa.
- Facility to give manual commands to transmit data for testing as well as for manual operation purposes shall be provided.
- Software CDs of ground monitoring station's software utilized in the data logger and transmission unit is to be provided. Suitable training in these aspects shall also be provided in Pakistan to Purchaser's nominated staff.

3. Requirements for Onsite Display Unit

- System should have provision for a dedicated port in the Data Loggers to interface a cable linked remote display unit to facilitate values of groundwater parameters to be displayed in real time basis at user-defined intervals.
- Measured data should be sent to the display through a suitable output port, preferably RS-485 port or better which is currently in use and will remain in use in future.
- Provision for onsite display for user selected parameters at desired time interval.

4. Details of Groundwater Parameters

The following parameters are required from the sensors interfaced with the data logger.

1. Daily values of Water level, temperature and conductivity

5. Requirements for Data Communication System

- The communication medium for data transfer shall be cellular networks. The sites shall be selected so where GSM/GPRS cellular coverage is available. Data shall also be stored in the data logger and can be seen on site or downloaded to external storage manually by the maintenance team at the desired time.
- Overall requirements for compatibility to a GSM/GPRS cellular network may be ensured by the Supplier. Technical specifications in this aspect are broadly indicative. Complete end-to-end solution shall be the responsibility of the Supplier including a GSM/GPRS modem. In addition to sending an SMS of groundwater monitoring data over GSM network, GPRS communication features shall include support for UDP (User Datagram Protocol)/ TCP (Transmission Control Protocol) for data transmission. The Supplier will have to bear all the expenses in this regard.
- All the quoted GSM/GPRS modules should be able to integrate high gain external antennas for better reception and transmission of data.

-
- Data from a network of groundwater monitoring stations shall be utilized to analyze the changes in groundwater level, temperature and conductivity and provide real time access to internet users.
 - A robust, reliable, broad based on terrestrial GSM/GPRS communication system with capacity of sending data in text format shall be proposed.
 - Each station shall have facility to transmit data via GSM/GPRS to ensure data transfer in real time and avoid delay in reception of data at the server in case of network congestion.
 - Each station shall send an automatic message every pre-defined interval (sampling interval) to the server. The sampling interval shall be programmable for user-defined intervals, say from 1 hours to 1 day.
 - Facility to log and store data locally into a flash EPROM (Erasable Programmable Read-Only Memory), retrieve them later from server by placing a data call so as to obtain detailed logs with sampling intervals as accurate as 2 minutes.
 - Facility to automatically gather data as & when needed at user-defined time interval and store in the server for later analysis.
 - Respond to a Query/SMS requesting for current groundwater monitoring data.
 - Automatic SMS alarms at programmable levels for low/high water level, temperature, conductivity conditions.
 - The stations must be configured to connect the Server at a user specified time.
 - Software to manage a GSM/GPRS communication for auto troubleshooting and making the systems functional with minimum down time.
 - Facility to display data, export to Excel/ MATLAB or similar applications for graphical representation of data etc.
 - All the data received in the Central Server should be in standard exchangeable RDBMS (Relational Database Management System) format Necessary RDBMS software such as “MS SQL server” or similar applications along with license to be installed in the server for any query on any station for any period on any parameter. GUI (Graphical User Interface) based statistical tool should be available on the server (SPSS, MATLAB etc or similar applications).
 - The Supplier has to install the GSM/GPRS for M2M services Static IP Data Sims at all the sites. Supplier will be responsible for the payment of monthly bill of each site till the end of Warranty period / O&M period.
 - The Supplier will be responsible for provision of Land line/Fiber Fast/Wireless 4G Broadband/GSM/GPRS Internet Connection (with Static IPs) as approved by the PMU/Client in the Data Center/ Central Server and for payment of monthly bill till the end of Warranty Period / O&M period.
 - The Supplier will be responsible to register all the provided Modems with PTA. The Purchaser shall provide support to the Supplier in this respect in the form of letter written to concerned

authorities.

6. Technical Specification of Conductivity, Temperature and Depth data logging / Data logger (CTD) Unit

The detailed Technical Specifications of Conductivity, Temperature and Depth data logging / data logger unit shall be as following:

- 4-electrode conductivity sensor (Range = 0.005 to 7 mS/cm, Accuracy = $\pm 5\%$ of reading mS/cm or less & Resolution = 0.1% of reading mS/cm)
- Temperature sensor (Range = 0°C to 50°C and Accuracy = $\pm 0.2^\circ\text{C}$ or less)
- Piezometer (Range = 5-300 m, Accuracy = $\pm 0.1\%$ FS or cmH₂O & Resolution = 0.0035% FS)
- Memory (measurements with backup 100,000 / 30 MB serial flash reading or higher)
- Operating temperature = -40°C to 60°C
- Onsite display unit for data display, view
- Special vent cable as per requirement
- Standard solutions for calibrations and licensed softwares
- 4mm PVC coated steel rope for lowering down the sensors. Length as per the length of wires of sensors
- Telemetry (transmission) / sender system / with 4G Modem (PTA Registered), remote connectivity option for configuration, programming, data downloading and viewing.
- Manufacturer should be ISO 9001 and 14001 certified for sensors and data logger manufacturing.
- Products should be compliant with 2014/30/EU, 2011/65/EU, EN 61326-1: 2013 and EN 50581: 2012 standards in accordance with EN ISO/IEC 17050:2010.
- Accreditation or registered or approved with European Union (EU) Declaration of Conformity or UK Conformity Assessed (UKCA) Declaration of Conformity, 2 years manufacturer warranty.
- All equipments /tools must be with all standard accessories, warranty card original by the manufacturer.
- A composite / complete integrated solution must be provided, installed and made functional.

7. Technical Specification of Solar Power System

The detailed Technical Specifications of solar power system shall be as following:

- 30W Solar Panel shall be of USA/German or equivalent brand
- 11Ah, 12VDC Maintenance Free Battery shall be of USA/German or equivalent brand.

8. Technical Specification of Panel / Enclosure

The detailed Technical Specifications of panel / enclosure are as following:

- Protection Rating = NEMA-4, IP66/IP67
- Material = Stainless Steel 316 grade/ Fiberglass-reinforced polyester enclosure with door gasket, external grounding lug, stainless-steel hinge and lockable hasps.
- Degree of Protection = Degree of protection against falling dirt, rain, sleet, snow, windblown dust, splashing water, and hose-directed water; and that will be undamaged by the external formation of ice on the enclosure.
- Additional radiation shield to protect the enclosure from direct sunlight radiation.

9. Specification of Data Logger Mast

The detailed Technical Specifications of Data Logger Mast are as following:

- 1.5” diameter, 7ft high G.I Mounting Pole (Heavy duty) fixed in concrete pad over the constructed groundwater monitoring well.
- Fixing of Solar Panel and Enclosure over the GI pipe including all jointing materials, clamps, nut, bolts, etc. complete in all respect.

10. Technical Specification of Water Sampling and Testing

The Supplier shall supply equipment for water sampling including samplers, steel ropes for lowering the sampler, pumping equipment for purging of water before taking water samplers, complete in all respect as per Manufacturer.

PART III – TECHNICAL SPECIFICATION FOR CIVIL WORKS**Requirements**

The Supplier shall provide all labour, machinery, equipment and materials for the construction and installation of the concrete pad, steel box with lockable arrangements, GI Pole, and security hub. The details are as below:

- Supply and construction of concrete pad over the groundwater monitoring well including supply and installation of steel box with lockable arrangements complete in all respect as shown on drawings and approved by the Purchaser.
- Supply and of 1.5” diameter, 7ft high G.I Mounting Pole (Heavy duty) fixed in concrete pad over the constructed groundwater monitoring well including fixing of Solar Panel and Enclosure over the GI pipe including all jointing materials, clamps, nut, bolts, etc. complete in all respect as approved by the Purchaser.
- Construction / Fabrication of security hub with lock system struck proof, fire proof and unbreakable (3") material size (5' x 5' x 8') with preparing of base (7' x 7' x 6") and door (2.5' x 6') fiber made superior quality including carriage from source to site fixing at site and color finishing, display plate (Stainless steel) for safety of automatic groundwater monitoring data logger complete in all respects etc. as approved by the Purchaser (See Section VII - Schedule of Requirements)

PART IV – OPERATIONAL AND MAINTENANCE OF THE SYSTEM INCLUDING SUBMISSION OF SUPPLIER’S DOCUMENTS AND TRAINING OF PURCHASER’S STAFF

1. General

The Supplier shall provide the following services and support during the installation as well as the operation and maintenance period (after sales service period):

- Operation and Maintenance Visits including Training of the Purchase’s Staff,
- Development of Operation Management Plan,
- Development of Station Management Plan,
- Development of Calibration Procedures, and
- Development of Spare Parts Strategy
- Defect notification by the Purchaser and Defect Removal by the Supplier (free of cost).
- Replacement of damaged / non functional Sensors and other Equipment from Manufacturer under warranty period (free of cost).

2. Operation and Maintenance of the System

The operation and maintenance of the field stations shall be carried out by the Drilling Directorate of Balochistan Irrigation Department. The Supplier shall recommend the team combination /configuration required for the O&M. Provisional site visits are included in the price schedule for related services; however the supplier shall perform the visits with the prior approval of the Employer. During the visits, the Supplier’s experts shall perform site surveys at all the installed automatic groundwater monitoring wells; perform the necessary preventive repairs and calibration of installed equipment. At the end of each site visit, the Supplier experts shall prepare and submit condition survey reports including Supplier’s recommendation regarding improvement in the performance of the equipment.

3. Training of Purchaser’s Staff

The Supplier shall arrange and undertake a comprehensive training programme for the Employer's personnel to ensure that they shall acquire a good working knowledge of the installation, operation, maintenance and repair of all the equipment to be supplied under the Contract. The Supplier shall support the Drilling Directorate operation and maintenance staff by providing experts’s trainings at the following occasions:

- Factory Acceptance Testing.
- Site Acceptance Testing.
- Installation, Commissioning and Final Acceptance Testing of the Equipment.
- Post Installation Training at Project Director Office, Quetta.
- Operation and Maintenance Site Visits for preventative repairs and calibration of equipment.

The supplier shall also prepare /approve the respective training documents and presentations covering each aspect of the above trainings.

The Supplier will have just to take into account costs relative to:

- Hall rental

- Computer rental (If necessary)
- Training organization

The training will take place in Quetta and the exact place of training would be decided by PMU and the supplier.

