STANDARD BIDDING DOCUMENT FOR

Design, Supply, Installation, Testing, Commissioning with Annual Maintenance for 04 Years of SCADA System for 80 storm water dewatering stations in and around Srinagar City.

Single-Stage Bidding

Government of Jammu & Kashmir,

Project Management Unit Jhelum & Tawi Flood Recovery Project (World Bank Funded)

BID [TENDER] NO: REVISED / SCADA

International Competitive Bidding (One-Envelope Bidding Process without e-Procurement)

Name of Work	DESIGN, SUPPLY, INSTALLATION, TESTING,	
	COMMISSIONING WITH ANNUAL MAINTENANCE	
	FOR 04 YEARS OF SCADA SYSTEM FOR 80 STORM	
	WATER DEWATERING STATIONS IN AND AROUND	
	SRINAGAR CITY	
Period of sale of	03 - 12 - 2019 to $23 - 01 - 2020$.	
bidding document	03 12 2017 to 23 01 - 2020.	
Time and date of pre	DATE 13 – 12 – 2019; TIME 1100 HOURS	
bid meeting	· · · · · · · · · · · · · · · · · · ·	
Last date and time for	DATE 23 – 01 – 2020; TIME 1400 HOURS	
receipt of bids		
Time and date for	DATE 23 – 01 – 2020; TIME 1430 HOURS	
opening of bids		
Place of opening of bids	ERA Commercial Complex, Rambagh Srinagar	
Officer inviting bids	Director Technical.	

BIDDING DOCUMENT (SINGLE-STAGE)

Issued on: [03 - 12 - 2019]

for the

Procurement of

Design, Supply, Installation, Testing, Commissioning with Annual Maintenance for 04 Years of SCADA System for 80 storm water dewatering stations in and around Srinagar City.

IFB No: REVISED/SCADA

Project: Jhelum Tawi Flood Recovery Project

Purchaser: Project Management Unit, JTFRP.

CONTENTS

Invitation for Bids (IFB)6
Section I. Instructions to Bidders (ITB)
Section II. Bid Data Sheet (BDS)45
Section III. Eligible Countries for the Provision of Goods, Works, and Services55
Section IV. General Conditions of Contract57
Section V. Special Conditions of Contract (SCC)133
Section VI. Technical Requirements (including Implementation Schedule)153
Section VII. Sample Forms201

Government of Jammu & Kashmir, Project Management Unit Jhelum & Tawi Flood Recovery Project (World Bank Funded)

INVITATIONS FOR BIDS (IFB)

INTERNATIONAL COMPETITIVE BIDDING

Date: 03 – 12 – 2019. **Bid No.: REVISED /SCADA**

- The Government of India has received credit for financing from the World Bank towards
 the cost of Jhelum & Tawi Flood Recovery Project and intends to apply a part of the
 funds to cover eligible payments under the contracts for construction of works as
 detailed below.
- 2. The Director Technical, Project Management Unit, Jhelum Tawi Flood Recovery Project now invites sealed bids from eligible bidders for "Design, Supply, Installation, Testing and Commissioning with Annual Maintenance for 04 Years of SCADA System for 80 storm water dewatering stations in and around Srinagar City".
- 3. Bidding will be conducted through the International Competitive Bidding procedures as specified in the World Bank's Guidelines: Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers, January 2011 Revised July 2014 ("Procurement Guidelines"), and is open to all eligible bidders as defined in the Procurement Guidelines. In addition, please refer to paragraphs 1.6 and 1.7 setting forth the World Bank's policy on conflict of interest.
- 4. Interested eligible bidders may obtain further information from Project Management Unit, Jhelum Tawi Flood Recovery Project; *Email id : dirpmujk@gmail.com*, *Tel : 0194-2437320*, 0191 2475521 and inspect the bidding documents during office hours [1000 to 1630 hours] at the address given below:-
- 5. A complete set of bidding documents in English may be purchased by interested eligible bidders upon the submission of a written application to the address below and upon payment of a nonrefundable fee of **INR 10,000/- (Indian Rupees Ten Thousand)**. The method of payment will be Demand Draft in favour of Chief Accounts Officer, PMU, JTFRP. The document will be sent by post, courier services, or in person (*In case the*

bidding document is downloaded from website, payment should accompany the bid submission).

- 6. Bids must be delivered to the address below:-
 - PMU JTFRP Office, ERA Commercial Complex, Rambagh Srinagar, J&K.

on or before 1430 hours of 23 -01 - 2020. Electronic bidding will not be permitted. Late bids will be rejected. Bids will be publicly opened on the same day in the presence of the bidders' designated representatives and anyone who choose to attend at the address below Project Management Unit, JTFRP, ERA Complex Rambagh Srinagar at 1430 hours. In the event of the date specified for bid submission and opening being declared as a closed holiday for the purchaser's office, the due date for submission and opening of bids will be the following working day at the appointed time.

- 7. All bids must be accompanied by a "Bid Security" of INR 50.00 Lac (Indian Rupees Fifty Lac) or an equivalent amount in a freely convertible currency in case of a Bid Security.
- 8. The address(es) referred to above is(are):
 - Name & Designation of Officer: Iftikhar Ahmad Kakroo.
 - Official Address:

PMU JTFRP office, ERA Commercial Complex, Rambagh Srinagar, J&K, India - 190009.

• Email: dirpmujk@gmail.com.

• Telephone: 0194-2437320, 0191 – 2475521.

• Website: www.jtfrp.in

Package No	Name of Work	Bid Security (Rs.)	Cost of Document (Rs.)	Period of Completion
1	2	3	4	5
1	Design, Supply, Installation, Testing, Commissioning with Annual Maintenance for 04 Years of SCADA System for 80 storm water dewatering stations in and around Srinagar City	INR 50.00 Lacs	INR 10,000/=	18 months.

Section I. Instructions to Bidders (ITB)

(Single-Stage Bidding)

Table of Clauses

A.	Gen	eral	10
D	1. 2. 3. 4. 5. 6. 7. 8.	Scope of Bid and Bidding Process Source of Funds Fraud and Corruption Eligible Bidders Eligible Goods and Services Qualifications of the Bidder Cost of Bidding Site Visit	10 11 13 14 15 18
D.		Bidding Documents	
	9.	Content of Bidding Documents	
	10. 11.	Clarification of Bidding Documents and Pre-bid Meeting	
C.		paration of Bids	
•	12.	Language of Bid	
	13.	Documents Comprising the Bid	
	14.	Bid Prices	
	15.	Bid Currencies	
	16.	Documents Establishing the Conformity of the Information System to the Bidding	
		Documents	
	17.	Securing the Bid	
	18.	Period of Validity of Bids	
	19.	Format and Signing of Bid	
D.	Sub	mission of Bids	30
	20.	Sealing and Marking of Bids	30
	21.	Deadline for Submission of Bids	
	22.	Late Bids	
	23.	Withdrawal, Substitution, and Modification of Bids	
E.	Bid (Opening and Evaluation	
	24.	Opening of Bids by Purchaser	
	25.	Clarification of Bids	
	26.	Preliminary Examination of Bids.	
	27. 28.	Conversion to Single Currency Evaluation and Comparison of Bids	
	۷۵.	Lyandaron and Comparison of Dids	J 1

	29.	Domestic Preference	40
	30.	Contacting the Purchaser	40
F.	Post	qualification and Award of Contract	40
	31.	Postqualification	40
		Award Criteria	
	33.	Purchaser's Right to Vary Quantities at Time of Award	41
	34.	Purchaser's Right to Accept Any Bid and to Reject Any or All Bids	41
		Notification of Award	
	36.	Signing of Contract	42
		Performance Security	
		Adjudicator	

Instructions to Bidders

A. GENERAL

1. Scope of Bid and Bidding Process

- 1.1 The Purchaser named in the BDS and the SCC for GCC Clause 1.1 (b) (i), or its duly authorized Purchasing Agent if so **specified in the BDS** (interchangeably referred to as "the Purchaser" in these Bidding Documents), invites bids for the supply and installation of the Information System (IS), as briefly **described in the BDS** and specified in greater detail in these Bidding Documents.
- 1.2 The title and identification number of the Invitation for Bids (IFB) and resulting Contract(s) are **provided in the BDS.**
- 1.3 Throughout the Bidding Documents, the term "in writing" means communicated in written form (e.g. by mail, e-mail, fax, telex) with proof of receipt, and the term "days" means calendar days unless a different meaning is evident from the context.
- 1.4 If the BDS so provides, alternative procedures forming part or all of what is commonly known as e-Tendering are available to the extent **specified in, or referred to by, the BDS.**

2. Source of Funds

- 2.1 The **Borrower named in the BDS** has applied for or received a loan or credit (as identified in the BDS, and called a "loan" in these Bidding Documents) from the International Bank for Reconstruction and Development or the International Development Association (called "the Bank" in these Bidding Documents) equivalent to the amount indicated in the BDS toward the cost of the Project specified in the BDS. The Borrower intends to apply a portion of the proceeds of this loan to eligible payments under the Contract for which these Bidding Documents are issued.
- 2.2 Payment by the Bank will be made only at the request of the Borrower, or the Borrower's executing agency, and upon approval by the Bank in accordance with the terms and conditions of the Loan Agreement, and will be subject in all respects to the terms and conditions of that agreement. The Loan 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, to the knowledge of the Bank, is prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations. No party other than the Borrower shall derive

any rights from the Loan Agreement or have any claim to the loan proceeds.

3. Fraud and Corruption

- 3.1 It is the Bank's policy to require that Borrowers (including beneficiaries of Bank loans), as well as bidders, suppliers, and contractors and their subcontractors under Bank-financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, 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 a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a 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
 - (aa) deliberately destroying, falsifying, altering or

In this context, any action taken by a bidder, supplier, contractor, or a sub-contractor to influence the procurement process or contract execution for undue advantage is improper.

[&]quot;Another party" refers to a public official acting in relation to the procurement process or contract execution]. In this context, "public official" includes World Bank staff and employees of other organizations taking or reviewing procurement decisions.

A "party" refers to a public official; the terms "benefit" and "obligation" relate to the procurement process or contract execution; and the "act or omission" is intended to influence the procurement process or contract execution.

⁴ "Parties" refers to participants in the procurement process (including public officials) attempting to establish bid prices at artificial, non competitive levels.

A "party" refers to a participant in the procurement process or contract execution.

concealing of evidence material to 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 pursuing or from the investigation; or

- (bb) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under sub-clause 3.1 (e) below.
- (b) will reject a proposal for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for the contract in question;
- (c) will cancel the portion of the loan allocated to a contract if it determines at any time that representatives of the Borrower or of a beneficiary of the loan engaged in corrupt, fraudulent, collusive, or coercive practices during the procurement or the execution of that contract, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur;
- (d) will sanction a firm or individual, including declaring ineligible, either indefinitely or for a stated period of time, to be awarded a Bank-financed contract if it at any time determines that the firm has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for, or in executing, a Bank-financed contract; and
- (e) will have the right to require that a provision be included in bidding documents and in contracts financed by a Bank loan, requiring bidders, suppliers, and contractors and their sub-contractors to permit the Bank to inspect their accounts and records and other documents relating to the bid submission and contract performance and to have them audited by auditors appointed by the Bank.
- 3.2 Furthermore, Bidders shall be aware of the provision stated in Clause 9.8 and Clause 41.2 of the General Conditions of Contract.

- 3.3 Any communications between the Bidder and the Purchaser related to matters of alleged fraud or corruption must be made in writing.
- 3.4 By signing the Bid Submission Form, the Bidder represents that it either is the owner of the Intellectual Property Rights in the hardware, software or materials offered, or that it has proper authorization and/or license to offer them from the owner of such rights. For the purpose of this Clause, Intellectual Property Rights shall be as defined in GCC Clause 1.1 (c) (xvii). Willful misrepresentation of these facts shall be considered a fraudulent practice subject to the provisions of Clauses 3.1 through 3.4 above, without prejudice of other remedies that the Purchaser may take.

4. Eligible Bidders

- 4.1 A Bidder, and all parties constituting the Bidder, may have the nationality of any country, subject to the restrictions specified in Section III, Eligible Countries. A Bidder shall be deemed to have the nationality of a country if the Bidder is a citizen or is constituted, incorporated, or registered and operates in conformity with the provisions of the laws of that country.
- 4.2 If a prequalification process has been undertaken for the Contract(s) for which these Bidding Documents have been issued, only those Bidders may participate that had been prequalified and continue to meet the eligibility criteria of this Clause. A prequalified Joint Venture may not change partners or its structure when submitting a bid.
- 4.3 A firm may be excluded from bidding if:
 - (a) it was engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, or other documents to be used for the procurement of the Information System described in these Bidding Documents; or
 - (b) it is a government-owned enterprise in the Borrower's country, unless it can establish that it (i) is legally and financially autonomous and (ii) operates under commercial law. No dependent agency of the Borrower or Sub-Borrower shall be permitted to bid.
- 4.4 A firm that has been determined to be ineligible by the Bank in relation to the Bank Guidelines On Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA

Credits and Grants shall be not be eligible to be awarded a contract.

- 4.5 A firm or individual is or will be disqualified from participation in this bidding if, at any time from advertisement of the bidding until and including contract award, the firm or individual is under:
 - (a) a suspension by the Purchaser agreed by the Bank as a result of execution of a Bid-Securing Declaration pursuant to ITB Clause 17.6 in another Bank-financed procurement, or under a suspension by the Purchaser for other reasons that have been agreed by the Bank; or
 - (b) a declaration of ineligibility by the Bank in accordance with ITB Clause 3.1 (d). The list of individuals and firms debarred from participating in World Bank projects is available at http://www.worldbank.org/debarr/, or
 - (c) a sanction imposed by the United Nations Security Council, as mentioned in ITB Clause 2.2.
- 4.6 A firm or other entity that is ineligible according to any of the above provisions of this Clause, may also not participate as a Joint Venture partner, or as Subcontractor for or supplier of goods, works or services. If a bid becomes materially incomplete after removing ineligible entities, the bid may be disqualified.
- 4.7 Bidders shall provide such evidence of their continued eligibility satisfactory to the Purchaser, as the Purchaser shall reasonably request.

5. Eligible Goods and Services

- 5.1 For the purposes of these Bidding Documents, the Information System means all:
 - (a) the required information technologies, including all information processing and communications-related hardware, software, supplies, and consumable items that the Supplier is required to supply and install under the Contract, plus all associated documentation, and all other materials and goods to be supplied, installed, integrated, and made operational (collectively called "the Goods" in some clauses of the ITB); and
 - (b) the related software development, transportation, insurance, installation, customization, integration, commissioning, training, technical support, maintenance, repair, and other services necessary for proper operation of

the Information System to be provided by the selected Bidder and as specified in the Contract.

- 5.2 Funds from Bank loans are disbursed only for expenditures for an Information System made up of goods and services provided by nationals of, and produced in or supplied from, eligible source countries as defined in Section III, Eligible Countries. An Information System is deemed to be produced in a certain country when, in the territory of that country, through software development, manufacturing, or substantial and major assembly or integration of components, a commercially recognized product results that is substantially different in basic characteristics or in purpose or utility from its components.
- 5.3 For purposes of this clause, the nationality of the Bidder is distinct from the country in which the Information System and its goods components are produced or from which the related services are supplied.

6. Qualifications of the Bidder

- 6.1 By submission of documentary evidence in its bid, the Bidder must establish to the Purchaser's satisfaction:
 - (a) that it has the financial, technical, and production capability necessary to perform the Contract, meets the qualification criteria **specified in the BDS**, and has a successful performance history. If a prequalification process has been undertaken for the Contract(s) for which these Bidding Documents have been issued, the Bidder shall, as part of its bid, update any information submitted with its application for prequalification;

(For the purposes of establishing a Bidder's qualifications, and unless stated to the contrary in the BDS, the experience and / or resources of any Subcontractor will not contribute to the Bidder's qualifications; only those of a Joint Venture partner will be considered.)

(b) that, in the case of a Bidder offering to supply key goods components of the Information System, as **identified in the BDS**, that the Bidder does not itself produce, the Bidder is duly authorized by the producer to supply those components in the Purchaser's country under the Contract(s) that may result from this bidding; (This will be accomplished by including Manufacturer's Authorizations in the bid, based on the sample found in Section VII.)

- (c) that, if a Bidder proposes Subcontractors for key services if and as **identified in the BDS**, these Subcontractors have agreed in writing to serve for the Bidder under the Contract(s) that may result from this bidding; and
- (d) that, in the 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 that country who is equipped and able to carry out the Bidder's maintenance, technical support, training, and repair obligations prescribed in the General and Special Conditions of Contract, and/or Technical Requirements.
- 6.2 Bids submitted by a Joint Venture of two or more firms as partners shall also comply with the following requirements:
 - (a) the bid shall be signed so as to be legally binding on all partners;
 - (b) one of the partners shall be nominated as being in charge, and this nomination shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the partners;
 - (c) the partner in charge shall be authorized to incur liabilities and receive instructions for and on behalf of any and all partners of the Joint Venture, and the entire execution of the Contract, including payment, shall be done exclusively with the partner in charge;
 - (d) the partner or combination of partners that is responsible for a specific component of the Information System must meet the relevant minimum qualification criteria for that component;
 - (e) a firm may submit bids either as a single Bidder on its own, or as partner in one, and only one, Joint Venture. If, as a result of the bid opening pursuant to ITB Clause 24, this requirement is not met, all bids involving the firm as a single Bidder or Joint Venture partner will be disqualified;
 - (f) all partners of the Joint Venture shall be liable jointly and severally for the execution of the Contract in accordance with the Contract terms, and a statement to this effect shall be included in the authorization mentioned under ITB Clause 6.2 (b) above, in the bid as well as in the Contract (in case of a successful bid).

If a Bidder intends to subcontract major items of supply or services, it shall include in the bid details of the name and nationality of the proposed Subcontractor for each of those items and shall be responsible for ensuring that any Subcontractor proposed complies with the requirements of ITB Clause 4, and that any Goods or Services components of the Information System to be provided by the Subcontractor comply with the requirements of ITB Clause 5 and the related evidence required by ITB Clause 13.1 (e) (iii) is submitted. Bidders are free to list more than one Subcontractor against each item. Quoted rates and prices will be deemed to apply, whichever Subcontractor is appointed, and no adjustment of the rates or prices will be The Purchaser reserves the right to delete any proposed Subcontractor from the list. This shall be done prior to Contract signature, by deleting such unacceptable Subcontractors from Appendix 3 to the Contract Agreement, which shall list the approved Subcontractors for each item prior to Contract signature. Subsequent additions and deletions from the list of approved Subcontractors shall be performed in accordance with GCC Clause 20 (as revised in the SCC, if applicable) and Appendix 3 to the Contract Agreement.

For the purposes of these Bidding Documents, a Subcontractor is any vendor or service provider with whom the Bidder contracts for the supply or execution of any part of the Information System to be provided by the Bidder under the Contract (such as the supply of major hardware, software, or other components of the required Information Technologies specified, or the performance of related Services, e.g., software development, transportation, installation, customization, integration, commissioning, training, technical support, maintenance, repair, etc.).

6.4 A firm which is a Bidder, whether as a single Bidder or as a partner in a Joint Venture, cannot be a Subcontractor in other bids, except for the supply of commercially available hardware or software by the firm, as well as purely incidental services such as installation/configuration, routine training, and ongoing maintenance/support. If the BDS for ITB Clause 6.1 (a) allows the qualification of Subcontractors nominated for certain components to be taken into account in assessing the Bidder's overall qualifications, any Subcontractor so nominated by any Bidder is automatically disqualified from being a Bidder itself or a partner in a Joint Venture. The same will normally apply to firms that have provided Subcontractor agreements for certain services pursuant to ITB Clause 6.1 (c). Non-compliance may result in the rejection of all bids in which the affected firm

participates as Bidder or as partner in a Joint Venture. As long as in compliance with these provisions, or as long as unaffected by them due to not participating as Bidder or as partner in a Joint Venture, a firm may be proposed as a Subcontractor in any number of bids. If the BDS for ITB 28.1 permits the submission of bids for Subsystems, lots, or slices, then the provisions of this Clause 6.4 apply only to bids for the same Subsystem(s), lot(s), or slice(s);

7. Cost of Bidding

- 7.1 The Bidder shall bear all costs associated with the preparation and submission of its bid, and the Purchaser will in no case be responsible or liable for those costs.
- 8. Site Visit
- 8.1 The Bidder may wish to visit and examine the site or sites of the Information System and obtain for itself, at its own responsibility and risk, all information that may be necessary for preparing the bid and entering into the Contract. The costs of visiting the site or sites shall be at the Bidder's own expense.
- 8.2 The Purchaser will arrange for the Bidder and any of its personnel or agents to gain access to the relevant site or sites, provided that the Bidder gives the Purchaser adequate notice of a proposed visit of at least fourteen (14) days. Alternatively, the Purchaser may organize a site visit or visits concurrently with the pre-bid meeting, as specified in the BDS for ITB Clause 10.2. Failure of a Bidder to make a site visit will not be a cause for its disqualification.
- 8.3 No site visits shall be arranged or scheduled after the deadline for the submission of the Bids and prior to the award of Contract.

B. THE BIDDING DOCUMENTS

9. Content of Bidding Documents

9.1 The contents of the Bidding Documents are listed below and should be read in conjunction with any addenda issued in accordance with ITB Clause 11:

Section I Instructions to Bidders (ITB)

Section II Bid Data Sheet (BDS)

Section III Eligible Countries for the Provision of Goods,

Works, and Services in Bank-Financed

Procurement

Section IV General Conditions of Contract (GCC)

Section V Special Conditions of Contract (SCC)

Section VI Technical Requirements (including

Implementation Schedule)

Section VII Sample Forms

- 9.2 Bidders are expected to examine all instructions, forms, terms, specifications, and other information in the Bidding Documents. Failure to furnish all information required by the Bidding Documents or to submit a bid not substantially responsive to the Bidding Documents in every respect will be at the Bidder's risk and may result in the rejection of its bid.
- 9.3 The Invitation for Bids is not formally part of the Bidding Documents and is included for reference only. In case of inconsistencies, the actual Bidding Documents shall prevail.
- 10. Clarification of Bidding Documents and Pre-bid Meeting
- 10.1 A prospective Bidder requiring any clarification of the Bidding Documents may notify the Purchaser in writing at the Purchaser's address and by one of the means **indicated in the BDS.** Similarly, if a Bidder feels that any important provision in the documents will be unacceptable, such an issue should be raised as soon as possible. The Purchaser will respond in writing to any request for clarification or modification of the Bidding Documents that it receives no later than twenty-one (21) days prior to the deadline for submission of bids prescribed by the Purchaser. Copies of the Purchaser's response (including an explanation of the query but not identifying its source) will be sent to all prospective Bidders that received the Bidding Documents from the Purchaser.
- 10.2 When **specified in the BDS**, the Purchaser will organize and Bidders are welcome to attend a pre-bid meeting at the time and place **indicated in the BDS**. The purpose of the meeting will be to clarify issues and answer questions on any matter that may be raised at this stage, with particular attention to issues related to the Technical Requirements. Bidders are requested to submit any questions in writing to reach the Purchaser not later than one week before the meeting. Ouestions and answers will be transmitted in accordance with ITB Clause 10.1. Minutes of the meeting, including the questions raised and responses given, together with any responses prepared after the meeting, will be transmitted without delay to all those that received the Bidding Documents from the Purchaser. Any modification to the Bidding Documents listed in ITB Clause 9.1, which may become necessary as a result of the pre-bid meeting, shall be made by the

Purchaser exclusively by issuing an Addendum pursuant to ITB Clause 11 and not through the minutes of the pre-bid meeting.

11. Amendment of Bidding Documents

- 11.1 At any time prior to the deadline for submission of bids, the Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, amend the Bidding Documents. Later amendments on the same subject modify or replace earlier ones.
- 11.2 Amendments will be provided in the form of Addenda to the Bidding Documents, which will be sent in writing to all prospective Bidders that received the Bidding Documents from the Purchaser. Addenda will be binding on Bidders. Bidders are required to immediately acknowledge receipt of any such Addenda. It will be assumed that the amendments contained in such Addenda will have been taken into account by the Bidder in its bid.
- 11.3 In order to afford prospective Bidders reasonable time in which to take the amendment into account in preparing their bids, the Purchaser may, at its discretion, extend the deadline for the submission of bids, in which case, the Purchaser will notify all Bidders in writing of the extended deadline.

C. PREPARATION OF BIDS

12. Language of Bid

12.1 The bid prepared by the Bidder and all correspondence and documents related to the bid exchanged by the Bidder and the Purchaser shall be written in the **language specified in the BDS**, or, if the BDS so provides, in either one of two languages specified there. Any printed literature furnished by the Bidder as part of its bid may be in a language not specified in the BDS, as long as such literature is accompanied by a translation of its pertinent passages into the language of the bid, in which case, for purposes of interpretation of the bid, the translation shall govern.

13. Documents Comprising the Bid

- 13.1 The bid submitted by the Bidder shall comprise:
 - (a) Bid Submission Form completed and signed by a person or persons duly authorized to bind the Bidder to the Contract;
 - (b) all Price Schedules duly completed in accordance with ITB Clauses 14, 15, and 18 and signed by a person or persons duly authorized to bind the Bidder to the Contract;
 - (c) if required, Bid-securing Declaration or Bid Security

furnished in accordance with ITB Clause 17;

(d) written confirmation authorizing the signatory of the bid to commit the Bidder, in accordance with ITB Clause 19.2;

(e) Attachments:

(i) Attachment 1: Bidder's Eligibility

In the absence of prequalification, documents establishing to the Purchaser's satisfaction the Bidder's eligibility to bid, including but not limited to documentary evidence that the Bidder is legally incorporated in a territory of an eligible source country as defined under ITB Clause 4;

(ii) Attachment 2: Bidder's Qualifications

Documentary evidence establishing to the Purchaser's satisfaction, and in accordance with ITB Clause 6, that the Bidder is qualified to perform the Contract if its bid is accepted. In the case where prequalification of Bidders has been undertaken, and pursuant to ITB Clause 6.1 (a), the Bidder must provide evidence on any changes in the information submitted as the basis for prequalification or, if there has been no change at all in said information, a statement to this effect;

Any Manufacturer's Authorizations and Subcontractor agreements specified as required in the BDS for ITB Clauses 6.1 (b) and 6.1 (c);

(iii) Attachment 3: Eligibility of Goods and Services

Documents establishing, to the Purchaser's satisfaction, that the Goods and Services components of the Information System to be supplied, installed, and/or performed by the Bidder are eligible Goods and Services as defined under ITB Clause 5. If awarded the Contract, the Bidder shall submit for such components of the Information System evidence of eligibility, which shall be confirmed by a certificate of origin issued at the time of shipment;

(iv) Attachment 4: Conformity of the Information System to the Bidding Documents

Documentary evidence establishing to the Purchaser's satisfaction, and in accordance with ITB

Clause 16, that the Goods and Services components of the Information System to be supplied, installed, and/or performed by the Bidder conform to the Bidding Documents;

(v) Attachment 5: Proposed Subcontractors

A list of all major items of Goods or Services that the Bidder proposes to purchase or subcontract from others, and the name and nationality of the proposed Subcontractor, including vendors, for each of those items;

(vi) Attachment 6: Intellectual Property

A list of:

- (1) all Software included in the Bidder's bid, assigning each item to one of the software categories defined in GCC Clause 1.1 (c):
 - (A) System, General Purpose, and Application Software; and
 - (B) Standard and Custom Software.
- (2) all Custom Materials, as defined in GCC Clause 1.1 (c), included in the Bidder's bid.

All Materials not identified as Custom Materials shall be deemed Standard Materials, as defined in GCC Clause 1.1 (c).

Re-assignments among the Software and Materials categories, if necessary, will be made during the implementation of the Contract according to GCC Clause 39 (Changes to the System).

14. Bid Prices

14.1 All Goods and Services identified in the Supply and Installation Cost Sub-Table and the Recurrent Cost Sub-Table in Section VII (Forms 2.5 and 2.6), and all other Goods and Services proposed by the Bidder to fulfill the requirements of the Information System, must be priced separately in the format of the same tables and summarized in the corresponding Cost Summary Tables in the same Section. Prices must be quoted in accordance with the instructions provided in Section VII for the various cost tables, in the manner specified below.

- 14.2 The price of items that the Bidder has left blank in the cost tables provided in Section VII shall be assumed to be included in the price of other items. Items omitted altogether from the cost tables shall be assumed to be omitted from the bid and, provided that the bid is substantially responsive, an adjustment to the bid price will be made during evaluation in accordance with ITB Clause 28.6 (c) (iii).
- 14.3 Unit prices must be quoted at a level of detail appropriate for calculation of any partial deliveries or partial payments under the contract, in accordance with the Implementation Schedule in Section VI, and with GCC and SCC Clause 12 Terms of Payment. Bidders may be required to provide a breakdown of any composite or lump-sum items included in the Cost Tables.
- 14.4 The prices for Goods components of the System are to be expressed and shall be defined and governed in accordance with the rules prescribed in the edition of Incoterms **specified in the BDS**, and quoted in the appropriate columns of the cost tables of Section VII as follows:
 - (a) Goods supplied from outside the Purchaser's country:

Unless otherwise **specified in the BDS**, the prices shall be quoted on a CIP (named place of destination) basis, exclusive of all taxes, stamps, duties, levies, and fees imposed in the Purchaser's country. The named place of destination and special instructions for the contract of carriage are as **specified in the BDS**. In quoting the price, the Bidder shall be free to use transportation through carriers registered in any eligible countries. Similarly, the Bidder may obtain insurance services from any eligible source country.

(b) Locally supplied Goods:

Unit prices of Goods offered from within the Purchaser's Country, shall be quoted on an EXW (ex factory, ex works, ex warehouse or off-the-shelf, as applicable) basis, including all customs duties, levies, fees, sales and other taxes incurred until delivery of the Goods, but excluding all VAT or sales and other taxes and duties/fees incurred for the Goods at the time of invoicing or sales transaction, if the Contract is awarded.

(c) Inland transportation:

Unless otherwise **stated in the BDS**, inland transportation,

insurance and related local costs incidental to the delivery of the Goods to the designated Project Sites must be quoted separately as a Service item in accordance with ITB Clause 14.5, whether the Goods are to be supplied locally or from outside the Purchaser's country, except when these costs are already included in the price of the Goods, as is, e.g., the case, when ITB Clause 14.4 (a) specifies CIP, and the named places of destination are the Project Sites.

- 14.5 The price of Services shall be quoted in total for each service (where appropriate, broken down into unit prices), separated into their local and foreign currency components. include all taxes, duties, levies and fees whatsoever, except only VAT or other indirect taxes, or stamp duties, that may be assessed and/or apply in the Purchaser's country on/to the price of the Services invoiced to the Purchaser, if the Contract is awarded. Unless otherwise specified in the BDS, the prices must include all costs incidental to the performance of the Services, as incurred by the Supplier, such as travel, subsistence, office support, communications, translation, printing materials, etc. Costs incidental to the delivery of the Services but incurred by the Purchaser or its staff, or by third parties, must be included in the price only to the extent such obligations are made explicit in these Bidding Documents (as, e.g., a requirement for the Bidder to include the travel and subsistence costs of trainees).
- 14.6 Prices for Recurrent Costs beyond the scope of warranty services to be incurred during the Warranty Period, defined in SCC Clause 29.4 and prices for Recurrent Costs to be incurred during the Post-Warranty Period, defined in SCC Clause 1.1. (e) (xii), shall be quoted as Service prices in accordance with ITB Clause 14.5 on the Recurrent Cost Sub-Table in detail, and on the Recurrent Cost Summary Table in currency totals. Recurrent costs are all-inclusive of the costs of necessary Goods such as spare parts, software license renewals, labor, etc., needed for the continued and proper operation of the System and, if appropriate, of the Bidder's own allowance for price increases.
- 14.7 Unless otherwise **specified in the BDS**, prices quoted by the Bidder shall be fixed during the Bidder's performance of the Contract and not subject to increases on any account. Bids submitted that are subject to price adjustment will be rejected.

- **15. Bid Currencies** 15.1 Prices shall be quoted in the following currencies:
 - The Bidder may quote its prices for all Information Technologies, associated Goods, and Services to be supplied from outside the Purchaser's Country in the currencies of countries eligible according to Section III. If the Bidder wishes to be paid in a combination of different currencies, it must quote unit prices accordingly, but no more than three foreign currencies may be used.
 - (b) Unless otherwise **specified in the BDS**, the Bidder shall express its prices for such Information Technologies, associated Goods, and Services to be supplied locally (i.e., from within the Purchaser's Country) in the currency of the Purchaser's Country.
- 16. Documents **Establishing** the Conformity of the **Information** System to the **Bidding Documents**
- 16.1 Pursuant to ITB Clause 13.1 (e) (iv), the Bidder shall furnish, as part of its bid, documents establishing the conformity to the Bidding Documents of the Information System that the Bidder proposes to supply and install under the Contract.
- 16.2 The documentary evidence of conformity of the Information System to the Bidding Documents shall be in the form of written descriptions, literature, diagrams, certifications, and client references, including:
 - the Bidder's technical bid, i.e., a detailed description of the (a) Bidder's proposed technical solution conforming in all material aspects with the Technical Requirements (Section VI) and other parts of these Bidding Documents, overall as well as in regard to the essential technical and performance characteristics of each component making up the proposed Information System;
 - an item-by-item commentary on the Purchaser's Technical (b) Requirements, demonstrating the substantial responsiveness of the Information System offered to those In demonstrating responsiveness, requirements. commentary shall include explicit cross references to the relevant pages in the supporting materials included in the bid. Whenever a discrepancy arises between the item-bycommentary and any catalogs, specifications, or other preprinted materials submitted with the bid, the item-by-item commentary shall prevail;
 - a Preliminary Project Plan describing, among other things, (c) the methods by which the Bidder will carry out its overall

management and coordination responsibilities if awarded the Contract, and the human and other resources the Bidder proposes to use. The Plan should include a detailed Contract Implementation Schedule in bar chart form, showing the estimated duration, sequence, interrelationship of all key activities needed to complete The Preliminary Project Plan must also the Contract. address any other topics specified in the BDS. In addition, the Preliminary Project Plan should state the Bidder's assessment of what it expects the Purchaser and any other party involved in the implementation of the Information System to provide during implementation and how the Bidder proposes to coordinate the activities of all involved parties:

- (d) a written confirmation that the Bidder accepts responsibility for the successful integration and inter-operability of all components of the Information System as required by the Bidding Documents.
- 16.3 For purposes of the commentary to be furnished pursuant to ITB Clause 16.2 (b), the Bidder shall note that references to brand names or model numbers or national or proprietary standards designated by the Purchaser in its Technical Requirements are intended to be descriptive and not restrictive. Except where explicitly **prohibited in the BDS** for specific items or standards, the Bidder may substitute alternative brand/model names or standards in its bid, provided that it demonstrates to the Purchaser's satisfaction that the use of the substitute(s) will result in the Information System being able to perform substantially equivalent to or better than that specified in the Technical Requirements.

17. Securing the Bid

- 17.1 The BDS for this Clause specifies whether bids must be secured, and if so, whether by a Bid-Securing Declaration or by a Bid Security. If a Bid Security is required or optional, the **BDS also specifies the amount.**
- 17.2 Securing the bids shall be substantially in accordance with the related sample forms included in Section VII or other forms approved by the Purchaser prior to bid submission. Bids must remain secured for a period of 28 days beyond the validity period of the bids, as extended, if applicable, in accordance with ITB Clause 18.2. In case of a Bid Security, it shall also:
 - (a) at the Bidder's option, be in the form of either a certified check, letter of credit, or a bank guarantee from a banking

- institution, or a bond issued by a surety;
- (b) be issued by a reputable institution selected by the Bidder and located in any eligible country; if the institution issuing the security is located outside the Purchaser's Country, it shall have a correspondent financial institution located in the Purchaser's Country to make the security enforceable;
- (c) be payable promptly upon written demand by the Purchaser in case any of the conditions listed in ITB Clause 17.6 is/are invoked;
- (d) be submitted in its original form; copies will not be accepted.
- 17.3 The Bid-Securing Declaration or the Bid Security of a Joint Venture shall be issued in the name of the Joint Venture submitting the bid provided the Joint Venture has legally been constituted, or else it shall be issued in the name of all partners proposed for the Joint Venture in the bid. Sanctions due to a breach of the terms of a Bid-Securing Declaration pursuant to ITB Clause 17.6 will apply to all partners to the Joint Venture.
- 17.4 If a Bid-Securing Declaration or Bid Security is required in accordance with ITB Clause 17.1, any bid not accompanied by a substantially acceptable Bid-Securing Declaration or Bid Security in accordance with ITB Clauses 17.2 and 17.3, shall be rejected by the Purchaser as non-responsive.
- 17.5 Unless executed or forfeited pursuant to ITB Clause 17.6, Bid-Securing Declarations, if any, will expire for, or Bid Securities, if any, will be returned as promptly as possible to,
 - (a) all Bidders upon annulment of the bidding pursuant to ITB Clause 34;
 - (b) Bidders refusing a request to extend the period of validity of their bids pursuant to ITB Clause 18.2;
 - (c) the successful Bidder once it has signed the Contract Agreement and furnished a valid Performance Security as required;
 - (d) the unsuccessful Bidders at the same time as in (c), that is, when they are informed about the successful establishment of the contract with the successful Bidder.

- 17.6 The Bid-Securing Declaration, if any, may be executed, or the Bid Security, if any, may be forfeited:
 - (a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid Submission Form or any extension of validity the Bidder has agreed to pursuant to ITB Clause 18.2; or
 - (b) in the case of the successful Bidder, if the Bidder fails to:
 - (i) sign the Contract Agreement in accordance with ITB Clause 36; or
- (ii) furnish the Performance Security in accordance with ITB Clause 37.
- 17.7 If a bid security is **not required in the BDS**, and
 - (a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Letter of Bid Form, except as provided in ITB 18.2, or
 - (b) if the successful Bidder fails to: sign the Contract in accordance with ITB 36; or furnish a performance security in accordance with ITB 37;

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

- 18. Period of Validity of Bids
- 18.1 Bids shall remain valid, at a minimum, for the period **specified in the BDS** after the deadline date for bid submission prescribed by the Purchaser, pursuant to ITB Clause 21. A bid valid for a shorter period shall be rejected by the Purchaser as non-responsive. For the convenience of Bidders, the BDS spells out the minimal original expiration dates for the validity of the bid and, if applicable pursuant to ITB Clause 17.1, for securing the bid. However, Bidders are responsible for adjusting the dates in the BDS in accordance with any extensions to the deadline date of bid submission pursuant to ITB Clause 21.2.
- 18.2 In exceptional circumstances, prior to expiry of the bid validity period, the Purchaser may request that the Bidders extend the period of validity for a specified additional period. The request and the responses to the request shall be made in writing. A Bidder may refuse the request without risking execution of the Bid-Securing Declaration or forfeiting the Bid Security, but in this case the bid will be out of the competition for the award.

Except as provided in ITB Clause 18.3, a Bidder agreeing to the request will not be required or permitted to modify its bid, but will be required to ensure that the bid remains secured for a correspondingly longer period, pursuant to ITB Clause 17.2.

18.3 In the case of fixed price contracts, if the award is delayed by a period exceeding fifty-six (56) days beyond the expiry of the initial bid validity, the contract price will be adjusted as specified in the request for extension. Bid evaluation will be based on the bid prices without taking into consideration the above correction.

19. Format and Signing of Bid

- 19.1 The Bidder shall prepare an original and the number of copies/sets of the bid **specified in the BDS**, clearly marking each one as "ORIGINAL BID," "COPY NO. 1," "COPY NO. 2," etc., as appropriate. In the event of any discrepancy between them, the original shall govern.
- 19.2 The original and all copies of the bid, each consisting of the documents listed in ITB Clause 13.1, shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the Bidder. The authorization must be in writing and included in the bid pursuant to ITB Clause 13.1 (d). The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the bid, except for unamended printed literature, shall be initialed by the person or persons signing the bid.
- 19.3 The bid shall contain no interlineations, erasures, or overwriting, except to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the bid.
- 19.4 The Bidder shall furnish in the Bid Submission Form (a sample of which is provided in the Sample Forms Section of the Bidding Documents) information regarding commissions or gratuities, if any, paid or to be paid to agents relating to this procurement and to the execution of the Contract should the Bidder be successful.

D. SUBMISSION OF BIDS

20. Sealing and Marking of Bids

- 20.1 The Bidder shall seal the original and each copy of the bid in separate envelopes, duly marking the envelopes as "ORIGINAL BID" and "COPY NO. [number]." The envelopes shall then be sealed in an outer envelope.
- 20.2 The inner and outer envelopes shall
 - (a) be addressed to the Purchaser at the address **given in the BDS**, and
 - (b) bear the loan/Project name indicated in the BDS for ITB Clause 2.1, the Invitation for Bids title and number, and the Contract name(s), as indicated in the BDS for ITB Clause 1.2, and the statement "DO NOT OPEN BEFORE [time and date]," to be completed with the time and date specified in the BDS for ITB Clause 24.1.
- 20.3 The inner envelopes shall also indicate the name and address of the Bidder so that the bid can be returned unopened in case it is declared "late."
- 20.4 If the outer envelope is not sealed and marked as required by ITB Clause 20.2 above, the Purchaser will assume no responsibility for the bid's misplacement or premature opening. If the outer envelope discloses the Bidder's identity, the Purchaser will not guarantee the anonymity of the bid submission, but this disclosure will not constitute grounds for bid rejection.

21. Deadline for Submission of Bids

- 21.1 Bids must be received by the Purchaser at the address specified in the BDS for ITB Clause 20.2 no later than the time and date stated in the BDS.
- 21.2 The Purchaser may, at its discretion, extend this deadline for submission of bids by amending the Bidding Documents in accordance with ITB Clause 11.3, in which case all rights and obligations of the Purchaser and Bidders will thereafter be subject to the deadline as extended.

22. Late Bids

22.1 Any bid received by the Purchaser after the bid submission deadline prescribed by the Purchaser in the BDS for ITB Clause 21, will be rejected and returned unopened to the Bidder.

23. Withdrawal, Substitution, and

23.1 The Bidder may withdraw, substitute, or modify its bid after submission, provided that written notice of the withdrawal, substitution, or modification is received by the Purchaser prior to

Modification of Bids

the deadline prescribed for bid submission. All notices must be duly signed by an authorized representative and shall include a copy of the authorization (the power of attorney) in accordance with ITB Sub-Clause 19.2.

- 23.2 All notices of withdrawal, substitution, or modification shall
 - (a) be addressed to the Purchaser at the address named in the BDS for ITB Clause 20.2 (a), and
 - (b) bear the Contract name, the IFB Title and IFB Number, and the words "BID WITHDRAWAL NOTICE", BID SUBSTITUTION NOTICE", or "BID MODIFICATION NOTICE".
- 23.3 A notice may also be sent by electronic means such as fax or email, but in this case must include a scan of the mailing receipt showing both the sender's and receiver's addresses for the signed hardcopy of the notice, and a scan of the power of attorney.
- 23.4 Bids requested to be withdrawn in accordance with ITB 23.1 shall be returned unopened to the Bidders. Bid withdrawal notices received after the bid submission deadline will be ignored, and the submitted bid will be deemed to be a validly submitted bid.
- 23.5 The substitution or modification of the bid shall be prepared, sealed, marked, and dispatched as follows:
 - (a) The Bidders shall provide an original and the number of copies specified in the BDS for ITB Clause 19.1 of any substitution or modification to its bid, clearly identified as such, in two inner envelopes duly marked "BID SUBSTITUTION -- ORIGINAL" or "BID MODIFICATION -- ORIGINAL" and "BID SUBSTITUTION -- COPIES" or "BID MODIFICATION -- COPIES." The inner envelopes shall be sealed in an outer envelope, which shall be duly marked "BID SUBSTITUTION" or "BID MODIFICATION".
 - (b) Other provisions concerning the marking and dispatch of a bid substitution or modification shall be in accordance with ITB Clauses 20.2, 20.3, and 20.4.
- 23.6 No bid may be withdrawn, substituted, or modified in the interval between the bid submission deadline and the expiration of the bid validity period specified by the Bidder in the Bid Submission Form, or any extension thereof agreed to by the Bidder. Withdrawal of a bid during this interval may result in the execution of the Bid-Securing Declaration, if any, or

forfeiture of the Bid Security, if any, pursuant to ITB Clause 17.6.

E. BID OPENING AND EVALUATION

24. Opening of Bids by Purchaser

- 24.1 The Purchaser will open all bids, including withdrawals, substitutions, and modifications, in public, in the presence of Bidders' representatives who choose to attend, at the time, on the date and at the place **specified in the BDS**. Bidders' representatives shall sign a register as proof of their attendance.
- 24.2 First, envelopes marked "BID WITHDRAWAL NOTICE" shall be opened and read out and the envelope with the corresponding bid shall not be opened, but returned to the Bidder. No bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at bid opening. Next, envelopes marked "BID SUBSTITUTION NOTICE" 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. Envelopes marked "BID MODIFICATION NOTICE" 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. Only bids that are opened and read out at bid opening shall be considered further.
- 24.3 Bids shall be opened one at a time, reading out: the name of the Bidder and whether there is a modification; the total bid price including any unconditional discounts, and, if applicable, the prices and unconditional discounts for Subsystems, lots, or slices; the presence or absence of a Bid-Securing Declaration or a Bid Security if one was required; any conditional discounts offered for the award of more than one Subsystem, lot, or slice, if the BDS for ITB Clause 28.1 permits such discounts to be considered in the bid evaluation; and any other such details as the Purchaser may consider appropriate.
- 24.4 Bids and modifications that are not opened and read out at bid opening shall not be considered for further evaluation, irrespective of the circumstances. These bids, including any bids validly withdrawn in accordance with ITB Clause 24.2, will

promptly be returned, unopened, to their Bidders.

24.5 The Purchaser will prepare minutes of the bid opening, including the information disclosed to those present in accordance with ITB Clause 24.3. The minutes will promptly be distributed to all Bidders that met the deadline for submitting bids.

Bids

25. Clarification of 25.1 During the bid evaluation, the Purchaser may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing, and no change in the price or substance of the bid shall be sought, offered, or permitted.

26. Preliminary Examination of Bids

- 26.1 The Purchaser will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order. In the case where a prequalification process has been undertaken for the Contract(s) for which these Bidding Documents have been issued, the Purchaser will ensure that each bid is from a prequalified Bidder, and in the case of a Joint Venture, that partners and structure of the Joint Venture are unchanged from those in the prequalification.
- 26.2 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price, which is obtained by multiplying the unit price and quantity, or between added or subtracted subtotals and totals, the unit or subtotal price shall prevail and the total price shall be corrected, unless in the opinion of the Purchaser there is an obvious misplacement of the decimal point in the unit or subtotal prices, in which case the line item total as quoted shall govern and the unit price or sub-total shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail, unless the discrepancy is the result of a typo/error for which the correction is self-evident to the Purchaser. If the Bidder with the Lowest Evaluated Bid does not accept the correction of errors, the bid shall be rejected.
- 26.3 The Purchaser may waive any minor informality, nonconformity, or irregularity in a bid that does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.
- 26.4 Prior to the detailed evaluation, the Purchaser will determine whether each bid is of acceptable quality, is complete, and is substantially responsive to the Bidding Documents.

purposes of this determination, a substantially responsive bid is one that conforms to all the terms, conditions, and specifications of the Bidding Documents without material deviations, exceptions, objections, conditionalities, or reservations. A material deviation, exception, objection, conditionality, or reservation is one: (i) that limits in any substantial way the scope, quality, or performance of the Information System; or (ii) that limits, in any substantial way that is inconsistent with the Bidding Documents, the Purchaser's rights or the successful Bidder's obligations under the Contract; or (iii) the acceptance of which would unfairly affect the competitive position of other Bidders who have submitted substantially responsive bids.

- 26.5 If a bid is not substantially responsive, it will be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the nonconformity. The Purchaser's determination of bid responsiveness will be based on the contents of the bid itself.
- 27. Conversion to Single Currency
- 27.1 For evaluation and comparison purposes, the Purchaser shall convert all bid prices expressed in various currencies and amounts into a single currency **specified in the BDS**, using the selling exchange rate established by the source and on the date also **specified in the BDS**.
- 28. Evaluation and Comparison of Bids
- 28.1 The Purchaser will evaluate and compare the bids that have been determined to be substantially responsive, pursuant to ITB Clause 26. The evaluation will be performed assuming either that:
 - (a) the Contract will be awarded to the lowest evaluated Bidder for the entire Information System; or
 - (b) if **specified in the BDS**, Contracts will be awarded to the Bidders for each individual Subsystem, lot, or slice defined in the Technical Requirements whose bids result in the lowest combined evaluated price for the entire System.

In the latter case, discounts that are conditional on the award of more than one Subsystem, lot, or slice may be offered in bids. However, such discounts will only be considered in the price evaluation if so **confirmed in the BDS**.

- 28.2 To be considered for Contract award, Bidders must have submitted bids
 - (a) for which detailed bid evaluation using the same standards

for compliance determination as listed in ITB Clauses 26.3 and 26.4 confirms that the bids are commercially and technically responsive, and include the hardware, Software, related equipment, products, Materials, and other Goods and Services components of the Information System in, substantially, the full required quantities for the entire Information System or, if allowed in the BDS for ITB Clause 28.1, the individual Subsystem, lot or slice bid on; and

- (b) that offer Information Technologies that are proven to perform up to the standards promised in the bid by having successfully passed the performance, benchmark, and/or functionality tests the Purchaser may require, pursuant to ITB Clause 31.2.
- 28.3 The Purchaser's evaluation of a bid will be made on the basis of prices quoted in accordance with ITB Clause 14 (Bid Prices).
- 28.4 If **indicated by the BDS**, the Purchaser's evaluation of responsive bids will take into account technical factors, in addition to cost factors. An Evaluated Bid Score (B) will be calculated for each responsive bid using the following formula, which permits a comprehensive assessment of the bid price and the technical merits of each bid:

$$B \equiv \frac{C_{low}}{C} X + \frac{T}{T_{high}} (1 - X)$$

where

C = Evaluated Bid Price

 C_{low} = the lowest of all Evaluated Bid Prices among responsive bids

T = the total Technical Score awarded to the bid

 T_{high} = the Technical Score achieved by the bid that was scored highest among all responsive bids

X = weight for the Price as **specified in the BDS**

The bid with the highest Evaluated Bid Score (B) among responsive bids shall be termed the Lowest Evaluated Bid and is eligible for Contract award, provided the Bidder was prequalified and/or it was found to be qualified to perform the Contract in accordance with ITB Clause 31 (Postqualification).

- 28.5 If, in addition to the cost factors, the Purchaser has chosen to give weight to important technical factors (i.e., the price weight, X, is less than 1 in the evaluation), that cannot be reduced to life-cycle costs or pass/fail criteria, the Total Technical Points assigned to each bid in the Evaluated Bid Formula will be determined by adding and weighting the scores assigned by an evaluation committee to technical features of the bid in accordance with the criteria set forth below.
 - (a) The technical features to be evaluated are generally defined below and specifically **identified in the BDS:**
 - (i) Performance, capacity, or functionality features that either exceed levels specified as mandatory in the Technical Requirements; and/or influence the lifecycle cost and effectiveness of the Information System.
 - (ii) Usability features, such as ease of use, ease of administration, or ease of expansion, which influence the life-cycle cost and effectiveness of the Information System.
 - (iii) The quality of the Bidder's Preliminary Project Plan as evidenced by the thoroughness, reasonableness, and responsiveness of: (a) the task and resource schedules, both general and specific, and (b) the proposed arrangements for management and coordination, training, quality assurance, technical support, logistics, problem resolution, and transfer of knowledge, and other such activities as specified by the Purchaser in Section VI (Technical Requirements) or proposed by the Bidder based on the Bidder's experience.
 - (b) Feature scores will be grouped into a small number of evaluation categories, generally defined below and specifically **identified in the BDS**, namely:
 - (i) The technical features that reflect how well the Information System meets the Purchaser's Business Requirements (including quality assurance and risk-containment measures associated with the implementation of the Information System).
 - (ii) The technical features that reflect how well the Information System meets the System's Functional

Performance Standards.

- (iii) The technical features that reflect how well the Information System meets the General Technical Requirements for hardware, network and communications, Software, and Services.
- (c) As **specified in the BDS**, each category will be given a weight and within each category each feature may also be given a weight.
- During the evaluation process, the evaluation committee will assign each desirable/preferred feature a whole number score from 0 to 4, where 0 means that the feature is absent, and 1 to 4 either represent predefined values for desirable features amenable to an objective way of rating (as is the case for, e.g., extra memory, or extra mass storage capacity, etc., if these extras would be conducive for the utility of the system), or if the feature represents a desirable functionality (e.g., of a software package) or a quality improving the prospects for a successful implementation (such as the strengths of the proposed project staff, the methodology, the elaboration of the project plan, etc., in the bid), the scoring will be 1 for the feature being present but showing deficiencies; 2 for meeting the requirements; 3 for marginally exceeding the requirements; and 4 for significantly exceeding the requirements.
- (e) The score for each feature (i) within a category (j) will be combined with the scores of features in the same category as a weighted sum to form the Category Technical Score using the following formula:

$$S_j \equiv \sum_{i=1}^k t_{ji} * w_{ji}$$

where:

 t_{ji} = the technical score for feature "i" in category "j"

 w_{ji} = the weight of feature "i" in category "j"

k = the number of scored features in category "j"

and
$$\sum_{i=1}^{k} w_{ji} = 1$$

(f) The Category Technical Scores will be combined in a

weighted sum to form the total Technical Bid Score using the following formula:

$$T \equiv \sum_{j=1}^{n} S_{j} * W_{j}$$

where:

 S_i = the Category Technical Score of category "j"

 W_i = the weight of category "j" as specified in the BDS

n = the number of categories

and
$$\sum_{j=1}^{n} W_{j} = 1$$

28.6 The Evaluated Bid Price (C) for each responsive bid will be determined as the sum of the Adjusted Supply and Installation Costs (P) plus the Recurrent Costs (R);

where the Adjusted Supply and Installation Costs (P) are determined as:

- (a) The price of the hardware, Software, related equipment, products, Materials and other Goods offered from within or from outside the Purchaser's Country, in accordance with ITB 14.4; plus
- (b) The total price for all software development, transportation, insurance, installation, customization, integration, Commissioning, testing, training, technical support, repair, and other Services, in accordance with ITB 14.5;
- (c) with adjustments for:
 - (i) Deviations proposed to the Implementation Schedule in the Technical Requirements resulting in delayed completion of the entire Information System, if **permitted in the BDS** and provided they do not exceed the maximum permissible delay period **specified in the BDS**. For evaluation purposes, a pro rata increase of the total Supply and Installation Costs will be added using the percentage(s) **specified in the BDS** for each week of delay. Bids offering deliveries beyond the maximum permissible delay specified may be rejected.

- (ii) Deviations taken to the Contract payment schedule specified in the SCC. If deviations are **permitted in the BDS**, for evaluation purposes the total Supply and Installation Costs will be increased pro rata by the amount of interest that could otherwise be earned on the amount of any payments that would fall due under the proposed schedule earlier than the schedule stipulated in the SCC, at the interest rate **specified in the BDS**.
- (iii) Goods and Services that are required for the Information System but have been left out or are necessary to correct minor deviations of the bid will be added to the total Supply and Installation Costs using costs taken from the highest prices from other responsive bids for the same Goods and Services, or in the absence of such information, the cost will be estimated at prevailing list prices. If the missing Goods and Services are a scored technical feature, the relevant score will be set at zero.
- (iv) Corrections to errors in arithmetic, in accordance with ITB Clause 26.2.
- (v) Any discounts offered for the award of more than one Subsystem, lot, or slice, if the BDS for ITB Clause 28.1 permits the consideration of discounts in the price evaluation.
- (d) The Recurrent Costs (R) are reduced to net present value and determined using the following formula:

$$R \equiv \sum_{x=1}^{N+M} \frac{R_x}{(1+I)^x}$$

where

N = number of years of the Warranty Period, defined in SCC Clause 29.4

M = number of years of the Post-Warranty Services Period, as defined in SCC Clause 1.1.(e) (xii)

x = an index number 1, 2, 3, ... N + M representing each year of the combined Warranty Service and Post-Warranty Service Periods.

 R_x = total Recurrent Costs for year "x," as recorded in

the Recurrent Cost Sub-Table.

discount rate to be used for the Net Present Value calculation, as specified in the BDS.

29. Domestic Preference

29.1 No margin of domestic preference will apply.

30. Contacting the Purchaser

- 30.1 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 bid, it should do so in writing.
- 30.2 If a Bidder tries to directly influence the Purchaser or otherwise interfere in the bid evaluation process and the Contract award decision, its bid may be rejected.

F. POSTOUALIFICATION AND AWARD OF CONTRACT

31. Postqualification

- 31.1 The Purchaser will determine at its own cost and to its satisfaction whether the Bidder (including Joint Venture Partners, and any Subcontractors for which the BDS for ITB Clause 6.1 (a) permits that their qualifications count towards the required Bidder qualifications) that is selected as having submitted the Lowest Evaluated Bid is qualified to perform the Contract satisfactorily, in accordance with ITB Clause 6. If a prequalification process was undertaken for the Contract(s) for which these Bidding Documents were issued, the Purchaser will determine in the manner described above that no material changes have occurred after the prequalification that negatively affect the ability of the Bidder that has submitted the Lowest Evaluated Bid to perform the Contract.
- 31.2 Pursuant to ITB Clauses 6 and 16, and as additionally may be specified in the BDS, the determination will evaluate the Bidder's financial, technical, design, integration, customization, production, management, and support capabilities and will be based on an examination of the documentary evidence of the Bidder's qualifications, as well as other information the Purchaser deems necessary and appropriate. This determination may include visits or interviews with the Bidder's clients referenced in its bid, site inspections, and any other measures. If so specified in the BDS, at the time of postqualification the Purchaser may also carry out tests to determine that the performance or functionality of the Information System offered meets those stated in the Technical Requirements.

31.3 An affirmative postqualification determination will be a prerequisite for award of the Contract to the Lowest Evaluated Bidder. A negative determination will result in rejection of the Bidder's bid, in which event the Purchaser will proceed to the next lowest evaluated Bidder to make a similar determination of that Bidder's capabilities to perform satisfactorily.

32. Award Criteria

32.1 Subject to ITB Clause 34, the Purchaser will award the Contract to the Bidder whose bid has been determined to be substantially responsive and the Lowest Evaluated Bid, provided further that the Bidder has been determined to be qualified to perform the Contract satisfactorily, pursuant to ITB Clause 31.

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

- 33.1 The Purchaser reserves the right at the time of Contract award to increase or decrease, by the percentage(s) **indicated in the BDS**, any of the following:
 - (a) the quantity of substantially identical Subsystems; or
 - (b) the quantity of individual hardware, Software, related equipment, Materials, products, and other Goods components of the Information System; or
 - (c) the quantity of Installation or other Services to be performed,

from that originally specified in the Technical Requirements (as amended by any Addenda issued pursuant to ITB Clause 11), without any change in unit prices or other terms and conditions.

34. Purchaser's Right to Accept Any Bid and to Reject Any or All Bids

34.1 The Purchaser reserves the right to accept or reject any bid or to annul the bidding process and reject all bids at any time prior to Contract award, without thereby incurring any liability to the Bidders.

35. Notification of Award

- 35.1 Prior to the expiration of the period of bid validity, the Purchaser shall notify the successful Bidder, in writing, that its bid has been accepted.
- 35.2 Until a formal Contract is prepared and executed, the notification of award shall constitute a binding Contract.
- 35.3 The Purchaser shall promptly publish in UNDB online and in dgMarket the results, identifying the bid and lot numbers and the following information: (i) name of each Bidder who submitted a bid; (ii) bid prices as read out at bid opening; (iii) name,

evaluated price and, if the bidding conditions included scoring for technical quality, the technical score of each bid that was evaluated; (iv) name of Bidders whose bids were rejected and the reasons for their rejection; and (v) name of the winning Bidder, the price it offered, as well as the duration and summary scope of the contract awarded. After publication of the award, unsuccessful Bidders may make a request in writing to the Purchaser for a debriefing seeking explanations on the grounds on which their bids were not selected. The Purchaser shall promptly respond in writing to any unsuccessful Bidder who, after publication of contract award, requests a debriefing.

35.4 Upon the successful Bidder furnishing the signed Contract Agreement and the Performance Security pursuant to ITB Clause 37, the Purchaser will promptly notify each unsuccessful Bidder, and will discharge all remaining Bid Securities, if any, as provided in ITB Clause 17.5 (c) and (d).

36. Signing of Contract

- 36.1 At the same time as the Purchaser notifies the successful Bidder that its bid has been accepted, the Purchaser will send the Bidder the Contract Agreement provided in the Bidding Documents, incorporating all agreements between the parties.
- 36.2 As soon as practically possible, but no more than twenty-eight (28) days following receipt of the Contract Agreement, the successful Bidder shall sign and date it, and return it to the Purchaser.

37. Performance Security

- 37.1 As soon as practically possible, but no more than twenty-eight (28) days following receipt of notification of award from the Purchaser, the successful Bidder shall furnish the Performance Security in accordance with the GCC, using the Performance Security form provided in the Bidding Documents or another form acceptable to the Purchaser.
- 37.2 Failure of the successful Bidder to comply with the requirements of ITB Clause 36 or ITB Clause 37.1 shall constitute sufficient grounds for the annulment of the award and, if and as applicable, execution of the Bid-Securing Declaration or forfeiture of the Bid Security, in which event the Purchaser may make the award to the next lowest evaluated bid submitted by a qualified Bidder or call for new bids.

38. Adjudicator

38.1 Unless otherwise **stated in the BDS**, the Purchaser proposes that the person named in the BDS be appointed as Adjudicator under the Contract to assume the role of informal Contract dispute mediator, as described in GCC Clause 6. In this case, a résumé

of the named person is attached to the BDS. The proposed hourly fee for the Adjudicator is specified in the BDS. The expenses that would be considered reimbursable to the Adjudicator are also **specified in the BDS.** If a Bidder does not accept the Adjudicator proposed by the Purchaser, it should state its non-acceptance in its Bid Submission Form and make a counterproposal of an Adjudicator and an hourly fee, attaching a résumé of the alternative. If the successful Bidder and the Adjudicator nominated in the BDS happen to be from the same country, and this is not the country of the Purchaser too, the Purchaser reserves the right to cancel the Adjudicator nominated in the BDS and propose a new one. If by the day the Contract is signed, the Purchaser and the successful Bidder have not agreed on the appointment of the Adjudicator, the Adjudicator shall be appointed, at the request of either party, by the Appointing Authority specified in the SCC clause relating to GCC Clause 6.1.4, or if no Appointing Authority is specified there, the Contract will be implemented without an Adjudicator.

SECTION II. BID DATA SHEET (BDS)

Bid Data Sheet

The following specific information relating to the System to be procured and the procurement procedures that will be used shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions in the Bid Data Sheet (BDS) shall prevail over those in the ITB.

A. GENERAL

ITB 1.1	Name of Purchaser: Project Management Unit, JTFRP
	Name of authorized Purchasing Agent: Director Technical, PMU, JTFRP
	Description of the System for which bids are invited: Design, Supply, Installation, Testing and Commissioning with Annual Maintenance for 04 Years of SCADA System for 80 storm water dewatering stations in and around Srinagar City.
ITB 1.4	Alternative e-Tendering procedures <i>are not</i> available in this procurement.
ITB 2.1	Name of the Borrower: Government of India/ Govt. of Jammu & Kashmir
	Loan or credit number: IDA-56950
	Loan or credit amount: USD 250 Million
	Name of Project: Jhelum Tawi Flood Recovery Project
ITB 6.1 (a)	A. If the Bidder is a manufacturer:
	(a) Financial Capability
	The bidders, who are also the manufacturers, should have average annual sales turnover of INR 44.00 Crores in last five financial years (as certified by Chartered Accountant).
	(b) Experience and Technical Capacity
	(i) The bidder must have manufactured, supplied, installed and commissioned satisfactorily similar equipment (SCADA System) of the type specified in each schedule of the Schedule of Requirements to the extent of at least 80 % of the quantity (for a value of AT LEAST INR 26.00 Crores AS A SINGLE ORDER) Indicated against each schedule under Schedule of Requirements in ANY

ONE OF THE LAST FIVE YEARS and should be in use satisfactorily with no adverse report for **AT LEAST TWO YEARS** preceding the date of bid opening.

- (ii) The bidder should furnish the information on past supplies and satisfactory performance in the Proforma given in the bid document.
- (iii) Bidders shall invariably furnish documentary evidence (End User's certificate) in support of the satisfactory operation of the goods as specified above.
- (iv) The bidder shall furnish data to support that he has the financial and production capacity to perform the contract and complete the supplies within the stipulated delivery period.
- (v) Further, bidder should be in continuous business of manufacturing / supplying and after sale services of products similar to that specified in the 'Schedule of requirement' during the last 5 years prior to bid opening.
- (vi) The documentary evidence of the Bidder's eligibility to bid shall establish to the Purchaser's satisfaction that the Bidder, at the time of submission of its bid, is from an eligible country as defined under the bid.
- (vii) The legal status, place of registration and principal place of business of the company or firm or partnership, etc.;
- (viii) Details of experience and past performance of the bidder on equipment offered and on those of similar nature within the past five years and details of current contracts in hand and other commitments (suggested Proforma given in bid).
- (ix) The Bidder should furnish a detailed write-up, backed with adequate data, explaining his available capacity and experience (both technical and commercial) for the manufacture and supply of the required equipment within the specified time of completion after meeting all their current commitments.
- (x) The bidder should clearly confirm that all the facilities exist in his factory for inspection and testing and these will be made available to the purchaser or his representative for inspection.
- (xi) Reports on financial standing of the bidder such as profit and loss statements, balance sheets and auditor's report for the past five

FY, bankers certificate, etc. (xii) The bidder should clearly confirm that the SCADA System (solution) proposed is available live at 05 places (minimum) for cross verification and satisfactory performance certificates from the end users shall be submitted alongwith the bid. **B.** If Bidder is not manufacturer: (a) Experience and Technical Capacity In the case of a Bidder offering to supply Goods under the Contract that the Bidder does not manufacture or otherwise produce, the Bidder should be duly authorized by the manufacturer of the Goods who meets the criteria under (A) above (all supporting documents/information as asked above for manufacturer shall be submitted with the bid) and The manufacturer furnishes a legally enforceable authorization in full the prescribed Form assuring guarantee and warranty obligations as per GCC and SCC for the goods offered; and The bidder, as authorized by the manufacturers, has executed similar work (SCADA System) satisfactorily and provided after sales service to the extent of at least for a value of INR 20.00 Crores AS A SINGLE ORDER indicated against each schedule specified in the Schedule of Requirements in ANY ONE OF THE LAST Five(5) YEARS, which must be in satisfactory operation AT **LEAST FOR TWO YEARs** on the date of bid opening. (b) Financial Capability The bidder should have average annual sales turnover of **INR 33.00** Crores in last five financial years (as certified by Chartered Accountant). Notwithstanding anything stated above, the purchaser reserves the right to assess the bidder's capabilities and capacity to execute the contract satisfactorily before deciding on award The Bidder should be authorized by OEM / OEM Authorized ITB 6.1 (b) Partner/ Distributor of the products to quote for the bid. The bidder must attach Authorization Certificate as per the Manufacturer's Authorizations Form. Manufacturer's authorizations are required for Technologies - except for those technologies which the Bidder itself manufactures - for all the types/categories. ITB 6.1 (c) None

B. THE BIDDING DOCUMENTS

ITB 10.1	Purchaser's address: Director Technical Project Management Unit Jhelum & Tawi Flood Recovery Project. 2 nd Floor, ERA Commercial Complex, Rambagh, Srinagar – 190009. Phone-0194 – 2437320. e-mail: dirpmujk@gmail.com
ITB 10.2	 (a) The bidder or his authorized representative is invited to attend a pre-bid Meeting which will take place at Delhi (Meeting hall, JK House, Chanakyapuri, Delhi) on 13/12/2019 at 1100 hours. (b) The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at this stage. (c) The bidders are requested to submit any questions in writing so as to reach the Purchaser not later than FIVE (5) DAYS before the pre-bid meeting. (d) Non-attendance at the pre-bid meeting will not be a cause for dis-qualification

C. PREPARATION OF BIDS

ITB 12.1	The language of the bid and of all correspondence and documents
	related to it is: English.
	related to it is. Eligibil.
TTTD 1.4.1	
ITB 14.1	Recurrent cost items are required as per Price Schedule Form.
ITB 14.4	The Incoterms edition is "Incoterms 2014 - ICC Official Rules for
	the Interpretation of Trade Terms" published in September 1999 by
	the International Chamber of Commerce, 38 Cours Albert 1er,
	75008 Paris, France".
ITB 14.4 (a)	Srinagar, J&K (India)
ITB 14.4 (c)	None
ITB 14.5	None
ITB 14.7	Prices quoted by the Bidder shall be fixed inclusive of all taxes.
	. ,
ITB 15.1 (b)	The bidder may quote the prices in any fully convertible currency,
	singly or in combination of upto three (03) foreign currencies.
	singly of in combination of apto unce (03) foreign currences.

	The financial bid should state local costs in purchaser's country currency (Indian Rupees)
ITB 16.2 (c)	The bidder has to submit a detailed project plan including human resources to be deployed for the successful completion of the complete scope of work in case of award of work.
ITB 16.3	Please refer to the technical specifications.
ITB 17.1	The bid security shall be in the form of Letter of Credit, Bank guarantee or Fixed Deposit Receipt (FDR) of a scheduled commercial bank, issued in favour of Chief Accounts Officer, Project Management Unit, Jhelum Tawi Flood Recovery Project, Srinagar.
ITB 17.7	If the Bidder incurs any of the actions prescribed in ITB Clause 17.7 (a) or (b), the Borrower will declare the Bidder ineligible to be awarded contracts by the Employer for a period of 5 years
ITB 18.1	The bid validity period shall be 120 days after the deadline for bid submission, as specified below in reference to ITB Clause 21
ITB 19.1	Required number of bid copies, besides the original: [2 (Two)]

D. SUBMISSION OF BIDS

ITB 20.2 (a)	The address for bid submission is: Director Technical PMU, Jhelum & Tawi Flood Recovery Project. Srinagar Office: 2 nd Floor, ERA Commercial Complex, Rambagh, Srinagar – 190009. 0194-2437320 dirpmujk@gmail.com
ITB 21.1	Deadline for bid submission is: 23 – 01 – 2020; 1400 Hours.

E. BID OPENING AND EVALUATION

ITB 24.1 Bids shall be opened on 23 – 01 – 2020; 1430 hour address:-	18 at the following
audi essi	
Project Management Unit	
Jhelum & Tawi Flood Recovery Project, 2 nd floor, ERA Commercial Complex, Rambagh –	Sringger
Phone-0194-2437320	Simagai
Email : dirpmujk@gmail.com	
ITB 27.1 The single currency for conversion of all prices ex	pressed in various
currencies is Indian Rupees (For evaluation).	-
exchange rate shall be the last date for bid subm	nission and based
on State Bank of India exchange rate.	
ITB 28.1 Evaluation will be done for complete package	
ITB 28.4 Weightage for Technical Proposal shall be 30)% and for Price
Proposal shall be 70% for determination of Evalua	
Technical score of bid shall be evaluated	on the basis of
following sub-criteria:-	OII tile basis oi
a) General Experience of bidder – 15 poin	nts.
b) Specific experience and technical capa 25 points.	acity of bidder –
c) Adequacy and quality of the techn	nical proposal /
proposed solution, methodology, and	
response to the bid requirements. – 60	
ITB 28.5 Not Applicable.	
11b 20.5 Not Applicable.	
ITB 28.6 (c) (i) The Purchaser will not accept deviations in	
installation and commissioning specified in the	*
Schedule. Any deviation shall lead to disqualificati	
ITB 28.6 (c) (ii) The Purchaser will not accept deviations in the pa	•
the SCC. Any deviation shall lead to disqualification ITB 28.6 (d) Not Applicable.	on of the bla.
ITB 28.6 (d) Not Applicable.	

F. POST QUALIFICATION AND AWARD OF CONTRACT

ITB 31.2	Even though the bidders meet the qualifying criteria as mentioned in the BDS, they are subject to be disqualified if they have made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/or record of poor performance such as, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.
	Notes: 1) The post qualification requirements mentioned in the BDS are to be met by the bidder (in case of manufacturer bidders) and the bidder and the manufacturer respectively (in case of non manufacturer bidders) and qualification of group/sister/parent companies will not be considered for meeting the above requirement.
	2) For the purpose of furnishing documentary evidence to meet the post qualification criteria, the bidder should furnish the following:
	 (i) The supply made to public sector/Government units in India, The bidder should submit an affidavit confirming that the performance statement given is correct. (ii) In case of supplies to private sector units, the bidder should submit an affidavit confirming that the performance statement is correct along with copy of purchase order, copy of invoices, proof of payment received from Purchasers, documentary evidence (end user certificate)in support of satisfactory completion of orders.
	Remarks: The information and documents in support of meeting the qualification criteria as specified above should be submitted alongwith the bid.
ITB 33.1	Percentage for quantity increase or decrease: 25%
ITB 38.1	The proposed Adjudicator is: Chief Engineer, Mechanical (Retd.).
	The proposed hourly fee and the expenses shall be reimbursed to the Adjudicator at the rate of 50% each by Purchaser and Bidder.
	However, if the adjudicator is not acceptable to either of the parties, then the adjudicator will be appointed by the Chairman of The Institution of Engineers (India), Srinagar Chapter at the request of Purchaser or the Bidder at appropriate time.

SECTION III. ELIGIBLE COUNTRIES FOR THE PROVISION OF GOODS, WORKS, AND SERVICES IN BANK-FINANCED PROCUREMENT

Eligible Countries for the Provision of Goods, Works, and Services in Bank-Financed Procurement

As of September 2007

- 1. Eligible for this procurement are firms of, and goods manufactured in, all countries except countries, if any, listed in the following restrictions.
- 2. In accordance with Para. 1.8 (a) of the Guidelines: Procurement under IBRD Loans and IDA Credits, firms of a Country or goods manufactured in a Country may be excluded if
 - (i) as a matter of law or official regulation, 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 the goods or works required, or
 - (ii) 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 persons or entities in that Country.
- 3. For the information of borrowers and bidders, at the present time firms, goods and services from the following countries are excluded from this bidding:

With reference to paragraph (i) above: "none"

With reference to paragraph (ii) above: "none"

_	\neg
. >	1

SECTION IV. GENERAL CONDITIONS OF CONTRACT

Table of Clauses

A.	Con	tract and Interpretation	60
	1. 2. 3. 4. 5.	Definitions Contract Documents Interpretation Notices Governing Law Settlement of Disputes	68 71 72
В.	Sub	ect Matter of Contract	74
	7. 8. 9. 10.	Scope of the System Time for Commencement and Operational Acceptance Supplier's Responsibilities Purchaser's Responsibilities	75 75
C.	Pay	ment	79
	11. 12. 13. 14.	Contract Price Terms of Payment Securities Taxes and Duties	79 80
D.	Inte	llectual Property	82
	15. 16. 17.	Copyright	83
Ε.	Sup	oly, Installation, Testing, Commissioning, and Acceptance of the System	87
	18. 19. 20. 21. 22. 23. 24. 25. 26. 27.	Representatives Project Plan Subcontracting Design and Engineering Procurement, Delivery, and Transport Product Upgrades Implementation, Installation, and Other Services Inspections and Tests Installation of the System Commissioning and Operational Acceptance	89 90 93 96 97 97
F.	Gua	rantees and Liabilities	103
	28. 29. 30. 31. 32.	Operational Acceptance Time Guarantee Defect Liability Functional Guarantees Intellectual Property Rights Warranty Intellectual Property Rights Indemnity	104 107 107

	33.	Limitation of Liability	.111
G.	Risk	Distribution	.111
		Transfer of Ownership	
	35.	Care of the System	.111
	36.	Loss of or Damage to Property; Accident or Injury to Workers; Indemnification	.113
	37.	Insurances	.114
	38.	Force Majeure	.116
Н.	Chai	nge in Contract Elements	.118
	39.	Changes to the System	.118
	40.	Extension of Time for Achieving Operational Acceptance	.122
		Termination	
	42.	Assignment	.132

General Conditions of Contract

A. CONTRACT AND INTERPRETATION

1. Definitions

- 1.1 In this Contract, the following terms shall be interpreted as indicated below.
 - (a) contract elements
 - (i) "Contract" means the Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein. The Contract Agreement and the Contract Documents shall constitute the Contract, and the term "the Contract" shall in all such documents be construed accordingly.
 - (ii) "Contract Documents" means the documents specified in Article 1.1 (Contract Documents) of the Contract Agreement (including any amendments to these Documents).
 - (iii) "Contract Agreement" means the agreement entered into between the Purchaser and the Supplier using the form of Contract Agreement contained in the Sample Forms Section of the Bidding Documents and any modifications to this form agreed to by the Purchaser and the Supplier. The date of the Contract Agreement shall be recorded in the signed form.
 - (iv) "GCC" means the General Conditions of Contract.
 - (v) "SCC" means the Special Conditions of Contract.
 - (vi) "Technical Requirements" means the Technical Requirements Section of the Bidding Documents.
 - (vii) "Implementation Schedule" means the Implementation Schedule Sub-section of the Technical Requirements.
 - viii) "Contract Price" means the price or prices defined in Article 2 (Contract Price and Terms

- of Payment) of the Contract Agreement.
- (ix) "Procurement Guidelines" refers to the edition specified in the SCC of the World Bank Guidelines: Procurement under IBRD Loans and IDA Credits.
- "Bidding Documents" refers to the collection of (x) documents issued by the Purchaser to instruct and inform potential suppliers of the processes for bidding, selection of the winning bid, and Contract formation, as well as the contractual conditions governing the relationship between the Purchaser and the Supplier. The General and Special Conditions of Contract, the Technical Requirements, and all other documents included Bidding Documents the reflect Procurement Guidelines that the Purchaser is obligated to follow during procurement and administration of this Contract.