The logistics for the training with respect to place of training and arrangements for trainees would be the responsibility of the Supplier.

The text to be supplied to the trainees would be prepared by the Supplier and would be included as a part of the full training package. Time table for the training would be prepared by the Supplier in consultation with the Purchaser.

Instrumentation system

Instrumentation System refers here to the sensors to be installed to monitor the automation system.

Training planned should allow skilled staff, according to their level of responsibility, to:

- be familiar with the equipment used,
- manage the equipment on a daily basis, and therefore handle maintenance,
- interpret certain measurements furnished by the system, and adjust them if needed.

General Knowledge of Sensors

This training session will allow managers to be aware of the type of sensors installed, the measurements they furnish, and their reliability.

This basic training session is designed for as large an audience as possible:

Minimum duration: 1 day
Number of persons: 10 or more

Sensors' Maintenance

This training session shall give the Instrument Engineer and maintenance staff the opportunity to gain more in-depth knowledge of instrument operation: calibration procedures, preventive maintenance requirements.

Minimum duration: 2 days
Number of persons: 10 or more

Measurement Interpretation

This training session, geared particularly to operators, gives trainees a critical approach to measurements carried out, prescribing instrument inspection.

Minimum duration: 2 day
Number of persons: 5 or more

Eventually, these training sessions could be tailored according to the sensors installed, by organizing a short session per type of sensor or as directed by the PMU.

4. Operational Management Plan

The Supplier shall develop operational management plan for the next 10 years to guarantee the highest availability and the best quality data. The Supplier shall submit draft plan in triplicate for review to the purchaser and accordingly submit the final plan (five sets in hard bound) to the purchaser.

5. Station Management Plan

The Supplier shall develop Station Management Plans for each station which shall include details on the following aspects. The Supplier shall submit draft plan in triplicate for review to the purchaser and accordingly submit the final plan (five sets in hard bound) to the purchaser.

- Instrument / Station Preventative maintenance
- Instrument / Station Corrective maintenance
- Site maintenance (Fencing, removing grasses, cleaning of equipment, etc.
- Site Inspections

6. Calibrations Procedures

The Supplier shall provide / develop procedures for the calibrations of sensors and equipment. The following calibration procedures shall be provided by the Supplier. The Supplier shall submit draft procedures in triplicate for review to the purchaser and accordingly submit the final procedures (five sets in hard bound) to the purchaser.

- Laboratory calibration procedures
- Field Calibration Procedures
- Tracking of Calibration History

7. Spare Parts Strategy

The Supplier shall provide / develop spare parts strategy to be used for calibration swapping of instruments (preventive maintenance) and to quickly replace the instrument when they break. The Supplier shall submit draft strategy in triplicate for review to the purchaser and accordingly submit the final strategy (five sets in hard bound) to the purchaser. The spare parts strategy shall comprise the following;

- Calibration swapping
- Replacing broken or damaged sensors
- Quantities for 10 years of period.

PART V – TECHNICAL SPECIFICATIONS FOR CONSTRUCTION OF AUTATIC GROUNDWATER MONITORING WELLS

1.1 Scope

The work covered shall consist of well drilling, installation of components, shrouding, development and testing including all plant, labour, equipment & other miscellaneous works necessary for the satisfactory completion of the monitoring well as specified and approved by the Engineer-in-Charge.

Before proceeding with the work the Supplier shall submit a complete work plan for performing the work. This will include but be not limited to manpower, plant and equipment and schedule of performance for completion of work.

The Supplier shall employ at site a fulltime competent Superintendent for overall supervision of the work.

The Supplier shall do all the Drilling Works through a specialist sub-contractor, if he does not possess the required experience. The Supplier shall be required prior approval of the specialist sub-contractor.

1.2 Drilling

1.2.1 General

The Supplier shall drill bore hole for the monitoring well at the designated location approved by the Engineer-in-Charge, The Contrator shall prepare the site for the construction of the monitoring well and shall provide for water for construction requirements, the disposal of water, cuttings and refusals from the operations away from the monitoring well.

1.2.2 Drilling Conditions

General overall conditions related to the ground water at the site of tube-well if available will be made known to the Supplier. The Supplier is expected to make his own assessment of the character, quality and the conditions that may be encountered and shall take full responsibility for performance of work as specified.

1.2.3 Drilling Procedure

The bore hole shall be drilled either by direct or reverse circulation rotary method, The diameter of the drilling bit shall depend on the bore size as specified on drawings or as directed by the Engineer-in-Charge. The bore hole shall be drilled straight and plumb so that the well casing may be installed concentric with the hole and within the tolerance specified for plumpness of the casing. Waste materials from the drilling operation shall be disposed of in a manner approved by the Engineer-in-Charge.

The Supplier shall be responsible for protecting the monitoring wells from contamination with foreign materials until the completion of the monitoring well. The Supplier shall bear any expense that may result from any damage to monitoring well, tools, or equipment that may be caused by caving, washing, or other disturbances within the monitoring wells.

To prevent sloughing and caving of surface material and/or the hole, the Supplier shall furnish and install a boring casing pipe with a minimum diameter 2 inches greater than the bit diameter from not less than 6 inches above the ground surface to bottom of the hole. The casing pipe shall be new or used pipe of adequate strength for the purpose. After the drilling is completed, the casing pipe shall be removed by the Supplier and shall remain his property.

The use of drilling fluid additives or other suitable materials specially approved by the Engineer-in-Charge may be applied in stabilizing the bore hole. The casing shall be removed by the Supplier after the installation of well casing along with the strainer in the bore hole. However in case of the tube-wells where shrouding material is to be provided around the periphery of the strainer (or around the strainer and the pump housing pipe) and the inner walls of the bore hole the casing shall be removed in 1.5 to 3 meters stages as shrouding is placed.

If in the opinion of the Engineer-in-Charge, it is necessary to discontinue work on any bore hole because it is out of line more than the specified limit or on account of jammed tools, or caving ground, or because of negligence on the part of the Supplier, the Supplier shall drill another bore hole at an alternative location designated' by the Engineer-in-Charge. The Supplier will not be entitled to payment for any work done or materials furnished for bore holes abandoned as a result of his operation or negligence.

1.2.4 Data and Records

The Supplier shall keep an accurate drilling log of each bore hole including a description of all materials encountered and their location in the bore hole.

All records and data shall be kept by the Supplier on forms approved by the Engineer-in-Charge. The Supplier shall deliver to the Engineer-in-Charge the original of all records completed in all respects.

1.2.5 Sampling

Representative ditch samples or cuttings of the material penetrated shall be taken at every 5 ft. (1.5m) depth of borehole or at each change in litho-logy encountered whichever is less. Special care shall be exercised to determine the thickness and location of each change in material encountered and to obtain satisfactory samples.

Immediately upon taking the sample, each sample shall be placed in a plastic or cloth bag or specified partitioned wooden box, or other approved container, properly marked for identification, and plainly labelled with the depth of the top and bottom of the section of the bore hole represented.

The containers shall be furnished by the Supplier. The method of obtaining, processing, and storing the samples will be subject to approval by the Engineer-in-Charge.

The Supplier shall deliver all samples to the Engineer-in-Charge at the site of the monitoring wells, except that when requested to do so by the Engineer-in-Charge, the Supplier shall deliver specified samples to the Engineer's field headquarters.

1.2.6 Measurement

Dimensions shall be measured nearest to a cm. Measurement of length on completion shall be along the axis of boring. No allowance shall be made for bulking, shrinkage, cut off tolerance, wastage and hiring of tools, equipment for excavating, driving, depth of boring.

1.3 Installation of Monitoring Well Components

1.3.1 General

Installation shall consist of all work required in connection with the erection of blind pipe, reducer, screen and bail plug/ sand trap required for each monitoring well as specified herein or on the Drawings or as directed by the Engineer-in-Charge and shall include, but not be limited to storing, fabricating and installing all the monitoring well components including concentric reducers.

1.3.2 Materials

1.3.2.1 PVC Blind Pipes

The monitoring well blind pipe casing shall be made of PVC (Class D, 1st quality) manufactured by IIL, Dadex or equivalent make registered with PSQCA and shall be of designated diameters as indicated in the drawings. The PVC blind pipes shall conform to BSS-3505/1968.

All these pipes shall be free from dents, injuries, scars and ovalities. The pipes shall be installed to extend above ground level as approved by the Engineer-in-Charge in addition to the casing as specified below ground level.

1.3.2.2 Well Screen

The monitoring well screen shall be PVC (Class D, 1st quality) suitable for gravel /sand filter monitoring well and strong enough for location at a depth as shown' on drawings, below ground level.

The strainer shall have smooth, sharp edged slots free of burrs, chipped edges, or broken areas on the interior or exterior surfaces of the pipe. The slots shall be machine cut having not more than 1.6 mm width. The width of the slot shall be dependent on the particle sizes of the sand. The open area of slotted casing shall be as approved by the Engineer-in-Charge. The slots or groups of slots shall be distributed in a uniform pattern around the periphery of the pipe. The openings shall be free from jagged edges irregularities or anything that will accelerate or contribute to clogging or corrosion.

1.3.2.3 Bail Plug

Bail plug/Sand trap shall be of the same material and thickness as followed for well casing. Sand trap shall be provided with a base plate, welded at one end of the pipe. A steel hook bent in the form of 'U' shall be bolted to the base plate to sustain suspended length casing including the strainer and blind pipe. Bail plug/Sand trap shall be one to three meters long in size or as indicated in the drawing.

1.3.3 Fabrication

The length and sizes of monitoring well casing (slotted and blind pipe) to be installed shall be specified for the monitoring well by the Engineer-in-Charge and shall be sufficient to extend from the ground surface to the top of the bail plug. Bail plug shall be provided at the bottom of the monitoring well casing. The monitoring well casing shall consist of sections for installation opposite water yielding formations and plain pipe sections or bail plug opposite non-water yielding formations or as directed by the Engineer-in-Charge.

1.3.4 Installation

The Supplier shall install the entire monitoring well casing assembly straight, plumb, and concentric in the drilled hole to permit the installation of the equipment in such a manner that it will operate satisfactorily and without damage. The methods employed by the Supplier in the installation of the casing and in obtaining or correcting the verticality & straightness of the casing shall be subject to the approval of the Engineer-in-Charge.