(b) entities

- (i) "Purchaser" means the entity purchasing the Information System, as **specified in the SCC.**
- (ii) "Project Manager" means the person **named as** such in the SCC or otherwise appointed by the Purchaser in the manner provided in GCC Clause 18.1 (Project Manager) to perform the duties delegated by the Purchaser.
- (iii) "Supplier" means the firm or Joint Venture whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the Contract Agreement.
- (iv) "Supplier's Representative" means any person nominated by the Supplier and named as such in the Contract Agreement or otherwise approved by the Purchaser in the manner provided in GCC Clause 18.2 (Supplier's Representative) to perform the duties delegated by the Supplier.
- (v) "Subcontractor" means any firm to whom any of the obligations of the Supplier, including preparation of any design or supply of any

- Information Technologies or other Goods or Services, is subcontracted directly or indirectly by the Supplier.
- (vi) "Adjudicator" means the person named in Appendix 2 of the Contract Agreement, appointed by agreement between the Purchaser and the Supplier to make a decision on or to settle any dispute between the Purchaser and the Supplier referred to him or her by the parties, pursuant to GCC Clause 6.1 (Adjudication).
- (vii) "The World Bank" (also called "The Bank") means the International Bank for Reconstruction and Development (IBRD) or the International Development Association (IDA).

(c) scope

- (i) "Information System," also called "the System," means all the Information Technologies, Materials, and other Goods to be supplied, installed, integrated, and made operational (exclusive of the Supplier's Equipment), together with the Services to be carried out by the Supplier under the Contract.
- (ii) "Subsystem" means any subset of the System identified as such in the Contract that may be supplied, installed, tested, and commissioned individually before Commissioning of the entire System.
- (iii) "Information Technologies" means all information processing and communications-related hardware, Software, supplies, and consumable items that the Supplier is required to supply and install under the Contract.
- (iv) "Goods" means all equipment, machinery, furnishings, Materials, and other tangible items that the Supplier is required to supply or supply and install under the Contract, including, without limitation, the Information Technologies and Materials, but excluding the Supplier's Equipment.

- "Services" means all technical, logistical, (v) management, and any other Services to be provided by the Supplier under the Contract to supply, install, customize, integrate, and make operational the System. Such Services may include, but are not restricted to, activity management and quality assurance, design, development, customization, documentation, transportation, insurance. inspection, expediting, site preparation, installation, integration, training, data migration, Precommissioning, Commissioning, maintenance, and technical support.
- (vi) "The Project Plan" means the document to be developed by the Supplier and approved by the Purchaser, pursuant to GCC Clause 19, based on the requirements of the Contract and the Preliminary Project Plan included in the Supplier's bid. The "Agreed and Finalized Project Plan" is the version of the Project Plan approved by the Purchaser, in accordance with GCC Clause 19.2. Should the Project Plan conflict with the Contract in any way, the relevant provisions of the Contract, including any amendments, shall prevail.
- (vii) "Software" means that part of the System which are instructions that cause information processing Subsystems to perform in a specific manner or execute specific operations.
- (viii) "System Software" means Software that provides the operating and management instructions for the underlying hardware and other components, and is identified as such in Appendix 4 of the Contract Agreement and such other Software as the parties may agree in writing to be Systems Software. Such System Software includes, but is not restricted to, micro-code embedded in hardware "firmware"), (i.e., operating systems, communications, system and network management, and utility software.
- (ix) "General-Purpose Software" means Software that supports general-purpose office and

software development activities and is identified as such in Appendix 4 of the Contract Agreement and such other Software as the parties may agree in writing to be General-Purpose Software. Such General-Purpose Software may include, but is not restricted to, word processing, spreadsheet, generic database management, and application development software.

- (x) "Application Software" means Software formulated to perform specific business or technical functions and interface with the business or technical users of the System and is identified as such in Appendix 4 of the Contract Agreement and such other Software as the parties may agree in writing to be Application Software.
- (xi) "Standard Software" means Software identified as such in Appendix 4 of the Contract Agreement and such other Software as the parties may agree in writing to be Standard Software.
- (xii) "Custom Software" means Software identified as such in Appendix 4 of the Contract Agreement and such other Software as the parties may agree in writing to be Custom Software.
- (xiii) "Source Code" means the database structures, dictionaries, definitions, program source files, and any other symbolic representations necessary for the compilation, execution, and subsequent maintenance of the Software (typically, but not exclusively, required for Custom Software).
- (xiv) "Materials" means all documentation in printed or printable form and all instructional and informational aides in any form (including audio, video, and text) and on any medium, provided to the Purchaser under the Contract.
- (xv) "Standard Materials" means all Materials not specified as Custom Materials.

- (xvi) "Custom Materials" means Materials developed by the Supplier at the Purchaser's expense under the Contract and identified as such in Appendix 5 of the Contract Agreement and such other Materials as the parties may agree in writing to be Custom Materials. Custom Materials includes Materials created from Standard Materials.
- (xvii) "Intellectual Property Rights" means any and all copyright, moral rights, trademark, patent, and other intellectual and proprietary rights, title and interests worldwide, whether vested, contingent, or future, including without limitation all economic rights and all exclusive rights to reproduce, fix, adapt, modify, translate, create derivative works from, extract or re-utilize data from, manufacture, introduce into circulation, publish, distribute, sell, license, sublicense, transfer, rent, lease, transmit or provide access electronically, broadcast. display, enter into computer memory, or otherwise use any portion or copy, in whole or in part, in any form, directly or indirectly, or to authorize or assign others to do so.
- (xviii) "Supplier's Equipment" means all equipment, tools, apparatus, or things of every kind required in or for installation, completion and maintenance of the System that are to be provided by the Supplier, but excluding the Information Technologies, or other items forming part of the System.

(d) activities

- (i) "Delivery" means the transfer of the Goods from the Supplier to the Purchaser in accordance with the current edition Incoterms specified in the Contract.
- (ii) "Installation" means that the System or a Subsystem as specified in the Contract is ready for Commissioning as provided in GCC Clause 26 (Installation).
- (iii) "Pre-commissioning" means the testing, checking, and any other required activity that may be

- specified in the Technical Requirements that are to be carried out by the Supplier in preparation for Commissioning of the System as provided in GCC Clause 26 (Installation).
- (iv) "Commissioning" means operation of the System or any Subsystem by the Supplier following Installation, which operation is to be carried out by the Supplier as provided in GCC Clause 27.1 (Commissioning), for the purpose of carrying out Operational Acceptance Test(s).
- (v) "Operational Acceptance Tests" means the tests specified in the Technical Requirements and Agreed and Finalized Project Plan to be carried out to ascertain whether the System, or a specified Subsystem, is able to attain the functional and performance requirements specified in the Technical Requirements and Agreed and Finalized Project Plan, in accordance with the provisions of GCC Clause 27.2 (Operational Acceptance Test).
- (vi) "Operational Acceptance" means the acceptance by the Purchaser of the System (or any Subsystem(s) where the Contract provides for acceptance of the System in parts), in accordance with GCC Clause 27.3 (Operational Acceptance).
- (e) place and time
 - (i) "Purchaser's Country" is the **country named in the SCC.**
 - (ii) "Supplier's Country" is the country in which the Supplier is legally organized, as named in the Contract Agreement.
 - (iii) "Project Site(s)" means the place(s) **specified in the SCC** for the supply and installation of the System.
 - (iv) "Eligible Country" means the countries and territories eligible for participation in procurements financed by the World Bank as defined in the Procurement Guidelines. (Note:

The World Bank maintains a list of countries from which Bidders, Goods, and Services are not eligible to participate in procurement financed by the Bank. The list is regularly updated and can be obtained from the Public Information Center of the Bank or its web site on procurement. A copy of the list is contained in the Section of the Bidding Documents entitled "Eligible Countries for the Provision of Goods, Works, and Services in Bank-Financed Procurement").

- (v) "Day" means calendar day of the Gregorian Calendar.
- (vi) "Week" means seven (7) consecutive Days, beginning the day of the week as is customary in the Purchaser's Country.
- (vii) "Month" means calendar month of the Gregorian Calendar.
- (viii) "Year" means twelve (12) consecutive Months.
- (ix) "Effective Date" means the date of fulfillment of all conditions specified in Article 3 (Effective Date for Determining Time for Achieving Operational Acceptance) of the Contract Agreement, for the purpose of determining the Delivery, Installation, and Operational Acceptance dates for the System or Subsystem(s).
- (x) "Contract Period" is the time period during which this Contract governs the relations and obligations of the Purchaser and Supplier in relation to the System, as **specified in the SCC.**
- (xi) "Defect Liability Period" (also referred to as the "Warranty Period") means the period of validity of the warranties given by the Supplier commencing at date of the Operational Acceptance Certificate of the System or Subsystem(s), during which the Supplier is responsible for defects with respect to the System (or the relevant Subsystem[s]) as

provided in GCC Clause 29 (Defect Liability).

- (xii) "The Post-Warranty Services Period" means the number of years **defined in the SCC** (if any), following the expiration of the Warranty Period during which the Supplier may be obligated to provide Software licenses, maintenance, and/or technical support services for the System, either under this Contract or under separate contract(s).
- (xiii) "The Coverage Period" means the Days of the Week and the hours of those Days during which maintenance, operational, and/or technical support services (if any) must be available.

2. Contract Documents

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

3. Interpretation

- 3.1 Governing Language
 - 3.1.1 All Contract Documents and related correspondence exchanged between Purchaser and Supplier shall be written in the language **specified in the SCC**, and the Contract shall be construed and interpreted in accordance with that language.
 - 3.1.2 If any of the Contract Documents or related correspondence are prepared in a language other than the governing language under GCC Clause 3.1.1 above, the translation of such documents into the governing language shall prevail in matters of interpretation. The originating party, with respect to such documents shall bear the costs and risks of such translation.

3.2 Singular and Plural

The singular shall include the plural and the plural the singular, except where the context otherwise requires.

3.3 Headings

The headings and marginal notes in the GCC are included for ease of reference and shall neither constitute a part of the Contract nor affect its interpretation.

3.4 Persons

Words importing persons or parties shall include firms, corporations, and government entities.

3.5 Incoterms

Unless inconsistent with any provision of the Contract, the meaning of any trade term and the rights and obligations of parties thereunder shall be as prescribed by the current Incoterms ("Incoterms 2000" or a more recent version if and as published). Incoterms are the international rules for interpreting trade terms published by the International Chamber of Commerce, 38 Cours Albert 1er, 75008 Paris, France.

3.6 Entire Agreement

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

3.7 Amendment

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

3.8 Independent Supplier

The Supplier shall be an independent contractor performing the Contract. The Contract does not create any agency, partnership, joint venture, or other joint relationship between the parties to the Contract.

Subject to the provisions of the Contract, the Supplier shall be solely responsible for the manner in which the Contract is performed. All employees, representatives, or Subcontractors engaged by the Supplier in connection with the performance of the Contract shall be under the complete control of the Supplier and shall not be deemed to be employees of the Purchaser, and nothing contained in the Contract or in any subcontract awarded by the Supplier shall be construed to create any contractual relationship between any such employees, representatives, or Subcontractors and the Purchaser.

3.9 Joint Venture

If the Supplier is a Joint Venture of two or more firms, all such firms shall be jointly and severally bound to the Purchaser for the fulfillment of the provisions of the Contract and shall designate one of such firms to act as a leader with authority to bind the Joint Venture. The composition or constitution of the Joint Venture shall not be altered without the prior consent of the Purchaser.

3.10 Nonwaiver

- 3.10.1 Subject to GCC Clause 3.10.2 below, no relaxation, forbearance, delay, or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect, or restrict the rights of that party under the Contract, nor shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract.
- 3.10.2 Any waiver of a party's rights, powers, or remedies under the Contract must be in writing, must be dated and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.

3.11 Severability

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

3.12 Country of Origin

"Origin" means the place where the Information Technologies, Materials, and other Goods for the System were produced or from which the Services are supplied. Goods are produced when, through manufacturing, processing, Software development, or substantial and major assembly or integration of components, a commercially recognized product results that is substantially different in basic characteristics or in purpose or utility from its components. The Origin of Goods and Services is distinct from the nationality of the Supplier and may be different.

4. Notices

- 4.1 Unless otherwise stated in the Contract, all notices to be given under the Contract shall be in writing and shall be sent, pursuant to GCC Clause 4.3 below, by personal delivery, airmail post, special courier, cable, telegraph, telex, facsimile, electronic mail, or Electronic Data Interchange (EDI), with the following provisions.
 - 4.1.1 Any notice sent by cable, telegraph, telex, facsimile, electronic mail, or EDI shall be confirmed within two (2) days after dispatch by notice sent by airmail post or special courier, except as otherwise specified in the Contract.
 - 4.1.2 Any notice sent by airmail post or special courier shall be deemed (in the absence of evidence of earlier receipt) to have been delivered ten (10) days after dispatch. In proving the fact of dispatch, it shall be sufficient to show that the envelope containing such notice was properly addressed, stamped, and conveyed to the postal authorities or courier service for transmission by airmail or special courier.
 - 4.1.3 Any notice delivered personally or sent by cable, telegraph, telex, facsimile, electronic mail, or EDI shall be deemed to have been delivered on the date of its dispatch.
 - 4.1.4 Either party may change its postal, cable, telex, facsimile, electronic mail, or EDI addresses for receipt of such notices by ten (10) days' notice to the other party in writing.
- 4.2 Notices shall be deemed to include any approvals, consents, instructions, orders, certificates, information and other communication to be given under the Contract.
- 4.3 Pursuant to GCC Clause 18, notices from/to the Purchaser are normally given by, or addressed to, the Project Manager, while notices from/to the Supplier are normally given by, or addressed to, the Supplier's Representative, or in its absence its deputy if any. If there is no appointed Project Manager

or Supplier's Representative (or deputy), or if their related authority is limited by the SCC for GCC Clauses 18.1 or 18.2.2, or for any other reason, the Purchaser or Supplier may give and receive notices at their fallback addresses. The address of the Project Manager and the fallback address of the Purchaser are as **specified in the SCC** or as subsequently established/amended. The address of the Supplier's Representative and the fallback address of the Supplier are as specified in Appendix 1 of the Contract Agreement or as subsequently established/amended.

5. Governing Law

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

6. Settlement of Disputes

6.1 Adjudication

- 6.1.1 If any dispute of any kind whatsoever shall arise between the Purchaser and the Supplier in connection with or arising out of the Contract, including without prejudice to the generality of the foregoing, any question regarding its existence, validity, termination, or the operation of the System (whether during the progress of implementation or after its achieving Operational Acceptance and whether before or after the termination, abandonment, or breach of the Contract), the parties shall seek to resolve any such dispute by mutual consultation. If the parties fail to resolve such a dispute by mutual consultation within fourteen (14) days after one party has notified the other in writing of the dispute, then, if the Contract Agreement in Appendix 2 includes and names an Adjudicator, the dispute shall, within another fourteen (14) days, be referred in writing by either party to the Adjudicator, with a copy to the other party. If there is no Adjudicator specified in the Contract Agreement, the mutual consultation period stated above shall last twenty-eight (28) days (instead of fourteen), upon expiry of which either party may move to the notification of arbitration pursuant to GCC Clause 6.2.1.
- 6.1.2 The Adjudicator shall give his or her decision in writing to both parties within twenty-eight (28) days of the dispute being referred to the Adjudicator. If the Adjudicator has done so, and no notice of intention to

commence arbitration has been given by either the Purchaser or the Supplier within fifty-six (56) days of such reference, the decision shall become final and binding upon the Purchaser and the Supplier. Any decision that has become final and binding shall be implemented by the parties forthwith.

- 6.1.3 The Adjudicator shall be paid an hourly fee at the rate specified in the Contract Agreement plus reasonable expenditures incurred in the execution of duties as Adjudicator, and these costs shall be divided equally between the Purchaser and the Supplier.
- 6.1.4 Should the Adjudicator resign or die, or should the Purchaser and the Supplier agree that the Adjudicator is not fulfilling his or her functions in accordance with the provisions of the Contract, a new Adjudicator shall be jointly appointed by the Purchaser and the Supplier. Failing agreement between the two within twenty-eight (28) days, the new Adjudicator shall be appointed at the request of either party by the Appointing Authority specified in the SCC, or, if no Appointing Authority is specified in SCC, the Contract shall, from this point onward and until the parties may otherwise agree on an Adjudicator or an Appointing Authority, be implemented as if there is no Adjudicator.

6.2 Arbitration

6.2.1 If

- (a) the Purchaser or the Supplier is dissatisfied with the Adjudicator's decision and acts before this decision has become final and binding pursuant to GCC Clause 6.1.2, or
- (b) the Adjudicator fails to give a decision within the allotted time from referral of the dispute pursuant to GCC Clause 6.1.2, and the Purchaser or the Supplier acts within the following fourteen (14) days, or
- (c) in the absence of an Adjudicator from the Contract Agreement, the mutual consultation pursuant to GCC Clause 6.1.1 expires without resolution of the dispute and the Purchaser or the

Supplier acts within the following fourteen (14) days,

then either the Purchaser or the Supplier may act to give notice to the other party, with a copy for information to the Adjudicator in case an Adjudicator had been involved, of its intention to commence arbitration, as provided below, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given.

- 6.2.2 Any dispute in respect of which a notice of intention to commence arbitration has been given, in accordance with GCC Clause 6.2.1, shall be finally settled by arbitration. Arbitration may be commenced prior to or after Installation of the Information System.
- 6.2.3 Arbitration proceedings shall be conducted in accordance with the rules of procedure **specified in** the SCC.
- 6.3 Notwithstanding any reference to the Adjudicator or arbitration in this clause,
 - (a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree;
 - (b) the Purchaser shall pay the Supplier any monies due the Supplier.

B. SUBJECT MATTER OF CONTRACT

7. Scope of the System

7.1 Unless otherwise expressly **limited in the SCC** or Technical Requirements, the Supplier's obligations cover the provision of all Information Technologies, Materials and other Goods as well as the performance of all Services required for the design, development, and implementation (including procurement, quality assurance, assembly, associated site preparation, Delivery, Pre-commissioning, Installation, Testing, and Commissioning) of the System, in accordance with the plans, procedures, specifications, drawings, codes, and any other documents specified in the Contract and the Agreed and Finalized Project Plan.

- 7.2 The Supplier shall, unless specifically excluded in the Contract, perform all such work and / or supply all such items and Materials not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for attaining Operational Acceptance of the System as if such work and / or items and Materials were expressly mentioned in the Contract.
- 7.3 The Supplier's obligations (if any) to provide Goods and Services as implied by the Recurrent Cost tables of the Supplier's bid, such as consumables, spare parts, and technical services (e.g., maintenance, technical assistance, and operational support), are as **specified in the SCC**, including the relevant terms, characteristics, and timings.
- 8. Time for Commencement and Operational Acceptance
- 8.1 The Supplier shall commence work on the System within the period **specified in the SCC**, and without prejudice to GCC Clause 28.2, the Supplier shall thereafter proceed with the System in accordance with the time schedule specified in the Implementation Schedule in the Technical Requirements Section and any refinements made in the Agreed and Finalized Project Plan.
- 8.2 The Supplier shall achieve Operational Acceptance of the System (or Subsystem(s) where a separate time for Operational Acceptance of such Subsystem(s) is specified in the Contract) within the time **specified in the SCC** and in accordance with the time schedule specified in the Implementation Schedule in the Technical Requirements Section and any refinements made in the Agreed and Finalized Project Plan, or within such extended time to which the Supplier shall be entitled under GCC Clause 40 (Extension of Time for Achieving Operational Acceptance).
- 9. Supplier's Responsibilities
- 9.1 The Supplier shall conduct all activities with due care and diligence, in accordance with the Contract and with the skill and care expected of a competent provider of information technologies, information systems, support, maintenance, training, and other related services, or in accordance with best industry practices. In particular, the Supplier shall provide and employ only technical personnel who are skilled and experienced in their respective callings and supervisory staff who are competent to adequately supervise the work at hand.

- 9.2 The Supplier confirms that it has entered into this Contract on the basis of a proper examination of the data relating to the System provided by the Purchaser and on the basis of information that the Supplier could have obtained from a visual inspection of the site (if access to the site was available) and of other data readily available to the Supplier relating to the System as at the date twenty-eight (28) days prior to bid submission. The Supplier acknowledges that any failure to acquaint itself with all such data and information shall not relieve its responsibility for properly estimating the difficulty or cost of successfully performing the Contract.
- 9.3 The Supplier shall be responsible for timely provision of all resources, information, and decision making under its control that are necessary to reach a mutually Agreed and Finalized Project Plan (pursuant to GCC Clause 19.2) within the time schedule specified in the Implementation Schedule in the Technical Requirements Section. Failure to provide such resources, information, and decision making may constitute grounds for termination pursuant to GCC Clause 41.2.
- 9.4 The Supplier shall acquire in its name all permits, approvals, and/or licenses from all local, state, or national government authorities or public service undertakings in the Purchaser's Country that are necessary for the performance of the Contract, including, without limitation, visas for the Supplier's and Subcontractor's personnel and entry permits for all imported Supplier's Equipment. The Supplier shall acquire all other permits, approvals, and/or licenses that are not the responsibility of the Purchaser under GCC Clause 10.4 and that are necessary for the performance of the Contract.
- 9.5 The Supplier shall comply with all laws in force in the Purchaser's Country. The laws will include all national, provincial, municipal, or other laws that affect the performance of the Contract and are binding upon the Supplier. The Supplier shall indemnify and hold harmless the Purchaser from and against any and all liabilities, damages, claims, fines, penalties, and expenses of whatever nature arising or resulting from the violation of such laws by the Supplier or its personnel, including the Subcontractors and their personnel, but without prejudice to GCC Clause 10.1. The Supplier shall not indemnify the Purchaser to the extent that such liability, damage, claims, fines, penalties, and expenses were caused or contributed to by a

fault of the Purchaser.

- 9.6 The Supplier shall, in all dealings with its labor and the labor of its Subcontractors currently employed on or connected with the Contract, pay due regard to all recognized festivals, official holidays, religious or other customs, and all local laws and regulations pertaining to the employment of labor.
- 9.7 Any Information Technologies or other Goods and Services that will be incorporated in or be required for the System and other supplies shall have their Origin, as defined in GCC Clause 3.12, in a country that shall be an Eligible Country, as defined in GCC Clause 1.1 (e) (iv).
- 9.8 The Supplier shall permit the Bank and/or persons appointed by the Bank to inspect the Supplier's offices and/or the accounts and records of the Supplier and its sub-contractors relating to the performance of the Contract, and to have such accounts and records audited by auditors appointed by the Bank if required by the Bank. The Supplier's attention is drawn to Sub-Clause 41.2.1(c), which provides, inter alia, that acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under Sub-Clause 9.8 constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility under the Procurement Guidelines)
- 9.9 Other Supplier responsibilities, if any, are as **stated in the SCC.**

10. Purchaser's Responsibilities

- 10.1 The Purchaser shall ensure the accuracy of all information and/or data to be supplied by the Purchaser to the Supplier, except when otherwise expressly stated in the Contract.
- 10.2 The Purchaser shall be responsible for timely provision of all resources, information, and decision making under its control that are necessary to reach an Agreed and Finalized Project Plan (pursuant to GCC Clause 19.2) within the time schedule specified in the Implementation Schedule in the Technical Requirements Section. Failure to provide such resources, information, and decision making may constitute grounds for Termination pursuant to GCC Clause 41.3.1 (b).
- 10.3 The Purchaser shall be responsible for acquiring and providing legal and physical possession of the site and access to it, and for providing possession of and access to all other areas reasonably

- required for the proper execution of the Contract.
- 10.4 If requested by the Supplier, the Purchaser shall use its best endeavors to assist the Supplier in obtaining in a timely and expeditious manner all permits, approvals, and/or licenses necessary for the execution of the Contract from all local, state, or national government authorities or public service undertakings that such authorities or undertakings require the Supplier or Subcontractors or the personnel of the Supplier or Subcontractors, as the case may be, to obtain.
- 10.5 In such cases where the responsibilities of specifying and acquiring or upgrading telecommunications and/or electric power services falls to the Supplier, as specified in the Technical Requirements, SCC, Agreed and Finalized Project Plan, or other parts of the Contract, the Purchaser shall use its best endeavors to assist the Supplier in obtaining such services in a timely and expeditious manner.
- 10.6 The Purchaser shall be responsible for timely provision of all resources, access, and information necessary for the Installation and Operational Acceptance of the System (including, but not limited to. any required telecommunications or electric power services), as identified in the Agreed and Finalized Project Plan, except where provision of such items is explicitly identified in the Contract as being the responsibility of the Supplier. Delay by the Purchaser may result in an appropriate extension of the Time for Operational Acceptance, at the Supplier's discretion.
- 10.7 Unless otherwise specified in the Contract or agreed upon by the Purchaser and the Supplier, the Purchaser shall provide sufficient, properly qualified operating and technical personnel, as required by the Supplier to properly carry out Delivery, Pre-commissioning, Installation, Commissioning, and Operational Acceptance, at or before the time specified in the Technical Requirements Section's Implementation Schedule and the Agreed and Finalized Project Plan.
- 10.8 The Purchaser will designate appropriate staff for the training courses to be given by the Supplier and shall make all appropriate logistical arrangements for such training as specified in the Technical Requirements, SCC, the Agreed and Finalized Project Plan, or other parts of the Contract.
- 10.9 The Purchaser assumes primary responsibility for the Operational Acceptance Test(s) for the System, in

accordance with GCC Clause 27.2, and shall be responsible for the continued operation of the System after Operational Acceptance. However, this shall not limit in any way the Supplier's responsibilities after the date of Operational Acceptance otherwise specified in the Contract.

- 10.10 The Purchaser is responsible for performing and safely storing timely and regular backups of its data and Software in accordance with accepted data management principles, except where such responsibility is clearly assigned to the Supplier elsewhere in the Contract.
- 10.11 All costs and expenses involved in the performance of the obligations under this GCC Clause 10 shall be the responsibility of the Purchaser, save those to be incurred by the Supplier with respect to the performance of the Operational Acceptance Test(s), in accordance with GCC Clause 27.2.
- 10.12 Other Purchaser responsibilities, if any, are **as stated in the SCC.**

C. PAYMENT

11. Contract Price

- 11.1 The Contract Price shall be as specified in Article 2 (Contract Price and Terms of Payment) of the Contract Agreement.
- 11.2 The Contract Price shall be a firm lump sum not subject to any alteration, except:
 - (a) in the event of a Change in the System pursuant to GCC Clause 39 or to other clauses in the Contract;
 - (b) in accordance with the price adjustment formula (if any) **specified in the SCC.**
- 11.3 The Supplier shall be deemed to have satisfied itself as to the correctness and sufficiency of the Contract Price, which shall, except as otherwise provided for in the Contract, cover all its obligations under the Contract.

12. Terms of Payment

12.1 The Supplier's request for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as appropriate, the System or Subsystem(s), Delivered, Precommissioned, Installed, and Operationally Accepted, and by documents submitted pursuant to GCC Clause 22.5 and upon

fulfillment of other obligations stipulated in the Contract.

The Contract Price shall be paid as **specified in the SCC.**

- 12.2 No payment made by the Purchaser herein shall be deemed to constitute acceptance by the Purchaser of the System or any Subsystem(s).
- 12.3 Payments shall be made promptly by the Purchaser, but in no case later than forty five (45) days after submission of a valid invoice by the Supplier. In the event that the Purchaser fails to make any payment by its respective due date or within the period set forth in the Contract, the Purchaser shall pay to the Supplier interest on the amount of such delayed payment at the rate(s) **specified in the SCC** for the period of delay until payment has been made in full, whether before or after judgment or arbitration award.
- 12.4 All payments shall be made in the currency(ies) specified in the Contract Agreement, pursuant to GCC Clause 11. For Goods and Services supplied locally, payments shall be made in the currency of the Purchaser's Country, unless otherwise **specified in the SCC.**
- 12.5 Unless otherwise **specified in the SCC**, payment of the foreign currency portion of the Contract Price for Goods supplied from outside the Purchaser's Country shall be made to the Supplier through an irrevocable letter of credit opened by an authorized bank in the Supplier's Country and will be payable on presentation of the appropriate documents. It is agreed that the letter of credit will be subject to Article 10 of the latest revision of Uniform Customs and Practice for Documentary Credits, published by the International Chamber of Commerce, Paris.

13. Securities

13.1 Issuance of Securities

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

- 13.2 Advance Payment Security
 - 13.2.1 As **specified in the SCC**, the Supplier shall provide a security equal in amount and currency to the advance payment, and valid until the System is Operationally Accepted.

13.2.2 The security shall be in the form provided in the Bidding Documents or in another form acceptable to the Purchaser. The amount of the security shall be reduced in proportion to the value of the System executed by and paid to the Supplier from time to time and shall automatically become null and void when the full amount of the advance payment has been recovered by the Purchaser. The way the value of the security is deemed to become reduced and, eventually, voided is as **specified in the SCC.** The security shall be returned to the Supplier immediately after its expiration.

13.3 Performance Security

- 13.3.1 The Supplier shall, within twenty-eight (28) days of the notification of Contract award, provide a security for the due performance of the Contract in the amount and currency **specified in the SCC.**
- 13.3.2 The security shall be a bank guarantee in the form provided in the Sample Forms Section of the Bidding Documents, or it shall be in another form acceptable to the Purchaser.
- 13.3.3 The security shall automatically become null and void once all the obligations of the Supplier under the Contract have been fulfilled, including, but not limited to, any obligations during the Warranty Period and any extensions to the period. The security shall be returned to the Supplier no later than twenty-eight (28) days after its expiration.
- 13.3.4 Upon Operational Acceptance of the entire System, the security shall be reduced to the amount **specified in the SCC**, on the date of such Operational Acceptance, so that the reduced security would only cover the remaining warranty obligations of the Supplier.

14. Taxes and Duties

14.1 For Goods or Services supplied from 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. Any duties, such as importation or customs duties, and taxes and other levies, payable in the Purchaser's country for the supply of Goods and Services from outside the Purchaser's country are the

responsibility of the Purchaser unless these duties or taxes have been made part of the Contract Price in Article 2 of the Contract Agreement and the Price Schedule it refers to, in which case the duties and taxes will be the Supplier's responsibility.

- 14.2 For Goods or Services supplied locally, the Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods or Services to the Purchaser. The only exception are taxes or duties, such as value-added or sales tax or stamp duty as apply to, or are clearly identifiable, on the invoices and provided they apply in the Purchaser's country, and only if these taxes, levies and/or duties are also excluded from the Contract Price in Article 2 of the Contract Agreement and the Price Schedule it refers to.
- 14.3 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.
- 14.4 For the purpose of the Contract, it is agreed that the Contract Price specified in Article 2 (Contract Price and Terms of Payment) of the Contract Agreement is based on the taxes, duties, levies, and charges prevailing at the date twenty-eight (28) days prior to the date of bid submission in the Purchaser's Country (also called "Tax" in this GCC Clause 14.4). If any Tax rates are increased or decreased, a new Tax is introduced, an existing Tax is abolished, or any change in interpretation or application of any Tax occurs in the course of the performance of the Contract, which was or will be assessed on the Supplier, its Subcontractors, or their employees in connection with performance of the Contract, an equitable adjustment to the Contract Price shall be made to fully take into account any such change by addition to or reduction from the Contract Price, as the case may be.

D. INTELLECTUAL PROPERTY

15. Copyright

15.1 The Intellectual Property Rights in all Standard Software and Standard Materials shall remain vested in the owner of such rights.

- 15.2 The Purchaser agrees to restrict use, copying, or duplication of the Standard Software and Standard Materials in accordance with GCC Clause 16, except that additional copies of Standard Materials may be made by the Purchaser for use within the scope of the project of which the System is a part, in the event that the Supplier does not deliver copies within thirty (30) days from receipt of a request for such Standard Materials.
- 15.3 The Purchaser's contractual rights to use the Standard Software or elements of the Standard Software may not be assigned, licensed, or otherwise transferred voluntarily except in accordance with the relevant license agreement or as may be otherwise **specified in the SCC.**
- 15.4 As applicable, the Purchaser's and Supplier's rights and obligations with respect to Custom Software or elements of the Custom Software, including any license agreements, and with respect to Custom Materials or elements of the Custom Materials, are specified in the SCC. Subject to the SCC, the Intellectual Property Rights in all Custom Software and Custom Materials specified in Appendices 4 and 5 of the Contract Agreement (if any) shall, at the date of this Contract or on creation of the rights (if later than the date of this Contract), vest in the Purchaser. The Supplier shall do and execute or arrange for the doing and executing of each necessary act, document, and thing that the Purchaser may consider necessary or desirable to perfect the right, title, and interest of the Purchaser in and to those rights. In respect of such Custom Software and Custom Materials, the Supplier shall ensure that the holder of a moral right in such an item does not assert it, and the Supplier shall, if requested to do so by the Purchaser and where permitted by applicable law, ensure that the holder of such a moral right waives it.
- 15.5 The parties shall enter into such (if any) escrow arrangements in relation to the Source Code to some or all of the Software as are **specified in the SCC** and in **accordance with the SCC**.

16. Software License Agreements

16.1 Except to the extent that the Intellectual Property Rights in the Software vest in the Purchaser, the Supplier hereby grants to the Purchaser license to access and use the Software, including all inventions, designs, and marks embodied in the Software.

Such license to access and use the Software shall:

- (a) be:
 - (i) nonexclusive;
 - (ii) fully paid up and irrevocable (except that it shall terminate if the Contract terminates under GCC Clauses 41.1 or 41.3);
 - (iii) valid throughout the territory of the Purchaser's Country (or such other territory as **specified in the SCC)**; and
 - (iv) subject to additional restrictions (if any) as specified in the SCC.
- (b) permit the Software to be:
 - (i) used or copied for use on or with the computer(s) for which it was acquired (if specified in the Technical Requirements and/or the Supplier's bid), plus a backup computer(s) of the same or similar capacity, if the primary is(are) inoperative, and during a reasonable transitional period when use is being transferred between primary and backup;
 - (ii) as **specified in the SCC**, used or copied for use on or transferred to a replacement computer(s), (and use on the original and replacement computer(s) may be simultaneous during a reasonable transitional period) provided that, if the Technical Requirements and/or the Supplier's bid specifies a class of computer to which the license is restricted and unless the Supplier agrees otherwise in writing, the replacement computer(s) is(are) within that class;
 - (iii) if the nature of the System is such as to permit such access, accessed from other computers connected to the primary and/or backup computer(s) by means of a local or wide-area network or similar arrangement, and used on or copied for use on those other computers to the extent necessary to that access;

- (iv) reproduced for safekeeping or backup purposes;
- (v) customized, adapted, or combined with other computer software for use by the Purchaser, provided that derivative software incorporating any substantial part of the delivered, restricted Software shall be subject to same restrictions as are set forth in this Contract;
- (vi) as **specified in the SCC**, disclosed to, and reproduced for use by, support service suppliers and their subcontractors, (and the Purchaser may sublicense such persons to use and copy for use the Software) to the extent reasonably necessary to the performance of their support service contracts, subject to the same restrictions as are set forth in this Contract; and
- (vii) disclosed to, and reproduced for use by, the Purchaser and by such other persons as are specified in the SCC (and the Purchaser may sublicense such persons to use and copy for use the Software), subject to the same restrictions as are set forth in this Contract.
- 16.2 The Standard Software may be subject to audit by the Supplier, in accordance with the terms **specified in the SCC**, to verify compliance with the above license agreements.

17. Confidential Information

- 17.1 Except if otherwise **specified in the SCC**, the "Receiving Party" (either the Purchaser or the Supplier) shall keep confidential and shall not, without the written consent of the other party to this Contract ("the Disclosing Party"), divulge to any third party any documents, data, or other information of a confidential nature ("Confidential Information") connected with this Contract, and furnished directly or indirectly by the Disclosing Party prior to or during performance, or following termination, of this Contract.
- 17.2 For the purposes of GCC Clause 17.1, the Supplier is also deemed to be the Receiving Party of Confidential Information generated by the Supplier itself in the course of the performance of its obligations under the Contract and relating to the businesses, finances, suppliers, employees, or other contacts of the Purchaser or the Purchaser's use of the System.

- 17.3 Notwithstanding GCC Clauses 17.1 and 17.2:
 - (a) the Supplier may furnish to its Subcontractor Confidential Information of the Purchaser to the extent reasonably required for the Subcontractor to perform its work under the Contract; and
 - (b) the Purchaser may furnish Confidential Information of the Supplier: (i) to its support service suppliers and their subcontractors to the extent reasonably required for them to perform their work under their support service contracts; and (ii) to its affiliates and subsidiaries,

in which event the Receiving Party shall ensure that the person to whom it furnishes Confidential Information of the Disclosing Party is aware of and abides by the Receiving Party's obligations under this GCC Clause 17 as if that person were party to the Contract in place of the Receiving Party.

- 17.4 The Purchaser shall not, without the Supplier's prior written consent, use any Confidential Information received from the Supplier for any purpose other than the operation, maintenance and further development of the System. Similarly, the Supplier shall not, without the Purchaser's prior written consent, use any Confidential Information received from the Purchaser for any purpose other than those that are required for the performance of the Contract.
- 17.5 The obligation of a party under GCC Clauses 17.1 through 17.4 above, however, shall not apply to that information which:
 - (a) now or hereafter enters the public domain through no fault of the Receiving Party;
 - (b) can be proven to have been possessed by the Receiving Party at the time of disclosure and that was not previously obtained, directly or indirectly, from the Disclosing Party;
 - (c) otherwise lawfully becomes available to the Receiving Party from a third party that has no obligation of confidentiality.
- 17.6 The above provisions of this GCC Clause 17 shall not in any way modify any undertaking of confidentiality given by

- either of the parties to this Contract prior to the date of the Contract in respect of the System or any part thereof.
- 17.7 The provisions of this GCC Clause 17 shall survive the termination, for whatever reason, of the Contract for three (3) years or such longer period as may be **specified in the SCC.**

E. SUPPLY, INSTALLATION, TESTING, COMMISSIONING, AND ACCEPTANCE OF THE SYSTEM

18. Representatives 18.1 Project Manager

If the Project Manager is not named in the Contract, then within fourteen (14) days of the Effective Date, the Purchaser shall appoint and notify the Supplier in writing of the name of the Project Manager. The Purchaser may from time to time appoint some other person as the Project Manager in place of the person previously so appointed and shall give a notice of the name of such other person to the Supplier without delay. No such appointment shall be made at such a time or in such a manner as to impede the progress of work on the System. Such appointment shall take effect only upon receipt of such notice by the Supplier. Subject to the extensions and/or limitations specified in the SCC (if any), the Project Manager shall have the authority to represent the Purchaser on all day-to-day matters relating to the System or arising from the Contract, and shall normally be the person giving or receiving notices on behalf of the Purchaser pursuant to GCC Clause 4.

18.2 Supplier's Representative

18.2.1 If the Supplier's Representative is not named in the Contract, then within fourteen (14) days of the Effective Date, the Supplier shall appoint Supplier's Representative and shall request the Purchaser in writing to approve the person so appointed. The request must be accompanied by a detailed curriculum vitae for the nominee, as well as a description of any other System or non-System responsibilities the nominee would retain while performing the duties of the Supplier's Representative. If the Purchaser does not object to the appointment fourteen (14)days, the Supplier's Representative shall be deemed to have been

- approved. If the Purchaser objects to the appointment within fourteen (14) days giving the reason therefor, then the Supplier shall appoint a replacement within fourteen (14) days of such objection in accordance with this GCC Clause 18.2.1.
- in the SCC (if any), the Supplier's Representative shall have the authority to represent the Supplier on all day-to-day matters relating to the System or arising from the Contract, and shall normally be the person giving or receiving notices on behalf of the Supplier pursuant to GCC Clause 4.
- 18.2.3 The Supplier shall not revoke the appointment of the Supplier's Representative without the Purchaser's prior written consent, which shall not be unreasonably withheld. If the Purchaser consents to such an action, the Supplier shall appoint another person of equal or superior qualifications as the Supplier's Representative, pursuant to the procedure set out in GCC Clause 18.2.1.
- 18.2.4 The Supplier's Representative and staff are obliged to work closely with the Purchaser's Project Manager and staff, act within their own authority, and abide by directives issued by the Purchaser that are consistent with the terms of the Contract. The Supplier's Representative is responsible for managing the activities of its personnel and any subcontracted personnel.
- 18.2.5 The Supplier's Representative may, subject to the approval of the Purchaser (which shall not be unreasonably withheld), at any time delegate to any person any of the powers, functions, and authorities vested in him or her. Any such delegation may be revoked at any time. Any such delegation or revocation shall be subject to a prior notice signed by the Supplier's Representative and shall specify the powers, functions, and authorities thereby delegated or revoked. No such delegation or revocation shall take effect unless and until the notice of it has been delivered.
- 18.2.6 Any act or exercise by any person of powers, functions

and authorities so delegated to him or her in accordance with GCC Clause 18.2.5 shall be deemed to be an act or exercise by the Supplier's Representative.

18.3 Objections and Removals

- 18.3.1 The Purchaser may by notice to the Supplier object to any representative or person employed by the Supplier in the execution of the Contract who, in the reasonable opinion of the Purchaser, may have behaved inappropriately, be incompetent, or be negligent. The Purchaser shall provide evidence of the same, whereupon the Supplier shall remove such person from work on the System.
- 18.3.2 If any representative or person employed by the Supplier is removed in accordance with GCC Clause 18.3.1, the Supplier shall, where required, promptly appoint a replacement.

19. Project Plan

- 19.1 In close cooperation with the Purchaser and based on the Preliminary Project Plan included in the Supplier's bid, the Supplier shall develop a Project Plan encompassing the activities specified in the Contract. The contents of the Project Plan shall be as **specified in the SCC** and/or Technical Requirements.
- 19.2 The Supplier shall formally present to the Purchaser the Project Plan in accordance with the procedure specified in the SCC.
- 19.3 If required, the impact on the Implementation Schedule of modifications agreed during finalization of the Agreed and Finalized Project Plan shall be incorporated in the Contract by amendment, in accordance with GCC Clauses 39 and 40.
- 19.4 The Supplier shall undertake to supply, install, test, and commission the System in accordance with the Agreed and Finalized Project Plan and the Contract.
- 19.5 The Progress and other reports **specified in the SCC** shall be prepared by the Supplier and submitted to the Purchaser in the format and frequency specified in the Technical Requirements.

20. Subcontracting

20.1 Appendix 3 (List of Approved Subcontractors) to the Contract Agreement specifies critical items of supply or

services and a list of Subcontractors for each item that are considered acceptable by the Purchaser. If no Subcontractors are listed for an item, the Supplier shall prepare a list of Subcontractors it considers qualified and wishes to be added to the list for such items. The Supplier may from time to time propose additions to or deletions from any such list. The Supplier shall submit any such list or any modification to the list to the Purchaser for its approval in sufficient time so as not to impede the progress of work on the System. The Purchaser shall not withhold such approval unreasonably. Such approval by the Purchaser of a Subcontractor(s) shall not relieve the Supplier from any of its obligations, duties, or responsibilities under the Contract.

- 20.2 The Supplier may, at its discretion, select and employ Subcontractors for such critical items from those Subcontractors listed pursuant to GCC Clause 20.1. If the Supplier wishes to employ a Subcontractor not so listed, or subcontract an item not so listed, it must seek the Purchaser's prior approval under GCC Clause 20.3.
- 20.3 For items for which pre-approved Subcontractor lists have not been specified in Appendix 3 to the Contract Agreement, the Supplier may employ such Subcontractors as it may select, provided: (i) the Supplier notifies the Purchaser in writing at least twenty-eight (28) days prior to the proposed mobilization date for such Subcontractor; and (ii) by the end of this period either the Purchaser has granted its approval in writing or fails to respond. The Supplier shall not engage any Subcontractor to which the Purchaser has objected in writing prior to the end of the notice period. The absence of a written objection by the Purchaser during the above specified period shall constitute formal acceptance of the proposed Subcontractor. Except to the extent that it permits the deemed approval of the Purchaser of Subcontractors not listed in the Contract Agreement, nothing in this Clause, however, shall limit the rights and obligations of either the Purchaser or Supplier as they are specified in GCC Clauses 20.1 and 20.2, in the SCC, or in Appendix 3 of the Contract Agreement.

21. Design and Engineering

- 21.1 Technical Specifications and Drawings
 - 21.1.1 The Supplier shall execute the basic and detailed design and the implementation activities necessary for successful installation of the System in compliance

with the provisions of the Contract or, where not so specified, in accordance with good industry practice.

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

21.1.2 The Supplier shall be entitled to disclaim responsibility for any design, data, drawing, specification, or other document, or any modification of such design, drawings, specification, or other documents provided or designated by or on behalf of the Purchaser, by giving a notice of such disclaimer to the Project Manager.

21.2 Codes and Standards

Wherever references are made in the Contract to codes and standards in accordance with which the Contract shall be executed, the edition or the revised version of such codes and standards current at the date twenty-eight (28) days prior to date of bid submission shall apply unless otherwise **specified** in the SCC. During Contract execution, any changes in such codes and standards shall be applied after approval by the Purchaser and shall be treated in accordance with GCC Clause 39.3.

- 21.3 Approval/Review of Technical Documents by the Project Manager
 - 21.3.1 The Supplier shall prepare and furnish to the Project Manager the documents as **specified in the SCC** for the Project Manager's approval or review.

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

GCC Clauses 21.3.2 through 21.3.7 shall apply to

- those documents requiring the Project Manager's approval, but not to those furnished to the Project Manager for its review only.
- 21.3.2 Within fourteen (14) days after receipt by the Project Manager of any document requiring the Project Manager's approval in accordance with GCC Clause 21.3.1, the Project Manager shall either return one copy of the document to the Supplier with its approval endorsed on the document or shall notify the Supplier in writing of its disapproval of the document and the reasons for disapproval and the modifications that the Project Manager proposes. If the Project Manager fails to take such action within the fourteen (14) days, then the document shall be deemed to have been approved by the Project Manager.
- 21.3.3 The Project Manager shall not disapprove any document except on the grounds that the document does not comply with some specified provision of the Contract or that it is contrary to good industry practice.
- 21.3.4 If the Project Manager disapproves the document, the Supplier shall modify the document and resubmit it for the Project Manager's approval in accordance with GCC Clause 21.3.2. If the Project Manager approves the document subject to modification(s), the Supplier shall make the required modification(s), and the document shall then be deemed to have been approved, subject to GCC Clause 21.3.5. The procedure set out in GCC Clauses 21.3.2 through 21.3.4 shall be repeated, as appropriate, until the Project Manager approves such documents.
- 21.3.5 If any dispute occurs between the Purchaser and the Supplier in connection with or arising out of the disapproval by the Project Manager of any document and/or any modification(s) to a document that cannot be settled between the parties within a reasonable period, then, in case the Contract Agreement includes and names an Adjudicator, such dispute may be referred to the Adjudicator for determination in accordance with GCC Clause 6.1 (Adjudicator). If such dispute is referred to an Adjudicator, the Project Manager shall give instructions as to whether and if so, how, performance of the Contract is to proceed.

The Supplier shall proceed with the Contract in accordance with the Project Manager's instructions, provided that if the Adjudicator upholds the Supplier's view on the dispute and if the Purchaser has not given notice under GCC Clause 6.1.2, then the Supplier shall be reimbursed by the Purchaser for any additional costs incurred by reason of such be relieved instructions and shall of such responsibility or liability in connection with the dispute and the execution of the instructions as the Adjudicator shall decide, and the Time for Achieving Operational Acceptance shall be extended accordingly.

- 21.3.6 The Project Manager's approval, with or without modification of the document furnished by the Supplier, shall not relieve the Supplier of any responsibility or liability imposed upon it by any provisions of the Contract except to the extent that any subsequent failure results from modifications required by the Project Manager or inaccurate information furnished in writing to the Supplier by or on behalf of the Purchaser.
- 21.3.7 The Supplier shall not depart from any approved document unless the Supplier has first submitted to the Project Manager an amended document and obtained the Project Manager's approval of the document, pursuant to the provisions of this GCC Clause 21.3. If the Project Manager requests any change in any already approved document and/or in any document based on such an approved document, the provisions of GCC Clause 39 (Changes to the System) shall apply to such request.

22. Procurement, Delivery, and Transport

- 22.1 Subject to related Purchaser's responsibilities pursuant to GCC Clauses 10 and 14, the Supplier shall manufacture or procure and transport all the Information Technologies, Materials, and other Goods in an expeditious and orderly manner to the Project Site.
- 22.2 Delivery of the Information Technologies, Materials, and other Goods shall be made by the Supplier in accordance with the Technical Requirements.
- 22.3 Early or partial deliveries require the explicit written consent

of the Purchaser, which consent shall not be unreasonably withheld.

22.4 Transportation

- 22.4.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during shipment. The packing, marking, and documentation within and outside the packages shall comply strictly with the Purchaser's instructions to the Supplier.
- 22.4.2 The Supplier will bear responsibility for and cost of transport to the Project Sites in accordance with the terms and conditions used in the specification of prices in the Price Schedules, including the terms and conditions of the associated Incoterms.
- 22.4.3 Unless otherwise **specified in the SCC**, the Supplier shall be free to use transportation through carriers registered in any eligible country and to obtain insurance from any eligible source country.
- 22.5 Unless otherwise **specified in the SCC**, the Supplier will provide the Purchaser with shipping and other documents, as specified below:
 - 22.5.1 For Goods supplied from outside the Purchaser's Country:

Upon shipment, the Supplier shall notify the Purchaser and the insurance company contracted by the Supplier to provide cargo insurance by telex, cable, facsimile, electronic mail, or EDI with the full details of the shipment. The Supplier shall promptly send the following documents to the Purchaser by mail or courier, as appropriate, with a copy to the cargo insurance company:

- (a) two copies of the Supplier's invoice showing the description of the Goods, quantity, unit price, and total amount;
- (b) usual transportation documents;
- (c) insurance certificate;
- (d) certificate(s) of origin; and

- (e) estimated time and point of arrival in the Purchaser's Country and at the site.
- 22.5.2 For Goods supplied locally (i.e., from within the Purchaser's country):

Upon shipment, the Supplier shall notify the Purchaser by telex, cable, facsimile, electronic mail, or EDI with the full details of the shipment. The Supplier shall promptly send the following documents to the Purchaser by mail or courier, as appropriate:

- (a) two copies of the Supplier's invoice showing the Goods' description, quantity, unit price, and total amount:
- (b) delivery note, railway receipt, or truck receipt;
- (c) certificate of insurance;
- (d) certificate(s) of origin; and
- (e) estimated time of arrival at the site.

22.6 Customs Clearance

- (a) The Purchaser will bear responsibility for, and cost of, customs clearance into the Purchaser's country in accordance the particular Incoterm(s) used for Goods supplied from outside the Purchaser's country in the Price Schedules referred to by Article 2 of the Contract Agreement.
- (b) At the request of the Purchaser, the Supplier will make available a representative or agent during the process of customs clearance in the Purchaser's country for goods supplied from outside the Purchaser's country. In the event of delays in customs clearance that are not the fault of the Supplier:
 - (i) the Supplier shall be entitled to an extension in the Time for Achieving Operational Acceptance, pursuant to GCC Clause 40;
 - (ii) the Contract Price shall be adjusted to compensate the Supplier for any additional storage charges that the Supplier may incur as a result of the delay.

23. Product Upgrades

- 23.1 At any point during performance of the Contract, should technological advances be introduced by the Supplier for Information Technologies originally offered by the Supplier in its bid and still to be delivered, the Supplier shall be obligated to offer to the Purchaser the latest versions of the available Information Technologies having equal or better performance or functionality at the same or lesser unit prices, pursuant to GCC Clause 39 (Changes to the System).
- 23.2 At any point during performance of the Contract, for Information Technologies still to be delivered, the Supplier will also pass on to the Purchaser any cost reductions and additional and/or improved support and facilities that it offers to other clients of the Supplier in the Purchaser's Country, pursuant to GCC Clause 39 (Changes to the System).
- 23.3 During performance of the Contract, the Supplier shall offer to the Purchaser all new versions, releases, and updates of Standard Software, as well as related documentation and technical support services, within thirty (30) days of their availability from the Supplier to other clients of the Supplier in the Purchaser's Country, and no later than twelve (12) months after they are released in the country of origin. In no case will the prices for these Software exceed those quoted by the Supplier in the Recurrent Costs tables in its bid.
- 23.4 During the Warranty Period, unless otherwise **specified in the SCC**, the Supplier will provide at no additional cost to the Purchaser all new versions, releases, and updates for all Standard Software that are used in the System, within thirty (30) days of their availability from the Supplier to other clients of the Supplier in the Purchaser's country, and no later than twelve (12) months after they are released in the country of origin of the Software.
- 23.5 The Purchaser shall introduce all new versions, releases or updates of the Software within eighteen (18) months of receipt of a production-ready copy of the new version, release, or update, provided that the new version, release, or update does not adversely affect System operation or performance or require extensive reworking of the System. In cases where the new version, release, or update adversely affects System operation or performance, or requires extensive reworking of the System, the Supplier shall continue to support and maintain the version or release

previously in operation for as long as necessary to allow introduction of the new version, release, or update. In no case shall the Supplier stop supporting or maintaining a version or release of the Software less than twenty four (24) months after the Purchaser receives a production-ready copy of a subsequent version, release, or update. The Purchaser shall use all reasonable endeavors to implement any new version, release, or update as soon as practicable, subject to the twenty-four-month-long stop date.

24. Implementation, Installation, and Other Services

- 24.1 The Supplier shall provide all Services specified in the Contract and Agreed and Finalized Project Plan in accordance with the highest standards of professional competence and integrity.
- 24.2 Prices charged by the Supplier for Services, if not included in the Contract, shall be agreed upon in advance by the parties (including, but not restricted to, any prices submitted by the Supplier in the Recurrent Cost Schedules of its Bid) and shall not exceed the prevailing rates charged by the Supplier to other purchasers in the Purchaser's Country for similar services.

25. Inspections and Tests

- 25.1 The Purchaser or its representative shall have the right to inspect and/or test any components of the System, as specified in the Technical Requirements, to confirm their good working order and/or conformity to the Contract at the point of delivery and/or at the Project Site.
- 25.2 The Purchaser or its representative shall be entitled to attend any such inspections and/or tests of the components, provided that the Purchaser shall bear all costs and expenses incurred in connection with such attendance, including but not limited to all inspection agent fees, travel, and related expenses.
- 25.3 Should the inspected or tested components fail to conform to the Contract, the Purchaser may reject the component(s), and the Supplier shall either replace the rejected component(s), or make alterations as necessary so that it meets the Contract requirements free of cost to the Purchaser.
- 25.4 The Project Manager may require the Supplier to carry out any inspection and/or test not specified in the Contract, provided that the Supplier's reasonable costs and expenses incurred in the carrying out of such inspection and/or test shall be added to the Contract Price. Further, if such

inspection and/or test impedes the progress of work on the System and/or the Supplier's performance of its other obligations under the Contract, due allowance will be made in respect of the Time for Achieving Operational Acceptance and the other obligations so affected.

25.5 If any dispute shall arise between the parties in connection with or caused by an inspection and/or with regard to any component to be incorporated in the System that cannot be settled amicably between the parties within a reasonable period of time, either party may invoke the process pursuant to GCC Clause 6 (Settlement of Disputes), starting with referral of the matter to the Adjudicator in case an Adjudicator is included and named in the Contract Agreement.

System

- **26. Installation of the** 26.1 As soon as the System, or any Subsystem, has, in the opinion of the Supplier, been delivered, Pre-commissioned, and made ready for Commissioning and Operational Acceptance Testing in accordance with the Technical Requirements, the SCC and the Agreed and Finalized Project Plan, the Supplier shall so notify the Purchaser in writing.
 - 26.2 The Project Manager shall, within fourteen (14) days after receipt of the Supplier's notice under GCC Clause 26.1, either issue an Installation Certificate in the form specified in the Sample Forms Section in the Bidding Documents, stating that the System, or major component or Subsystem (if Acceptance by major component or Subsystem is specified pursuant to the SCC for GCC Clause 27.2.1), has achieved Installation by the date of the Supplier's notice under GCC Clause 26.1, or notify the Supplier in writing of any defects and/or deficiencies, including, but not limited to, defects or deficiencies in the interoperability or integration of the various components and/or Subsystems making up the System. The Supplier shall use all reasonable endeavors to promptly remedy any defect and/or deficiencies that the Project Manager has notified the Supplier of. The Supplier shall then promptly carry out retesting of the System or Subsystem and, when in the Supplier's opinion the System or Subsystem is ready for Commissioning and Operational Acceptance Testing, notify the Purchaser in writing, in accordance with GCC Clause 26.1. The procedure set out in this GCC Clause 26.2 shall be repeated, as necessary, until an Installation Certificate is issued.

26.3 If the Project Manager fails to issue the Installation Certificate and fails to inform the Supplier of any defects and/or deficiencies within fourteen (14) days after receipt of the Supplier's notice under GCC Clause 26.1, or if the Purchaser puts the System or a Subsystem into production operation, then the System (or Subsystem) shall be deemed to have achieved successful Installation as of the date of the Supplier's notice or repeated notice, or when the Purchaser put the System into production operation, as the case may be.

27. Commissioning and Operational Acceptance

27.1 Commissioning

- 27.1.1 Commissioning of the System (or Subsystem if specified pursuant to the SCC for GCC Clause 27.2.1) shall be commenced by the Supplier:
 - (a) immediately after the Installation Certificate is issued by the Project Manager, pursuant to GCC Clause 26.2; or
 - (b) as otherwise specified in the Technical Requirement or the Agreed and Finalized Project Plan; or
 - (c) immediately after Installation is deemed to have occurred, under GCC Clause 26.3.
- 27.1.2 The Purchaser shall supply the operating and technical personnel and all materials and information reasonably required to enable the Supplier to carry out its obligations with respect to Commissioning.

Production use of the System or Subsystem(s) shall not commence prior to the start of formal Operational Acceptance Testing.

27.2 Operational Acceptance Tests

27.2.1 The Operational Acceptance Tests (and repeats of such tests) shall be the primary responsibility of the Purchaser (in accordance with GCC Clause 10.9), but shall be conducted with the full cooperation of the Supplier during Commissioning of the System (or major components or Subsystem[s] if **specified in the SCC** and supported by the Technical Requirements), to ascertain whether the System (or major component or Subsystem[s]) conforms to the Technical Requirements and meets the standard of performance

quoted in the Supplier's bid, including, but not restricted to, the functional and technical performance requirements. The Operational Acceptance Tests during Commissioning will be conducted as **specified** in the SCC, the Technical Requirements and/or the Agreed and Finalized Project Plan.

At the Purchaser's discretion, Operational Acceptance Tests may also be performed on replacement Goods, upgrades and new version releases, and Goods that are added or field-modified after Operational Acceptance of the System.

27.2.2 If for reasons attributable to the Purchaser, the Operational Acceptance Test of the System (or Subsystem[s] or major components, pursuant to the SCC for GCC Clause 27.2.1) cannot be successfully completed within the period **specified in the SCC**, from the date of Installation or any other period agreed upon in writing by the Purchaser and the Supplier, the Supplier shall be deemed to have fulfilled its obligations with respect to the technical and functional aspects of the Technical Specifications, SCC and/or the Agreed and Finalized Project Plan, and GCC Clause 28.2 and 28.3 shall not apply.

27.3 Operational Acceptance

- 27.3.1 Subject to GCC Clause 27.4 (Partial Acceptance) below, Operational Acceptance shall occur in respect of the System, when
 - (a) the Operational Acceptance Tests, as specified in the Technical Requirements, and/or SCC and/or the Agreed and Finalized Project Plan have been successfully completed; or
 - (b) the Operational Acceptance Tests have not been successfully completed or have not been carried out for reasons that are attributable to the Purchaser within the period from the date of Installation or any other agreed-upon period as specified in GCC Clause 27.2.2 above; or
 - (c) the Purchaser has put the System into production or use for sixty (60) consecutive days. If the System is put into production or use in this

- manner, the Supplier shall notify the Purchaser and document such use.
- 27.3.2 At any time after any of the events set out in GCC Clause 27.3.1 have occurred, the Supplier may give a notice to the Project Manager requesting the issue of an Operational Acceptance Certificate.
- 27.3.3 After consultation with the Purchaser, and within fourteen (14) days after receipt of the Supplier's notice, the Project Manager shall:
 - (a) issue an Operational Acceptance Certificate; or
 - (b) notify the Supplier in writing of any defect or deficiencies or other reason for the failure of the Operational Acceptance Tests; or
 - (c) issue the Operational Acceptance Certificate, if the situation covered by GCC Clause 27.3.1 (b) arises.
- 27.3.4 The Supplier shall use all reasonable endeavors to promptly remedy any defect and/or deficiencies and/or other reasons for the failure of the Operational Acceptance Test that the Project Manager has notified the Supplier of. Once such remedies have been made by the Supplier, the Supplier shall notify the Purchaser, and the Purchaser, with the full cooperation of the Supplier, shall use all reasonable endeavors to promptly carry out retesting of the System or Subsystem. Upon the successful conclusion of the Operational Acceptance Tests, the Supplier shall notify the Purchaser of its request for Operational Acceptance Certification, in accordance with GCC Clause 27.3.3. The Purchaser shall then issue to the Supplier the Operational Acceptance Certification in accordance with GCC Clause 27.3.3 (a), or shall notify the Supplier of further defects, deficiencies, or other reasons for the failure of the Operational Acceptance Test. The procedure set out in this GCC Clause 27.3.4 shall be repeated, as necessary, until an Operational Acceptance Certificate is issued.
- 27.3.5 If the System or Subsystem fails to pass the Operational Acceptance Test(s) in accordance with GCC Clause 27.2, then either:

(a) the Purchaser may consider terminating the Contract, pursuant to GCC Clause 41.2.2;

or

- (b) if the failure to achieve Operational Acceptance within the specified time period is a result of the failure of the Purchaser to fulfill its obligations under the Contract, then the Supplier shall be deemed to have fulfilled its obligations with respect to the relevant technical and functional aspects of the Contract, and GCC Clauses 30.3 and 30.4 shall not apply.
- 27.3.6 If within fourteen (14) days after receipt of the Supplier's notice the Project Manager fails to issue the Operational Acceptance Certificate or fails to inform the Supplier in writing of the justifiable reasons why the Project Manager has not issued the Operational Acceptance Certificate, the System or Subsystem shall be deemed to have been accepted as of the date of the Supplier's said notice.

27.4 Partial Acceptance

- 27.4.1 If so specified in the SCC for GCC Clause 27.2.1, Installation and Commissioning shall be carried out individually for each identified major component or Subsystem(s) of the System. In this event, the provisions in the Contract relating to Installation and Commissioning, including the Operational Acceptance Test, shall apply to each such major component or Subsystem individually, and Operational Acceptance Certificate(s) shall be issued accordingly for each such major component or Subsystem of the System, subject to the limitations contained in GCC Clause 27.4.2.
- 27.4.2 The issuance of Operational Acceptance Certificates for individual major components or Subsystems pursuant to GCC Clause 27.4.1 shall not relieve the Supplier of its obligation to obtain an Operational Acceptance Certificate for the System as an integrated whole (if so specified in the SCC for GCC Clauses 12.1 and 27.2.1) once all major components and Subsystems have been supplied, installed, tested, and commissioned.
- 27.4.3 In the case of minor components for the System that by their nature do not require Commissioning or an

Operational Acceptance Test (e.g., minor fittings, furnishings or site works, etc.), the Project Manager shall issue an Operational Acceptance Certificate within fourteen (14) days after the fittings and/or furnishings have been delivered and/or installed or the site works have been completed. The Supplier shall, however, use all reasonable endeavors to promptly remedy any defects or deficiencies in such minor components detected by the Purchaser or Supplier.

F. GUARANTEES AND LIABILITIES

28. Operational Acceptance Time Guarantee

- 28.1 The Supplier guarantees that it shall complete the supply, Installation, Commissioning, and achieve Operational Acceptance of the System (or Subsystems, pursuant to the SCC for GCC Clause 27.2.1) within the time periods specified in the Implementation Schedule in the Technical Requirements Section and/or the Agreed and Finalized Project Plan pursuant to GCC Clause 8.2, or within such extended time to which the Supplier shall be entitled under GCC Clause 40 (Extension of Time for Achieving Operational Acceptance).
- 28.2 If the Supplier fails to supply, install, commission, and achieve Operational Acceptance of the System (or Subsystems pursuant to the SCC for GCC Clause 27.2.1) within the time for achieving Operational Acceptance specified in the Implementation Schedule in the Technical Requirement or the Agreed and Finalized Project Plan, or any extension of the time for achieving Operational Acceptance previously granted under GCC Clause 40 (Extension of Time for Achieving Operational Acceptance), the Supplier shall pay to the Purchaser liquidated damages at the rate **specified in the SCC** as a percentage of the Contract Price, or the relevant part of the Contract Price if a Subsystem has not achieved Operational Acceptance. aggregate amount of such liquidated damages shall in no event exceed the amount specified in the SCC ("the Maximum"). Once the Maximum is reached, the Purchaser may consider termination of the Contract, pursuant to GCC Clause 41.2.2.
- 28.3 Unless otherwise **specified in the SCC**, liquidated damages payable under GCC Clause 28.2 shall apply only to the failure to achieve Operational Acceptance of the System (and Subsystems) as specified in the Implementation Schedule in the Technical Requirements and/or Agreed and Finalized

- Project Plan. This Clause 28.3 shall not limit, however, any other rights or remedies the Purchaser may have under the Contract for other delays.
- 28.4 If liquidated damages are claimed by the Purchaser for the System (or Subsystem), the Supplier shall have no further liability whatsoever to the Purchaser in respect to the Operational Acceptance time guarantee for the System (or Subsystem). However, the payment of liquidated damages shall not in any way relieve the Supplier from any of its obligations to complete the System or from any other of its obligations and liabilities under the Contract.

29. Defect Liability

- 29.1 The Supplier warrants that the System, including all Information Technologies, Materials, and other Goods supplied and Services provided, shall be free from defects in the design, engineering, Materials, and workmanship that prevent the System and/or any of its components from fulfilling the Technical Requirements or that limit in a material fashion the performance, reliability, or extensibility of the System and/or Subsystems. Exceptions and/or limitations, if any, to this warranty with respect to Software (or categories of Software), shall be as **specified in the SCC.** Commercial warranty provisions of products supplied under the Contract shall apply to the extent that they do not conflict with the provisions of this Contract.
- 29.2 The Supplier also warrants that the Information Technologies, Materials, and other Goods supplied under the Contract are new, unused, and incorporate all recent improvements in design that materially affect the System's or Subsystem's ability to fulfill the Technical Requirements.
- 29.3 In addition, the Supplier warrants that: (i) all Goods components to be incorporated into the System form part of the Supplier's and/or Subcontractor's current product lines, (ii) they have been previously released to the market, and (iii) those specific items **identified in the SCC** (if any) have been in the market for at least the minimum periods **specified in the SCC**.
- 29.4 The Warranty Period shall commence from the date of Operational Acceptance of the System (or of any major component or Subsystem for which separate Operational Acceptance is provided for in the Contract) and shall extend for the length of time **specified in the SCC.**

- 29.5 If during the Warranty Period any defect as described in GCC Clause 29.1 should be found in the design, engineering, Materials, and workmanship of the Information Technologies and other Goods supplied or of the Services provided by the Supplier, the Supplier shall promptly, in consultation and agreement with the Purchaser regarding appropriate remedying of the defects, and at its sole cost, repair, replace, or otherwise make good (as the Supplier shall, at its discretion, determine) such defect as well as any damage to the System caused by such defect. Any defective Information Technologies or other Goods that have been replaced by the Supplier shall remain the property of the Supplier.
- 29.6 The Supplier shall not be responsible for the repair, replacement, or making good of any defect or of any damage to the System arising out of or resulting from any of the following causes:
 - (a) improper operation or maintenance of the System by the Purchaser;
 - (b) normal wear and tear;
 - (c) use of the System with items not supplied by the Supplier, unless otherwise identified in the Technical Requirements, or approved by the Supplier; or
 - (d) modifications made to the System by the Purchaser, or a third party, not approved by the Supplier.
- 29.7 The Supplier's obligations under this GCC Clause 29 shall not apply to:
 - (a) any materials that are normally consumed in operation or have a normal life shorter than the Warranty Period; or
 - (b) any designs, specifications, or other data designed, supplied, or specified by or on behalf of the Purchaser or any matters for which the Supplier has disclaimed responsibility, in accordance with GCC Clause 21.1.2.
- 29.8 The Purchaser shall give the Supplier a notice promptly following the discovery of such defect, stating the nature of any such defect together with all available evidence. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect any such defect. The Purchaser shall afford the Supplier all necessary access to the System and the site to enable the Supplier to perform its obligations under

this GCC Clause 29.

29.9 The Supplier may, with the consent of the Purchaser, remove from the site any Information Technologies and other Goods that are defective, if the nature of the defect, and/or any damage to the System caused by the defect, is such that repairs cannot be expeditiously carried out at the site. If the repair, replacement, or making good is of such a character that it may affect the efficiency of the System, the Purchaser may give the Supplier notice requiring that tests of the defective part be made by the Supplier immediately upon completion of such remedial work, whereupon the Supplier shall carry out such tests.

If such part fails the tests, the Supplier shall carry out further repair, replacement, or making good (as the case may be) until that part of the System passes such tests. The tests shall be agreed upon by the Purchaser and the Supplier.

- 29.10 If the Supplier fails to commence the work necessary to remedy such defect or any damage to the System caused by such defect within the time period **specified in the SCC**, the Purchaser may, following notice to the Supplier, proceed to do such work or contract a third party (or parties) to do such work, and the reasonable costs incurred by the Purchaser in connection with such work shall be paid to the Purchaser by the Supplier or may be deducted by the Purchaser from any monies due the Supplier or claimed under the Performance Security.
- 29.11 If the System or Subsystem cannot be used by reason of such defect and/or making good of such defect, the Warranty Period for the System shall be extended by a period equal to the period during which the System or Subsystem could not be used by the Purchaser because of such defect and/or making good of such defect.
- 29.12 Items substituted for defective parts of the System during the Warranty Period shall be covered by the Defect Liability Warranty for the remainder of the Warranty Period applicable for the part replaced or three (3) months, whichever is greater.
- 29.13 At the request of the Purchaser and without prejudice to any other rights and remedies that the Purchaser may have against the Supplier under the Contract, the Supplier will offer all possible assistance to the Purchaser to seek warranty

services or remedial action from any subcontracted thirdparty producers or licensor of Goods included in the System, including without limitation assignment or transfer in favor of the Purchaser of the benefit of any warranties given by such producers or licensors to the Supplier.

30. Functional Guarantees

- 30.1 The Supplier guarantees that, once the Operational Acceptance Certificate(s) has been issued, the System represents a complete, integrated solution to the Purchaser's requirements set forth in the Technical Requirements and it conforms to all other aspects of the Contract. The Supplier acknowledges that GCC Clause 27 regarding Commissioning and Operational Acceptance governs how technical conformance of the System to the Contract requirements will be determined.
- 30.2 If, for reasons attributable to the Supplier, the System does not conform to the Technical Requirements or does not conform to all other aspects of the Contract, the Supplier shall at its cost and expense make such changes, modifications, and/or additions to the System as may be necessary to conform to the Technical Requirements and meet all functional and performance standards. The Supplier shall notify the Purchaser upon completion of the necessary changes, modifications, and/or additions and shall request the Purchaser to repeat the Operational Acceptance Tests until the System achieves Operational Acceptance.
- 30.3 If the System (or Subsystem[s]) fails to achieve Operational Acceptance, the Purchaser may consider termination of the Contract, pursuant to GCC Clause 41.2.2, and forfeiture of the Supplier's Performance Security in accordance with GCC Clause 13.3 in compensation for the extra costs and delays likely to result from this failure.

31. Intellectual Property Rights Warranty

- 31.1 The Supplier hereby represents and warrants that:
 - (a) the System as supplied, installed, tested, and accepted;
 - (b) use of the System in accordance with the Contract; and
 - (c) copying of the Software and Materials provided to the Purchaser in accordance with the Contract

do not and will not infringe any Intellectual Property Rights held by any third party and that it has all necessary rights or at its sole expense shall have secured in writing all transfers of rights and other consents necessary to make the assignments, licenses, and other transfers of Intellectual Property Rights and the warranties set forth in the Contract, and for the Purchaser to own or exercise all Intellectual Property Rights as provided in the Contract. Without limitation, the Supplier shall secure all necessary written agreements, consents, and transfers of rights from its employees and other persons or entities whose services are used for development of the System.

32. Intellectual Property Rights Indemnity

- 32.1 The Supplier shall indemnify and hold harmless the Purchaser and its employees and officers from and against any and all losses, liabilities, and costs (including losses, liabilities, and costs incurred in defending a claim alleging such a liability), that the Purchaser or its employees or officers may suffer as a result of any infringement or alleged infringement of any Intellectual Property Rights by reason of:
 - (a) installation of the System by the Supplier or the use of the System, including the Materials, in the country where the site is located;
 - (b) copying of the Software and Materials provided the Supplier in accordance with the Agreement; and
 - (c) sale of the products produced by the System in any country, except to the extent that such losses, liabilities, and costs arise as a result of the Purchaser's breach of GCC Clause 32.2.
- 32.2 Such indemnity shall not cover any use of the System, including the Materials, other than for the purpose indicated by or to be reasonably inferred from the Contract, any infringement resulting from the use of the System, or any products of the System produced thereby in association or combination with any other goods or services not supplied by the Supplier, where the infringement arises because of such association or combination and not because of use of the System in its own right.
- 32.3 Such indemnities shall also not apply if any claim of infringement:
 - (a) is asserted by a parent, subsidiary, or affiliate of the Purchaser's organization;
 - (b) is a direct result of a design mandated by the

Purchaser's Technical Requirements and the possibility of such infringement was duly noted in the Supplier's Bid; or

- (c) results from the alteration of the System, including the Materials, by the Purchaser or any persons other than the Supplier or a person authorized by the Supplier.
- 32.4 If any proceedings are brought or any claim is made against the Purchaser arising out of the matters referred to in GCC Clause 32.1, the Purchaser shall promptly give the Supplier notice of such proceedings or claims, 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.

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. Unless the Supplier has so failed to notify the Purchaser within the twenty-eight (28) days, the Purchaser shall make no admission that may be prejudicial to the defense of any such proceedings or claim. 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.

32.5 The Purchaser shall indemnify and hold harmless the Supplier and its employees, officers, and Subcontractors from and against any and all losses, liabilities, and costs (including losses, liabilities, and costs incurred in defending a claim alleging such a liability) that the Supplier or its employees, officers, or Subcontractors may suffer as a result of any infringement or alleged infringement of any Intellectual Property Rights arising out of or in connection with any design, data, drawing, specification, or other documents or materials provided to the Supplier in connection with this Contract by the Purchaser or any persons (other than the Supplier) contracted by the Purchaser, except to the extent that such losses, liabilities, and costs arise as a result of the Supplier's breach of GCC Clause 32.8.

32.6 Such indemnity shall not cover

- (a) any use of the design, data, drawing, specification, or other documents or materials, other than for the purpose indicated by or to be reasonably inferred from the Contract;
- (b) any infringement resulting from the use of the design, data, drawing, specification, or other documents or materials, or any products produced thereby, in association or combination with any other Goods or Services not provided by the Purchaser or any other person contracted by the Purchaser, where the infringement arises because of such association or combination and not because of the use of the design, data, drawing, specification, or other documents or materials in its own right.

32.7 Such indemnities shall also not apply:

- (a) if any claim of infringement is asserted by a parent, subsidiary, or affiliate of the Supplier's organization;
- (b) to the extent that any claim of infringement is caused by the alteration, by the Supplier, or any persons contracted by the Supplier, of the design, data, drawing, specification, or other documents or materials provided to the Supplier by the Purchaser or any persons contracted by the Purchaser.
- 32.8 If any proceedings are brought or any claim is made against the Supplier arising out of the matters referred to in GCC Clause 32.5, the Supplier shall promptly give the Purchaser notice of such proceedings or claims, and the Purchaser may at its own expense and in the Supplier's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim. If the Purchaser fails to notify the Supplier within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Supplier shall be free to conduct the same on its own behalf. Unless the Purchaser has so failed to notify the Supplier within the twenty-eight (28) days, the Supplier shall make no admission that may be prejudicial to the defense of any such proceedings or claim. The Supplier shall, at the Purchaser's request, afford all available assistance to the Purchaser in conducting such proceedings or claim and shall be reimbursed by the Purchaser for all reasonable expenses incurred in so doing.

33. Limitation of Liability

- 33.1 Provided the following does not exclude or limit any liabilities of either party in ways not permitted by applicable law:
 - (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 any obligation of the Supplier to indemnify the Purchaser with respect to intellectual property rights infringement.

G. RISK DISTRIBUTION

34. Transfer of Ownership

- 34.1 With the exception of Software and Materials, the ownership of the Information Technologies and other Goods shall be transferred to the Purchaser at the time of Delivery or otherwise under terms that may be agreed upon and specified in the Contract Agreement.
- 34.2 Ownership and the terms of usage of the Software and Materials supplied under the Contract shall be governed by GCC Clause 15 (Copyright) and any elaboration in the Technical Requirements.
- 34.3 Ownership of the Supplier's Equipment used by the Supplier and its Subcontractors in connection with the Contract shall remain with the Supplier or its Subcontractors.

35. Care of the System

35.1 The Purchaser shall become responsible for the care and custody of the System or Subsystems upon their Delivery. The Purchaser shall make good at its own cost any loss or damage that may occur to the System or Subsystems from any cause from the date of Delivery until the date of Operational Acceptance of the System or Subsystems, pursuant to GCC Clause 27 (Commissioning and Operational Acceptance), excepting such loss or damage arising from acts or omissions of the Supplier, its employees, or

subcontractors.