Centralizers, spacers or other suitable devices shall be attached to the monitoring well casing so that it will be cantered in the drill hole throughout its entire length and held in such position while gravel shrouding is being placed.

Centralizers shall be attached to the pipe in a manner that ensures that the pipe is accurately cantered in the drill hole. The detailed design of centralizers and the method of attachment to the pipe shall be subject to the approval of the Engineer-in-Charge. Unless otherwise directed centralizers shall be spaced not more than 60 ft. along the overall length of screen and casing assembly.

The Supplier shall install the casing and screen so that the deviation of its axis from the vertical shall not exceed 4 inches (100 mm) at the ground surface. Measurements for determination of verticality and straightness of the casing shall be made by the Supplier in the presence of the Engineer-in-Charge upon completion of the gravel shrouding.

Straightness shall be determined by lowering a section of pipe or a dummy of the same length to the bottom of the casing. The minimum diameter of the pipe or dummy shall be 1 inch less than the inside diameter of the casing. If a dummy is used, it shall consist of a rigid spindle with three cylindrical rings, each ring having a height of at least 12 inches. The rings shall be true cylinders and shall be located at each end and in the centre of the dummy. The central shaft of the dummy shall be rigid so that it will maintain the alignment of the axis of the cylindrical rings. The casing shall be sufficiently straight so the pipe or dummy can be passed freely throughout the entire length of the casing. Plumbs, pipes and dummies used in these tests shall be approved by the Engineer-in-Charge.

Any monitoring well failing to meet the specified requirements for straightness, verticality and concentricity shall be abandoned, and the Supplier shall construct a new well at his own expense at an alternative site designated by the Engineer-in-Charge.

After completion of installation of the monitoring well casing and approval of the installation by the Engineer-in-Charge, the Supplier shall paint the letter and number designation of the monitoring well on that portion of the casing which projects above the ground surface. All paint, brushes, stencils and other materials required shall be furnished by the Supplier. The

characters shall not be less than 6 inches shall be painted with lines 1 inch wide, and shall be positioned on the casing in accordance with the Engineer's instructions.

1.3.5 Measurement

The net length of pipes as laid or fixed, shall be measured in the running metres correct to a cm. The cost of specials shall be included in the unit rates. The portion of the pipe within the collar at the joints shall not be included in the length of pipe work.

1.4 Gravel Shrouding

1.4.1 General

Gravel shrouding shall consist of all work required in connection with supply and placing of gravel shrouding in annular space between the walls of the drilled hole and the outside of the well casing. The work shall include, but not limited to development of source, excavation, stock piling, grading, washing, storing, transporting and placing of gravel shrouding as specified herein or as directed by the Engineer-in-Charge.

1.4.2 Gravel Source

The Supplier may obtain gravel from any source or location subject to the approval of the Engineer-in-Charge provided that the gravel meets the requirements of the specifications. The Department will not be responsible for the amount of work involved or the amount of materials wastage in order to obtain the required amount of gravel of proper gradation.

1.4.3 Specifications

The gravel shrouding shall be clean, washed, water worn, hard, well rounded of siliceous material, without platy particles, free from gypsum and shale, and under no circumstances shall contain > 5% calcareous material. The gravel supplied shall be subject to inspection and screening in the field to ensure proper gradation suitable to the formation. The gravel shall be reasonably graded and shall conform to the following requirements or as per the Supplier approved design for the gravel shrouding / filter pack.

U.S. Standard Screen Number	Percentage Passing
1 cm (3/8 inches)	100
No. 4	75 - 100
No. 8	35 - 65
No. 14	05 - 30
No. 16	00 - 15
No. 35	00 -00

1.4.4 Placing the Gravel / Filter Pack

When placing the gravel into the borehole, a minimum of 6-inches of the gravel material should be placed under the bottom of the well screen to provide a firm base.

Gravel shall be placed at constant rate using tremie pipe, hoppers or other similar devices to provide a continuous and uniform gravel flow so as to minimize segregation of particle sizes.

When tremie pipe or hoppers are used, gravel shall be introduced in the annular space between the casing and the edge of the hole at two points located 180 degree apart. The tremie pipe, when used, shall be of suitable size and lowered to the bottom of the well on two opposite sides of the bore hole and calculated quantity of gravel shall be poured in the pipe through a funnel and the pipe shall be raised by 6 ft. (1.80 meters) interval. In all cases water shall be circulated steadily during gravel placement. The water level in the annular space outside the casing shall be maintained at or above natural surface level. Temporary casing, if used, shall be carefully withdrawn in 6 ft. to 10 ft. (1.5 m to 3.0 m) interval during placement of gravel shrouding and the gravel shall be introduced so that each stage of the hole above bottom of the casing is completely filled before the casing is withdrawn to the next stage. The process of placement of gravel shrouding and withdrawing the temporary casing shall be continued to the ground level or upto level approved by the Engineer-in-Charge. As guidance the process shall be continued until the bottom of temporary casing is at least 10 ft above top of the topmost screen or as shown on drawings. Above this point temporary casing shall be removed or left at the option of the Supplier provided that no payment shall be made to the Contactor for temporary casing left in place except when it is of new material and is an acceptable substitute for an appropriate length of pump housing casing.

1.4.5 Measurement

Gravel shrouding shall be measured in cubic meter correct upto 2 decimal place.

1.5 Gravel /Filter Pack Seal – Bentonite Pellet Seal (Plug)

The annular space between the casing and the borehole wall should be filled with either a 30% solids bentonite grout, a neat cement grout, or a cement/bentonite grout. Each type of grout selected should be evaluated as to its intended use and integrity. Bentonite grouts are preferred unless the application dictates the use of another material.

Bentonite grout shall be a 30% solids pure bentonite grout. Drilling muds are not acceptable for grouting. The grout should be placed into the borehole, by the tremie method, from the top of the bentonite seal to within 2-feet of the ground surface or below the frost line, whichever is the greater depth. The bentonite pellet seal or gravel ghrouding / filter pack should not be disturbed during grout placement, either by the use of a side discharge port on the tremie tube, or by maintaining clearance between the bottom of the tremie tube and the bentonite seal or gravel / filter pack. The grout should be allowed to cure for a minimum of 24 hours before the concrete surface pad is installed. The preferred method of achieving proper solids content is by measurement of ingredients per the manufacturer's specifications during mixing with a final check by grout balance after mixing. Bentonite grouts should have a minimum density of 10 lbs/gal to ensure proper gelling and low permeability. The density of the first batch of grout should be measured while mixing to verify proper measurement of ingredients. In addition, the grouting operation should not cease until the bentonite grout flowing out of the borehole has a minimum density of 10 lbs/gal. Estimating the grout density is not acceptable.

Cement grouts are generally dictated where a high level of dissolved solids or a particular dissolved constituent would prevent proper gelling of a bentonite grout. Neat cement grouts (cement without additives) should be mixed using 6 gallons of water per 94-lb bag of Type 1

Portland cement to a density of 15lbs/gal. The addition of bentonite (5 to 10 percent) to the cement grout can be used to delay the "setting" time and may not be needed in all applications. The specific mixtures and other types of cement and/or grout proposed should be evaluated on a case by case basis by a senior field geologist.

1.5.1 Measurement

Bentonite grout shall be measured in cubic meter correct upto 2 decimal place.

1.6 Well Development

A newly completed monitoring well should not be developed for at least 24 hours after the surface pad and outer protective casing are installed. This will allow sufficient time for the well materials to cure before development procedures are initiated. The main purpose of developing new monitoring wells is to remove the residual materials remaining in the wells after installation has been completed, and to try to re-establish the natural hydraulic flow conditions of the formations which may have been disturbed by well construction, around the immediate vicinity of each well.

A new monitoring well should be developed until the column of water in the well is free of visible sediment, and the pH, temperature, turbidity, and specific conductivity have stabilized. In most cases the above requirements can be satisfied; however, in some cases the pH, temperature, and specific conductivity may stabilize but the water remains turbid. In this case the well may still contain well construction materials, such as drilling mud in the form of a mud cake and/or formation soils that have not been washed out of the borehole. Excessive or thick drilling mud cannot be flushed out of a borehole with one or two well volumes of flushing.

Continuous flushing over a period of several days may be necessary to complete the well development. If the well is pumped to dryness or near dryness, the water table should be allowed to sufficiently recover (to the static water level) before the next development period is initiated.

Caution should be taken when using high rate pumps and/or large volume air compressors during well development because excessive high rate pumping and high air pressures can damage or destroy the well screen and gravel / filter pack. The onsite geologist should make the decision as to the development completion of each well. All field decisions should be documented in the field log book.

The following development procedures, listed in approximate increasing order of the energy applied to the formation materials, are generally used to develop wells:

1. Bailing
2. Pumping/overpumping
3. Surging
4. Backwashing ("rawhiding")
5. Jetting
6. Compressed air (with appropriate filtering): airlift pumping and air surging

These development procedures can be used, individually or in combination, in order to achieve the most effective well development.

In most cases, over-pumping and surging will adequately develop the well without imparting undue forces on the formation or well materials. Because of the danger of introducing contaminants with the airstream, the possibility of entraining air in the aquifer, and the violent forces imparted to the formation, air surging is the least desired method of development and should only be used where there is a specific need for the procedure. Air-lift pumping is permissible where an eductor pipe is used and several well volumes of water are removed from the well by other pumping means after air-lift pumping.

Additional time before the first sampling event should be allowed when using air development methods, particularly airlift. The selected development method(s) should be approved by a senior field geologist before any well installation activities are initiated.

Wells can require a considerable length of time to equilibrate with the aquifer after construction and development. The length of time between development and the first sampling event should be as long as possible with times from 1 to 14 days recommended. The possibility of the first sampling event's results being non-representative should always be considered.

1.6.1 Measurement and Data

The Supplier shall take drawdown and discharge measurements and other pertinent data during each test at intervals as specified by the Engineer-in-Charge. All such data shall be recorded on forms approved by the Engineer-in-Charge, and the original of such forms shall be delivered to the Engineer-in-Charge at the completion of the development and testing operations. Well development operations shall be measured in working hours actually utilized during pumping operations.