- 35.2 If any loss or damage occurs to the System or any part of the System by reason of:
 - (a) (insofar as they relate to the country where the Project Site is located) nuclear reaction, nuclear radiation, radioactive contamination, a pressure wave caused by aircraft or other aerial objects, or any other occurrences that an experienced contractor could not reasonably foresee, or if reasonably foreseeable could not reasonably make provision for or insure against, insofar as such risks are not normally insurable on the insurance market and are mentioned in the general exclusions of the policy of insurance taken out under GCC Clause 37;
 - (b) any use not in accordance with the Contract, by the Purchaser or any third party;
 - (c) any use of or reliance upon any design, data, or specification provided or designated by or on behalf of the Purchaser, or any such matter for which the Supplier has disclaimed responsibility in accordance with GCC Clause 21.1.2,

the Purchaser shall pay to the Supplier all sums payable in respect of the System or Subsystems that have achieved Operational Acceptance, notwithstanding that the same be lost, destroyed, or damaged. If the Purchaser requests the Supplier in writing to make good any loss or damage to the System thereby occasioned, the Supplier shall make good the same at the cost of the Purchaser in accordance with GCC Clause 39. If the Purchaser does not request the Supplier in writing to make good any loss or damage to the System thereby occasioned, the Purchaser shall either request a change in accordance with GCC Clause 39, excluding the performance of that part of the System thereby lost, destroyed, or damaged, or, where the loss or damage affects a substantial part of the System, the Purchaser shall terminate the Contract pursuant to GCC Clause 41.1.

35.3 The Purchaser shall be liable for any loss of or damage to any Supplier's Equipment which the Purchaser has authorized to locate within the Purchaser's premises for use in fulfillment of Supplier's obligations under the Contract, except where such loss or damage arises from acts or

omissions of the Supplier, its employees, or subcontractors.

- 36. Loss of or
 Damage to
 Property;
 Accident or
 Injury to
 Workers;
 Indemnification
- 36.1 The Supplier and each and every Subcontractor shall abide by the job safety, insurance, customs, and immigration measures prevalent and laws in force in the Purchaser's Country.
- 36.2 Subject to GCC Clause 36.3, the Supplier shall indemnify and hold harmless the Purchaser and its employees and officers from and against any and all losses, liabilities and costs (including losses, liabilities, and costs incurred in defending a claim alleging such a liability) that the Purchaser or its employees or officers may suffer as a result of the death or injury of any person or loss of or damage to any property (other than the System, whether accepted or not) arising in connection with the supply, installation, testing, and Commissioning of the System and by reason of the negligence of the Supplier or its Subcontractors, or their employees, officers or agents, except any injury, death, or property damage caused by the negligence of the Purchaser, its contractors, employees, officers, or agents.
- 36.3 If any proceedings are brought or any claim is made against the Purchaser that might subject the Supplier to liability under GCC Clause 36.2, the Purchaser shall promptly give the Supplier notice of such proceedings or claims, 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. 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. Unless the Supplier has so failed to notify the Purchaser within the twenty-eight (28) day period, the Purchaser shall make no admission that may be prejudicial to the defense of any such proceedings or claim. 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.
- 36.4 The Purchaser shall indemnify and hold harmless the Supplier and its employees, officers, and Subcontractors from any and all losses, liabilities, and costs (including losses, liabilities, and costs incurred in defending a claim

alleging such a liability) that the Supplier or its employees, officers, or Subcontractors may suffer as a result of the death or personal injury of any person or loss of or damage to property of the Purchaser, other than the System not yet achieving Operational Acceptance, that is caused by fire, explosion, or any other perils, in excess of the amount recoverable from insurances procured under GCC Clause 37 (Insurances), provided that such fire, explosion, or other perils were not caused by any act or failure of the Supplier.

- 36.5 If any proceedings are brought or any claim is made against the Supplier that might subject the Purchaser to liability under GCC Clause 36.4, the Supplier shall promptly give the Purchaser notice of such proceedings or claims, and the Purchaser may at its own expense and in the Supplier's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim. If the Purchaser fails to notify the Supplier within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Supplier shall be free to conduct the same on its own behalf. Unless the Purchaser has so failed to notify the Supplier within the twenty-eight (28) days, the Supplier shall make no admission that may be prejudicial to the defense of any such proceedings or claim. The Supplier shall, at the Purchaser's request, afford all available assistance to the Purchaser in conducting such proceedings or claim and shall be reimbursed by the Purchaser for all reasonable expenses incurred in so doing.
- 36.6 The party entitled to the benefit of an indemnity under this GCC Clause 36 shall take all reasonable measures to mitigate any loss or damage that has occurred. If the party fails to take such measures, the other party's liabilities shall be correspondingly reduced.
- 37. Insurances
- 37.1 The Supplier shall at its expense take out and maintain in effect, or cause to be taken out and maintained in effect, during the performance of the Contract, the insurance set forth below. The identity of the insurers and the form of the policies shall be subject to the approval of the Purchaser, who should not unreasonably withhold such approval.
 - (a) Cargo Insurance During Transport

as applicable, 110 percent of the price of the

Information Technologies and other Goods in a freely convertible currency, covering the Goods from physical loss or damage during shipment through receipt at the Project Site.

(b) Installation "All Risks" Insurance

as applicable, 110 percent of the price of the Information Technologies and other Goods covering the Goods at the site from all risks of physical loss or damage (excluding only perils commonly excluded under "all risks" insurance policies of this type by reputable insurers) occurring prior to Operational Acceptance of the System.

(c) Third-Party Liability Insurance

On terms as **specified in the SCC**, covering bodily injury or death suffered by third parties (including the Purchaser's personnel) and loss of or damage to property (including the Purchaser's property and any Subsystems that have been accepted by the Purchaser) occurring in connection with the supply and installation of the Information System.

(d) Automobile Liability Insurance

In accordance with the statutory requirements prevailing in the Purchaser's Country, covering use of all vehicles used by the Supplier or its Subcontractors (whether or not owned by them) in connection with the execution of the Contract.

- (e) Other Insurance (if any), as **specified in the SCC.**
- 37.2 The Purchaser shall be named as co-insured under all insurance policies taken out by the Supplier pursuant to GCC Clause 37.1, except for the Third-Party Liability, and the Supplier's Subcontractors shall be named as co-insured under all insurance policies taken out by the Supplier pursuant to GCC Clause 37.1 except for Cargo Insurance During Transport. All insurer's rights of subrogation against such co-insured for losses or claims arising out of the performance of the Contract shall be waived under such policies.
- 37.3 The Supplier shall deliver to the Purchaser certificates of insurance (or copies of the insurance policies) as evidence

that the required policies are in full force and effect.

- 37.4 The Supplier shall ensure that, where applicable, its Subcontractor(s) shall take out and maintain in effect adequate insurance policies for their personnel and vehicles and for work executed by them under the Contract, unless such Subcontractors are covered by the policies taken out by the Supplier.
- 37.5 If the Supplier fails to take out and/or maintain in effect the insurance referred to in GCC Clause 37.1, the Purchaser may take out and maintain in effect any such insurance and may from time to time deduct from any amount due the Supplier under the Contract any premium that the Purchaser shall have paid to the insurer or may otherwise recover such amount as a debt due from the Supplier.
- 37.6 Unless otherwise provided in the Contract, the Supplier shall prepare and conduct all and any claims made under the policies effected by it pursuant to this GCC Clause 37, and all monies payable by any insurers shall be paid to the Supplier. The Purchaser shall give to the Supplier all such reasonable assistance as may be required by the Supplier in connection with any claim under the relevant insurance policies. With respect to insurance claims in which the Purchaser's interest is involved, the Supplier shall not give any release or make any compromise with the insurer without the prior written consent of the Purchaser. With respect to insurance claims in which the Supplier's interest is involved, the Purchaser shall not give any release or make any compromise with the insurer without the prior written consent of the Supplier.

38. Force Majeure

- 38.1 "Force Majeure" shall mean any event beyond the reasonable control of the Purchaser or of the Supplier, as the case may be, and which is unavoidable notwithstanding the reasonable care of the party affected and shall include, without limitation, the following:
 - (a) war, hostilities, or warlike operations (whether a state of war be declared or not), invasion, act of foreign enemy, and civil war;
 - (b) rebellion, revolution, insurrection, mutiny, usurpation of civil or military government, conspiracy, riot, civil commotion, and terrorist acts;

- (c) confiscation, nationalization, mobilization, commandeering or requisition by or under the order of any government or de jure or de facto authority or ruler, or any other act or failure to act of any local state or national government authority;
- (d) strike, sabotage, lockout, embargo, import restriction, port congestion, lack of usual means of public transportation and communication, industrial dispute, shipwreck, shortage or restriction of power supply, epidemics, quarantine, and plague;
- (e) earthquake, landslide, volcanic activity, fire, flood or inundation, tidal wave, typhoon or cyclone, hurricane, storm, lightning, or other inclement weather condition, nuclear and pressure waves, or other natural or physical disaster;
- (f) failure, by the Supplier, to obtain the necessary export permit(s) from the governments of the Country(s) of Origin of the Information Technologies or other Goods, or Supplier's Equipment provided that the Supplier has made all reasonable efforts to obtain the required export permit(s), including the exercise of due diligence in determining the eligibility of the System and all of its components for receipt of the necessary export permits.
- 38.2 If either party is prevented, hindered, or delayed from or in performing any of its obligations under the Contract by an event of Force Majeure, then it shall notify the other in writing of the occurrence of such event and the circumstances of the event of Force Majeure within fourteen (14) days after the occurrence of such event.
- 38.3 The party who has given such notice shall be excused from the performance or punctual performance of its obligations under the Contract for so long as the relevant event of Force Majeure continues and to the extent that such party's performance is prevented, hindered, or delayed. The Time for Achieving Operational Acceptance shall be extended in accordance with GCC Clause 40 (Extension of Time for Achieving Operational Acceptance).
- 38.4 The party or parties affected by the event of Force Majeure shall use reasonable efforts to mitigate the effect of the event of Force Majeure upon its or their performance of the

Contract and to fulfill its or their obligations under the Contract, but without prejudice to either party's right to terminate the Contract under GCC Clause 38.6.

- 38.5 No delay or nonperformance by either party to this Contract caused by the occurrence of any event of Force Majeure shall:
 - (a) constitute a default or breach of the Contract;
 - (b) (subject to GCC Clauses 35.2, 38.3, and 38.4) give rise to any claim for damages or additional cost or expense occasioned by the delay or nonperformance,

if, and to the extent that, such delay or nonperformance is caused by the occurrence of an event of Force Majeure.

- 38.6 If the performance of the Contract is substantially prevented, hindered, or delayed for a single period of more than sixty (60) days or an aggregate period of more than one hundred and twenty (120) days on account of one or more events of Force Majeure during the time period covered by the Contract, the parties will attempt to develop a mutually satisfactory solution, failing which, either party may terminate the Contract by giving a notice to the other.
- 38.7 In the event of termination pursuant to GCC Clause 38.6, the rights and obligations of the Purchaser and the Supplier shall be as specified in GCC Clauses 41.1.2 and 41.1.3.
- 38.8 Notwithstanding GCC Clause 38.5, Force Majeure shall not apply to any obligation of the Purchaser to make payments to the Supplier under this Contract.

H. CHANGE IN CONTRACT ELEMENTS

39. Changes to the System

- 39.1 Introducing a Change
 - 39.1.1 Subject to GCC Clauses 39.2.5 and 39.2.7, the Purchaser shall have the right to propose, and subsequently require, the Project Manager to order the Supplier from time to time during the performance of the Contract to make any change, modification, addition, or deletion to, in, or from the System (interchangeably called "Change"), provided that such Change falls within the general scope of the System, does not constitute unrelated work, and

is technically practicable, taking into account both the state of advancement of the System and the technical compatibility of the Change envisaged with the nature of the System as originally specified in the Contract.

A Change may involve, but is not restricted to, the substitution of updated Information Technologies and related Services in accordance with GCC Clause 23 (Product Upgrades).

- 39.1.2 The Supplier may from time to time during its performance of the Contract propose to the Purchaser (with a copy to the Project Manager) any Change that the Supplier considers necessary or desirable to improve the quality or efficiency of the System. The Purchaser may at its discretion approve or reject any Change proposed by the Supplier.
- 39.1.3 Notwithstanding GCC Clauses 39.1.1 and 39.1.2, no change made necessary because of any default of the Supplier in the performance of its obligations under the Contract shall be deemed to be a Change, and such change shall not result in any adjustment of the Contract Price or the Time for Achieving Operational Acceptance.
- 39.1.4 The procedure on how to proceed with and execute Changes is specified in GCC Clauses 39.2 and 39.3, and further details and sample forms are provided in the Sample Forms Section in the Bidding Documents.
- 39.1.5 Moreover, the Purchaser and Supplier will agree, during development of the Project Plan, to a date prior to the scheduled date for Operational Acceptance, after which the Technical Requirements for the System shall be "frozen." Any Change initiated after this time will be dealt with after Operational Acceptance.

39.2 Changes Originating from Purchaser

39.2.1 If the Purchaser proposes a Change pursuant to GCC Clauses 39.1.1, it shall send to the Supplier a "Request for Change Proposal," requiring the Supplier to prepare and furnish to the Project

Manager as soon as reasonably practicable a "Change Proposal," which shall include the following:

- (a) brief description of the Change;
- (b) impact on the Time for Achieving Operational Acceptance;
- (c) detailed estimated cost of the Change;
- (d) effect on Functional Guarantees (if any);
- (e) effect on any other provisions of the Contract.
- 39.2.2 Prior to preparing and submitting the "Change Proposal," the Supplier shall submit to the Project Manager an "Change Estimate Proposal," which shall be an estimate of the cost of preparing the Change Proposal, plus a first approximation of the suggested approach and cost for implementing the changes. Upon receipt of the Supplier's Change Estimate Proposal, the Purchaser shall do one of the following:
 - (a) accept the Supplier's estimate with instructions to the Supplier to proceed with the preparation of the Change Proposal;
 - (b) advise the Supplier of any part of its Change Estimate Proposal that is unacceptable and request the Supplier to review its estimate;
 - (c) advise the Supplier that the Purchaser does not intend to proceed with the Change.
- 39.2.3 Upon receipt of the Purchaser's instruction to proceed under GCC Clause 39.2.2 (a), the Supplier shall, with proper expedition, proceed with the preparation of the Change Proposal, in accordance with GCC Clause 39.2.1. The Supplier, at its discretion, may specify a validity period for the Change Proposal, after which if the Purchaser and Supplier has not reached agreement in accordance with GCC Clause 39.2.6, then GCC Clause 39.2.7 shall apply.
- 39.2.4 The pricing of any Change shall, as far as

practicable, be calculated in accordance with the rates and prices included in the Contract. If the nature of the Change is such that the Contract rates and prices are inequitable, the parties to the Contract shall agree on other specific rates to be used for valuing the Change.

If before or during the preparation of the Change 39.2.5 Proposal it becomes apparent that the aggregate impact of compliance with the Request for Change Proposal and with all other Change Orders that have already become binding upon the Supplier under this GCC Clause 39 would be to increase or decrease the Contract Price as originally set forth in Article 2 (Contract Price) of the Contract Agreement by more than fifteen (15) percent, the Supplier may give a written notice of objection to this Request for Change Proposal prior to furnishing the Change Proposal. If the Purchaser accepts the Supplier's objection, the Purchaser shall withdraw the proposed Change and shall notify the Supplier in writing of its acceptance.

The Supplier's failure to so object to a Request for Change Proposal shall neither affect its right to object to any subsequent requested Changes or Change Orders, nor affect its right to take into account, when making such subsequent objection, the percentage increase or decrease in the Contract Price that any Change not objected to by the Supplier represents.

39.2.6 Upon receipt of the Change Proposal, the Purchaser and the Supplier shall mutually agree upon all matters contained in the Change Proposal. Within fourteen (14) days after such agreement, the Purchaser shall, if it intends to proceed with the Change, issue the Supplier a Change Order. If the Purchaser is unable to reach a decision within fourteen (14) days, it shall notify the Supplier with details of when the Supplier can expect a decision. If the Purchaser decides not to proceed with the Change for whatever reason, it shall, within the said period of fourteen (14) days, notify the Supplier Under such circumstances, the accordingly. Supplier shall be entitled to reimbursement of all

costs reasonably incurred by it in the preparation of the Change Proposal, provided that these do not exceed the amount given by the Supplier in its Change Estimate Proposal submitted in accordance with GCC Clause 39.2.2.

39.2.7 If the Purchaser and the Supplier cannot reach agreement on the price for the Change, an equitable adjustment to the Time for Achieving Operational Acceptance, or any other matters identified in the Change Proposal, the Change will not be implemented. However, this provision does not limit the rights of either party under GCC Clause 6 (Settlement of Disputes).

39.3 Changes Originating from Supplier

If the Supplier proposes a Change pursuant to GCC Clause 39.1.2, the Supplier shall submit to the Project Manager a written "Application for Change Proposal," giving reasons for the proposed Change and including the information specified in GCC Clause 39.2.1. Upon receipt of the Application for Change Proposal, the parties shall follow the procedures outlined in GCC Clauses 39.2.6 and 39.2.7. However, should the Purchaser choose not to proceed or the Purchaser and the Supplier cannot come to agreement on the change during any validity period that the Supplier may specify in its Application for Change Proposal, the Supplier shall not be entitled to recover the costs of preparing the Application for Change Proposal, unless subject to an agreement between the Purchaser and the Supplier to the contrary.

- 40. Extension of Time for Achieving Operational Acceptance
- 40.1 The time(s) for achieving Operational Acceptance specified in the Schedule of Implementation shall be extended if the Supplier is delayed or impeded in the performance of any of its obligations under the Contract by reason of any of the following:
 - (a) any Change in the System as provided in GCC Clause 39 (Change in the Information System);
 - (b) any occurrence of Force Majeure as provided in GCC Clause 38 (Force Majeure);
 - (c) default of the Purchaser; or

- (d) any other matter specifically mentioned in the Contract;
- by such period as shall be fair and reasonable in all the circumstances and as shall fairly reflect the delay or impediment sustained by the Supplier.
- 40.2 Except where otherwise specifically provided in the Contract, the Supplier shall submit to the Project Manager a notice of a claim for an extension of the time for achieving Operational Acceptance, together with particulars of the event or circumstance justifying such extension as soon as reasonably practicable after the commencement of such event or circumstance. As soon as reasonably practicable after receipt of such notice and supporting particulars of the claim, the Purchaser and the Supplier shall agree upon the period of such extension. In the event that the Supplier does not accept the Purchaser's estimate of a fair and reasonable time extension, the Supplier shall be entitled to refer the matter to the provisions for the Settlement of Disputes pursuant to GCC Clause 6.
- 40.3 The Supplier shall at all times use its reasonable efforts to minimize any delay in the performance of its obligations under the Contract.

41. Termination

- 41.1 Termination for Purchaser's Convenience
 - 41.1.1 The Purchaser may at any time terminate the Contract for any reason by giving the Supplier a notice of termination that refers to this GCC Clause 41.1.
 - 41.1.2 Upon receipt of the notice of termination under GCC Clause 41.1.1, the Supplier shall either as soon as reasonably practical or upon the date specified in the notice of termination
 - (a) cease all further work, except for such work as the Purchaser may specify in the notice of termination for the sole purpose of protecting that part of the System already executed, or any work required to leave the site in a clean and safe condition:
 - (b) terminate all subcontracts, except those to be assigned to the Purchaser pursuant to GCC Clause 41.1.2 (d) (ii) below;

- (c) remove all Supplier's Equipment from the site, repatriate the Supplier's and its Subcontractors' personnel from the site, remove from the site any wreckage, rubbish, and debris of any kind;
- (d) in addition, the Supplier, subject to the payment specified in GCC Clause 41.1.3, shall
 - (i) deliver to the Purchaser the parts of the System executed by the Supplier up to the date of termination;
 - (ii) to the extent legally possible, assign to the Purchaser all right, title, and benefit of the Supplier to the System, or Subsystem, as at the date of termination, and, as may be required by the Purchaser, in any subcontracts concluded between the Supplier and its Subcontractors;
 - (iii) deliver to the Purchaser all nonproprietary drawings, specifications, and other documents prepared by the Supplier or its Subcontractors as of the date of termination in connection with the System.
- 41.1.3 In the event of termination of the Contract under GCC Clause 41.1.1, the Purchaser shall pay to the Supplier the following amounts:
 - (a) the Contract Price, properly attributable to the parts of the System executed by the Supplier as of the date of termination;
 - (b) the costs reasonably incurred by the Supplier in the removal of the Supplier's Equipment from the site and in the repatriation of the Supplier's and its Subcontractors' personnel;
 - (c) any amount to be paid by the Supplier to its Subcontractors in connection with the termination of any subcontracts, including any cancellation charges;
 - (d) costs incurred by the Supplier in protecting the System and leaving the site in a clean and safe condition pursuant to GCC Clause 41.1.2 (a); and

(e) the cost of satisfying all other obligations, commitments, and claims that the Supplier may in good faith have undertaken with third parties in connection with the Contract and that are not covered by GCC Clauses 41.1.3 (a) through (d) above.

41.2 Termination for Supplier's Default

- 41.2.1 The Purchaser, without prejudice to any other rights or remedies it may possess, may terminate the Contract forthwith in the following circumstances by giving a notice of termination and its reasons therefore to the Supplier, referring to this GCC Clause 41.2:
 - (a) if the Supplier becomes bankrupt or insolvent, has a receiving order issued against it, compounds with its creditors, or, if the Supplier is a corporation, a resolution is passed or order is made for its winding up (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), a receiver is appointed over any part of its undertaking or assets, or if the Supplier takes or suffers any other analogous action in consequence of debt;
 - (b) if the Supplier assigns or transfers the Contract or any right or interest therein in violation of the provision of GCC Clause 42 (Assignment); or
 - (c) if the Supplier, in the judgment of the Purchaser, has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices, in competing for or in executing the Contract, including but not limited to willful misrepresentation of facts concerning ownership of Intellectual Property Rights in, or proper authorization and/or licenses from the owner to offer, the hardware, software, or materials provided under this Contract.

For the purposes of this Clause:

- (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 a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a 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
 - (aa) 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

[&]quot;Another party" refers to a public official acting in relation to the procurement process or contract execution]. In this context, "public official" includes World Bank staff and employees of other organizations taking or reviewing procurement decisions.

A "party" refers to a public official; the terms "benefit" and "obligation" relate to the procurement process or contract execution; and the "act or omission" is intended to influence the procurement process or contract execution.

³ "Parties" refers to participants in the procurement process (including public officials) attempting to establish bid prices at artificial, non competitive levels.

⁴ A "party" refers to a participant in the procurement process or contract execution.

- disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
- (bb) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under Sub-Clause 9.8.

41.2.2 If the Supplier:

- (a) has abandoned or repudiated the Contract;
- (b) has without valid reason failed to commence work on the System promptly;
- (c) persistently fails to execute the Contract in accordance with the Contract or persistently neglects to carry out its obligations under the Contract without just cause;
- (d) refuses or is unable to provide sufficient Materials, Services, or labor to execute and complete the System in the manner specified in the Agreed and Finalized Project Plan furnished under GCC Clause 19 at rates of progress that give reasonable assurance to the Purchaser that the Supplier can attain Operational Acceptance of the System by the Time for Achieving Operational Acceptance as extended;

then the Purchaser may, without prejudice to any other rights it may possess under the Contract, give a notice to the Supplier stating the nature of the default and requiring the Supplier to remedy the same. If the Supplier fails to remedy or to take steps to remedy the same within fourteen (14) days of its receipt of such notice, then the Purchaser may terminate the Contract forthwith by giving a notice of termination to the Supplier that refers to this GCC Clause 41.2.

- 41.2.3 Upon receipt of the notice of termination under GCC Clauses 41.2.1 or 41.2.2, the Supplier shall, either immediately or upon such date as is specified in the notice of termination:
 - (a) cease all further work, except for such work as

- the Purchaser may specify in the notice of termination for the sole purpose of protecting that part of the System already executed or any work required to leave the site in a clean and safe condition;
- (b) terminate all subcontracts, except those to be assigned to the Purchaser pursuant to GCC Clause 41.2.3 (d) below;
- (c) deliver to the Purchaser the parts of the System executed by the Supplier up to the date of termination;
- (d) to the extent legally possible, assign to the Purchaser all right, title and benefit of the Supplier to the System or Subsystems as at the date of termination, and, as may be required by the Purchaser, in any subcontracts concluded between the Supplier and its Subcontractors;
- (e) deliver to the Purchaser all drawings, specifications, and other documents prepared by the Supplier or its Subcontractors as at the date of termination in connection with the System.
- 41.2.4 The Purchaser may enter upon the site, expel the Supplier, and complete the System itself or by employing any third party. Upon completion of the System or at such earlier date as the Purchaser thinks appropriate, the Purchaser shall give notice to the Supplier that such Supplier's Equipment will be returned to the Supplier at or near the site and shall return such Supplier's Equipment to the Supplier in accordance with such notice. The Supplier shall thereafter without delay and at its cost remove or arrange removal of the same from the site.
- 41.2.5 Subject to GCC Clause 41.2.6, the Supplier shall be entitled to be paid the Contract Price attributable to the portion of the System executed as at the date of termination and the costs, if any, incurred in protecting the System and in leaving the site in a clean and safe condition pursuant to GCC Clause 41.2.3 (a). Any sums due the Purchaser from the Supplier accruing prior to the date of termination shall be deducted from the amount to be paid to the

Supplier under this Contract.

If the Purchaser completes the System, the cost of completing the System by the Purchaser shall be determined. If the sum that the Supplier is entitled to be paid, pursuant to GCC Clause 41.2.5, plus the reasonable costs incurred by the Purchaser in completing the System, exceeds the Contract Price, the Supplier shall be liable for such excess. If such excess is greater than the sums due the Supplier under GCC Clause 41.2.5, the Supplier shall pay the balance to the Purchaser, and if such excess is less than the sums due the Supplier under GCC Clause 41.2.5, the Purchaser shall pay the balance to the Supplier. The Purchaser and the Supplier shall agree, in writing, on the computation described above and the manner in which any sums shall be paid.

41.3 Termination by Supplier

41.3.1 If:

- (a) the Purchaser has failed to pay the Supplier any sum due under the Contract within the specified period, has failed to approve any invoice or supporting documents without just cause pursuant to the SCC, or commits a substantial breach of the Contract, the Supplier may give a notice to the Purchaser that requires payment of such sum, with interest on this sum as stipulated in GCC Clause 12.3, requires approval of such invoice or supporting documents, or specifies the breach and requires the Purchaser to remedy the same, as the case may be. If the Purchaser fails to pay such sum together with such interest, fails to approve such invoice or supporting documents or give its reasons for withholding such approval, fails to remedy the breach or take steps to remedy the breach within fourteen (14) days after receipt of the Supplier's notice; or
- (b) the Supplier is unable to carry out any of its obligations under the Contract for any reason attributable to the Purchaser, including but not limited to the Purchaser's failure to provide

possession of or access to the site or other areas or failure to obtain any governmental permit necessary for the execution and/or completion of the System;

then the Supplier may give a notice to the Purchaser of such events, and if the Purchaser has failed to pay the outstanding sum, to approve the invoice or supporting documents, to give its reasons for withholding such approval, or to remedy the breach within twenty-eight (28) days of such notice, or if the Supplier is still unable to carry out any of its obligations under the Contract for any reason attributable to the Purchaser within twenty-eight (28) days of the said notice, the Supplier may by a further notice to the Purchaser referring to this GCC Clause 41.3.1, forthwith terminate the Contract.

- 41.3.2 The terminate the Contract Supplier may immediately by giving a notice to the Purchaser to that effect, referring to this GCC Clause 41.3.2, if the Purchaser becomes bankrupt or insolvent, has a receiving order issued against it, compounds with its creditors, or, being a corporation, if a resolution is passed or order is made for its winding up (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), a receiver is appointed over any part of its undertaking or assets, or if the Purchaser takes or suffers any other analogous action in consequence of debt.
- 41.3.3 If the Contract is terminated under GCC Clauses 41.3.1 or 41.3.2, then the Supplier shall immediately:
 - (a) cease all further work, except for such work as may be necessary for the purpose of protecting that part of the System already executed, or any work required to leave the site in a clean and safe condition;
 - (b) terminate all subcontracts, except those to be assigned to the Purchaser pursuant to Clause 41.3.3 (d) (ii);
 - (c) remove all Supplier's Equipment from the site and repatriate the Supplier's and its

Subcontractor's personnel from the site.

- (d) In addition, the Supplier, subject to the payment specified in GCC Clause 41.3.4, shall:
 - (i) deliver to the Purchaser the parts of the System executed by the Supplier up to the date of termination:
 - (ii) to the extent legally possible, assign to the Purchaser all right, title, and benefit of the Supplier to the System, or Subsystems, as of the date of termination, and, as may be required by the Purchaser, in any subcontracts concluded between the Supplier and its Subcontractors;
 - (iii) to the extent legally possible, deliver to the Purchaser all drawings, specifications, and other documents prepared by the Supplier or its Subcontractors as of the date of termination in connection with the System.
- 41.3.4 If the Contract is terminated under GCC Clauses 41.3.1 or 41.3.2, the Purchaser shall pay to the Supplier all payments specified in GCC Clause 41.1.3, and reasonable compensation for all loss, except for loss of profit, or damage sustained by the Supplier arising out of, in connection with, or in consequence of such termination.
- 41.3.5 Termination by the Supplier pursuant to this GCC Clause 41.3 is without prejudice to any other rights or remedies of the Supplier that may be exercised in lieu of or in addition to rights conferred by GCC Clause 41.3.
- 41.4 In this GCC Clause 41, the expression "portion of the System executed" shall include all work executed, Services provided, and all Information Technologies, or other Goods acquired (or subject to a legally binding obligation to purchase) by the Supplier and used or intended to be used for the purpose of the System, up to and including the date of termination.
- 41.5 In this GCC Clause 41, in calculating any monies due from the Purchaser to the Supplier, account shall be taken of any

sum previously paid by the Purchaser to the Supplier under the Contract, including any advance payment paid **pursuant to the SCC.**

42. Assignment

42.1 Neither the Purchaser nor the Supplier shall, without the express prior written consent of the other, assign to any third party the Contract or any part thereof, or any right, benefit, obligation, or interest therein or there under, except that the Supplier shall be entitled to assign either absolutely or by way of charge any monies due and payable to it or that may become due and payable to it under the Contract.

SECTION V. SPECIAL CONDITIONS OF CONTRACT (SCC)

Table of Clauses

A.	Con	tract and Interpretation	136
	1.	Definitions (GCC Clause 1)	136
	2.	Contract Documents (GCC Clause 2)	
	3.	Interpretation (GCC Clause 3)	
	4.	Notices (GCC Clause 4)	
	5.	Governing Law (GCC Clause 5)	
	6.	Settlement of Disputes (GCC Clause 6)	137
B.	Subj	ect Matter of Contract	139
	7.	Scope of the System (GCC Clause 7)	139
	8.	Time for Commencement and Operational Acceptance (GCC Clause 8)	139
	9.	Supplier's Responsibilities (GCC Clause 9)	139
	10.	Purchaser's Responsibilities (GCC Clause 10)	140
C.	Payı	ment	140
	11.	Contract Price (GCC Clause 11)	140
	12.	Terms of Payment (GCC Clause 12)	
	13.	Securities (GCC Clause 13)	
	14.	Taxes and Duties (GCC Clause 14)	142
D.	Inte	llectual Property	142
	15.	Copyright (GCC Clause 15)	142
	16.	Software License Agreements (GCC Clause 16)	
	17.	Confidential Information (GCC Clause 17)	
E.	Sup	ply, Installation, Testing, Commissioning, and Acceptance of the System	143
	18.	Representatives (GCC Clause 18)	143
	19.	Project Plan (GCC Clause 19)	
	20.	Subcontracting (GCC Clause 20)	145
	21.	Design and Engineering (GCC Clause 21)	146
	22.	Procurement, Delivery, and Transport (GCC Clause 22)	146
	23.	Product Upgrades (GCC Clause 23)	147
	24.	Implementation, Installation, and Other Services (GCC Clause 24)	
	25.	Inspections and Tests (GCC Clause 25)	
	26.	Installation of the System (GCC Clause 26)	
	27.	Commissioning and Operational Acceptance (GCC Clause 27)	148
F.	Gua	rantees and Liabilities	148
	28.	Operational Acceptance Time Guarantee (GCC Clause 28)	
	29.	Defect Liability (GCC Clause 29)	
	30.	Functional Guarantees (GCC Clause 30)	
	31.	Intellectual Property Rights Warranty (GCC Clause 31)	
	32.	Intellectual Property Rights Indemnity (GCC Clause 32)	149

	33.	Limitation of Liability (GCC Clause 33)	.149
G.	Risk	Distribution	.150
	34.	Transfer of Ownership (GCC Clause 34)	.150
		Care of the System (GCC Clause 35)	
	36.	Loss of or Damage to Property; Accident or Injury to Workers; Indemnification	
		(GCC Clause 36)	.150
	37.	Insurances (GCC Clause 37)	
		Force Majeure (GCC Clause 38)	
Н.	Cha	nge in Contract Elements	.151
	39.	Changes to the System (GCC Clause 39)	.151
		Extension of Time for Achieving Operational Acceptance (GCC Clause 40)	
		Termination (GCC Clause 41)	
		Assignment (GCC Clause 42)	

Special Conditions of Contract

The following Special Conditions of Contract (SCC) shall supplement or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions of the SCC shall prevail over those in the General Conditions of Contract. For the purposes of clarity, any referenced GCC clause numbers are indicated in the left column of the SCC.

A. CONTRACT AND INTERPRETATION

1. Definitions (GCC Clause 1)

GCC 1.1 (a) (ix)	The applicable edition of the Procurement Guidelines is dated: Jan 2011
	REVISED July 2014.
	•
GCC 1.1 (b) (i)	The Purchaser is:
	Director Technical Project Management Unit
	Project Management Unit Jhelum & Tawi Flood Recovery Project
	2 nd Floor, ERA Commercial Complex, Rambagh – Srinagar – 190009.
	Phone-0194 – 2437320,
	Email: dirpmujk@gmail.com
GCC 1.1 (b) (ii)	The Project Manager is:
	Director Technical
	Project Management Unit,
	Jhelum & Tawi Flood Recovery Project
GCC 1.1 (e) (i)	The Purchaser's Country is: India
GCC 1.1 (e) (iii)	The Project Site(s) is/are: [as specified in the Technical Requirement, Section VI].
GCC 1.1 (e) (x)	The Contract shall continue in force until the SCADA System and all
	the Services, including AMC period, have been provided unless the
	Contract is terminated earlier in accordance with the terms set out in the Contract."
GCC 1.1. (e) (xii)	The Comprehensive AMC Period is 4 years including Two Years
	Warranty Period.
	The warranty period shall start from the date of successful operation as
	mentioned in the operational acceptance certificate.

2. Contract Documents (GCC Clause 2)

GCC 2	"There are no Special Conditions of Contract applicable to GCC Clause
	2."

3. Interpretation (GCC Clause 3)

GCC 3.1.1	The Contract's governing language is English.

4. Notices (GCC Clause 4)

GCC 4.3	Attention: The Director Technical,
	Address:
	Jhelum & Tawi Flood Recovery Project
	Project Management Unit
	2 nd Floor ERA Commercial Complex, Rambagh – Srinagar - 190009
	Country: India
	Telephone: 0194 - 2437320
	Electronic mail address: dirpmujk@gmail.com

5. Governing Law (GCC Clause 5)

GCC 5.1	The Contract shall be interpreted in accordance with the laws of:
	Republic of India

6. Settlement of Disputes (GCC Clause 6)

GCC 6.1.4	Settlement of Disputes
	The dispute settlement mechanism to be applied for adhoc arbitration shall be as follows:
	In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996. The arbitral tribunal shall consist of 3 arbitrators one each to be appointed by the Purchaser and the Supplier. The third Arbitrator shall be chosen by the two
	Arbitrators so appointed by the Parties and shall act as Presiding arbitrator. In case of failure of the two arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the

appointment of the arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed by the Chairman, Institution of Engineers (India) Srinagar Chapter GCC 6.2.3 (a) In the case of a dispute with a Foreign Supplier, the dispute shall be settled in accordance with provisions of UNCITRAL (United nations Commission on International Trade Law) Arbitration Rules. The Arbitral Tribunal shall consist of three Arbitrators one each to be appointed by the Purchaser and the Supplier. Arbitrator shall be chosen by the two Arbitrators so appointed by the parties, and shall act as presiding arbitrator. In case of failure of the two arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed by the International Centre of Alternative Dispute Resolution (India). (b) If one of the parties fails to appoint its arbitrator in pursuance of sub clause (a) and (b) above, within 30 days after receipt of the notice of the appointment of its arbitrator by the other party, then the *Indian Council of Arbitration/president of the Institution of Engineers (India)/The International Centre for Alternative Dispute Resolution (India), both in cases of the Foreign supplier as well as Indian supplier, shall appoint the arbitrator. A certified copy of the order of the Chairman, Institution of Engineers (India) Srinagar Chapter/The International Centre for Alternative Disputes Resolution (India), making such an appointment shall be furnished to each of the parties. (c) Arbitration proceedings shall be held at Delhi, India, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English. (d) The decision of the majority of arbitrators shall be final and binding upon both parties. The cost and expenses of Arbitration proceedings will be paid as determined by the arbitral tribunal. However, the expenses incurred by each party in connection with the preparation, presentation etc. of its proceedings as also the fees and expenses paid to the arbitrator appointed by such party or on its behalf shall be borne by each party itself. (e) Where the value of the contract is Rs. 10 million and below, the disputes or differences arising shall be referred to the Sole Arbitrator. The Sole Arbitrator should be appointed by agreement between the parties; failing such agreement, by the appointing authority namely the Chairman of the Institution of Engineers

(India), Srinagar Chapter.

(f) Except otherwise agreed to by the Parties, Arbitrators should give a decision in writing within 120 days of receipt of notification of dispute.

B. SUBJECT MATTER OF CONTRACT

7. Scope of the System (GCC Clause 7)

8. Time for Commencement and Operational Acceptance (GCC Clause 8)

GCC 8.1	The date of start of work shall commence from the date of issue of 'Letter to Proceed'.
GCC 8.2	Operational Acceptance will occur as per the implementation schedule in the Technical Requirement Section VI or mutually agreed Date between Purchaser and Bidder.

9. Supplier's Responsibilities (GCC Clause 9)

GCC 9.9	In addition to Clause 9 of GCC, the Supplier shall have the following
	additional responsibilities: Supplier shall be responsible for
	comprehensive AMC of the system for Four years from the date of
	successful completion of Operational Acceptance.
	The Supplier assumes primary responsibility for the Operational
	Acceptance Test(s) for the System, in accordance with GCC Clause 27.2,
	and shall be responsible for operation of the System after Operational
	Acceptance
	The Supplier is responsible for performing and safely storing timely and
	regular backups of its data and Software in accordance with accepted

data management principles, except where such responsibility is clearly assigned to the Supplier elsewhere in the Contract. The Backup data shall be handed over to Purchaser every month in addition to the data required by the Purchaser at any time. The data shall be stored both at control centre and backup centre.

All costs and expenses involved in the performance of the obligations under this GCC Clause 10 shall be the responsibility of the Supplier, save those to be incurred by the Supplier with respect to the performance of the Operational Acceptance Test(s), in accordance with GCC Clause 27.2

All the Costs towards Licensing fee to be borne by Supplier.