1.7 Safety Procedures for Drilling Activities

A site health and safety plan should be developed by Supplier and approved by the Engineer Incharge prior to any drilling activities, and should be followed during all drilling activities. The driller or designated safety person should be responsible for the safety of the drilling team performing the drilling activities. All personnel conducting drilling activities should be qualified in proper drilling and safety procedures. Before any drilling activity is initiated, utilities should be marked or cleared by the appropriate state or municipal utility protection organization. In developed areas, additional measures should be taken to locate utilities not covered by the utility protection program. Before operating the drill rig, a pilot hole should be dug (with hand equipment) to a depth of three feet to check for undetected utilities or buried objects. Proceed with caution until a safe depth is reached where utilities normally would not be buried. The following safety requirements should be adhered to while performing drilling activities:

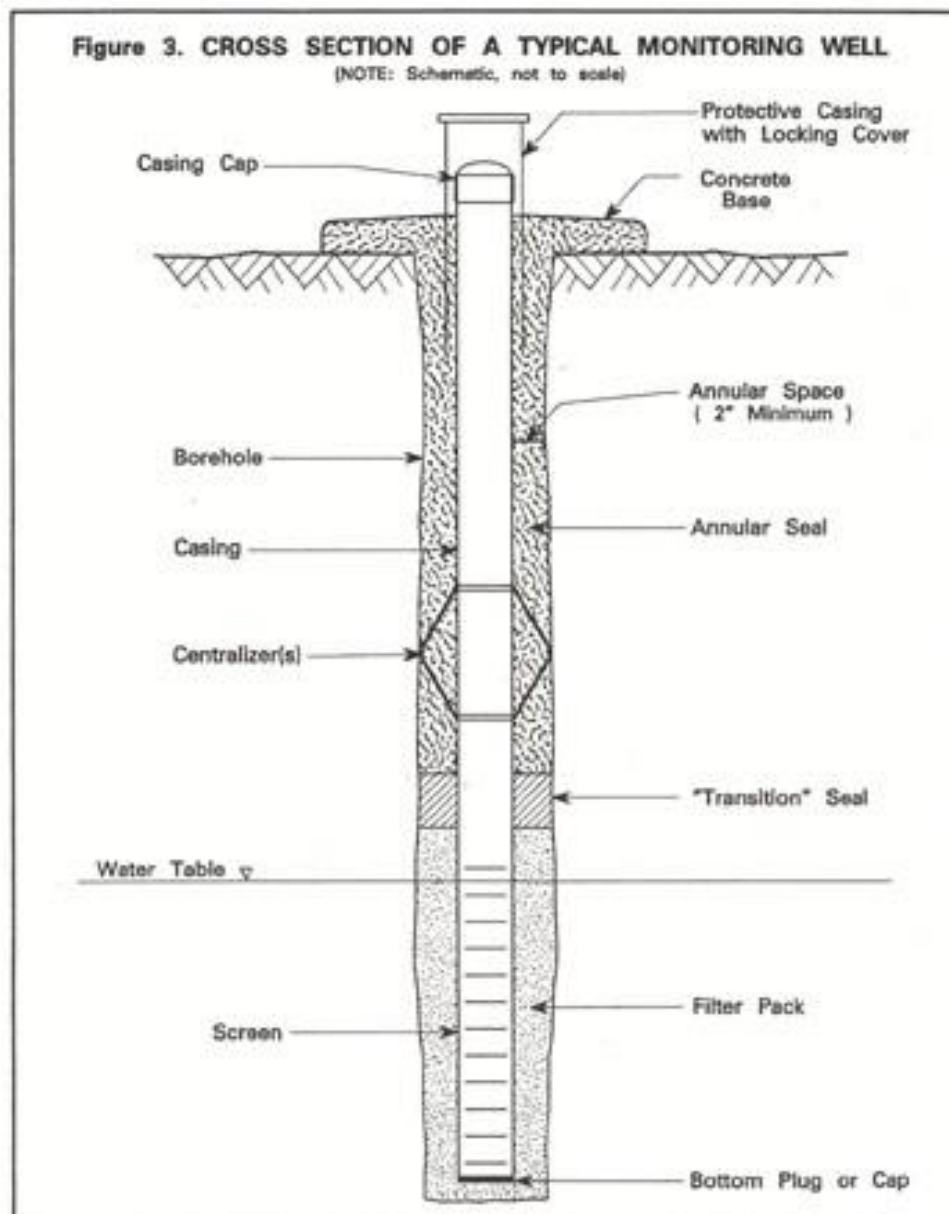
- All drilling personnel should wear safety hats, safety glasses, and steel toed boots. Ear plugs are required and will be provided by the safety officer or driller.
- Work gloves (cotton, leather, etc.) should be worn when working around or while handling drilling equipment.

-
- All personnel directly involved with the drilling rig(s) should know where the kill switch(s) is located in case of emergencies.
 - All personnel should stay clear of the drill rods or augers while in motion, and should not grab or attempt to attach a tool to the drill rods or augers until they have completely stopped rotating. Rod wipers, rather than gloves or bare hands should be used to remove mud, or other material, from drill stem as it is withdrawn from the borehole.
 - Do not hold drill rods or any part of the safety hammer assembly while taking standard penetration tests or while the hammer is being operated.
 - Do not lean against the drill rig or place hands on or near moving parts at the rear of the rig while it is operating.
 - Keep the drilling area clear of any excess debris, tools, or drilling equipment.
 - The driller will direct all drilling activities. No work on the rig or work on the drill site will be conducted outside of the driller's direction. Overall drill site activities will be in consultation with the site geologist or engineer, if present.
 - Each drill rig will have a first-aid kit and a fire extinguisher located on the rig in a location quickly accessible for emergencies. All drilling personnel will be familiarized with their location.
 - Work clothes will be firm fitting, but comfortable and free of straps, loose ends, strings etc., that might catch on some moving part of the drill rig.
 - Rings, watches, or other jewelry will not be worn while working around the drill rig.
 - The drill rig should not be operated within a minimum distance of 20 feet of overhead electrical power lines and/or buried utilities that might cause a safety hazard. In addition, the drill rig should not be operated while there is lightening in the area of the drilling site. If an electrical storm moves in during drilling activities, the area will be vacated until it is safe to return.

5. Drawings

The Bidding Documents includes *the following* drawings:

List of Drawings	
Drawing No.	Description and Purpose
Drawing No.1	Typical Section Autoamtic Groundwater Monitoring Well
Drawing No.2	Top View Groundwater Monitoring Well Foundation (under construction)
Drawing No.3	Typical View Construction of Concrete Pad and Steel Box with Lockable Arrangements over the Well (under construction)
Drawing No.4	Typical View - Installation of automated Groundwater Monitring Equipment Protected with Security Hub (under construction)



Drawing No. 1 – Typical Section Groundwater Monitoring Well



**Drawing No. 2 –Top View Groundwater Monitoring Well Foundation
(under construction)**



Drawing No. 3 –Typical View Construction of Concrete Pad and Steel Box with Lockable Arrangements over the Well (under construction)



Drawing No. 4 –Typical View - Installation of automated Groundwater Monitoring Equipment Protected with Security Hub (under construction)

PART 3 - Contract

Section VIII - General Conditions of Contract

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Section VIII - General Conditions of Contract

1. Definitions

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

- (a) “Bank” means the World Bank and refers to the International Bank for Reconstruction and Development (IBRD) or the International Development Association (IDA).
- (b) “Contract” means the Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.
- (c) “Contract Documents” means the documents listed in the Contract Agreement, including any amendments thereto.
- (d) “Contract Price” means the price payable to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions therefrom, as may be made pursuant to the Contract.
- (e) “Day” means calendar day.
- (f) “Completion” means the fulfillment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.
- (g) “GCC” means the General Conditions of Contract.
- (h) “Goods” means all of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser under the Contract.
- (i) “Purchaser’s Country” is the country specified in the **Special Conditions of Contract (SCC)**.
- (j) “Purchaser” means the entity purchasing the Goods and Related Services, as **specified in the SCC**.
- (k) “Related Services” means the services incidental to the supply of the goods, such as insurance, installation, training and initial maintenance and other such obligations of the Supplier under the Contract.
- (l) “SCC” means the Special Conditions of Contract.
- (m) “Subcontractor” means any person, private or government entity, or a combination of the above, to whom any part of

the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier.

(n) “Supplier” means the person, private or government entity, or a combination of the above, whose Bid to perform the Contract has been accepted by the Purchaser and is named as such in the Contract Agreement.

(o) “The Project Site,” where applicable, means the place named in the **SCC**.

2. Contract Documents

2.1 Subject to the order of precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory. The Contract Agreement shall be read as a whole.

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 Appendix to the GCC.

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

4. Interpretation

4.1 If the context so requires it, singular means plural and vice versa.

4.2 Incoterms

(a) Unless inconsistent with any provision of the Contract, the meaning of any trade term and the rights and obligations of parties thereunder shall be as prescribed by Incoterms **specified in the SCC**.

(b) The terms EXW, CIP, FCA, CFR and other similar terms, when used, shall be governed by the rules prescribed in the current edition of Incoterms specified in the **SCC** and published by the International Chamber of Commerce in Paris, France.

4.3 Entire Agreement

The Contract constitutes the entire agreement between the Purchaser and the Supplier and supersedes all communications, negotiations and agreements (whether written or oral) of the parties with respect thereto made prior to the date of Contract.

4.4 Amendment

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

4.5 Nonwaiver

- (a) Subject to GCC Sub-Clause 4.5(b) below, no relaxation, forbearance, delay, or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect, or restrict the rights of that party under the Contract, neither shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract.
- (b) Any waiver of a party's rights, powers, or remedies under the Contract must be in writing, dated, and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.

4.6 Severability

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

5. Language

- 5.1 The Contract as well as all correspondence and documents relating to the Contract exchanged by the Supplier and the Purchaser, shall be written in the language specified in the **SCC**. Supporting documents and printed literature that are part of the Contract may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified, in which case, for purposes of interpretation of the Contract, this translation shall govern.
- 5.2 The Supplier shall bear all costs of translation to the governing language and all risks of the accuracy of such translation, for documents provided by the Supplier.

6. Joint Venture, Consortium or Association

- 6.1 If the Supplier is a joint venture, consortium, or association, all of the parties shall be jointly and severally liable to the Purchaser for the fulfillment of the provisions of the Contract and shall designate one party to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior consent of the Purchaser.

7. Eligibility

- 7.1 The Supplier and its Subcontractors shall have the nationality of an eligible country. A Supplier or Subcontractor shall be deemed to have the nationality of a country if it is a citizen or constituted,

incorporated, or registered, and operates in conformity with the provisions of the laws of that country.