10. Purchaser's Responsibilities (GCC Clause 10)

GCC 10.12	None

C. PAYMENT

11. Contract Price (GCC Clause 11)

GCC 11.2 (b)	Adjustments to the Contract Price shall be as follows: "none"	

12. Terms of Payment (GCC Clause 12)

GCC 12.1	For Supply:
	(a) Advance Payment: 10% of the contract price (supply) shall be paid within thirty (30) days of signing of the Contract and upon submission of claim and an unconditional bank guarantee for equivalent amount valid until the Goods are delivered and in the form provided in the bidding document or another form acceptable to the Purchaser.
	(b) 40% of the contract price (supply) shall be paid on receipt of Goods at respective site and upon submission of the requisite documents. <i>Invoice to be raised for above % only.</i>
	(c) 30% of the contract price (supply) shall be paid on completion of the installation work after the verification of the work from

	site from Purchaser's representative and after operational acceptance certificate is issued by the Purchaser. <i>Invoice to be raised for above % only.</i>
	(d) 10% of the contract price (supply) shall be paid after 2 months of satisfactory operation from the date of completion of works on Receipt of report from site from Purchaser's representative. <i>Invoice to be raised for above % only.</i>
	(e) Balance 10% of the contract price (supply) shall be paid after completion of warranty/guarantee period. <i>Invoice to be raised for above % only</i> .
	For Installation Works:
	(a) 80% of the contract price (Installation Works & related services) shall be paid on completion of 100% installation works after the verification of the work from site from Purchaser's representative and issuance of Operational Acceptance Certificate issued by the Purchaser's representative in the Performa given in Section VII - item 6. Invoice to be raised for above % only.
	(b) Balance 20% of the contract price (Installation Works and related services) shall be paid in eight equal instalments (half yearly) starting after the end of 1 st year of O&M period.
	For Comprehensive AMC:
	Charges for Comprehensive AMC shall be paid after the successful completion of warranty period in equal six monthly instalments at the end of each half year period as per the rates quoted in the price schedule on submission of relevant supporting documents.
GCC 12.3	The Purchaser shall pay to the Supplier interest on the delayed payments at a rate of: 6% per annum on delayed portion of payment claimed
GCC 12.4	Payment shall be made in maximum of three foreign currencies, as quoted by the bidder.
GCC 12.5	Not Applicable

13. Securities (GCC Clause 13)

GCC 13.2.1	Not Applicable
GCC 13.2.2	Not Applicable

GCC 13.3.1	A Performance Security shall be required.
	Performance Security payable to the Purchaser shall be for an amount of 5% of the accepted contract value, valid up to 60 days after the date of completion of performance obligations including warranty obligations. However, 28 days before the date of release of this performance security the supplier is required to submit a fresh performance security for the amount equivalent to his quoted price for O&M services, valid for 45 days beyond O&M period, which will be released after successful completion of O&M period.
	In the event of any correction of defects or replacement of defective material during the warranty period, the warranty for the corrected/replaced material shall be extended to a further period of 12 months and the Performance Bank guarantee for proportionate value shall be extended 60 days over and above the extended warranty period.
GCC 13.3.2	The Performance Security shall be in the form of a "Bank Guarantee" or "a cashier's cheque or banker's certified cheque or FDR" drawn in favour of the Purchaser. The Performance Security submitted by a Joint Venture shall be in the name of the Joint Venture listing all members. The Performance security shall be denominated in "a freely convertible currency acceptable to the Purchaser" or "the currencies of payment of the Contract, in accordance with their portions of the Contract Price"
GCC 13.3.4	Not Applicable

14. Taxes and Duties (GCC Clause 14)

GCC 14	Necessary and appropriate clauses as applicable to GCC Clause 14 and
	the Price Bid shall include all the Statutory Taxes, levies, Octroi charges
	etc as applicable

D. INTELLECTUAL PROPERTY

15. Copyright (GCC Clause 15)

GCC 15.3	The Purchaser may assign, license, or otherwise voluntarily transfer its
	contractual rights to use the Standard Software or elements of the
	Standard Software, without the Supplier's prior written consent,

16. Software License Agreements (GCC Clause 16)

GCC 16.1 (a) (iii)	Not Applicable
GCC 16.1 (a) (iv)	Not Applicable
GCC 16.1 (b) (ii)	Not Applicable
GCC 16.1 (b) (vi)	Not Applicable
GCC 16.1 (b) (vii)	Not Applicable
GCC 16.2	Not Applicable

17. Confidential Information (GCC Clause 17)

GCC 17.1	"There are no modifications to the confidentiality terms expressed in GCC Clause 17.1;"
GCC 17.7	The provisions of this GCC Clause 17 shall survive the termination, for whatever reason, of the Contract for "the period specified in the contract"

E. SUPPLY, INSTALLATION, TESTING, COMMISSIONING, AND ACCEPTANCE OF THE SYSTEM

18. Representatives (GCC Clause 18)

GCC 18.1	The Purchaser's Project Manager shall have the following additional powers and / or limitations to his or her authority to represent the Purchaser in matters relating to the Contract: "no additional powers or limitations."
GCC 18.2.2	The Supplier's Representative shall have the following additional powers and / or limitations to his or her authority to represent the Supplier in matters relating to the Contract: "no additional powers or limitations."

19. Project Plan (GCC Clause 19)

GCC 19.1	Chapters in the Project Plan shall address the following subject:
	(a) Project Organization and Management Plan;
	(b) Delivery and Installation Plan

	 (c) Training Plan including hand holding training (last 3 months of completion period) (d) Pre-commissioning and Operational Acceptance Testing Plan (e) Warranty Service Plan (f) Task, Time, and Resource Schedules (g) Post-Warranty Service Plan (h) Technical Support Plan
GCC 19.2	Within seven (7) days from the date of final contract signing, the Supplier shall present a Project Plan to the Purchaser. The Purchaser shall, within seven (7) days of receipt of the Project Plan, notify the Supplier of any respects in which it considers that the Project Plan does not adequately ensure that the proposed program of work, proposed methods, and/or proposed Information Technologies will satisfy the Technical Requirements and/or the SCC (in this Clause 19.2 called "non-conformities" below). The Supplier shall, within five (5) days of receipt of such notification, correct the Project Plan and resubmit to the Purchaser. The Purchaser shall, within five (5) days of resubmission of the Project Plan, notify the Supplier of any remaining non-conformities. This procedure shall be repeated as necessary until the Project Plan is free from non-conformities. When the Project Plan is free from non-conformities. This approved Project Plan ("the Agreed and Finalized Project Plan") shall be contractually binding on the Purchaser and the Supplier.
GCC 19.5	The Supplier shall submit to the Purchaser the following reports: (a) Bi Monthly progress reports, summarizing: (i) results accomplished during the prior period; (ii) cumulative deviations to date from schedule of progress milestones as specified in the Agreed and Finalized Project Plan; (iii) corrective actions to be taken to return to planned schedule of progress; proposed revisions to planned schedule; (iv) other issues and outstanding problems; proposed actions to be taken; (v) resources that the Supplier expects to be provided by the Purchaser and/or actions to be taken by the Purchaser in the next reporting period; (vi) other issues or potential problems the Supplier foresees that could impact on project progress and/or effectiveness. (b) inspection and quality assurance reports; (c) training participants test results; and (d) Monthly log of service calls and problems resolutions throughout

	the contract period including warranty and AMC period.
	20. Subcontracting (GCC Clause 20)
GCC 20	Necessary and appropriate clauses, as per GCC 20.1, 20.2 & 20.3 Clause of Contract applicable to GCC Clause 20."

21. Design and Engineering (GCC Clause 21)

GCC 21.2	The Contract shall be executed in accordance with the edition or the revised version of all referenced codes and standards current at the date "as specified in the GCC,"
GCC 21.3.1	The Supplier shall prepare and furnish to the Project Manager the following documents for which the Supplier must obtain the Project Manager's approval before proceeding with work on the System or any Subsystem covered by the documents. * Blue print of comprehensive plan of city * Blue print of plan of main control centre * Blue print of plan of each station * Layout Drawings * Equipment's Drawings * Final Subsystem configurations * Quality Assurance Plans.

22. Procurement, Delivery, and Transport (GCC Clause 22)

GCC 22.4.3	The Supplier "shall" be free to use transportation through carriers registered in any eligible country "shall" obtain insurance from any eligible source country.
GCC 22.5	eligible source country. Upon delivery of the goods to the transporter/consignee, the supplier shall notify the purchaser and mail the following documents to the Purchaser: (i) Three Copies of the Supplier invoice showing contract number, goods description, quantity, unit price, total amount; (ii) Delivery note, Railway receipt, or Road consignment note or equivalent transport document or acknowledgement of receipt of goods from the Consignee; (iii) Three Copies of packing list identifying contents of each package; (iv) Insurance certificate; (v) Manufacturer's/Supplier's warranty certificate; (vi) Inspection certificate issued by the nominated inspection agency, and the Supplier's factory inspection report; and
	(vii) Certificate or origin. The above documents shall be received by the Purchaser before arrival of the Goods (except where it is handed over to the Consignee with all documents) and if not received, the supplier will be responsible for any consequent expenses.

23. Product Upgrades (GCC Clause 23)

GCC 23.4	The Supplier shall provide the Purchaser: "with all new versions,
	releases, and updates to all Standard Software during the Warranty Period, for free, as specified in the GCC,"
	Feriou, for free, as specified in the GCC,

24. Implementation, Installation, and Other Services (GCC Clause 24)

GCC 24	Implementation: Bidder is required to complete the supply, installation
	and commissioning of the entire system within 540 days from the date of
	final contract signing. However, the bidder is required to specify the
	milestones with target date of completion in the implementation schedule
	given in Section VI.
	The bidder has to quote for the comprehensive AMC charges for 4 years
	starting from the completion of the warranty period.

25. Inspections and Tests (GCC Clause 25)

GCC 25 The supplier shall get each item indicated in the price schedule of requirement along with the complete solution inspected and tested at factory and submit a test certificate and also manufacturer's guarantee /warranty certificate that the items conform to all the laid down technical and functional specifications. The Purchaser or its representative may inspect and /or test any or all the items to confirm their conformity to the contract specification, prior to dispatch from the manufacturer's premises. Such inspection and clearance will not prejudice the right of the consignee to inspect and test the items on receipt at destination to verify conformity to technical specification. If the items are fails to meet the laid down specifications the supplier shall take immediate steps to remedy the deficiency or replace the defective parts of the each to the satisfaction of the purchaser/consignee. The solution consisting of all equipments shall be accepted only after passing the Factory Acceptance Testing (FAT) and Site Acceptance Testing (SAT), as required. The milestones for different acceptance phase shall be as under:-0 – 6 months: Factory Acceptance testing 6 – 15 months : Site Acceptance Testing 15 – 18 months: hand hold Training and Operational acceptance.

26. Installation of the System (GCC Clause 26)

GCC 26	There are no Special Conditions of Contract applicable to GCC Clause
	<i>26.</i>

27. Commissioning and Operational Acceptance (GCC Clause 27)

GCC 27.2.1	Operational Acceptance Testing shall be conducted in accordance with the Technical requirements mentioned in section VI. However, successful, bidder is required to submit detailed Acceptance Test Procedure which was agreed and finalized by Purchaser to meet the Technical/ functional requirements of the system
GCC 27.2.2	If the Operational Acceptance Test of the System, or Subsystem(s), cannot be successfully completed within 90 days from the date of Installation or any other period agreed upon by the Purchaser and the Supplier, then GCC Clause 27.3.5 (a) or (b) shall apply, as the circumstances may dictate.

F. GUARANTEES AND LIABILITIES

28. Operational Acceptance Time Guarantee (GCC Clause 28)

GCC 28.2	The liquidated damage shall be 0.5% of contract price of delayed Goods or Services per week or part thereof. The maximum amount of liquidated damages shall be 10% of the contract price.
GCC 28.3	Liquidated damages shall be assessed as per the following in addition to achieving Operational Acceptance;" If the Supplier fails to deliver any or all the goods or perform services within the time period specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract deduct from the contract price, as liquidated damages, a sum equivalent to 0.5% of the delivered price of the delayed goods or unperformed services for a week or part of a week actual delivery or performance, up to a maximum deduction of 10% of the contract price. Once the maximum is reached, the purchaser may consider termination of the contract, and claim compensation for actual/whole damages.
	compensation for actual whole damages.

29. Defect Liability (GCC Clause 29)

GCC 29.1 The successful bidder s	nall debug and fix the operational problems and
----------------------------------	---

	perform error handling while running the application. The successful bidder shall remove the bugs that will be identified during the contract period.
GCC 29.3 (iii)	The Supplier warrants that the following items have been released to the market for the following specific minimum time periods: No specific minimum time requirements are established for this Contract
GCC 29.4	The Warranty Period shall begin from the date of Operational Acceptance of the System or Subsystem for Two years.
GCC 29.10	During the Warranty Period, the Supplier must commence the work necessary to remedy defects or damage within 24 hours of notification. However if there is a requirement of replacement of the defective part or equipment, same shall be done within 7 days from the date of intimation of such defect. For this purpose, the supplier shall keep 100% mandatory spares and
	10% non-mandatory spares available at site to decrease the downtime for pumping operation.

30. Functional Guarantees (GCC Clause 30)

GCC 30	There are no Special Conditions of Contract applicable to GCC Clause	
	30.	

31. Intellectual Property Rights Warranty (GCC Clause 31)

GCC 31	"There are no Special Conditions of Contract applicable to GCC
	Clause 31."

32. Intellectual Property Rights Indemnity (GCC Clause 32)

GCC 32	"There are no Special Conditions of Contract applicable to GCC Clause 32."

33. Limitation of Liability (GCC Clause 33)

GCC 33	"There are no Special Conditions of Contract applicable to GCC				
	Clause 33."				

G. RISK DISTRIBUTION

34. Transfer of Ownership (GCC Clause 34)

GCC 34	"There are no Special Conditions of Contract applicable to GCC
	Clause 34."

35. Care of the System (GCC Clause 35)

GCC 35	"There are no Special Conditions of Contract applicable to GCC					
	Clause 35."					

36. Loss of or Damage to Property; Accident or Injury to Workers; Indemnification (GCC Clause 36)

GCC 36	"There are no Special Conditions of Contract applicable to GCC	
	Clause 36."	

37. Insurances (GCC Clause 37)

GCC 37.1 (c)	Note: The word "Information Technologies" can be read as SCADA System for the clauses under Insurance clause 37 in GCC				
GCC 37.1 (e)	The Supplier shall obtain Third-Party Liability Insurance in the amount of Contract Value with deductible limits of no more than Contract Value. The Insurance shall cover the period from beginning date, relative to the Effective Date of the Contract until expiration date, relative to the Effective Date of the Contract or its completion.				

38. Force Majeure (GCC Clause 38)

GCC 38	"There are no Special Conditions of Contract applicable to GCC
	Clause 38."

H. CHANGE IN CONTRACT ELEMENTS

39. Changes to the System (GCC Clause 39)

GCC 39	"There are no Special Conditions of Contract applicable to GCC
	Clause 39."

40. Extension of Time for Achieving Operational Acceptance (GCC Clause 40)

GCC 40	"There are no Special Conditions of Contract applicable to GC					
	Clause 40."					

41. Termination (GCC Clause 41)

GCC 41	"There are no Special Conditions of Contract applicable to GCC Clause 41."
	Charles 71.

42. Assignment (GCC Clause 42)

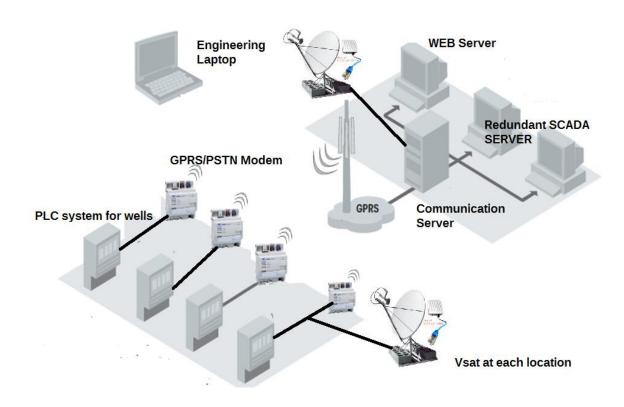
GCC 42	"There are no Special Conditions of Contract applicable to GCC
	Clause 42."

SECTION VI. TECHNICAL REQUIREMENTS (INCLUDING IMPLEMENTATION SCHEDULE)

Technical Requirements

A. Technical Specification for SCADA at Master Control Station

1. Architecture



The SCADA architecture shall provide the following:-

- 1. Redundant SCADA Server to be provided at MCS
- 2. Client / Server architecture based on TCP/IP networking and report-by-exception (RBE) technology.
- 3. The System shall have two SCADA Servers for working in Auto Fail Over mode and a separate server should be available to display SCADA Screens with integrated Web Server.

- 4. The Servers to have auto patch up feature for historical data logged by second server during failure of the primary. This transfer shall include configuration, real-time data, historic data and event lists. Database updates shall be on an incremental basis with tuneable parameters.
- 5. SCADA system to be fully scalable and distributable architecture upto 10 times the current capacity.
- 6. Server designed to be placed outside corporate network providing a read-only access to the server while ensuring corporate security.
- 7. The system shall be capable of being configurable from Engineering Station Provided.
- 8. All redundancy shall be handled by dedicated Fail over Process, with the operational state of systems preserved through a server changeover. The system shall not rely on driver redundancy for data transfer when providing redundant server. The system shall present a uniform view of data including communication status after a fail over.
- 9. Manual changeover to be possible between main and standby allowing seamless changeover without shutting down.
- 10. Clients to connect the Web Server / Client Server.
- 11. Configurable compression of data communications between client/server and server/server to allow optimisation of communications performance over WAN networks.
- 12. Change reporting on Client/Server and Server/Server links rather than polled communication to permit operation on WAN networks.
- 13. Capable of operating Client/Server and Server/Server links over low to medium speed channels depending upon database size.
- 14. Application shall be native 32-bit and 64-bit versions and supported on the proposed Operating system and complying to ICCP for real time data exchange providing features for data transfer, monitoring and control, to enable data exchange over Wide Area Networks between other utility control centres.

2. <u>Database</u>

The SCADA database shall be of true database design and optimized for realtime SCADA operation. The database shall be object oriented and organized in a hierarchical structure. Templates of standard configuration shall support multiple object types including, but not limited to:

- Point / Tag objects
- Mimics or Graphic display objects
- Trend objects
- Logic programs
- Schedules
- Link objects

The SCADA database shall allow users to extend the database scheme to store custom data, in either the configuration or data stream. These changes can be performed online without need for server restart.

3. Operator Interface

- 1. SCADA software shall provide the ability to support multiple local and remote display clients.
- 2. Display facilities shall be available via LAN, WAN and dial-up connection.
- 3. Clients shall support database management and configuration changes.
- 4. Clients shall support multiple monitors (multi-head display), allow logon for all heads from a single location. The system should also provide navigation facilities such that displays on each head can be controlled from any head. (yoking)
- 5. Integrated Web Sever capability shall be available, providing all display and operational facilities of the Client without the need for additional software to be installed.
- 6. Web Clients shall allow users to view Mimics, Trends, Database Objects, Reports as well as perform control functions using a standard web browser.
- 7. Changes made to the SCADA server shall require no additional steps to be performed in order for those changes to be available to Clients and Web Clients.
- 8. Full function display clients shall directly to be connected to Client Server.
- 9. SCADA software shall provide the ability to support multiple platforms like. Reporting, SQL Server, OPC 2.0, VBA, Windows, more etc; based on the proposed solution

- 10. Integration of Windows/Linux and SCADA security. Reduces development & maintenance for applications whether or not using Electronic Signatures
- 11. Security tied to the Windows / Linux security database provides:
 - Password expiration or aging
 - Minimum password length
 - Enforcement of unique password
 - Account lockout after a reasonable number of unsuccessful login / signing attempts
 - Administration of user accounts and password changes in Windows/Linux

12. Build Dynamo Wizard

- Simplifies creating and saving custom built objects as higher level reusable graphic wizards called Dynamos
- Use of Dynamos reduces development time and creates consistent design in operator displays.
- 13. The Item tagging to be Location. TagX, for easy identification of values.
- 14. SCADA to have Tag Group editor function which helps server to reduce no of graphic,

4. Mimics / Graphics

SCADA system Mimics shall support a wide range of graphical facilities. Scalable Vector Graphics are required in order to permit operation of the SCADA system with different resolution clients operating simultaneously. Fixed resolution bitmap graphics are not acceptable.

SCADA system should be able to build graphics as per client/site requirement.

Mimics shall be multi-layered, object oriented and permit mimics to be embedded in other mimics.

256-bit Colour shall be supported on mimics as standard.

Mimics shall support the ability to specify OPC data source information to display directly on the mimic. This permits data from other systems to be seamlessly integrated in to the SCADA display.

Objects embedded and displayed on any mimic shall be viewable through both the full function client and web client displays.

Geo-tracking with ON/OFF operational status for mobile dewatering pumps (42 No. Pumps)

5. Start-up

The SCADA system shall startup unattended, and without compromising system security.

6. Configuration

The SCADA software shall provide full seamless On-line configuration of all database parameters including but not limited to:

- Communication channels
- Points / Tags
- Sequences
- Schedules
- Alarm redirection
- Mimics / Graphics
- Trends/graphs
- Reports
- Group Tags to reduce communication burden.

All aspects of the look and feel of the SCADA system, including default field values, shall be configurable. It is not acceptable for colour regimes, communication parameters and other aspects of the system to be hard-coded.

It shall be possible to add user defined fields to the SCADA database. These fields should be accessible both internally and externally to the SCADA system; being exposed via OPC, ODBC, OLE Automation, etc.

The SCADA server shall provide detailed diagnostics concerning its internal operation. The diagnostics shall be available through capture to a log file as well as online locally on a server and remotely.

Stored configuration records should be maintained in the historic database for a configurable time period, support redundant SCADA server configurations and allow access from standard database interfaces such as queries and simple mechanisms for displaying and filtering the configuration records.

7. Alarm Management

The alarm system shall provide facilities where actions can be triggered by alarms. These facilities shall be provided as a built-in integrated part of the system and shall include, but not be limited to the following:

- Configuration criteria for alarm actions
- Escalate Alarm priority
- Delivery of alarm to users via SMS
- Delivery of alarm to users via E-mail
- Trigger other actions including sequences

Where a full function Client is connected to multiple SCADA systems, alarms from all systems shall be combined and filtered, based on user privilege and areas of responsibility.

Consequential alarms to allow one (or more) alarms to be suppressed as the result of another alarm occurring. Suppressed alarms will be received and processed by the SCADA Server and recorded in the event journal for future auditing, however the operator shall not be forced to take an action on an alarm where the cause is known.

8. Event Journal

The system shall provide, as a built in feature and without the requirement for custom or external software, facilities for event logging. These facilities shall be separate from the alarm list and include the capability to insert user comments at any place in the event list.

9. Historical Data

The SCADA system shall provide a built in data historian for maintaining the logging for past 30 years with first in first out (FIFO) basis with the following facilities as standard features. These shall be provided without the addition of external software modules:

- Time-series relational database
- ODBC / SQL interface to historical (trend) data
- Historical data to be stored with time-stamp, point quality, alarm status
- Historic storage is to be based on configurable criteria including time between samples, alarm state change
- Compression capability

10. System Security & Access

The SCADA system shall provide a high level of inherent security. To this end the SCADA software shall provide security access down to data point level, and support individual Users, User Groups and a matrix of system capability and access to any level of the SCADA database. MCS PLC should be compliance with Achilles level 2 certified or more.

Full function & Web client interfaces shall require explicit administrative configuration to valid connection to the SCADA server.

The SCADA system security shall provide the ability to be integrated with Windows/Linux domains to authenticate logon attempts against a trusted domain.

The proposed Industrial Security Appliance and Network Security Appliance should be ruggedized for providing firewall, threat defence, and VPN services etc.

11. Open Connectivity

To provide easy access for customized reports and external data manipulation the SCADA software shall provide inherent OPC and ODBC database connectivity without the need for additional software options or modules. The Software shall be provided with following connectivity options to 3rd party programs or database:

• OPC Client / Server

- ODBC Client / Server
- Open API

12. Reports

An integrated reporting package shall be able to generate, print and export reports:

- Triggered by SCADA events
- On user demand
- On timed schedules.

Reports shall be able to be generated in a number of formats including:

- HTML for viewing via Web interface
- PDF format
- CSV format
- Open formats compatible to all operating systems.

Generated reports shall be able to be:

• E-mailed to assigned users without manual intervention

13. Standard Drivers

The SCADA system shall provide native support for fully integrated Wide Area SCADA PLC protocols. This shall include the capability for supporting all protocols in redundant SCADA server configurations and support redundant communication paths.

Apart from PLC communication drivers, the system shall also support as standard the following drivers:

- SMS to mobile phones
- SNMP monitoring of network devices such as routers, computers, UPS, etc. through Ethernet Switch.
- NTP time server monitoring and alarming
- Performance Monitoring
- OPC-DA driver
- TCP IP driver

14. Logic

The SCADA system shall support logic sequences/ VBA with full access to all SCADA system services at run time. Programming of sequences shall be to the IEC 61131-3 International Standard and support as a minimum the following languages:

- Ladder Diagrams (LD)
- Function Blocks (FB)
- Structured Text (ST)
- Sequential Function Charts (SFC)

<u>Technical Specification of LARGE Video Screen- Laser Type</u> <u>for Master Control Room (M.C.S)</u>

- 82" LED Display
- 4K UHD (3840 x 2160) Native Resolution
- 120 Hz Refresh Rate
- 300 cd/m² Brightness
- 5000:1 Contrast Ratio
- Built-In Wi-Fi & Ethernet Connectivity
- Integrated Digital Tuner
- 4 x HDMI, 2 x USB Inputs
- Built-In 20W Woofer, Dual 10W Speakers
- Digital Signage-Capable

The MCC (Main Control Centre) Room shall be temporarily located at ERA Complex, Rambagh Srinagar and then to be permanently shifted to Central Control Building at GOGO, Humhama. The MCC room Details shall be as below:-

Total Room Size	500 Sq. Ft.
MCC Room Size	250 Sq. Ft.
Server Room Size	250 Sq. Ft.
Air Conditioner Details	4 Nos., 1.5 Ton Split Air Conditioners are to be
	provided.
UPS	2 Nos, 5 KVA, with Minimum 2 Hours Backup
	with maintenance free batteries
Inverter	1.5 KVA, with 4 hours Battery Backup
Engineering Station Screen	Engineering Station to be a LAPTOP (01 No.)
Size	
Operator Station Screen Size	Minimum 55 Inches Screen to be provided (05
	No's)
Sever Details Minimum	8 Drives (3.5 inch) Hot Plug SATA 1X600GB
	SAS (2.5 inch with 3.5 inch carrier) 10K RPM up

	to 8x3.5" LFF RAID 0,1,5 (H330)DVD Writer,
	Keyboard and Mouse Set, 22" Inch LED Screen
	Operating System with liscence.
	Kit - 600GB 2.5-inch 10K RPM, 12Gbps SAS Hot
	Plug Hard Drive; 3.5 inch HYD CARR
	Kit - Single, Hot-plug Power Supply, 495W.
Software Compatibility	The Server Should be compatible to the following
	software:-
	HMI development Software
	SCADA Top-End Control Strategy development
	Software
	Report Development Software as per SCADA
	requirement
	Full HMI Thick & Thin Client Software
	RTU/PLC Programming Software
	Programming Software
	SCADA system Software
	Firewall and Network Monitoring and
	Management.
Client Server Access	Shall be Provided with Web server & Security
	Access to 10 Persons.
BCC Room	The BCC Room shall be complete system in
	accordance with MCC, with 01 Operator Station
	and shall be at Srinagar, in Kashmir Region of
	J&K.

Specifications of PLC at Pumping station & HMI

The hardware is a unique blend of rugged industrial I/O, real-time multitasking software and powerful communication capabilities. It shall be a locally intelligent unit having local memory and processor installed at a respective control and monitoring location in the water network; this can be a pumping station or a tube well station. The Non Redundant PLC hardware shall be programmable in SFC, IL, LD, ST & FBD.

The high performance modular Non Redundant PLC must be designed to log all the pumping station parameters with time stamping in its NON-VOLATILE memory at the defined logging interval.

The PLC shall be battery backed-up so as to maintain the parameters during power failure. The PLC shall be designed to have communication compatibility for wireless mode viz. for GPRS, Radio, satellite or wired mode viz. Telephone and serial to transmit data and receive commands remotely.

The PLC System shall have Resilient and advanced auto-switching between primary communication as OFC Cable, secondary Communications as GPRS and tertiary communication as VSAT. The PLC & SCADA System should be of Same Make.

Following shall be the minimum design features of the PLC for pumping plant:

- 16-bit or higher dual core processor based CPU
- Data and programming memory of 8 MB and 64 MB respectively.
- 128 MB flash memory for user program back up.
- Having option of data storage=32 GB
- 3 nos. of communication ports with communication requirement as specified above.
- Real Time Clock.
- Timers and counters sufficient as requirement.
- While the design of the offered PLC Hardware shall be as per the site design on case-to-case basis, the offered PLC shall have full expandability.
- Surge withstand 1 kV for transistor output in common mode conforming to EN/IEC.
- Surge Protection Device for PLC Panels to be provided at each location.

15. Environment

- To withstand Temperature from -10 Deg to + 55 Deg C.
- Standards UL, Resistance to conducted disturbances, induced by radio frequency fields
- EN/IEC 1 kV for Ethernet line conforming to EN/IEC
- Standards CSA C22.2 No 142, UL 1604, UL 508, Resistance to conducted disturbances, induced by radio frequency fields
- EN/IEC 61131-2: 2007
- Marine specification (LR, ABS, DNV, GL)
- 1 kV for Ethernet line conforming to EN/IEC 61000-4-4

16. <u>Digital Inputs with following feature</u>

- 16/32 Ch. Configuration
- Input Voltage ranges: 24 VDC, Input current (max): 7 mA @24

VDC/channel

- ON/OFF delay times: 1.6 ms
- Conforming to IEC 61131 2 type 1.
- Input impedance 4.7 K-ohm
- Response time 50 µsec
- Filtering time 1µsec
- Execution Time for 1 kinst. 0.7 msec and 0.3 for event and periodic

Analog Inputs with

- Input Amplification: 1M Ohm for voltage & 50 Ohm for current input
- Maximum allowed overload 13V DC & 40 mA.

17. <u>HMI Specifications</u>

Description	Specification
PLC Make	Schneider/ Siemens/ ROCKWELL/ EMERSON/ ABB/
	Yaskawa/ GE
Minimum Input/outputs	Shall be as per requirement at each site with 20 % Spare
Digital Input	24 V DC / 16 Ch
Operational Voltage	24V DC
Specification	Local indication using LED
Analog Input ranges	0-10VDC, 0-5VDC, 4-20mA, 0-20 mA.
Resolution	16 bit
Digital Output	16 – 24 V DC
Relay type	Relay/transistor Output
Operational Voltage	24V DC

Specification	Local indication using LED
CPU	16 bit Dual core processor
Programming Memory & Data	64 MB for System Memory RAM and 8 MB program,
Memory	32 GB SD card optional.
Clock	Real time clock (RTC)
Analog to digital converter	12/16 bit Resolution
Communication	Serial (1 - RS 232, 1 - RS232/RS485) (GPRS, GPRS,
	Data call, Satellite, Radio modem, serial, Ethernet)
Communication port	1 nos RS 485 (For Communicating with Energy Meter)
	1 nos RS 232/RS 485 (For HMI)
	1 Nos 10/100 base Ethernet port, (For Modem /
	Programming)
	1 Nos USB Port (Programming)
Ethernet Services	Modbus TCP Server/Client
Operating temperature	-10 to 55 deg C.
Storage temperature	-40 to 70 deg C
Humidity	5- 95 % Non condensing
Vibration	3 gn (vibration frequency: 8.4150 Hz) on panel
	mounting
Shock Resistance	15gn for 11 ms
Operating Altitude	0 – 2000m

• Minimum 7" wide 800X480 Pixel LCD display with back-lit to display.

- Inbuilt Ethernet, USB mini port, USB type A for report generation, data lodging, 485 Port embedded.
- 65000 colour
- Real Time Clock
- Minimum Internal memory 48 MB
- Touch Screen.
- Facility to connect printer directly.
- Serial and parallel printing option.
- Data logging
- Inbuilt 2 USB port, 1 No. Ethernet port, 1 No. 485 port and 1 No. 232 port
- CE Mark
- IP65 (Front panel)

18. Specification of Control panel

Control panel should be from CPRI approved manufacturer.

All MCCB should be at least 25 KA or higher fault rating capacity.

Type 2 coordination should be followed.

Drawing and test report should be submitted with panels as specified below at point no. 3.

IP 42 with double door, canopy and supplied with double compression gland for cables, Provision for Cable entry Top & Bottom to be available.

19. <u>Drawings/Documentation of SCADA System</u> Submittals.

- 1. Design Submittals
 - a) Hardware Product Information Submittal
 - b) Power Distribution Submittal
 - c) Software Product Information Submittal
 - d) Connection Diagrams
 - e) Interconnection Diagrams
 - f) Panel Fabrication and Layout Drawings
- 2. Functional design documentation submittal
 - a) Functional Network Design Document
 - b) Functional SCADA Architecture Design Document
 - c) Functional Software Design Document
 - d) Installation Drawings
- 3. System Documentation Submittal
 - a) Operation and Maintenance (O&M) Manuals

- b) Instruction Manual
- c) Preventive Maintenance Instructions
- d) Corrective Maintenance Specific Instructions
- e) O&M Manual drawings
- f) Binders and Electronic Copies
- g) System Operator's Manuals
- h) System Administrator Guide
- i) Software support materials (Program Media, Program Listings, Programmer Manuals, System Configuration Inventory List)
- 4. Testing Documentation Submittals
- 5. Training Documentation Submittals.

COMPLIANCE TABLE

The bidder shall fill in the following compliance tables fully detailing the level of compliance and how the level of compliance is achieved.

Description	Compliance
1. SCADA Architecture	
Client / Server architecture	YES / NO
Redundant Server Operation	YES / NO
Fully automated data transfer between servers	YES / NO
A scalable fully distributable architecture	YES / NO
Configurable compression of data communications	YES / NO
Reporting on both Client Server or Redundant Server	YES / NO
Capable of operating Client/Server and Server/Server links over low to	YES / NO
medium speed channels	
2. Operator Interfaces	
Multiple local and remote clients	YES / NO
Display facilities shall be available via LAN, WAN and dial-up connection.	YES / NO
Integrated desktop Web capability	YES / NO
3. Configuration	
Seamless On-line configuration of all database parameters including but	
not limited to:	
 Communication channels 	
- Points	
- Sequences	
- Schedules	YES / NO
 Alarm redirection 	
- Mimics	
 Trends (historical and Real Time)/graphs 	
- 3D Plots	
- Reports	
Configuration changes shall be capable of being made from local and	YES / NO
remote workstations including a proven support track record from	
government/PSU organisation.	
Changes should be updated automatically in local caches where	YES / NO
appropriate	

Description	Compliance
Look and feel of the SCADA system, including default field values, shall	YES / NO
be configurable	
Possible to calculate the value of internal points without using logic	YES / NO
4. Alarm Management	
Facilities where actions can be triggered by alarms. These facilities shall	YES / NO
be provided as a built-in integrated part of the system"	
 Configuration criteria for alarm actions 	
 Escalate Alarm priority 	
 Delivery of alarm to users via SMS 	
 Delivery of alarm to users via E-mail 	
 Trigger other actions including sequences 	
Integrated paging facilities	YES / NO
Tracking of alarms	YES / NO
Alarms from all systems shall be combined and filtered, based on user	YES / NO
privilege and areas of responsibility	
5. Event Journal	
Built-in feature	YES / NO
Separate from Alarm List	YES / NO
Ability to insert user comments	YES / NO
Event lists shall be obtainable through an SQL-like query	YES / NO
Event data is to be stored in a time-series relational database	YES / NO
The event journal shall support the following:	YES / NO
 ODBC / SQL interface to event data 	
 Filter and browse via full function display client and Web Client 	
6. Historical Data	
In-built historian without the addition of external software components	YES / NO
Time-series relational database	YES / NO
Trends without third part softwares / without the addition of external	YES / NO
software components like ODBC or SQL	
Historical data to be stored with time-stamp, point quality, alarm status	YES / NO
Historic storage is to be based on configurable criteria	YES / NO
Compression capability	YES / NO
Capability to backfill this data in to the historian	YES / NO
A programmable API	YES / NO
Fixed and user configurable views of the historic data tables	YES / NO
Validate historic data prior to exposing it externally to the SCADA	YES / NO
system	

Description	Compliance	
Selectable archiving rates	YES / NO	
Point-by-point storage compression regimes	YES / NO	
Annotation on history samples	YES / NO	
Modification of historic data for normalization and correction	YES / NO	
Auditing of modified or annotated history	YES / NO	
7. System Security		
High level of inherent security	YES / NO	
Security access down to data point level	YES / NO	
Support individual Users and User Groups	YES / NO	
Restricted access to sensitive system information based on user privilege	YES / NO	
Full function client interfaces shall require explicit administrative	YES / NO	
configuration to valid connection to the SCADA server		
Web interface facilities shall provide the capability to operate the Web	YES / NO	
interface using SSL and encrypted data		
Web functionality shall be provided in an integrated way with the web	YES / NO	
server facility tightly coupled with the SCADA database		
Support for OS level Authentication	YES / NO	
8. Open Connectivity		
Inherent OPC and ODBC database connectivity	YES / NO	
Integration with desktop Microsoft products	YES / NO	
OPC Data Access	YES / NO	
ODBC	YES / NO	
OPC Historic Data Access / Alarm & Event	YES / NO	
OLE Automation interface	YES / NO	
.NET support	YES / NO	
ODBC / SQL to the SCADA event database	YES / NO	
Support for specific database packages (e.g. Oracle)	YES / NO	
SQL Export for creating CSV files	YES / NO	
9. Reporting		
Integrated reporting package	YES / NO	
Report generation shall use latest technology in database access	YES / NO	
Reports shall be able to be generated in a number of formats including:		
 HTML for viewing via Web 		
 PDF format 		
- CSV format	YES / NO	
 MS Office® suite format 		
- Crystal Reports 2011		

Description	Compliance
Generated reports shall be able to be:	-
Printed on a local or network printer	YES / NO
Stored on disk file, locally or remotely	
 e-mailed to nominated users 	
10. Standard Drivers	
Native support for fully integrated Wide Area SCADA PLC protocols	YES / NO
Redundant SCADA server configurations and support redundant	YES / NO
communication paths	
Monitor communication statistics, log driver diagnostics, and provide online access to driver and channel diagnostics remotely	YES / NO
Captured diagnostics shall be able to be translated to HTML for analysis	YES / NO
in clear human-readable format	VEC /NO
SMS / Paging	YES / NO
SCADA System performance monitoring - including scan rates, response times, and system loading, Security etc.	YES / NO
OPC-DA driver	YES / NO
11. PLC Protocol Support	
Local serial port communication	YES / NO
Terminal server serial port communication	YES / NO
Ethernet LAN communication via TCP and UDP ports	YES / NO
Time synchronization	YES / NO
Pre-setting output configuration points	YES / NO
Fully integrated incorporation of events from a PLC	YES / NO
Unsolicited exception reporting	YES / NO
update SCADA database point value / alarm state / point quality /	YES / NO
support the ability the backfill time-stamped data in to Event Logs,	YES / NO
Historic Data	
Driver architecture shall support user accessible interfaces to access major	
driver functions.	VEC /NO
- enable / disable outstation communications	YES / NO
trigger an integrity poll	
- alter communication parameters	
maintain current state of target device information	YES / NO

Description	Compliance
redundant server architecture shall retain state information and be able to	YES / NO
receive solicited and unsolicited information from the outstation	
immediately following a server transition	
Modbus Master / Slave serial	YES / NO
Open Modbus/TCP Master / Slave	YES / NO
12. Logic	
Support logic sequences with full access to all SCADA system services at	YES / NO
run time	
Programming of sequences shall be VBA / Ladder / IT/ FBD	YES / NO
functional block librarian	YES / NO
Sequences shall be able to me modified and started and stopped online	YES / NO
Sequence changes shall be a native part of the database and replicated to	YES / NO
redundant SCADA servers	
Data Grids/Data Tables/Data Sets. (Ability to store custom	YES / NO
calculations/data)	
Ability to integrate data storage elements (Data Set Row) into	YES / NO
templates/instances	
13. Pump house PLC	
PLC Processor,	YES / NO
Communication –	YES / NO
1 No. RS 485, 1 No. RS 232/RS 485, 1 No. 10/100 base Ethernet port,	
1No. USB Port	
3 gn (vibration frequency: 8.4150 Hz)	YES / NO
Operating temperature:- (-10 to 55) deg C.	YES / NO

NOTE: - Bidder to submit document against each compliance confirmed above.