- 7.2 All Goods and Related Services to be supplied under the Contract and financed by the Bank shall have their origin in Eligible Countries. For the purpose of this Clause, origin means the country where the goods have been grown, mined, cultivated, produced, manufactured, or processed; or through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its components.

8. Notices

- 8.1 Any notice given by one party to the other pursuant to the Contract shall be in writing to the address specified in the **SCC**. The term “in writing” means communicated in written form with proof of receipt.
- 8.2 A notice shall be effective when delivered or on the notice’s effective date, whichever is later.

9. Governing Law

- 9.1 The Contract shall be governed by and interpreted in accordance with the laws of the Purchaser’s Country, unless otherwise specified in the **SCC**.
- 9.2 Throughout the execution of the Contract, the Supplier shall comply with the import of goods and services prohibitions in the Purchaser’s Country when
- (a) as a matter of law or official regulations, the Borrower’s country prohibits commercial relations with that country; or
- 9.2 (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 from that country or any payments to any country, person, or entity in that country.

10. Settlement of Disputes

- 10.1 The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.
- 10.2 If, after twenty-eight (28) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract. Arbitration proceedings shall be

conducted in accordance with the rules of procedure specified in the **SCC**.

10.3 Notwithstanding any reference to arbitration herein,

- (a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
- (b) the Purchaser shall pay the Supplier any monies due the Supplier.

11. Inspections and Audit by the Bank

- 11.1 The Supplier shall keep, and shall make all reasonable efforts to cause its Subcontractors to keep, accurate and systematic accounts and records in respect of the Goods in such form and details as will clearly identify relevant time changes and costs.
- 11.2 Pursuant to paragraph 2.2 e. of Appendix to the General Conditions the Supplier shall permit and shall cause its subcontractors and subconsultants to permit, the Bank and/or persons appointed by the Bank to inspect the Site and/or the accounts and records relating to the performance of the Contract and the submission of the bid, and to have such accounts and records audited by auditors appointed by the Bank if requested by the Bank. The Supplier's and its Subcontractors' and subconsultants' attention is drawn to Sub-Clause 3.1 which provides, inter alia, that acts intended to materially impede the exercise of the Bank's inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Bank's prevailing sanctions procedures).

12. Scope of Supply

- 12.1 The Goods and Related Services to be supplied shall be as specified in the Schedule of Requirements.

13. Delivery and Documents

- 13.1 Subject to GCC Sub-Clause 33.1, the Delivery of the Goods and Completion of the Related Services shall be in accordance with the Delivery and Completion Schedule specified in the Schedule of Requirements. The details of shipping and other documents to be furnished by the Supplier are specified in the **SCC**.

14. Supplier's Responsibilities

- 14.1 The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with GCC Clause 12, and the Delivery and Completion Schedule, as per GCC Clause 13.

15. Contract Price

- 15.1 Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its Bid, with the exception of any price adjustments authorized in the **SCC**.

16. Terms of Payment

- 16.1 The Contract Price, including any Advance Payments, if applicable, shall be paid as specified in the **SCC**.
- 16.2 The Supplier's request for payment shall be made to the Purchaser in writing, accompanied by invoices describing, as appropriate, the Goods delivered and Related Services performed, and by the documents submitted pursuant to GCC Clause 13 and upon fulfillment of all other obligations stipulated in the Contract.
- 16.3 Payments shall be made promptly by the Purchaser, but in no case later than sixty (60) days after submission of an invoice or request for payment by the Supplier, and after the Purchaser has accepted it.
- 16.4 The currencies in which payments shall be made to the Supplier under this Contract shall be those in which the Bid price is expressed.
- 16.5 In the event that the Purchaser fails to pay the Supplier any payment by its due date or within the period set forth in the **SCC**, the Purchaser shall pay to the Supplier interest on the amount of such delayed payment at the rate shown in the **SCC**, for the period of delay until payment has been made in full, whether before or after judgment or arbitrage award.

17. Taxes and Duties

- 17.1 For goods manufactured outside the Purchaser's Country, the Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the Purchaser's Country.
- 17.2 For goods Manufactured within the Purchaser's Country, the Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Purchaser.
- 17.3 If any tax exemptions, reductions, allowances or privileges may be available to the Supplier in the Purchaser's Country, the Purchaser shall use its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent.

18. Performance Security

- 18.1 If required as specified in the **SCC**, the Supplier shall, within twenty-eight (28) days of the notification of contract award, provide a performance security for the performance of the Contract in the amount specified in the **SCC**.
- 18.2 The proceeds of the Performance Security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- 18.3 As specified in the **SCC**, the Performance Security, if required, shall be denominated in the currency(ies) of the Contract, or in a freely convertible currency acceptable to the Purchaser; and shall

be in one of the format stipulated by the Purchaser in the SCC, or in another format acceptable to the Purchaser.

18.4 The Performance Security shall be discharged by the Purchaser and returned to the Supplier not later than twenty-eight (28) days following the date of Completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless specified otherwise in the **SCC**.

19. Copyright

19.1 The copyright in all drawings, documents, and other materials containing data and information furnished to the Purchaser by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to the Purchaser directly or through the Supplier by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party

20. Confidential Information

20.1 The Purchaser and the Supplier shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data, or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract. Notwithstanding the above, the Supplier may furnish to its Subcontractor such documents, data, and other information it receives from the Purchaser to the extent required for the Subcontractor to perform its work under the Contract, in which event the Supplier shall obtain from such Subcontractor an undertaking of confidentiality similar to that imposed on the Supplier under GCC Clause 20.

20.2 The Purchaser shall not use such documents, data, and other information received from the Supplier for any purposes unrelated to the contract. Similarly, the Supplier shall not use such documents, data, and other information received from the Purchaser for any purpose other than the performance of the Contract.

20.3 The obligation of a party under GCC Sub-Clauses 20.1 and 20.2 above, however, shall not apply to information that:

- (a) the Purchaser or Supplier need to share with the Bank or other institutions participating in the financing of the Contract;
- (b) now or hereafter enters the public domain through no fault of that party;
- (c) can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party; or

- (d) otherwise lawfully becomes available to that party from a third party that has no obligation of confidentiality.

20.4 The above provisions of GCC Clause 20 shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the Supply or any part thereof.

20.5 The provisions of GCC Clause 20 shall survive completion or termination, for whatever reason, of the Contract.

21. Subcontracting

21.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under the Contract if not already specified in the Bid. Such notification, in the original Bid or later shall not relieve the Supplier from any of its obligations, duties, responsibilities, or liability under the Contract.

21.2 Subcontracts shall comply with the provisions of GCC Clauses 3 and 7.

22. Specifications and Standards

22.1 Technical Specifications and Drawings

- (a) The Goods and Related Services supplied under this Contract shall conform to the technical specifications and standards mentioned in Section VI, Schedule of Requirements and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate to the Goods' country of origin.
- (b) The Supplier shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designed by or on behalf of the Purchaser, by giving a notice of such disclaimer to the Purchaser.
- (c) Wherever references are made in the Contract to codes and standards in accordance with which it shall be executed, the edition or the revised version of such codes and standards shall be those specified in the Schedule of Requirements. During Contract execution, any changes in any such codes and standards shall be applied only after approval by the Purchaser and shall be treated in accordance with GCC Clause 33.

23. Packing and Documents

23.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. During transit, the packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures, salt and precipitation, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness

of the goods' final destination and the absence of heavy handling facilities at all points in transit.

23.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified in the SCC, and in any other instructions ordered by the Purchaser.

24. Insurance

24.1 Unless otherwise specified in the **SCC**, the Goods supplied under the Contract shall be fully insured—in a freely convertible currency from an eligible country—against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery, in accordance with the applicable Incoterms or in the manner specified in the **SCC**.

25. Transportation and Incidental Services

25.1 Unless otherwise specified in the **SCC**, responsibility for arranging transportation of the Goods shall be in accordance with the specified Incoterms.

25.2 The Supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:

- (a) performance or supervision of on-site assembly and/or start-up of the supplied Goods;
- (b) furnishing of tools required for assembly and/or maintenance of the supplied Goods;
- (c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods;
- (d) performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and
- (e) training of the Purchaser's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods.

25.3 Prices charged by the Supplier for incidental services, if not included in the Contract Price for the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services

26. Inspections and Tests

26.1 The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of the Goods and Related Services as are specified in the **SCC**.

- 26.2 The inspections and tests may be conducted on the premises of the Supplier or its Subcontractor, at point of delivery, and/or at the Goods' final destination, or in another place in the Purchaser's Country as specified in the **SCC**. Subject to GCC Sub-Clause 26.3, if conducted on the premises of the Supplier or its Subcontractor, all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Purchaser.
- 26.3 The Purchaser or its designated representative shall be entitled to attend the tests and/or inspections referred to in GCC Sub-Clause 26.2, provided that the Purchaser bear all of its own costs and expenses incurred in connection with such attendance including, but not limited to, all traveling and board and lodging expenses.
- 26.4 Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the Purchaser. The Supplier shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Purchaser or its designated representative to attend the test and/or inspection.
- 26.5 The Purchaser may require the Supplier to carry out any test and/or inspection not required by the Contract but deemed necessary to verify that the characteristics and performance of the Goods comply with the technical specifications codes and standards under the Contract, provided that the Supplier's reasonable costs and expenses incurred in the carrying out of such test and/or inspection shall be added to the Contract Price. Further, if such test and/or inspection impedes the progress of manufacturing and/or the Supplier's performance of its other obligations under the Contract, due allowance will be made in respect of the Delivery Dates and Completion Dates and the other obligations so affected.
- 26.6 The Supplier shall provide the Purchaser with a report of the results of any such test and/or inspection.
- 26.7 The Purchaser may reject any Goods or any part thereof that fail to pass any test and/or inspection or do not conform to the specifications. The Supplier shall either rectify or replace such rejected Goods or parts thereof or make alterations necessary to meet the specifications at no cost to the Purchaser, and shall repeat the test and/or inspection, at no cost to the Purchaser, upon giving a notice pursuant to GCC Sub-Clause 26.4.
- 26.8 The Supplier agrees that neither the execution of a test and/or inspection of the Goods or any part thereof, nor the attendance by the Purchaser or its representative, nor the issue of any report pursuant to GCC Sub-Clause 26.6, shall release the Supplier from any warranties or other obligations under the Contract.

27. Liquidated Damages

27.1 Except as provided under GCC Clause 32, if the Supplier fails to deliver any or all of the Goods by the Date(s) of delivery or perform the Related Services within the period specified in the Contract, the Purchaser may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in the **SCC** of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in those **SCC**. Once the maximum is reached, the Purchaser may terminate the Contract pursuant to GCC Clause 35.

28. Warranty

28.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.

28.2 Subject to GCC Sub-Clause 22.1(b), the Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of final destination.

28.3 Unless otherwise specified in the **SCC**, the warranty shall remain valid for twelve (12) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the **SCC**, or for eighteen (18) months after the date of shipment from the port or place of loading in the country of origin, whichever period concludes earlier.

28.4 The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.

28.5 Upon receipt of such notice, the Supplier shall, within the period specified in the **SCC**, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.

28.6 If having been notified, the Supplier fails to remedy the defect within the period specified in the **SCC**, the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

29. Patent Indemnity

29.1 The Supplier shall, subject to the Purchaser's compliance with GCC Sub-Clause 29.2, indemnify and hold harmless the Purchaser and its employees and officers from and against any

and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:

- (a) the installation of the Goods by the Supplier or the use of the Goods in the country where the Site is located; and
- (b) the sale in any country of the products produced by the Goods.

Such indemnity shall not cover any use of the Goods or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Contract, neither any infringement resulting from the use of the Goods or any part thereof, or any products produced thereby in association or combination with any other equipment, plant, or materials not supplied by the Supplier, pursuant to the Contract.

29.2 If any proceedings are brought or any claim is made against the Purchaser arising out of the matters referred to in GCC Sub-Clause 29.1, the Purchaser shall promptly give the Supplier a notice thereof, and the Supplier may at its own expense and in the Purchaser's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.

29.3 If the Supplier fails to notify the Purchaser within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Purchaser shall be free to conduct the same on its own behalf.

29.4 The Purchaser shall, at the Supplier's request, afford all available assistance to the Supplier in conducting such proceedings or claim, and shall be reimbursed by the Supplier for all reasonable expenses incurred in so doing.

29.5 The Purchaser shall indemnify and hold harmless the Supplier and its employees, officers, and Subcontractors from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Supplier may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract arising out of or in connection with any design, data, drawing, specification, or other documents or materials provided or designed by or on behalf of the Purchaser.

30. Limitation of Liability

30.1 Except in cases of criminal negligence or willful misconduct,

- (a) the Supplier shall not be liable to the Purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Purchaser and
- (b) the aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the supplier to indemnify the Purchaser with respect to patent infringement

31. Change in Laws and Regulations

31.1 Unless otherwise specified in the Contract, if after the date of 28 days prior to date of Bid submission, any law, regulation, ordinance, order or bylaw having the force of law is enacted, promulgated, abrogated, or changed in the place of the Purchaser's Country where the Site is located (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Delivery Date and/or the Contract Price, then such Delivery Date and/or Contract Price shall be correspondingly increased or decreased, to the extent that the Supplier has thereby been affected in the performance of any of its obligations under the Contract. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable, in accordance with GCC Clause 15.

32. Force Majeure

32.1 The Supplier shall not be liable for forfeiture of its Performance Security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

32.2 For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

32.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all

reasonable alternative means for performance not prevented by the Force Majeure event.

33. Change Orders and Contract Amendments

33.1 The Purchaser may at any time order the Supplier through notice in accordance GCC Clause 8, to make changes within the general scope of the Contract in any one or more of the following:

- (a) drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;
- (b) the method of shipment or packing;
- (c) the place of delivery; and
- (d) the Related Services to be provided by the Supplier.

33.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or in the Delivery/Completion Schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this Clause must be asserted within twenty-eight (28) days from the date of the Supplier's receipt of the Purchaser's change order.

33.3 Prices to be charged by the Supplier for any Related Services that might be needed but which were not included in the Contract shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

33.4 **Value Engineering:** The Supplier may prepare, at its own cost, a value engineering proposal at any time during the performance of the contract. The value engineering proposal shall, at a minimum, include the following;

- (a) the proposed change(s), and a description of the difference to the existing contract requirements;
- (b) a full cost/benefit analysis of the proposed change(s) including a description and estimate of costs (including life cycle costs) the Purchaser may incur in implementing the value engineering proposal; and
- (c) a description of any effect(s) of the change on performance/functionality.

The Purchaser may accept the value engineering proposal if the proposal demonstrates benefits that:

- (a) accelerates the delivery period; or

- (b) reduces the Contract Price or the life cycle costs to the Purchaser; or
- (c) improves the quality, efficiency or sustainability of the Goods; or
- (d) yields any other benefits to the Purchaser,

without compromising the necessary functions of the Facilities.

If the value engineering proposal is approved by the Purchaser and results in:

- (a) a reduction of the Contract Price; the amount to be paid to the Supplier shall be the percentage specified **in the PCC** of the reduction in the Contract Price; or
- (b) an increase in the Contract Price; but results in a reduction in life cycle costs due to any benefit described in (a) to (d) above, the amount to be paid to the Supplier shall be the full increase in the Contract Price.

33.5 Subject to the above, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

34. Extensions of Time

34.1 If at any time during performance of the Contract, the Supplier or its subcontractors should encounter conditions impeding timely delivery of the Goods or completion of Related Services pursuant to GCC Clause 13, the Supplier shall promptly notify the Purchaser in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may at its discretion extend the Supplier's time for performance, in which case the extension shall be ratified by the parties by amendment of the Contract.

34.2 Except in case of Force Majeure, as provided under GCC Clause 32, a delay by the Supplier in the performance of its Delivery and Completion obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 26, unless an extension of time is agreed upon, pursuant to GCC Sub-Clause 34.1.

35. Termination

35.1 Termination for Default

- (a) The Purchaser, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate the Contract in whole or in part:
 - (i) if the Supplier fails to deliver any or all of the Goods within the period specified in the Contract, or within

any extension thereof granted by the Purchaser pursuant to GCC Clause 34;

- (ii) if the Supplier fails to perform any other obligation under the Contract; or
 - (iii) if the Supplier, in the judgment of the Purchaser has engaged in Fraud and Corruption, as defined in paragraph 2.2 a of the Appendix to the GCC, in competing for or in executing the Contract.
- (b) In the event the Purchaser terminates the Contract in whole or in part, pursuant to GCC Clause 35.1(a), the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Related Services similar to those undelivered or not performed, and the Supplier shall be liable to the Purchaser for any additional costs for such similar Goods or Related Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.

35.2 Termination for Insolvency.

- (a) The Purchaser may at any time terminate the Contract by giving notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Purchaser

35.3 Termination for Convenience.

- (a) The Purchaser, by notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.
- (b) The Goods that are complete and ready for shipment within twenty-eight (28) days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:
 - (i) to have any portion completed and delivered at the Contract terms and prices; and/or
 - (ii) to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and

Related Services and for materials and parts previously procured by the Supplier.

36. Assignment

36.1 Neither the Purchaser nor the Supplier shall assign, in whole or in part, their obligations under this Contract, except with prior written consent of the other party.

**37. Export
Restriction**

37.1 Notwithstanding any obligation under the Contract to complete all export formalities, any export restrictions attributable to the Purchaser, to the country of the Purchaser, or to the use of the products/goods, systems or services to be supplied, which arise from trade regulations from a country supplying those products/goods, systems or services, and which substantially impede the Supplier from meeting its obligations under the Contract, shall release the Supplier from the obligation to provide deliveries or services, always provided, however, that the Supplier can demonstrate to the satisfaction of the Purchaser and of the Bank that it has completed all formalities in a timely manner, including applying for permits, authorizations and licenses necessary for the export of the products/goods, systems or services under the terms of the Contract. Termination of the Contract on this basis shall be for the Purchaser's convenience pursuant to Sub-Clause 35.3.

APPENDIX TO GENERAL CONDITIONS

Fraud and Corruption

(Text in this Appendix shall not be modified)

1. Purpose

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

2. Requirements

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

- 2.2 To this end, the Bank:

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

- employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
- c. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring misprocurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;
 - d. Pursuant to the Bank's Anti- Corruption Guidelines and in accordance with the Bank's prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or otherwise benefit from a Bank-financed contract, financially or in any other manner;¹ (ii) to be a nominated² 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, consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents personnel, permit the Bank to inspect³ all accounts, records and other documents relating to the submission of bids and contract performance, and to have them audited by auditors appointed by the Bank.

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.

Section IX - Special Conditions of Contract

The following Special Conditions of Contract (SCC) shall supplement and / or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