List of Confirmations/ Tender Compliance to be filled in by the bidder in his proposal in case of JV. This is to be confirmed and stamped by the O.E.M. of SCADA system.

Point to be confirmed by bidder	Bidder's confirmation
The offered SCADA Software is full development version. The Development environment broadly includes the area that allows generation of graphic screens, alarms screens, tag database, trend screens etc.	Yes/No
The Offered SCADA Software is having unlimited Analog and Digital tags or as required	Yes/No
The Hardware for Pumping Plant is based on PLC	Yes/No
The Pumping plant will be installed with touch screen Display for local operation	Yes/No
The programming software should be Sequential flowchart, ladder, ST, IL & FBD	Yes/No
The analog input resolution is 10/12 Bit	Yes/No
The IO offered by the bidder are 20% spare over and above those mentioned in the tender	Yes/No
The bidder should be an original equipment manufacturer of SCADA & PLC System hardware and software or should be an authorized & certified partner of the OEM of PLC & SCADA system.	Yes/No
Bidder has given a detailed account of the projects executed, and which confirm to the above requirement of the tender.	Yes/No
Bidder has a local service setup for prompt service support for the solutions to be provided by them.	Yes/No
Bidder complies with the design specifications mentioned in the tender.	Yes/No
The SCADA system is compatible to WEB based Remote Monitoring System.	Yes/No
The bidder has given detailed account of projects executed with client's name, address and phone numbers etc., which confirm to the requirement of the corporation. All supporting documents, which confirm to the above requirement must be enclosed with the bid, otherwise the bid will be rejected.	Yes/No
The bidders have given an undertaking from the original manufacturer that they comply with the technical specifications and all the terms of the tender.	Yes/No
The Bidder has acquainted himself with the electromechanical system of the pumping stations at all sites.	Yes/No

INTSTRUMENTS

A. INSTRUMENTS

Level Measuring System

- i. The level transmitter shall be mounted in suitable weatherproof lockable pedestal enclosures near the level sensor.
- ii. Level monitoring devices (the level sensor equipment shall be secured to prevent interference by unauthorized personnel)
- iii. The necessary brackets secure the instruments to be mounted near sump and surge tank.
- iv. Ultrasonic type level measuring devices shall comprise of a transducer, a transmitter, remote level indicator and all other items required to complete the control system.
- v. The level sensor and transmitter shall be a common unit.
- vi. The transducer shall be suitable for flange or bracket mounting as required and shall be environmentally protected as per IP66. It shall have ambient temperature compensation and adjustable datum setting facilities.
- vii. The design and application of this ultrasonic level meters shall take into account the vessel or channel construction, the material size, shape, environment, process fluid or material, the presence of foam, granules, size etc.
- viii. The installation shall avoid any degradation of performance from spurious reflections, absorption, sound velocity variations, sensor detection area, temperature fluctuations, specific gravity changes and condensation. For application where spurious reflections are unavoidable the control unit shall be provided with facilities for spurious reflection rejection.
- ix. The transmitter will be provided an isolated 4-20mA 2 wire o/p along with 2 alarm relay for equipment fault and high level.
- x. To remove the effect of water turbulence in reservoirs averaging facility should be provided in the transmitter unit.

I. <u>Ultrasonic Level Measuring System</u>

(a) General

Accuracy of measuring loop : $\pm 0.5\%$ of full scale

(b) Sensor/transmitter Split type

i. Output : 4-20 mA

ii. Mounting : On top of sumpiii. Range : 10 Meter (site

Calibration Facility)

iv. Programming facility with programmer: Requiredv. Hart Calibrator: Required

(c) Remote Display Unit : Not Required

- (d) Analogue signal multipliers isolation : Required with galvanic
- (e) Standards IEC 60947-5-2
- (f) Product certifications CCSAus UL
- (g) Ambient air temperature for operation -20...60 °C
- (h) Ambient air temperature for storage -40...80 °C
- (i) Vibration resistance +/-1 mm conforming to IEC 60068-2-6 10...55 Hz
- (j) Shock resistance 30 gn in all 3 axes for 11 ms conforming to IEC 60068-2-27
- (k) Resistance to electrostatic discharge 8 kV level 4 conforming to IEC 61000-4-2
- (l) Resistance to electromagnetic fields 10 V/m level 3 conforming to IEC 61000-4-3
- (m)**Resistance** to fast transients 1 kV level 3 conforming to IEC 61000-4-4

II. <u>Level Switch</u>

Level Switch shall be Float type / vibrating foke type mounted on a pipe which can be removed without entering the tank. The float sensor to be mounted at 04 locations

- 1) Low Low Level at this point all the pumps will stop.
- 2) Low level at which only one pump will be left running while water level lowering, this is also a position to indicate and SMS operators of possibility of water rise.
- 3) High Level at this position Level indication will start 50 % of the available pumps

4) High High Level will start all available pumps automatically even if PLC is not working.

Description	Specification
Name of Instrument	Level Switch
Location	Strom Well
Mounting	Mounted on PIPE
Application	Water level
Input	24 V DC
Output	Relay NO/NC
Power supply	24 V DC. or suitable

III. Pressure transmitter

Description	Specification
Pressure range	0-6 KG (Field programmable)
Diaphragm material	SS 316L
Output signal	1-5 V DC, 4-20 m A optional/0-10V
Zero and spam offset	+/- 0.25% of FSD @ 210C
Accuracy	+/- 0.25% of FSD @ 210C
Long term stability	+/- 0.25% of FSD/year
Input power	10-30 V DC
Reverse polarity	Protected
Burst pressure	200% of rated range
Hart compatible	1 Hart Programmer to be supplied along with 10
	Pressure transmitter

IV. Energy meter

Description	Specification
Туре	True RMS Microcontroller based design
	4W/3.3W Balance & unbalanced operation
Accuracy class	1/ 0.5
Cut out size	92 x 92 mm Bezel: 96 x96 x mm

Suitable for	Multi parameter monitoring
Display	Seven Segment display
Casing	Compact 96 x 96 DIN enclosure
Key Pad	4 Functional keys to scroll through display pages for
	system values and programming parameter.
Auxiliary Supply	230 V or 110 V AC
Voltage Input	415 V or 110 V AV (field configurable)
Current rating	5A or 1A AC (field configurable)
Load range	120 % to 0.4% of rated CT primary
Operating P.F.	ZERO LAG to UNITY to ZERO LEAD
Communication	RS 485 output port Standard MODBUS
Operating Temperature	0 to 60OC
Storage temperature	-200C to +700C
Humidity	90% RH, non Condensing

V. <u>Temperature Monitoring for Pump Motor</u>

High Temperature switch is provided in pump which needs to be integrated in MCC for tripping the motor and starting the backup motor.

VI. <u>Dry Run Protection.</u>

Motor to have dry run switch on operation of the switch the pump to stop.

VII. <u>Digital Panel Meters</u>

All the values to be displayed on 7" LED Touch panel provided on the panel..

VIII. Cabinets For Field / Junction Boxes Instruments

A Cabinet shall be provided for enclosing instruments and associated accessories which are mounted outside the control panel such as terminal blocks etc. at all measurement locations.

It shall be fabricated from cold rolled steel minimum 2.0 mm with canopy and double door, with powder coating sheet of standard gauge and shall be suitable for wall mounting or pedestal mounting as required.

The cabinet shall conform to IP-64 protection and shall have built in locking facility. The cabinet shall be earthed properly. A steel plate/pipe, as per the requirement, shall be provided in the cabinet for mounting the instrument and accessories.

IX. <u>Instrument Power Supply Cables And Instrumentation</u> <u>Signal Cables</u>

Cables shall be capable of satisfactorily withstanding without damage, transportation to site, installation at site, and operation under normal and short circuit conditions of the various systems to which the respective cables are connected when operating under the climatic conditions prevailing at the site as indicated in this specification.

Cable joints in instrument signals and power supply cables shall not be permitted.

Cables shall be capable of satisfactory performance when laid on trays, in trenches, conduits, ducts and when directly buried in the ground.

Cables shall be capable of operating satisfactorily under a power supply system voltage variation of $\pm 10\%$.

B. OPERATION & MAINTENANCE:

Daily Check – GPS Transmission, System Diagnostic alarms.

Monthly Check – Sensors & system cleaning, data backup, Parameter Calibration as specified in calibration schedule.

Periodic Check – System validation with known standards, Laboratory & Online parameters Comparative.

C. REPORTING:

The suppliers have to provide central server at Control Centre with latest software to view the data in graphical/ tabular format and also to compare the data features. In the event of transmission loss the time stamped data in the data logger memory must be transmitted to fill from the last transmission break with a stamp of time delay. The software should have two way communications, so

that data from the system can be seen whenever desired and remote of controller/data logger can be taken to visualize the immediate status of the system.

D. DATA MANAGEMENT:

Considering the heterogeneity of real time monitoring systems. This mechanism will help in consolidating the data avoiding the complexity of different technologies and availability of monitored data in different data formats and at the same time involving the instrument suppliers in data transferring mechanism. The system enables two ways communication required to manage such real time systems.

E. THE BASIC FUNCTIONAL CAPABILITIES OF SUCH SOFTWARE SYSTEMS SHALL INCLUDE:-

The system should be capable of collecting data on real time basis without any human intervention. The data generation, data pick up, data transmission; data integration at server end should be automatic. The submitted data shall be available to the Control Centre for immediate corrective action. Raw data should be transmitted simultaneously to Control Centre. Configurations of the systems once set up (through remote procedure) and verified, should not be changed. In case any setting change is required it should be notified and recorded through the authorized representatives only.

The data submitted electronically shall be available to the data generator through internet so that corrective action if any required due to submission of erroneous data can be initiated by the industry. The software should be capable to verify the data correctness which means at any given point of time the regulatory authorities/data generator should be able to visualize the current data of any location's specific parameter.

A system for data validation shall be incorporated in the software with two stage/three stage validation and fixed responsibilities of stakeholders as below;

i. Data Generator:

ii. Authorized Staff:

iii. Other Concern Authorities:

The software should be capable of analyzing the data with statistical tools and shall have the following capabilities:

- Statistical data analysis (customizable) for average, min., max., diurnal variation.
- Capability of comparison of data with respect to standards/threshold values.
- Auto report and, auto mail generation etc.
- Providing data in export format on continuous basis through central/station computer system to other system.

F. DATA STORAGE WITH POWER BACK UP FACILITY.

System should be connected to a backup power source with adequate capacity to avoid any power disruption. Considering the large volume of data required to be collated, compiled, processed and interpreted a software system will be developed in future, exploring common data format to collect data from different servers to a common server.

INSTALLATION SPECIFICATIONS (GENERAL)

I. Cable Installation Specifications

The contractor shall follow all the IS rules & regulations.

 Cable shall generally be installed in trenches and buried in ground except for some short run in trays below the floor. Cables are laid on trays and risers shall be neatly dressed and clamped at an interval of 1500 mm and 900 mm for horizontal and vertical cable runs.

- The clearance between electrical power & data cables must be maintained 6" min. throughout the route.
- The shield of cable must not be removed up to cable entry to I/O.
- The twist of cable must be maintained up to final termination.
- The insulation twist shield shall not be damaged while pulling the cable.
- The termination and connection of cables shall be done strictly in accordance with drawings and/ or directed by the Engineer. The work shall include all clamping, glanding, fitting, fixing, tapping, crimping and grounding as required.
- The vendor shall perform all drilling, cutting on the gland plate and any
 other modification required and plugging the extra holes. The vendor
 shall provide on control cable cores at all terminations. Termination and
 connections shall be carried out in such a manner as to avoid strain on
 the terminals.
- The vendor shall supply the required cable double compression glands
 of suitable type and size. Cable glands shall be of heavy duty, tinned
 brass, single/ double compression type complete with necessary armour,
 clamp and tapered washer etc. Cable gland shall match with the size of
 different control cables. They shall provide dust and leak proof
 terminations.
- The vendor shall make every effort to minimize wastage during erection work. In any case, the wastage shall not exceed 2.5 % for total quantity of cable supplied.

II. General Installation

- Phasing out NO/NC contacts in panels for breaker auxiliary switch for on/off indications, along with necessary wiring.
- Phasing out of spare NO/NC contacts in panels for "Auto Trip" indication with necessary wiring.
- Installation, earthing, testing and commissioning of PLC panel along with necessary wiring for above mentioned points.
- Supplying, installation, testing and commissioning of hardware, peripherals etc.
- Supplying, installation, testing, customization of software
- Submission of cable schedules, wiring schedules, test reports, final "AS BUILT" drawings etc.
- Handing over the system as a whole after becoming fully operational to the Enigma.

 Although it may not be specified here, but all other work required for successful installation, testing and commissioning shall be in Bidder's scope.

III. ADDITONAL TECHNICAL SPECIFICATIONS

Instrumentation Cables

- i. Cables for 24 V DC signals & 4-20 mA DC signals: 660 V/1100 V annealed, tinned, high conductivity 1.0 sq.mm stranded copper conductor, extruded PVC insulated two/three cores twisted into pair/traid, laid up collectively, individual pair/traid shielded and overall shielded with aluminium mylar tape, ATC drain wire run continuously in contact with aluminium side of the tape, inner sheathed with extruded PVC, armoured with galvanised steel wire, overall sheathed with extruded FRLS PVC conforming to IS 1554, BS:5308 & IEC:189 Part II.
- ii. Cables for 230 V AC/ 110 V DC signals: 660V/1100 V grade multicore cables, multistranded high conductivity annealed 1.5 sq.mm. stranded tinned copper conductor, extruded PVC insulated, inner sheathed with extruded PVC, armoured with galvanized steel wire, overall sheathed with extruded FRLS PVC conforming to IS 1554, BS: 5308 & IEC: 189 Part II.

Cabinets for Field Instruments

- i. It shall be fabricated from cold rolled steel with powder coating sheet of minimum 2 mm thick and shall be suitable for wall mounting or pedestal mounting as required.
- ii. The cabinet shall be properly painted from inside by white paint and from outside by paint shade RAL 7032. The cabinet shall conform to IP-65 protection and shall have built- in locking facility.
- iii. The cabinet shall be earthed properly. A steel plate/pipe, as per the requirement, shall be provided in the cabinet for mounting the instrument and accessories.

Mounting

- i. All equipment on front of panel shall be mounted flush or semi flush. In case of semi-flush mounting, only flange or bezel shall be visible from the front. Equipment shall be mounted such that removal and replacement can be accomplished individually without interruption of service to adjacent equipment. Equipment mounted inside the panel shall be so located that terminals and adjacent devices are readily accessible without the use of special tools. Terminal markings shall be clearly visible.
- ii. Cut-outs and wiring for free issue items, if any, shall be according to corresponding equipment manufacturer's drawing. Cut-outs, if any, provided for future mounting of equipment shall be properly blanked-off. Wherever required, panels shall be matched with other panels in the control room in respect of dimensions, colour, appearance and arrangement of equipment on the front.

Earthing for Instruments

The panel shall be equipped with an instruments earth bus securely fixed along the inside base of panel. All metallic cases of relays, instruments and other panel mounted equipment and cable shields, shall be connected to the instrument earth bus. Looping of earth connections, which would result in loss of earth connection to other devices when the loop is broken, shall not be permitted. However, looping of earth connections between equipment to create alternative paths to earth bus shall be provided. A separate instrumentation earth bar mounted on insulating supports (a 'clean' earth) shall be provided within the panels. Instrumentation and control cable screens shall be connected to this earth. Earth for instruments shall be separate from electrical station earth.

Frame Earthing

All metal parts other than those forming part of an electrical circuit shall be connected to a copper earth bar run along the inside bottom of the panel. The minimum section of the earth bar shall be 25 mm x 3mm. Contractor shall carry out connection of the earth bar to the station earth.

Space Heater

Space heaters of adequate capacity shall be provided inside control panels to prevent moisture condensation on the wiring and panel-mounted equipment when the panel is not in operation. The heaters shall operate on 230/110 V AC. Heaters inside the panels shall not be mounted close to the wiring or any panel mounted equipment. Thermostats shall control the operation of heaters.

Interior Lighting and Receptables

Each panel shall be provided with either a fluorescent or filament lighting fixture rated for 230V, 1 phase, 50 Hz supply for the interior illumination of the panel during maintenance. The illumination lamp shall be operated by door switch as well as manual switch. Each panel shall be provided with 230V, 1 phase, 50 Hz, combined 5 amps and 15 amps, 3 pin receptacles with a switch and neon indicating. The receptacle with switch shall be mounted inside the panel at a convenient location. Voltage Level and Power Supply Units Voltage levels for control schemes and power supply for instruments shall be limited to regulated 24 V DC.

Labels

All the equipment mounted on the front facia of control panel as well as equipment mounted inside the panels shall be provided with individual labels with equipment designation engraved. The labels shall be mounted directly below the respective equipment. Also the panel shall be provided at the top with a label engraved with panel designation.

Switches and Miniature Circuit Breakers (MCBs): Each control panel shall be provided with necessary arrangement for receiving, distributing, isolating and protecting of DC and AC supplies for various control, signalling, lighting and space heater circuits. The incoming and sub-circuits shall be separately provided with Miniature Circuit Breakers (MCBs). Potential circuits for relaying and metering also shall be protected by MCBs.

Terminal Blocks

Terminal blocks shall be 660V grade, 20 amps rated, one-piece moulded, complete with stud type terminals, washers, nuts and lock nuts and

identification markings. Terminal block design shall include a white fiber marking strip with clear plastic, hinged terminal covers. Markings on the terminal strips shall correspond to wire numbers on the wiring diagrams. All spare contacts and terminals of the panel mounted equipment and devices shall be wired to terminal blocks. There shall be a minimum clearance of 250 mm between the first row of terminal blocks and the associated cable gland plate. Also the clearance between two rows of terminal blocks shall be a minimum 250 mm. Panel internal wiring shall not be looped directly from instrument to instrument. The same shall be looped through the panel terminal block only. If accidental short circuiting of certain wires is likely to result in malfunction of equipment, such as closing or tripping of a breaker or positive and negative wires, these wires shall not be terminated on adjacent terminal blocks.

Cable Supports

All external cables shall present a neat appearance and shall be suitably braced, placed in troughing clipped or laced to prevent effects of vibration.

Terminal Identification

Every terminal and test plug shall be uniquely identified within the terminal cabinet by means of a terminal number. Appropriate labels shall be used to permit quick and unambiguous identification of each terminal and test plug.

Painting of Control Panel:

All sheet steel work shall be phosphated in accordance with the following procedure:

- a) Oil, grease, dirt and swarf shall be thoroughly removed by emulsion cleaning. Rust and scale shall be removed by trickling with clean water followed by final rinsing with dilute dichromate solution. The control panel shall be powder coated with thickness of coating of minimum 60 microns shall be provided. QA test certificate shall be furnished for thickness adhesion and hardening of powder coating.
- b) Service: For Automatic operation and monitoring of pumps
- c) Type: Free standing
- d) Construction: Prefabricated and modular construction
- e) Sheet Material: Cold rolled sheet steel
- f) Sheet thickness: 2 mm for all the sides, 3 mm for gland and mounting plate
- g) Internal Lighting: Required
- h) Cable Entry: Bottom and TOP both

i) Access: Front and Rear

j) External Colour of the panel: RAL 7032

k) Internal colour of the panel: Glossy white / RAL 7032

SPECIFIC REQUIREMENTS FOR SOFT STARTERS

- (i) The Soft Starter shall be suitable for operation on specified Voltage at 415V, 3 Ph, 50 Hz A.C. supply and suitable for connection between Breaker and Motor. The Soft Starter shall be rated equivalent to or more than the motor rated power and shall be capable of operating satisfactorily with the motor under the various loading and starting conditions of the motor over the entire operating range.
- (ii) Soft starter should have IEC-60947-4-2, IEC 61000-4-12 level 3, IEC 61000-4-2 level 3, IEC 61000-4-4 level 4 etc.
- (iii) Soft starter shall be electronic type. The Soft Starter rating offered shall not be less than the rated KW of the motor. The Soft Starter shall reduce the starting current of the motor up to 300% of the full load current of the motor. The Soft Starter shall control the starting torque in such a manner so as to effect smooth starting of the motor drive. The Soft Starter shall be provided with suitably rated ammeter to indicate the motor current during starting.

(iv)Protection of soft starter

Soft starters should have the feature of overload protection adjustable from 0-100% or the rated current. This setting should not affect the starting or running torque of the motor. In addition to this following protection is also desirable

- a) Inverse time over current trip
- b) Under voltage protection
- c) Phase loss
- d) Electronic fuse
- e) Line to ground Fault
- f) Stalling protection
- g) Motor terminal voltage regulation for high line voltages
- h) Auxiliary control functions through various relays
- i) Auxiliary trip (heat sink temp. high, etc.)
- j) Power loss
- k) Excessive start / hour

- 1) Phase reversal
- m) Under load/ Overload
- (v) RC snubber network circuits on each phase assembly shall be provided to avoid the component damage.
- (vi) The SCRs shall be rated for a minimum peak inverse voltage rating of 1600 volts
- (vii) The starter shall be three-phase, 50HZ and rated for the kW, current, and voltage as the motor data. Soft starter shall be designed for input for fault level 50kA, 1 sec.
- (viii) The soft starter should be provided with front key pads and back lit LCD display. It shall able to display measure values such as Voltage, Current, Power, Line frequency, Heat sink temperature, and other tripping parameters. Panel should have a reset push button to reset the fault without opening the panel.
- (ix) Soft starter shall be provided with interposing relays (IPRs) with coil voltage rated for 24V DC for receiving circuit breaker/contactor close/open commands from PLC / RTU. Critical feedback status signals to PLC / RTU shall be through hard-wired (NO/NC) contacts.
- (x) The following control function adjustments on the device keypad are required:
 - a) Selectable Torque Ramp Start or Current Limit Start
 - b) Adjustable Kick Start Time, 0-2 seconds
 - c) Adjustable Kick Start Torque, 0-85%
 - d) Adjustable Ramp Start Time; 0.5-180 second
 - e) Adjustable Initial Starting Ramp Torque; 0-85%
 - f) Adjustable Smooth Stop Ramp Time; 0-60 seconds.
- (xi) The starting current shall be limited to 2.5 −3 Times of full load current of motor with the ramp up time adjustable between 0-30 sec. and ramp down time bet.0-60 sec.
- (xii) Soft starter shall be provided with MCCB on incoming side for short circuit protection.
- (xiii)Apart from individual indication of each fault, common fault contact shall be available for remote wiring.
- (xiv) The paralleling run bypass contactor shall energize when the motor reaches 90% of full speed and close/open under 1 times motor current.
- (xv) The paralleling run bypass contactor shall utilize an intelligent coil controller to limit contact bounce and optimize coil voltage during varying system conditions.

- (xvi)Control power shall be 24V DC/110V AC as standard for safety and reliability. Control transformer 415/110V AC and 110V AC to 24DC redundant converters to be provided for deriving the control voltages.
- (xvii) Soft starter shall be designed for continuous operation of 110% rated current
- (xviii) Soft starter and MCCB shall be tested for type 2 coordination. Type 2 coordination chart shall be furnished for Purchaser's review.
- (xix)Bidder shall clear indicate the electrical protections provided in the soft starter.

Constructional requirements

- i. Soft starter panel shall be free standing, floor mounting type with only front access (dead rear access), dust and vermin proof.
- ii. Doors, covers, load bearing plates and frame and non load bearing plates of the Panels shall be fabricated from 2mm thick CRCA sheet steel. Base frame shall be fabricated from 3 mm thick CRCA sheet steel.
- iii. All steel surfaces shall be thoroughly cleaned by grit blasting or chemical agents, as required to produce a smooth surface free of scales, grease and rust. The external surfaces after cleaning shall be given a coat of high quality red oxide or yellow chromate primer followed by filler coats. The enclosure shall be finished with two coats of epoxy paint. The paint shade shall be RAL 7032.
- iv. Cable Entries for Incoming and Outgoing (Power and control)

 Cables shall be from the bottom / TOP
- v. The Panel shall be of modular construction. The electronic control system assembly rack shall be hinged on the control panel frame permitting free access for checking and testing. Components inside the module shall be arranged in logical manner for ease of maintenance.
- vi. Compartments with doors for access to operating mechanism shall be so arranged as not to allow access to live circuits. Soft starter cubicle shall be provided with hinged door on the front with facility for padlocking door handle. All live parts shall be provided with suitable shrouds and warning labels.
- vii. The soft starter cubicle shall be indoor, metal enclosed, floor mounted of uniform height, dust and vermin proof construction with IP-52 degree of protection.

- viii. Proper Cooling shall be provided for electronic components. All removable covers shall be gasketed all around with neoprene gaskets. All louvers shall have removable screens with wire mesh. The screens and grills shall be made of either brass or G.I. wire mesh with mesh size of less than 1 mm.
- ix. The soft starter cubicle shall be provided with base frame, which can be directly welded to the insert plates provided in the floor slab.
- x. All indicating lamps shall be of clustered LED type.

Earthing

- i. An earthing bus shall be provided and extended throughout the length of the starter panel. It shall be bolted to the framework of each unit and brazed to each breaker earthing contact bar.
- ii. The earth bus shall have sufficient cross section to carry the momentary short time fault current 50kA, 1 sec without exceeding maximum allowable temperature rise and causing damage to the switchgear.

Instrument Transformers

- The CTs shall be of either cast resin or air core type shall be able to withstand the thermal and mechanical stress resulting from the rated short time withstand and peak withstand current ratings of the switchgear.
- ii. CTs shall be provided with disconnected type test links in both secondary leads for carrying out current and phase angle measurement metering CTs shall have accuracy class 1.0, ISF < 5 and rated burden 10VA and protection CTs shall have accuracy class 5P20 and rated burden 15VA.

Wiring Details

All wiring shall be carried out with 650 V grade, single core, stranded copper conductor wires with FRLS-PVC insulation and shall be vermin and rodent proof. The minimum size of the stranded copper conductor used for panel wiring shall be as follows:

i. All circuits except CT circuits: 1.5 mm2 per lead

ii. ii) CT circuit : 2.5 mm2 per lead

TESTING

The Soft Starter Panel shall be tested as per IEC standards & attached QAP. Combine test certificate for soft starter & applicable motor shall be provided.

DRAWINGS AND DOCUMENTS

Following data shall be submitted within the period 4 weeks of placement of purchase order, for the PURCHASER'S approval.

- a) General arrangement drawings showing outline dimensions, cable entry openings, fixing/foundation details, weights and door openings.
- b) Front & cross section views showing arrangement details of equipment and terminals and with a Bill of Material for all equipment.
- c) Schematic diagram indicating terminal number for external connections & block diagram of control system.
- d) MANUFACTURER'S technical literature on various equipments supplied.
- e) Wiring diagram of complete inverter. This shall be based on approved schematic drawing. The correctness of this drawing shall be the responsibility of the VENDOR.
- f) Test certificates for the cabinet and all individual equipments and performance load tests shall be submitted at least 2 weeks before dispatch of equipment.
- g) Operation and maintenance manuals shall be furnished with the equipment.
- h) Detailed drawing of converter showing layout of power semiconductors, fuses, heat sinks, cooling system etc.
- i) Details of testing procedures for power semiconductors and power converters as per Standards/Code of Practice for approval.

Supplier shall take up manufacture after the Purchaser has approved the drawings. Three prints of all drawings and documents shall be submitted for approval. After execution of the order, one set of reproducible, three sets of documents in hard copies and two sets of CDs with all scanned copies of documents, drawings, data sheets, quality documents, test reports and characteristic curves shall be supplied.

INSTRUCTION MANUALS

Supplier shall furnish three hard copies of instruction manuals and two CDs with completely scanned copies of documents covering storage, installation,

detailed assembly, disassembly procedures, operation and maintenance of the soft starters.

Instruction manual shall include one set of all approved drawings, a complete part list, descriptive literature for all components.

In addition, three copies of the above instruction manual shall be supplied with each soft starter panel.

GPRS MODEM:

- Wire-bound interface (RS232) for connecting an PLC/ Energy Meter
- Radio interface (wireless M-Bus) to connect additional meters, such as gas, heat, etc. (S & T mode)
- M-Bus is encrypted with AES-128
- Data transport to central infrastructure via GPRS
- Mounts on top hat rail in installation cabinet
- TCP/IP as transport technology
- IP telemetry
- SML transport protocol (application protocol)
- Bidirectional communication with electronic domestic supply meter
- Time server function for connected sensors and actuators
- Remote firmware update
- Capable of transmitting data to two different servers
- Capable of having 2 SIM cards and automatically selecting best signal to transmit the data.

SURVEILLANCE CCTV SYSTEM

Surveillance CCTV system is required to ensure effective surveillance of pumping stations as well as create a tamper proof record for post event analysis. The System shall provide an on- line display of video images on TFT monitors/Video Wall/Large plasma monitors located in Central. System should facilitate viewing of live and recorded images and controlling of all cameras by the authorized users present in the LAN.

System should provide inter-operability of hardware, OS, software, networking, printing, database connectivity, reporting, and communication protocols. System expansion shall be possible through off-the-shelf available hardware.

FUNCTIONAL DESIGN SPECIFICATION (FDS)

The Functional Design Specification (FDS) shall be submitted to the Department within 3 months of the award of contract and approved before manufacture and purchasing commences. The system vendor and/or Contractor shall include the following as a minimum:

- a) Project Overview, design concept, criteria and system architecture
- b) Description of the design and design criteria.
- c) Details of associated equipment.
- d) Plant Operating Screens (mimics)
- e) Instrumentation Design Specifications
- f) Quality Plan.
- g) Outline of acceptance test procedures (FAT & SAT).
- h) Implementation program for manufacture, installation and commissioning.
- i) Manufacturer's literature for each item of equipment supplied.
- j) Outline of factory and site acceptance test procedure.

TRAINING OF STAFF

It will be duty of the contractor to train all staff as recommended by department. Training registered should have maintained and it should happen every year so that department staff becomes self reliance. Soft copy of all manuals and dos and don't dos should be in details. After successful completion of training the contractor/bidder is responsible to assess the knowledge of the staff and should carry out an assessment for boosting staff confidence.

SCOPE OF AMC

As per tender and BOQ, successful bidder has to compliance and will executed AMC as per quoted accepted rate. AMC products will be only those products supplied by the contractor and replace products should be either same model No's or upgrade model No's after taking approval from concern authority.

DETAILS OF PERSONNEL:

The Bidder must demonstrate that it will have the personnel for the key positions that meet the following requirements. The supplier shall require the purchasers consent to substitute or replace the Key Personnel (reference the Particular Conditions of Contract 9.1).

S. No	Designation of Personnel (Position)	No.	Minimum Qualification	Minimum years of experience	Minimum experience in SCADA System.
1.	Project Manager	01	B.E (Mechanical/ IT/ Computer/ Instrumentation)	15 Years	10 Years
2.	Instrumentation Engineer	01	B.E (E&C/Instrumentation)	10 years	5 Years
3.	IT / Networking Engineer	01	B.E (IT/Computer)	10 years	5 years
4.	Electrical/ Mechanical Engineer	01	B.E (Electrical/Mechanical)/ Diploma (Elec./Mech.)	7 / 10 years	5 years

The Bidder must not have in his employment:

- i. A near relations (defined as first blood relations, and their spouses, of the bidder or the bidder's spouse) of persons of Jhelum Tawi Flood Recovery Project / JKERA.
- ii. Without Government permission, any person who retired as gazetted officer within the last one year.

The Bidder shall provide details of the proposed personnel and their experience records along with the bid.

E. IMPLEMENTATION SCHEDULE

The milestones for different acceptance phase shall be as under:-

0-6 months: Factory Acceptance testing

6 – 15 months: Site Acceptance Testing

15 – 18 months: hand hold Training and Operational acceptance.

However, the dewatering stations shall be handed over in following three phases from the date of award of contract as detailed below:-

Phase I : 0-5 months (32 Stations)

Phase II : 5-10 months (24 Stations)

Phase III : 10-15 months (24 Stations).

F. REQUIRED FORMAT OF TECHNICAL BIDS

5.1 Description of Information Technologies, Materials, Other Goods, and Services

- 5.1.0 The Bidder must provide detailed descriptions of the essential technical, performance, or other relevant characteristics of all key Information Technologies, Materials, other Goods, and Services offered in the bid (e.g., version, release, and model numbers). Without providing sufficient clear detail, Bidders run the risk of their bids being declared non-responsive.
- 5.1.1 To assist in the bid evaluation, the detailed descriptions should be organized and cross referenced in the same manner as the Bidder's item-by-item commentary on the Technical Requirements described in Section 5.2 below. All information provided by cross reference must, at a minimum, include clear titles and page numbers.

5.2 Item-by-Item Commentary on the Technical Requirements

- 5.2.0 The Bidder must provide an item-by-item commentary on the Purchaser's Technical Requirements, demonstrating the substantial responsiveness of the overall design of the System and the individual Information Technologies, Goods, and Services offered to those Requirements, see ITB Clause 16.2 (b) (ITB Clause 14.2 (b) in the two-stage SBD).
- 5.2.1 In demonstrating the responsiveness of its bid, the Bidder is strongly urged to use the Technical Responsiveness Checklist provided in Section G of the Technical Requirements. Failure to do so, increases significantly the risk that the Bidder's Technical Bid will be declared technically non-responsive. Among other things, the checklist should contain explicit cross references to the relevant pages in the Bidder's Technical Bid.

5.3 Preliminary Project Plan

5.3.0 The Bidder must prepare a Preliminary Project Plan describing, among other things, the methods and human and material resources that the Bidder proposes to employ in the design, management, coordination, and execution of all its responsibilities, if awarded the Contract, as well as the estimated duration and completion date for each major activity. The Preliminary Project Plan must also address the topics and points of emphasis specified in "SCC Clause 19" including any additional items stated in the Bid Data Sheet for ITB Clause 16.2 (c) (ITB Clause 14.2 (c) in the two-stage SBD) J. The Preliminary Project Plan should also state the Bidder's assessment of the major responsibilities of the Purchaser and any other involved third parties in System supply and installation, as well as the Bidder's proposed means for coordinating activities by each of the involved parties to avoid delays or interference.

- 5.3.1 In addition to the topics and points of emphasis, the Preliminary Project Plan MUST address what steps will be taken if there is a failure; how project progress will be reported; etc. .
- 5.3.2 Any additional requirements regarding the format of the Preliminary Project Plan, for example, must it be submitted in a specific word processing format, in addition to hard copy, etc.

5.4 Confirmation of Responsibility for Integration and Interoperability of Information Technologies

5.4.0 The Bidder must submit a written confirmation that, if awarded the Contract, it shall accept responsibility for successful integration and interoperability of all the proposed Information Technologies included in the System, as further specified in the Bidding Document.

G. TECHNICAL RESPONSIVENESS CHECKLIST

Technical Responsiveness Checklist

Note to Bidders: The following Checklist is provided to help the Bidder organize and consistently present its Technical Bid. For each of the following Technical Requirements, the Bidder must describe how its Technical Bid responds to each Requirement. In addition, the Bidder must provide cross references to the relevant supporting information, if any, included in the bid. The cross reference should identify the relevant document(s), page number(s), and paragraph(s). The Technical Responsiveness Checklist does not supersede the rest of the Technical Requirements (or any other part of the Bidding Documents). If a requirement is not mentioned in the Checklist, that does not relieve the Bidder from the responsibility of including supporting evidence of compliance with that other requirement in its Technical Bid. One- or two-word responses (e.g. "Yes," "No," "Will comply," etc.) are normally not sufficient to confirm technical responsiveness with Technical Requirements.

Tech. Require. No. 1	Technical Requirement:	Mandatory				
	Detailed concept plan alongwith methodology					
Bidder's technical reasons supporting compliance:						
Bidder's cross reference	es to supporting information in Technical Bid:					

Tech. Require. No. 2	Technical Requirement:	Mandatory						
	Detailed technical specifications alongwith literature of equipments offered							
Bidder's technical reas	Bidder's technical reasons supporting compliance:							
Bidder's cross reference	ees to supporting information in Technical Bid:							

H. ATTACHMENTS

No Attachments

SECTION VII. SAMPLE FORMS

Notes to Bidders on working with the Sample Forms

The Purchaser has prepared the forms in this section of the Bidding Documents to suit the specific requirements of the System being procured. They are derived from the forms contained in the World Bank's Standard Bidding Documents for the Supply and Installation of Information Systems. In its bid, the Bidder must use these forms (or forms that present in the same sequence substantially the same information). Bidders should not introduce changes without the Purchaser's prior written consent (which may also require the clearance of the World Bank). If the Bidder has a question regarding the meaning or appropriateness of the contents or format of the forms and/or the instructions contained in them, these questions should be brought to the Purchaser's attention as soon as possible during the bid clarification process, either at the pre-bid meeting or by addressing them to the Purchaser in writing pursuant to ITB Clause 10.

The Purchaser has tried to provide explanatory text and instructions to help the Bidder prepare the forms accurately and completely. The instructions that appear directly on the forms themselves are indicated by use of typographical aides such as italicized text within square brackets as is shown in the following example taken from the Bid Submission Form:

Duly authorized to sign this bid for and on behalf of [insert: name of Bidder]

In preparing its bid, the Bidder must ensure all such information is provided and that the typographical aides are removed.

The sample forms provide a standard set of documents that support the procurement process as it moves forward from the stage of bidding, through Contract formation and onto Contract performance. The first set of forms must be completed and submitted as part of the bid prior to the deadline for bid submission. These include: (i) the Bid Submission Form; (ii) the Price Schedules; (iii) the Manufacturer's Authorizations and key Subcontractor agreements; (iv) the List of Proposed Subcontractors; (v) the form(s) for securing the bid (if and as required); and other forms as found in sub-sections 1 through 4 of this Section VII of the Bidding Documents.