GCC 1.1(i)	The Purchaser's Country is: <i>Islamic Republic of Pakistan</i>																																																																						
GCC 1.1(j)	The Purchaser is: Project Director, Balochistan Integrated Water Resources Water Management and Development Project																																																																						
GCC 1.1 (o)	<div>The Project Tentative Site(s)/Final Destination(s) are: <i>Inititally Office of Project Director, BIWRMDP afterwards at various project sites as below:</i></div> <table><tr><th colspan="4">Tentative Locations in Nari & Porali River Basins</th></tr><tr><th rowspan="2">Sr. #</th><th rowspan="2">Name of Station</th><th colspan="2">Co-ordinates</th></tr><tr><th>Easting</th><th>Northing</th></tr><tr><td>1</td><td>Irrigation Colony Loralai</td><td>68° 35' 54"</td><td>30° 22' 40"</td></tr><tr><td>2</td><td>Spin Masjid Loralai</td><td>68° 30' 52"</td><td>30° 23' 04"</td></tr><tr><td>3</td><td>Near DAD Irrigation</td><td>67° 43' 41"</td><td>30° 24' 14"</td></tr><tr><td>4</td><td>Tatai Masjid Duki</td><td>68° 34' 03"</td><td>30° 10' 34"</td></tr><tr><td>5</td><td>Sardar Yaqob Masjid Duki</td><td>68° 36' 45"</td><td>30° 08' 08"</td></tr><tr><td>6</td><td>Fatima Masjid Harnai</td><td>67° 55' 35"</td><td>30° 06' 30"</td></tr><tr><td>7</td><td>Khajak</td><td>68° 36' 45"</td><td>30° 08' 08"</td></tr><tr><td>8</td><td>Depal Road Sibi-1</td><td>67° 51' 10"</td><td>29° 33' 28"</td></tr><tr><td>9</td><td>Irrigation office Sibi</td><td>67° 53' 12"</td><td>29° 34' 55"</td></tr><tr><td>10</td><td>Lesbala University of Agri</td><td>66° 37' 32"</td><td>25° 50' 37"</td></tr><tr><td>11</td><td>Residential Collage Lesbala</td><td>66° 36' 46"</td><td>25° 52' 09"</td></tr><tr><td>12</td><td>Viaro Farm</td><td>66° 37' 20"</td><td>25° 49' 55"</td></tr><tr><td>13</td><td>Maviya Masjid Uthal</td><td>66° 37' 48"</td><td>25° 48' 43"</td></tr><tr><td>14</td><td>Jama Masjid Winder</td><td>66° 41' 45"</td><td>25° 27' 52"</td></tr><tr><td>15</td><td>Goth Safar Winder</td><td>66° 47' 01"</td><td>25° 24' 40"</td></tr></table>	Tentative Locations in Nari & Porali River Basins				Sr. #	Name of Station	Co-ordinates		Easting	Northing	1	Irrigation Colony Loralai	68° 35' 54"	30° 22' 40"	2	Spin Masjid Loralai	68° 30' 52"	30° 23' 04"	3	Near DAD Irrigation	67° 43' 41"	30° 24' 14"	4	Tatai Masjid Duki	68° 34' 03"	30° 10' 34"	5	Sardar Yaqob Masjid Duki	68° 36' 45"	30° 08' 08"	6	Fatima Masjid Harnai	67° 55' 35"	30° 06' 30"	7	Khajak	68° 36' 45"	30° 08' 08"	8	Depal Road Sibi-1	67° 51' 10"	29° 33' 28"	9	Irrigation office Sibi	67° 53' 12"	29° 34' 55"	10	Lesbala University of Agri	66° 37' 32"	25° 50' 37"	11	Residential Collage Lesbala	66° 36' 46"	25° 52' 09"	12	Viaro Farm	66° 37' 20"	25° 49' 55"	13	Maviya Masjid Uthal	66° 37' 48"	25° 48' 43"	14	Jama Masjid Winder	66° 41' 45"	25° 27' 52"	15	Goth Safar Winder	66° 47' 01"	25° 24' 40"
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GCC 4.2 (a)	The meaning of the trade terms shall be as prescribed by Incoterms. If the meaning of any trade term and the rights and obligations of the parties thereunder shall not be as prescribed by Incoterms, they shall be as prescribed by: <i>CIP</i>																																																																						
GCC 4.2 (b)	The version edition of Incoterms shall be <i>2020</i>																																																																						
GCC 5.1	The language shall be: English																																																																						

GCC 8.1	<p>For <u>notices</u>, the Purchaser's address shall be:</p> <p>Attention: Project Director, Balochistan Integrated Water Resources Management and Development Project.</p> <p>Street Address: 18-B, Jinnah Town, Samungli Road Quetta.</p> <p>Floor/ Room number: Not Applicable</p> <p>City: Quetta</p> <p>Post Code: 87300</p> <p>Country: Pakistan</p> <p>Telephone: +92-81-2870705</p> <p>Facsimile number: +92-81-2870704</p> <p>Electronic mail address: bssip@yahoo.com</p>
GCC 9.1	<p>The Contract shall be interpreted in accordance with the laws of Islamic Republic of Pakistan which includes the following legislation:</p> <ul style="list-style-type: none"> • The Employment of Children (ECA) Act 1991 • The Bonded Labour System (Abolition) Act of 1992 • The Factories Act 1934 • The Secretary, Department of Law, Justice and Human Rights or his nominees shall act as the sole arbitrator.
GCC 10.2	<p>The rules of procedure for arbitration proceedings pursuant to GCC Clause 10.2 shall be as follows:</p> <p><i>(a) Contract with foreign Supplier:</i></p> <p>GCC 10.2 —Any dispute, controversy or claim arising out of or relating to this Contract, or breach, termination or invalidity thereof, shall be settled by arbitration in accordance with the UNCITRAL Arbitration Rules as at present in force.</p> <p><i>(b) Contract with Supplier national of the Purchaser's Country:</i></p> <p>In the case of a dispute between the Purchaser and a Supplier who is a national of the Purchaser's Country, the dispute shall be referred to adjudication or arbitration in accordance with the laws of the Purchaser's Country.</p>
GCC 13.1	<p>Details of Shipping and other Documents to be furnished by the Supplier:</p> <p>Upon or before delivery of the Goods, the Supplier shall notify the Purchaser in writing and deliver the following documents to the Purchaser:</p> <p>(i) Two originals and two copies of the Supplier's invoice, showing Purchaser, the Contract number, loan number; Goods' description, quantity, unit price, and total amount. Invoices must be signed in original and stamped or sealed with the company stamp/seal;</p>

	<ul style="list-style-type: none"> (ii) two copies of delivery note, road consignment note, air waybill, or multimodal transport document showing Purchaser as Project Director, Balochistan Integrated Water Resources Management and Development Project, Quetta, Islamic Republic of Pakistan and delivery through to final destination as stated in the Contract; (iii) four copies of the packing list identifying contents of each package and weight certificate; (iv) One original of the manufacturer's or Supplier's Warranty Certificate for items supplied; or Undertaking on the letter head of firm for the offered warranty period. (iv) Original copy of the test and inspection certificate provided by the purchaser for the goods supplied. (v) Manufacturer's inspection certificate issued by the manufacturer. (vi) Delivery inspection certificate (vii) Insurance policy or certificate. (viii) certificate of Country of Origin. (ix) other documents required by the Purchaser, if any. <p>The above documents shall be received by the Purchaser at least one week before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses.</p> <p>Note: In the event that the documents presented by the Supplier are not in accordance with the Contract, then payment will be made against issue of the Acceptance Certificate.</p>
GCC 15.1	The prices charged for the Goods supplied and the related Services performed <i>shall not</i> be adjustable.

<p>GCC 16.1</p>	<p>“GCC 16.1—The method and conditions of payment to be made to the Supplier under this Contract shall be as follows:</p> <p>Payment for Goods supplied from abroad:</p> <p>(i) Ten percent (10%) payment of contract value (Foreign Component) shall be payable to the Supplier in advance against submission of following:</p> <ul style="list-style-type: none"> • Commercial Invoice. • Bank Guarantee of an equivalent amount in the form provided in the Bidding Documents or another form acceptable to the Purchaser issued by any scheduled bank of Pakistan and valid until the Goods are delivered. <p>The invoice will be processed for payment after confirmation of genuineness of submitted guarantee by the issuing authority (i.e bank). Moreover, the Supplier will ensure submission of the bank guarantee within 14 days of the signing of the contract.</p> <p>If advance payment is not availed by the Supplier, this 10% amount shall be due to be paid on shipment. A Bank Gaurantee will not be required in that case.</p> <p>(ii) On Shipment: Sixty percent (60%) payment of contract value (Foreign Component) of the Goods shipped shall be paid hrough irrevocable confirmed letter of credit opened in favor of the Supplier/Manufacturer in a bank in its country, upon submission of documents specified in GCC Clause 13.1. The Supplier shall furnish invoice of sixty percent (60%) of contract value (Foreign Component) of the Goods along with dully signed original delivery Challan. Satisfactory Factory Acceptance Test must have been carried out before shipment and signed FAT report must be submitted along with invoice.</p> <p>(iii) On Acceptance (Installation and Successful Commissioning): Thirty percent (30%) payment of contract value (Foreign Component) of Goods received shall be paid within thirty (30) days of receipt of the Goods upon submission of claim supported by the formal acceptance certificate issued by the Purchaser.</p> <p>Payment for Goods and Services supplied from within the Purchaser’s country:</p> <p>(i) On Delivery: Eighty percent (80%) payment of contract value (Local Component) shall be paid on receipt of the Goods/Services after issuance of joint inspection certificate by the inspection committee constituted by the Purchaser and upon submission of the documents specified in GCC Clause 13.</p> <p>(ii) On Acceptance: The remaining twenty percent (20%) payment of contract value (Local Component) shall be paid to the Supplier within thirty (30) days after the date of the formal acceptance certificate for the respective delivery issued by the Purchaser. “</p>
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GCC 16.5	The payment-delay period after which the Purchaser shall pay interest to the supplier shall be : <i>Not Applicable</i>
GCC 17.4	<p>Add new Clause GCC 17.4 as below:</p> <ul style="list-style-type: none"> i. For goods, already imported, the purchaser shall reimburse the import taxes, duties as per actual spent by the supplier upon production of original invoices. All other applicable taxes shall be paid as per laws of Government of Pakistan and Government of Balochistan. The provisional sum shall be used for the purpose of reimbursement. ii. For goods to be imported, the supplier shall pay the import taxes, duties on behalf of purchaser which shall then be reimbursed to the supplier upon production of original invoices. All other applicable taxes shall be paid as per laws of Government of Pakistan and Government of Balochistan. The provisional sum shall be used for the purpose of reimbursement. iii. For goods manufactured in purchaser's country, the sales tax shall be paid as per applicable laws. The provisional sum shall be used for this purpose. iv. In any case, the purchaser shall deduct at source other taxes including income and sales tax on services as applicable under the laws of Islamic Republic of Pakistan and the province of Balochistan. These taxes shall be deducted from the price of goods and the related services, as applicable. For any further guidance on applicability of these taxes, the supplier is encouraged to view the websites of Federal Bureau of Revenue and Balochistan Revenue Authority or use any other means available to the supplier to familiarize itself with these taxes.
GCC 18.1	<p>A Performance Security <i>shall be required</i></p> <p>Performance Security shall be: Ten percent (10%) of the Contract Price.</p>
GCC 18.3	The performance security shall be: in shape of unconditional & irrevocable Bank Guarantee from any schedule Bank of Pakistan as per the format provided in this Bidding document.
GCC 18.4	<p>Discharge of the Performance Security shall take place:</p> <p>The performance Security shall be discharged by the purchaser and returned to the supplier not later than twenty-eight 28 days following the date of completion of the supplier's performance / warranty obligation under the contract as mentioned in GCC 28.</p>

GCC 23.2	<p>The bidder shall deliver the supplies at the destination in scratch less condition within the manufacturer supplied packing and manufacturer's manuals, booklets, accessories etc. Manufacturer's original Operating Manual must be provided.</p> <p>The packing, marking and documentation within and outside the packages shall be: Case No, Gross Weight & Dimentions (Length, Breath & Height) and Marking Label in the name of Consignee.</p> <p>Purchaser: Project Director, Balochistan Integrated Water Resources Management and Development Project.</p> <p>E-Mail: bssip@yahoo.com</p> <p>Importer: the supplier himself</p> <p>Consignee: will be the supplier himself</p> <p>If the supplier fails to comply with the aboveinstruction, he shall be held responsible for any loss or demurrage etc occurring due to wrong/nil / insufficient marking of package etc.</p>
GCC 24.1	<p>The insurance coverage shall be the responsibility of the supplier as specified in the Incoterms.</p>
GCC 25.1	<p>The Supplier is required under the Contract to transport the Goods to specified places of final destinations within the Purchaser's Country, defined as the Project Sites, transport to such place of destination in the Purchaser's Country, including insurance and storage, as shall be specified in the Contract, shall be arranged by the Supplier, and related costs shall be included in the Contract Price.</p>
GCC 25.2	<p>Incidental services to be provided are:</p> <ul style="list-style-type: none"> (a) design, supply, drilling and installtion of Ground Monitoring Wells (b) performance or supervision of on-site assembly and/or start-up of the supplied Goods. (c) furnishing of tools required for assembly and/or maintenance of the supplied Goods (d) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods (e) performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this services shall not relieved the supplier of any warranty obligations under this contract (f) Training of the purchaser's personal at the supplier's plant and/or on-site in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods.

GCC 26.1	<p>The inspections and tests shall be carried out at least once, with the performance tests conducted according to standards mentioned against each equipment. Name and nature of Factory acceptance Test (FAT) shall be finalized before pre-shipment inspection by the Purchaser. Accordingly FAT report shall be the part of acceptance certificate.</p>
GCC 26.2	<p>Pre Shipment Inspections & Tests (FAT): FAT at manufacturers within country place shall be conducted by a team of maximum five persons or less for a duration of maximum one week. The Purchaser's staff cost will be borne by Purchaser like traveling, hotel etc and testing cost will be borne by Supplier. However, in case the manufacture is from outside country, the Supplier shall prepare FAT document. The Purchaser shall review and approve the FAT document. Accordingly, the Supplier shall execute the FAT. The purchaser shall sign the FAT documents and Supplier shall then submit signed FAT document with three prints.</p> <p>The Post delivery Inspections and tests shall be conducted at Office of the Project Director, BIWRMDP and at project sites by the representative of the supplier and committee as per BID laid down procedure. All related expenditures of pre-shipment inspections and tests and post inspection shall be borne by the Manufacturer/Supplier/ Contractor.</p> <p>Number and Nature of Factory Acceptance Test (FAT) shall be finalized before the Pre-shipment inspection by the purchaser. Accordingly FAT report shall be the part of acceptance certificate.</p> <p>The Inspection team may reject apart or whole of the consignment offered for the inspection, if after inspection such portion thereof as it may decide its discretion; it is satisfied that consignment is below the requirement of particular governing the supply given in Purchaser Order</p> <p>The decision of inspection team shall be binding</p> <p>If stores are rejected as aforesaid then without prejudice, the Purchaser shall have the following rights:</p> <p>Purchase the stores in place of rejected goods at supplier cost and expense</p> <p>Terminate the contract and recover from supplier the loss, the Purchaser thereby incurs.</p>
Additional GCC 26.9	<p>Installation and Successful commissioning of Equipments. All the technical specifications of the equipment mentioned in the bidding document shall be tested in the manufacturer's premises.</p> <p>Demonstration of all Equipments in running condition to Purchaser Personnel.</p>
GCC 27.1	<p>The liquidated damage shall be: half percent (0.5% per week) of the contract price, if he fails to deliver the equipment within delivery period.</p>

GCC 27.1	The maximum amount of liquidated damages shall be: <i>10%</i> of the Contract Price
GCC 28.3	<p>GCC 28.3—In partial modification of the provisions, the warranty period shall be 24 months from date of acceptance of the Goods at the final destinations. The Supplier shall, in addition, comply with the performance and/or consumption guarantees specified under the Contract. If, for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier shall, at its discretion, either:</p> <p>(a) make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests in accordance with GCC 26.7,</p> <p>Or</p> <p>(b) pay liquidated damages to the Purchaser with respect to the failure to meet the contractual guarantees. The rate of these liquidated damages shall be 0.5 % per week up-to maximum 10 % of the total price.</p>
GCC 28.5 GCC 28.6	The period for repair or replacement shall be: 45 days. Penalty on the supplier will be imposed if he fails to replace the defective dataloggers, transmitter or sensors within 45 days. Cost of flood and rain data shall be calculated and imposed on the supplier to compensate loss of crucial data
GCC 33.4	N/A.

Section X - Contract Forms

This Section contains forms which, once completed, will form part of the Contract. The forms for Performance Security and Advance Payment Security, when required, shall only be completed by the successful Bidder after contract award.

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Notification of Award - Letter of Acceptance

[use letterhead paper of the Purchaser]

[date]

To: *[name and address of the Supplier]*

Subject: **Notification of Award Contract No.**

This is to notify you that your Bid dated *[insert date]* for execution of the *[insert name of the contract and identification number, as given in the SCC]* for the Accepted Contract Amount of *[insert amount in numbers and words and name of currency]*, as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by our Agency.

You are requested to furnish the Performance Security within 28 days in accordance with the Conditions of Contract, using for that purpose the of the Performance Security Form included in Section X, Contract Forms, of the bidding document.

Authorized Signature:

Name and Title of Signatory:

Name of Agency:

Attachment: Contract Agreement

Contract Agreement

[The successful Bidder shall fill in this form in accordance with the instructions indicated]

THIS AGREEMENT made

the *[insert: **number**]* day of *[insert: **month**]*, *[insert: **year**]*.

BETWEEN

- (1) *[insert complete name of Purchaser]*, a *[insert description of type of legal entity, for example, an agency of the Ministry of of the Government of {insert name of Country of Purchaser}, or corporation incorporated under the laws of {insert name of Country of Purchaser}]* and having its principal place of business at *[insert address of Purchaser]* (hereinafter called “the Purchaser”), of the one part, and
- (2) *[insert name of Supplier]*, a corporation incorporated under the laws of *[insert: country of Supplier]* and having its principal place of business at *[insert: address of Supplier]* (hereinafter called “the Supplier”), of the other part:

WHEREAS the Purchaser invited Bids for certain Goods and ancillary services, viz., *[insert brief description of Goods and Services]* and has accepted a Bid by the Supplier for the supply of those Goods and Services

The Purchaser and the Supplier agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other contract documents.
 - (a) the Letter of Acceptance
 - (b) the Letter of Bid
 - (c) the Addenda Nos. _____ (if any)
 - (d) Special Conditions of Contract
 - (e) General Conditions of Contract
 - (f) the Specification (including Schedule of Requirements and Technical Specifications)
 - (g) the completed Schedules (including Price Schedules)
 - (h) any other document listed in GCC as forming part of the Contract

3. In consideration of the payments to be made by the Purchaser to the Supplier as specified in this Agreement, the Supplier hereby covenants with the Purchaser to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Goods and Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of *[insert the name of the Contract governing law country]* on the day, month and year indicated above.

For and on behalf of the Purchaser

Signed: *[insert signature]*
in the capacity of *[insert title or other appropriate designation]*
In the presence of *[insert identification of official witness]*

For and on behalf of the Supplier

Signed: *[insert signature of authorized representative(s) of the Supplier]*
in the capacity of *[insert title or other appropriate designation]*
in the presence of *[insert identification of official witness]*

Performance Security

Bank Guarantee

[The bank, as requested by the successful Bidder, shall fill in this form in accordance with the instructions indicated]

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: *[insert name and Address of Purchaser]*

Date: *_ [Insert date of issue]*

PERFORMANCE 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 Supplier, which in the case of a joint venture shall be the name of the joint venture]* (hereinafter called "the Applicant") has entered into Contract No. *[insert reference number of the contract]* dated *[insert date]* with the Beneficiary, for the supply of *_ [insert name of contract and brief description of Goods and related Services]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

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 *[insert amount in figures]* (_____) *[insert amount in words]*,¹ such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the Day of, 2...², and any demand for payment under it must be received by us at this office indicated above on or before that date.

¹ The Guarantor shall insert an amount representing the percentage of the Accepted Contract Amount specified in the Letter of Acceptance, and denominated either in the currency (ies) of the Contract or a freely convertible currency acceptable to the Beneficiary.

² Insert the date twenty-eight days after the expected completion date as described in GC Clause 18.4. The Purchaser should note that in the event of an extension of this date for completion of the Contract, the Purchaser would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Purchaser might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758, except that the supporting statement under Article 15(a) is hereby excluded.

[signature(s)]

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

not to exceed [six months] [one year], in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."

Advance Payment Security

Demand Guarantee

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: *[Insert name and Address of Purchaser]*

Date: *[Insert date of issue]*

ADVANCE PAYMENT 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 Supplier, which in the case of a joint venture shall be the name of the joint venture]* (hereinafter called “the Applicant”) has entered into Contract No. *[insert reference number of the contract]* dated *[insert date]* with the Beneficiary, for the execution of *[insert name of contract and brief description of Goods and related Services]* (hereinafter called “the Contract”).

Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum *[insert amount in figures]* () *[insert amount in words]* is to be made against an advance payment 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 *[insert amount in figures]* (_____) *[insert amount in words]*¹ upon receipt by us of the Beneficiary’s complying demand supported by the Beneficiary’s statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating either that the Applicant:

- (a) has used the advance payment for purposes other than toward delivery of Goods; or
- (b) has failed to repay the advance payment in accordance with the Contract conditions, specifying the amount which the Applicant has failed to repay.

¹ The Guarantor shall insert an amount representing the amount of the advance payment and denominated either in the currency(ies) of the advance payment as specified in the Contract, or in a freely convertible currency acceptable to the Purchaser.

A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary's bank stating that the advance payment referred to above has been credited to the Applicant on its account number *[insert number]* at *[insert name and address of Applicant's bank]*.

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Applicant as specified in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that ninety (90) percent of the Accepted Contract Amount, has been certified for payment, or on the *[insert day]* day of *[insert month]*, 2 *[insert year]*, whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No.758, except that the supporting statement under Article 15(a) is hereby excluded.

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[signature(s)]

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