Bid Submission Form: In addition to being the place where official confirmation of the bid price, the currency breakdown, the completion date(s), and other important Contract details are expressed, the Bid Submission Form is also used by the Bidder to confirm - in case adjudication applies in this Contract - its acceptance of the Purchaser's proposed Adjudicator, or to propose an alternative. If the bid is being submitted on behalf of a Joint Venture, it is essential that the Bid Submission Form be signed by the partner in charge and that it be supported by the authorizations and power of attorney required pursuant to ITB Clause 6.2. Given widespread concern about illegal use of licensed software, Bidders will be asked to certify in the Bid Submission Form that either the Software included in the bid was developed and is

owned by the Bidder, or, if not, the Software is covered by valid licenses with the proprietor of the Software.

• Price Schedules: The prices quoted in the Price Schedules should constitute full and fair compensation for supply, installation, and achieving Operational Acceptance of the System as described in the Technical Requirements based on the Implementation Schedule, and the terms and conditions of the proposed Contract as set forth in the Bidding Documents. Prices should be given for each line item provided in the Schedules, with costs carefully aggregated first at the Subsystem level and then for the entire System. If the Price Schedules provide only a summary breakdown of items and components, or do not cover some items unique to the Bidder's specific technical solution, the Bidder may extend the Schedules to capture those items or components. If supporting price and cost tables are needed for a full understanding of the bid, they should be included.

Arithmetical errors should be avoided. If they occur, the Purchaser will correct them according to ITB Clause 26.2 (ITB Clause 38.2 in the two-stage SBD) without consulting the Bidder. Major omissions, inconsistencies, or lack of substantiating detail can lead to rejection of a bid for commercial non-responsiveness. Presenting prices according to the breakdown prescribed in the Price Schedules is also essential for another reason. If a bid does not separate prices in the prescribed way, and, as a result, the Purchaser cannot apply the domestic preference provision described in ITB Clause 29 (ITB Clause 41 in the two-stage SBD), if they are applicable in this bidding, the Bidder will lose the benefit of the preference. Once bids are opened, none of these problems can be rectified. At that stage, Bidders are not permitted to change their bid prices to overcome errors or omissions.

- Manufacturer's Authorizations and written agreements by key Subcontractors: In accordance with ITB Clauses 6.1 (b) and (c), a Bidder may be required to submit, as part of its bid, Manufacturer's Authorizations in the format provided in the Bidding Documents, and agreements by Subcontractors proposed for key services, for all items specified in the Bid Data Sheet. There is no particular format (or sample form) for Subcontractor agreements.
- List of Proposed Subcontractors: In accordance with ITB Clause 6.3, a Bidder must submit, as part of its bid, a list of proposed subcontracts for major items of Technologies, Goods, and/or Services. The list should also include the names and places of registration of the Subcontractors proposed for each item and a summary of their qualifications.
- List of Software and Materials: In accordance with ITB Clause 13.1 (e) (vi) (ITB Clauses 13.1 (c) (vi) and 25.1 (e) (vi) in the two-stage SBD), Bidders must submit, as part of their bids, lists of all the Software included in the bid assigned to one of the following categories: (A) System, General-Purpose, or Application Software; or (B) Standard or Custom Software. Bidders must also submit a list of all Custom Materials. If provided for in the Bid Data Sheet, the Purchaser may reserve the right to reassign certain key Software to a different category.

- Qualification information forms: In accordance with ITB Clause 6, the Purchaser will
 determine whether the Bidder is qualified to undertake the Contract. This entails
 financial, technical as well as performance history criteria which are specified in the
 BDS for ITB Clause 6. The Bidder must provide the necessary information for the
 Purchaser to make this assessment through the forms in this sub-section. The forms
 contain additional detailed instructions which the Bidder must follow.
- Securing the bid: If the BDS for ITB Clause 17 (ITB Clause 29 in the two-stage SBD) requires that bids be secured, the Bidder shall do so in accordance with the type and details specified in the same ITB/BDS Clause, either using the form(s) included in these Sample Forms or using another form acceptable to the Purchaser. If a Bidder wishes to use an alternative form, it should ensure that the revised format provides substantially the same protection as the standard format; failing that, the Bidder runs the risk of rejection for commercial non-responsiveness.

Bidders need not provide the Performance Security and Advance Payment Security with their bids. Only the Bidder selected for award by the Purchaser will be required to provide these securities.

The following forms are to be completed and submitted by the successful Bidder following notification of award: (i) Contract Agreement, with all Appendices; (ii) Performance Security; and (iii) Advance Payment Security.

- Contract Agreement: In addition to specifying the parties and the Contract Price, the Contract Agreement is where the: (i) Supplier Representative; (ii) if applicable, agreed Adjudicator and his/her compensation; and (iii) the List of Approved Subcontractors are specified. In addition, modifications to the successful Bidder's Bid Price Schedules are attached to the Agreement. These contain corrections and adjustments to the Supplier's bid prices to correct errors, adjust the Contract Price to reflect if applicable any extensions to bid validity beyond the last day of original bid validity plus 56 days, etc.
- Performance Security: Pursuant to GCC Clause 13.3, the successful Bidder is required to provide the Performance Security in the form contained in this section of these Bidding Documents and in the amount specified in accordance with the SCC.
- Advance Payment Security: Pursuant to GCC Clause 13.2, the successful Bidder is required to provide a bank guarantee for the full amount of the Advance Payment if an Advance Payment is specified in the SCC for GCC 12.1 in the form contained in this section of these Bidding Documents or another form acceptable to the Purchaser. If a Bidder wishes to propose a different Advance Payment Security form, it should submit a copy to the Purchaser promptly for review and confirmation of acceptability before the bid submission deadline.

The Purchaser and Supplier will use the following additional forms during Contract implementation to formalize or certify important Contract events: (i) the Installation and Operational Acceptance Certificates; and (ii) the various Change Order forms. These and the procedures for their use during performance of the Contract are included in the Bidding Documents for the information of Bidders.

Table of Sample Forms

1.	Bid S	Submission Form (Single-Stage Bidding)
2.	Price	Schedule Forms
	2.1 2.2	Preamble Price Schedule
		Price Schedule Related Services
3.	Othe	r Bid Forms and Lists
	3.1	Manufacturer's Authorization
	3.2	List of Proposed Subcontractors
	3.3	Software List
	3.4	List of Custom Materials
		General Information Form
		General Information Systems Experience Record
		a Joint Venture Summary
		Particular Information Systems Experience Record
		a Details of Contracts of Similar Nature and Complexity
		Summary Sheet: Current Contract Commitments / Work in Progress
		Personnel Capabilities
		a Candidate Summary
		Technical Capabilities
		Litigation History
4.		ecurity (Bank Guarantee)
5	Cont	ract Agreement
٥.		
		endix 1. Supplier's Representative
		endix 2. Adjudicator
	App	endix 3. List of Approved Subcontractorsendix 4. Categories of Software
	Anne	endix 5. Custom Materials
		endix 6. Revised Price Schedules
		endix 7. Minutes of Contract Finalization Discussions and Agreed-to Contract Amendments
6	Perfe	ormance Security Forms
v.	6.1	Performance Security Form (Bank Guarantee)
	0.1	1 offormation became 1 offit (Bank Guarantee)
7.	Insta	llation and Acceptance Certificates

	7.1	Installation Certificate
	7.2	Operational Acceptance Certificate
8.	Chan	ge Order Procedures and Forms
	8.1	Request for Change Proposal Form
	8.2	Change Estimate Proposal Form
		Estimate Acceptance Form
		Change Proposal Form
		Change Order Form
	8.6	Application for Change Proposal Form

1. BID SUBMISSION FORM (SINGLE-STAGE BIDDING)

Date: [Bidder insert: date of bid]

Loan/Credit No.: [Purchaser insert: number]

IFB: [Purchaser insert: IFB title and number]

Contract: [Purchaser insert: name of Contract]

To: [Purchaser insert: name and address of Purchaser]

Dear Sir or Madam:

Having examined the Bidding Documents, including Addenda Nos. [insert numbers], the receipt of which is hereby acknowledged, we, the undersigned, offer to Design, Supply, Installation, Testing and Commissioning with Annual Maintenance for 04 Years of SCADA System for 80 storm water dewatering stations in and around Srinagar City in full conformity with the said Bidding Documents for the sum of:

[insert: amount of local ([insert: amount of local currency currency in words] in figures from corresponding Grand Total entry of the Grand Summary Cost Table])

plus [insert: amount of foreign currency A in words] ([insert: amount of foreign currency A in figures from

corresponding Grand Total entry of the Grand Summary Cost Table])

[as appropriate, add the following]

plus [insert: amount of foreign currency B in words] ([insert: amount of foreign currency B in figures from

corresponding Grand Total entry of the Grand Summary Cost Table])

plus [insert: amount of foreign currency C in words] ([insert: amount of foreign currency C in figures from

corresponding Grand Total entry of the Grand Summary Cost Table])

or such other sums as may be determined in accordance with the terms and conditions of the Contract. The above amounts are in accordance with the Price Schedules attached herewith and made part of this bid.

We undertake, if our bid is accepted, to commence work on the Information System and to achieve Installation and Operational Acceptance within the respective times stated in the Bidding Documents.

If our bid is accepted, and if these Bidding Documents so require, we undertake to provide an advance payment security and a performance security in the form, in the amounts, and within the times specified in the Bidding Documents.

[As appropriate, include or delete the following paragraph]

"We accept the appointment of [Purchaser insert: name of proposed Adjudicator from the Bid Data Sheet] as the Adjudicator."

[and delete the following paragraph, or, as appropriate, delete the above and include the following, or, if no Adjudicator is stated in the Bid Data Sheet, delete both the above and the following]

"We do not accept the appointment of [Purchaser insert: name of proposed Adjudicator from the Bid Data Sheet] as the Adjudicator, and we propose instead that [insert: name] be appointed as Adjudicator, whose résumé and hourly fees are attached."

We hereby certify that the Software offered in this bid and to be supplied under the Contract (i) either is owned by us, or (ii) if not owned by us, is covered by a valid license from the proprietor of the Software.

We agree to abide by this bid, which, in accordance with ITB Clauses 13 and 16, consists of this letter (Bid Submission Form) and the enclosures listed below, for a period of [Purchaser insert: number from Bid Data Sheet] days from the date fixed for submission of bids as stipulated in the Bidding Documents, and it shall remain binding upon us and may be accepted by you at any time before the expiration of that period.

Commissions or gratuities, if any, paid or to be paid by us to agents relating to this Bid, and to Contract execution if we are awarded the Contract, are listed below:

Name and Address Amount and Purpose of Of Agent Currency Commission or Gratuity

Etc. [if none, state: "none"]

Until the formal final Contract is prepared and executed between us, this bid, together with your written acceptance of the bid and your notification of award, shall constitute a binding contract between us. We understand that you are not bound to accept the lowest or any bid you may receive.

Dated this [insert: ordinal] day of [insert: month], [insert: year].

Signed:

Date:

In the capacity of [insert: title or position]

Duly authorized to sign this bid for and on behalf of [insert: name of Bidder]

ENCLOSURES:

Price Schedules

Bid-Securing Declaration or Bid-Security (if and as required)

Signature Authorization [plus, in the case of a Joint Venture Bidder, list all other authorizations pursuant to ITB Clause 6.2]

Attachment 1. Bidder's Eligibility

Attachment 2. Bidder's Qualifications (including Manufacturer's Authorizations and Subcontractor agreements if and as required)

Attachment 3. Eligibility of Goods and Services

Attachment 4. Conformity of the Information System to the Bidding Documents

Attachment 5. Proposed Subcontractors

Attachment 6. Intellectual Property (Software and Materials Lists)

[if appropriate, specify further attachments or other enclosures]

Bid Table of Contents and Checklist

Note: Purchasers should expand and modify (as appropriate) the following table to reflect the required elements of the Bidder's bid. As the following note to Bidders explains, it is in both the Purchaser's and Bidder's interest to provide this table and accurately fill it out.

Note: Bidders should expand and (if appropriate) modify and complete the following table. The purpose of the table is to provide the Bidder with a summary checklist of items that must be included in the bid as described in ITB Clauses 13.1 and 16, in order for the bid to be considered for Contract award. The table also provides a summary page reference scheme to ease and speed the Purchaser's bid evaluation process.

Item	present: y/n	page no.
Bid Submission Form		
Price Schedules		
Bid-Securing Declaration / Bid-Security (if and as required)		
Signature Authorization (for Joint Ventures additionally including the authorizations listed in ITB Clause 6.2)		
Attachment 1		
Attachment 2		
Manufacturer's Authorizations		
Attachment 3		
Attachment 4		
Attachment 5		
Attachment 6		

2. PRICE SCHEDULE FORMS

2.1 Preamble

General

- 1. The Schedules do not generally give a full description of the equipment to be supplied, installed, and operationally accepted, or the Services to be performed under each item. However, it is assumed that Bidders shall have read the Technical Requirements and other sections of these Bidding Documents to ascertain the full scope of the requirements associated with each item prior to filling in the rates and prices. The quoted rates and prices shall be deemed to cover the full scope of these Technical Requirements, as well as overhead and profit.
- 2. If Bidders are unclear or uncertain as to the scope of any item, they shall seek clarification in accordance with the Instructions to Bidders in the Bidding Documents prior to submitting their bid.

Pricing

- 3. Prices shall be filled in indelible ink, and any alterations necessary due to errors, etc., shall be initialed by the Bidder. As specified in the Bid Data Sheet, prices shall be fixed and firm for the duration of the Contract.
- 4. Bid prices shall be quoted in the manner indicated and in the currencies specified in ITB Clauses 14 and 15. Prices must correspond to items of the scope and quality defined in the Technical Requirements or elsewhere in these Bidding Documents.
- 5. The Bidder must exercise great care in preparing its calculations, since there is no opportunity to correct errors once the deadline for submission of bids has passed. A single error in specifying a unit price can therefore change a Bidder's overall total bid price substantially, make the bid noncompetitive, or subject the Bidder to possible loss. The Purchaser will correct any arithmetic error in accordance with the provisions of ITB Clause 26.2
- 6. Payments will be made to the Supplier in Indian Rupees. The price of an item should be unique regardless of installation site.

Price Schedule

	Purchaser's Cour	ntry						Date: ICB No:	
	INDIA				<i>a</i>	1	ED 1.5	Alternative No:	
					Currencies i	n accordance with I	1812	Page No of	
1	2	3	4	5	6	7	8	9	10
Line Item N°	Description of Goods	Delivery Date as defined by Incoterms	Quantity and physical unit	Unit price EXW	Total EXW price per line item (Col. 4×5)	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. 5	GST / applicable tax payable per line item if Contract is awarded (in accordance with ITB 14.8(a)(ii)	Total Price per line item (Col. 6+7)
1	Level Transmitter for Sump Compatible to transmit Sump level to PLC system		80 No's				-		
2	Level Transducer for D.G. set Fuel		80 No's						
3	Pressure Transmitter for Individual and Common Delivery header, compatible to transmit Pressure to PLC System		80 No's						
4	Non redundant PLC system with touch screen HMI		80 No's						
5	Control Panel duly wired with above non redundant PLC & other accessories		80 No's						

6	GSM Modem (for data transmission from Pumping station to Main SCADA System)	80 No's			
7	PSTN Modem (for data transmission from Pumping station to Main SCADA System)	80 No's			
8	Instrumentation & Communication Cable as per Site Requirement	L.S			
9	Dual Broadband Lines from Two separate broadband service providers for communication.	L.S			
10	VSAT at Individual Pumping Station.	80 No's			
11	GSM Communication for Individual Pumping Station	L.S			
12	Non redundant UPS System for each Pumping Station	80 No's			
13	4 No's level switches for each Pumping Station.	80 Sets			
14	CCTV at each pump station with communication to Central SCADA.	80 Sets (Set of 2 No's)			

15	Actuators for following size Cast Iron Double Flanged Valves in Existing Pumping Stations. The Scope includes supply of gearbox assembly for				
	operating through actuators.				
a.	Actuator for 125mm	12 No's			
b.	Actuator for 150mm	12 No's			
c.	Actuator for 200mm	13 No's			
d.	Actuator for 250mm	8 No's			
e.	Actuator for 300mm	7 No's			
f.	Actuator for 350mm	11 No's			
g.	Actuator for 400mm	19 No's			
h.	Actuator for 450mm	12 No's			
i.	Actuator for 500mm	7 No's			
j.	Actuator for 600mm	5 No's			
k.	Actuator for 700mm	2 No's			
1.	Actuator for 800mm	9 No's			
16.	Backup Control Center with SCADA system including hardware	1 No.			

17.	Central non redundant SCADA system including hardware, server, Engineering Station, Operator Station & Monitoring Screen					
18.	Geo-tracking devices with ON/OFF status for mobile pumping units.	42 No's				
					Total Price	

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

Note: (a) The bidder shall give list of spares for 2 years operation (or as required for the period specified in the evaluation criteria) separately indicating description, quantity, unit price and total price in the above format, for those items whose scope of supply includes spare parts as per technical specification.

(b) Column 8, need not to be filled.

Price and Completion Schedule - Related Services

	Curr	encies in accordance with ITB15				
1	2	3	4	5	6	7
Service N°	Description of Services (excludes inland transportation and other services required in the Purchaser's country to convey the goods to their final destination)	Country of Origin	Delivery Date at place of Final destination	Quantity and physical unit	Unit price	Total Price per Service (Col. 5*6 or estimate)
1.	Installation Charges for complete SCADA system for 80 pumping stations and geo-tracking devices for 42 No. mobile pumps.			Complete as per requirement		
2.	Comprehensive Annual Maintenance of SCADA System with minimum following No. of Concerned Technicians for 24 X 7 Maintenance inclusive of replacement of any instrument if required during the said period which shall commence after issuance of Operational Acceptance Certificate and Warranty Period:-			4 years		
	a. For MCC: 02 No's.b. For BCC: 01 No.					
	c. For Stations : 04 No's					
3.	Provisional Sum (shall be paid as per actual work done and after prior approval of purchaser)			L.S		INR 100.00 Lacs
				Total Bid Price		

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

3. OTHER BID FORMS AND LISTS

3.1 Manufacturer's Authorization

Invitation for Bids Title and I	No.:
[If applicable:] Lot, Slice, Su	ubsystem No(s).:
То:	
	who are official producers of and having production facilities at do hereby authorized located at the "Pidder".
to submit a bid and subseque following Products produced	(hereinafter, the "Bidder") tently negotiate and sign a Contract with you for resale of the by us:
•	ase the bidding results in a Contract between you and the Bidder come with our full standard warranty.
Name	In the capacity of
Signed	
Duly authorized to sign the au	uthorization for and on behalf of :
Dated on	day of,

Note: This authorization should be written on the letterhead of the Manufacturer and be signed by a person with the proper authority to sign documents that are binding on the Manufacturer.

3.3 Software List

	(sel	lect one per it	em)	(select one	e per item)
Software Item	System Software	General- Purpose Software	Application Software	Standard Software	Custom Software

3.4 List of Custom Materials

Custom Materials

3.5.1 General Information Form

All individual firms and each partner of a Joint Venture that are bidding must complete the information in this form. Nationality information should be provided for all owners or Bidders that are partnerships or individually owned firms.

Where the Bidder proposes to use named Subcontractors for highly specialized components of the Information System, the following information should also be supplied for the Subcontractor(s), together with the information in Forms 3.5.2, 3.5.3, 3.5.3a, 3.5.4, and 3.5.5. Joint Ventures must also fill out Form 3.5.2a.

1.	Name of firm	
2.	Head office address	
3.	Telephone	Contact
4.	Fax	Telex
5.	Place of incorporation / registration	Year of incorporation / registration

Nation	nality of owners ¹
Name	Nationality
1.	
2.	
3.	
4.	
5.	
1/	To be completed by all owners of partnerships or individually owned firms.

3.5.2 General Information Systems Experience Record

Na	ame	of	Bidde	er o	: par	tner	of	a.	Joint	. \	/entu	re
----	-----	----	-------	------	-------	------	----	----	-------	-----	-------	----

All individual firms and all partners of a Joint Venture must complete the information in this form with regard to the management of Information Systems contracts generally. The information supplied should be the annual turnover of the Bidder (or each member of a Joint Venture), in terms of the amounts billed to clients for each year for work in progress or completed, converted to U.S. dollars at the rate of exchange at the end of the period reported. The annual periods should be calendar years, with partial accounting for the year up to the date of submission of applications. This form may be included for Subcontractors only if the Bid Data Sheet for ITB Clause 6.1 (a) explicitly permits experience and resources of (certain) Subcontractors to contribute to the Bidder's qualifications.

A brief note on each contract should be appended, describing the nature of the Information System, duration and amount of contract, managerial arrangements, purchaser, and other relevant details.

Use a separate page for each partner of a Joint Venture, and number these pages.

Bidders should not enclose testimonials, certificates, and publicity material with their applications; they will not be taken into account in the evaluation of qualifications.

Annual turnove	er data (applicable activities	s only)
Year ¹	Turnover	US\$ equivalent
1.		
2.		
3.		
4.		
5.		
1/ Comme	encing with the partial year	up to the date of submission of bids

3.5.2a Joint Venture Summary

Names of all partners of a Joint Venture
1. Partner in charge
2. Partner
3. Partner
4. Partner
5. Partner
6. etc.

Total value of annual turnover, in terms of Information System billed to clients, in US\$ equivalent, converted at the rate of exchange at the end of the period reported:

Annual tur	nover data	(applicable	activities only	; US\$ equivale	ent)	
Partner	Form 3.5.2 page no.	Year 1	Year 2	Year 3	Year 4	Year 5
1. Partner in charge						
2. Partner						
3. Partner						
4. Partner						
5. Partner						
6. Etc.						
Totals	•					

3.5.3 Particular Information Systems Experience Record

Name of Bidder or partner of a Joint Venture

On separate pages, using the format of Form 3.5.3a, the Bidder is requested to list contracts of a similar nature, complexity, and requiring similar information technology and methodologies to the contract or contracts for which these Bidding Documents are issued, and which the Bidder has undertaken during the period, and of the number, specified in the BDS for ITB Clause 6.1 (a). Each partner of a Joint Venture should separately provide details of its own relevant contracts. The contract value should be based on the payment currencies of the contracts converted into U.S. dollars, at the date of substantial completion, or for ongoing contracts at the time of award.

3.5.3a Details of Contracts of Similar Nature and Complexity

Name of Bidder or partner of a Joint Venture
--

Use a separate sheet for each contract.

1.	Number of contract
	Name of contract
	Country
2.	Name of Purchaser
3.	Purchaser address
4.	Nature of Information Systems and special features relevant to the contract for which the Bidding Documents are issued
5.	Contract role (check one)
	□ Prime Supplier □ Management Contractor □ Subcontractor □ Partner in a Joint Venture
6.	Amount of the total contract/subcontract/partner share (in specified currencies at completion, or at date of award for current contracts)
	Currency Currency
7.	Equivalent amount US\$
	Total contract: \$; Subcontract: \$; Partner share: \$;
8.	Date of award/completion
9.	Contract was completed months ahead/behind original schedule (if behind, provide explanation).
10.	Contract was completed US\$ equivalent under/over original contract amount (if over, provide explanation).
11.	Special contractual/technical requirements.
12.	Indicate the approximate percent of total contract value (and US\$ amount) of Information System undertaken by subcontract, if any, and the nature of such Information System.

3.5.4 Summary Sheet: Current Contract Commitments / Work in Progress

Name of Bidder or partner of a Joint Venture
--

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

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

3.5.5 Financial Capabilities

Name of Bidder or pa	rtner of a Joint Venture
----------------------	--------------------------

Bidders, including each partner of a Joint Venture, shall provide financial information to demonstrate that they meet the requirements stated in the BDS for ITB Clause 6.1 (a). Each Bidder or partner of a Joint Venture shall complete this form. If necessary, separate sheets shall be used to provide complete banker information. A copy of the audited balance sheets shall be attached.

Autonomous subdivisions of parent conglomerate businesses shall submit financial information related only to the particular activities of the subdivision.

Banker	Name of banker	
	Address of banker	
	Telephone	Contact name and title
	Fax	Telex

Summarize actual assets and liabilities in U.S. dollar equivalent (at the rates of exchange current at the end of each year) for the previous five calendar years. Based upon known commitments, summarize projected assets and liabilities in U.S. dollar equivalent for the next two calendar years, unless the withholding of such information by stock market listed public companies can be substantiated by the Bidder.

Financial	Actual: Projecte			Projected	:		
information in US\$ equivalent	Previous	revious five years Next two years			years		
	5	4	3	2	1	1	2
1. Total assets							
2. Current assets							
3. Total liabilities							
4. Current liabilities							
5. Profits before taxes							
6. Profits after taxes							

Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total construction cash flow demands of the subject contract or contracts as indicated in the BDS for ITB Clause 6.1 (a).

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

Attach audited financial statements—including, as a minimum, profit and loss account, balance sheet, and explanatory notes—for the period stated in the BDS for ITB Clause 6.1 (a) (for the individual Bidder or each partner of a Joint Venture).

If audits are not required by the laws of Bidders' countries of origin, partnerships and firms owned by individuals may submit their balance sheets certified by a registered accountant, and supported by copies of tax returns,

3.5.6 Personnel Capabilities

Name of Bidder

For specific positions essential to contract management and implementation (and/or those specified in the Bidding Documents, if any), Bidders should provide the names of at least two candidates qualified to meet the specified requirements stated for each position. The data on their experience should be supplied on separate sheets using one Form 3.5.6a for each candidate.

Bidders may propose alternative management and implementation arrangements requiring different key personnel, whose experience records should be provided.

1.	Title of position
	Name of prime candidate
	Name of alternate candidate
2.	Title of position
	Name of prime candidate
	Name of alternate candidate
3.	Title of position
	Name of prime candidate
	Name of alternate candidate
4.	Title of position
	Name of prime candidate
	Name of alternate candidate

3.5.6a Candidate Summary

Name of Bi	idder					
Position		Car	Candidate			
				Prime	Alternate	
Candidate information			Da	Date of birth		
	Profess	sional qualifications	'			
Present employment	1 2					
	Address of Employer					
<u> </u>	Teleph	one	Co	Contact (manager / personnel officer)		
	Fax		Tel	lex		
	Job titl	e of candidate	Ye	Years with present Employer		
Indicate par	ticular tec	nal experience over the hnical and managerial	experience rele	vant to the project	ct.	
From To Company/Project/ Position/Relevant technical and management		ement experience				

3.5.7 Technical Capabilities

Name of Bidder

The Bidder shall provide adequate information to demonstrate clearly that it has the technical capability to meet the requirements for the Information System. With this form, the Bidder should summarize important certifications, proprietary methodologies, and/or specialized technologies which the Bidder proposes to utilize in the execution of the Contract or Contracts.

3.5.8 Litigation History

Name of Bidder or	partner of a Joint	Venture
-------------------	--------------------	---------

Bidders, including each of the partners of a Joint Venture, shall provide information on any history of litigation or arbitration resulting from contracts executed in the last five years or currently under execution. A separate sheet should be used for each partner of a Joint Venture.

Year	Award FOR or AGAINST Bidder	Name of client, cause of litigation, and matter in dispute	Disputed amount (current value, US\$ equivalent)

4. BID SECURITY (BANK GUARANTEE)

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

Beneficiary: [insert: Name and Address of Purchaser]

Date: [insert: date]

BID GUARANTEE No.: [insert: Bid Guarantee Number]

We have been informed that [insert: name of the Bidder] (hereinafter called "the Bidder") has submitted to you its bid dated [insert: bid date] (hereinafter called "the Bid") for the execution of [insert: name of contract] under Invitation for Bids No. [insert: IFB number].

Furthermore, we understand that, according to your conditions, bids must be supported by a bid guarantee, and that the bid guarantee automatically covers any alternative bids included in the Bid, if the Bidder is permitted to offer alternatives and does so.

At the request of the Bidder, we [insert: name of Bank] hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of [insert: amount in figures] ([insert: amount in words]) upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation(s) under the bid conditions, because the Bidder:

- (a) has withdrawn the Bid (or any parts of it) during the period of bid validity specified by the Bidder in the Bid Submission Form or any extension of the period of bid validity which the Bidder subsequently agreed to; or
- (b) having been notified of the acceptance of the Bid by you during the period of bid validity, (i) failed or refused to execute the Contract Agreement, or (ii) failed or refused to furnish the performance security, if required, in accordance with the Instructions to Bidders.

This guarantee will expire: (a) if the Bidder is the successful bidder, upon our receipt of copies of the contract signed by the Bidder and the performance security issued to you upon the instruction of the Bidder; or (b) if the Bidder is not the successful bidder, upon the earlier of (i) our receipt of a copy of your notification to the Bidder of the name of the successful bidder; or (ii) twenty-eight days after the expiration of the Bid's validity.

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

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458.

[Signature(s)]

[Note to Bidders: Instructions on amount and currency can be found in the ITB Clause and BDS for "Securing the Bid." Joint Ventures need to also ensure that their Bank Guarantee meets the requirements for Joint Ventures as provided in the same Clause.]

5. CONTRACT AGREEMENT

THIS CONTRACT AGREEMENT is made

the [insert: ordinal] day of [insert: month], [insert: year].

BETWEEN

- (1) [insert: Name of Purchaser], a [insert: description of type of legal entity, for example, an agency of the Ministry of . . .] of the Government of [insert: country of Purchaser], or corporation incorporated under the laws of [insert: country of Purchaser] and having its principal place of business at [insert: address of Purchaser] (hereinafter called "the Purchaser"), 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").

WHEREAS the Purchaser desires to engage the Supplier to supply, install, achieve Operational Acceptance of, and support the following Information System [insert: brief description of the Information System] ("the System"), and the Supplier has agreed to such engagement upon and subject to the terms and conditions appearing below in this Contract Agreement.

NOW IT IS HEREBY AGREED as follows:

Article 1.

1.1 Contract Documents (Reference GCC Clause 1.1 (a) (ii))

Contract Documents

The following documents shall constitute the Contract between the Purchaser and the Supplier, and each shall be read and construed as an integral part of the Contract:

- (a) This Contract Agreement and the Appendices attached to the Contract Agreement
- (b) Special Conditions of Contract
- (c) General Conditions of Contract
- (d) Technical Requirements (including Implementation Schedule)
- (e) The Supplier's bid and original Price Schedules
- (f) [Add here: any other documents]

1.2 Order of Precedence (Reference GCC Clause 2)

In the event of any ambiguity or conflict between the Contract Documents listed above, the order of precedence shall be the order in which the Contract Documents are listed in Article 1.1 (Contract Documents) above, provided that Appendix 7 shall prevail over all provisions of the Contract Agreement and the other Appendices attached to the Contract Agreement and all the other Contract Documents listed in Article 1.1 above.

1.3 Definitions (Reference GCC Clause 1)

Capitalized words and phrases used in this Contract Agreement shall have the same meanings as are ascribed to them in the General Conditions of Contract.

Contract Price (Reference GCC Clause 1.1(a)(viii) and GCC Clause 11)

The Purchaser hereby agrees to pay to the Supplier the Contract Price in consideration of the performance by the Supplier of its obligations under the Contract. The Contract Price shall be the aggregate of: [insert: amount of foreign currency A in words], [insert: amount in figures], plus [insert: amount in figures], plus [insert: amount of foreign currency C in words], [insert: amount in figures], [insert: amount of local currency in words], [insert: amount in figures], as specified in the Grand Summary Price Schedule.

The Contract Price shall be understood to reflect the terms and conditions used in the specification of prices in the detailed price schedules, including the terms and conditions of the associated Incoterms, and the taxes, duties and related levies if and as identified.

3.1 Effective Date (Reference GCC Clause 1.1 (e) (ix))

The time allowed for supply, installation, and achieving Operational Acceptance of the System shall be determined from the date when all of the following conditions have been fulfilled:

- (a) This Contract Agreement has been duly executed for and on behalf of the Purchaser and the Supplier;
- (b) The Supplier has submitted to the Purchaser the performance security and the advance payment security, in accordance with GCC Clause 13.2 and GCC Clause 13.3;
- (c) The Purchaser has paid the Supplier the advance payment,

Article 2.

Contract Price and Terms of Payment

Article 3.

Effective Date for Determining Time for Operational Acceptance in accordance with GCC Clause 12;

(d) [specify here: any other conditions, for example, opening/confirmation of letter of credit].

Each party shall use its best efforts to fulfill the above conditions for which it is responsible as soon as practicable.

3.2 If the conditions listed under 3.1 are not fulfilled within two (2) months from the date of this Contract Agreement because of reasons not attributable to the Supplier, the parties shall discuss and agree on an equitable adjustment to the Contract Price and the Time for Achieving Operational Acceptance and/or other relevant conditions of the Contract.

Article 4.

4.1 The Appendixes listed below shall be deemed to form an integral part of this Contract Agreement.

Appendixes

4.2 Reference in the Contract to any Appendix shall mean the Appendixes listed below and attached to this Contract Agreement, and the Contract shall be read and construed accordingly.

APPENDIXES

Appendix 1. Supplier's Representative

Appendix 2. Adjudicator [if there is no Adjudicator, state "not applicable"]

Appendix 3. List of Approved Subcontractors

Appendix 4. Categories of Software

Appendix 5. Custom Materials

Appendix 6. Revised Price Schedules (if any)

Appendix 7. Minutes of Contract Finalization Discussions and Agreed-to Contract Amendments

IN WITNESS WHEREOF the Purchaser and the Supplier have caused this Agreement to be duly executed by their duly authorized representatives the day and year first above written.

For and on behalf of the Purchaser

```
Signed:
```

```
in the capacity of [ insert: title or other appropriate designation ]
```

in the presence of

For and on behalf of the Supplier

Signed:

```
in the capacity of [ insert: title or other appropriate designation ]
```

in the presence of

CONTRACT AGREEMENT

```
dated the [insert: number] day of [insert: month], [insert: year]
```

BETWEEN

and

```
[ insert: name of Purchaser ], "the Purchaser"
```

[insert: name of Supplier], "the Supplier"

Appendix 1. Supplier's Representative

In accordance with GCC Clause 1.1 (b) (iv), the Supplier's Representative is:

Name: [insert: name and provide title and address further below, or state "to be nominated within fourteen (14) days of the Effective Date"]

Title: [if appropriate, insert: title]

In accordance with GCC Clause 4.3, the Supplier's addresses for notices under the Contract are:

Address of the Supplier's Representative: [as appropriate, insert: personal delivery, postal, cable, telegraph, telex, facsimile, electronic mail, and/or EDI addresses.]

Fallback address of the Supplier: [as appropriate, insert: personal delivery, postal, cable, telegraph, telex, facsimile, electronic mail, and/or EDI addresses.]

Appendix 2. Adjudicator

In accordance with GCC Clause 1.1 (b) (vi), the agreed-upon Adjudicator is:

```
Name: [insert: name]

Title: [insert: title]

Address: [insert: postal address]

Telephone: [insert: telephone]
```

In accordance with GCC Clause 6.1.3, the agreed-upon fees and reimbursable expenses are:

```
Hourly Fees: [ insert: hourly fees ]

Reimbursable Expenses: [ list: reimbursables ]
```

Pursuant to GCC Clause 6.1.4, if at the time of Contract signing, agreement has not been reached between the Purchaser and the Supplier, an Adjudicator will be appointed by the Appointing Authority named in the SCC.

Appendix 3. List of Approved Subcontractors

The Purchaser has approved use of the following Subcontractors nominated by the Supplier for carrying out the item or component of the System indicated. Where more than one Subcontractor is listed, the Supplier is free to choose between them, but it must notify the Purchaser of its choice sufficiently in advance of the time when the subcontracted work needs to commence to give the Purchaser reasonable time for review. In accordance with GCC Clause 20.1, the Supplier is free to submit proposals for Subcontractors for additional items from time to time. No subcontracts shall be placed with any such Subcontractors for additional items until the Subcontractors have been approved in writing by the Purchaser and their names have been added to this list of Approved Subcontractors, subject to GCC Clause 20.3.

[specify: item, approved Subcontractors, and their place of registration that the Supplier proposed in the corresponding attachment to its bid and that the Purchaser approves that the Supplier engage during the performance of the Contract. Add additional pages as necessary.]

Item	Approved Subcontractors	Place of Registration

Appendix 4. Categories of Software

The following table assigns each item of Software supplied and installed under the Contract to one of the three categories: (i) System Software, (ii) General-Purpose Software, or (iii) Application Software; and to one of the two categories: (i) Standard Software or (ii) Custom Software.

	(select one per item)		(select one per item)		
Software Item	System Software	General- Purpose Software	Application Software	Standard Software	Custom Software

Appendix 5. Custom Materials

The follow table specifies the Custom Materials the Supplier will provide under the Contract.

Custom Materials

Appendix 6. Revised Price Schedules

The attached Revised Price Schedules (if any) shall form part of this Contract Agreement and, where differences exist, shall supersede the Price Schedules contained in the Supplier's Bid. These Revised Price Schedules reflect any corrections or adjustments to the Supplier's bid price, pursuant to the ITB Clauses 18.3, 26.2, and 33.1 (ITB Clauses 30.3, 38.2, and 45.1 in the two-stage SBD).

Appendix 7. Minutes of Contract Finalization Discussions and Agreed-to Contract Amendments

The attached Contract amendments (if any) shall form part of this Contract Agreement and, where differences exist, shall supersede the relevant clauses in the GCC, SCC, Technical Requirements, or other parts of this Contract as defined in GCC Clause 1.1 (a) (ii).

6. PERFORMANCE AND ADVANCE PAYMENT SECURITY FORMS

6.1 Performance Security Form (Bank Guarantee)

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

Beneficiary: [insert: Name and Address of Purchaser]

Date: [insert: date]

PERFORMANCE GUARANTEE No.: [insert: Performance Guarantee Number]

We have been informed that on [insert: date of award] you awarded Contract No. [insert: Contract number] for [insert: title and/or brief description of the Contract] (hereinafter called "the Contract") to [insert: complete name of Supplier] (hereinafter called "the Supplier"). Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Supplier, we hereby irrevocably undertake to pay you any sum(s) not exceeding [insert: amount(s)] in figures and words] upon receipt by us of your first demand in writing declaring the Supplier to be in default under the Contract, without cavil or argument, or your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

On the date of your issuing, to the Supplier, the Operational Acceptance Certificate for the System, the value of this guarantee will be reduced to any sum(s) not exceeding [insert: amount(s)] in figures and words]. This remaining guarantee shall expire no later than [insert: number and select: of months/of years (of the Warranty Period that needs to be covered by the remaining guarantee)] from the date of the Operational Acceptance Certificate for the System, and any demand for payment under it must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458, except that subparagraph (ii) of Sub-article 20 (a) is hereby excluded.

[Signature(s)]	

The bank shall insert the amount(s) specified and denominated in the SCC for GCC Clauses 13.3.1 and 13.3.4 respectively, either in the currency(ies) of the Contract or a freely convertible currency acceptable to the Purchaser.

² In this sample form, the formulation of this paragraph reflects the usual SCC provisions for GCC Clause 13.3. However, if the SCC for GCC Clauses 13.3.1 and 13.3.4 varies from the usual provisions, the paragraph, and possibly the previous paragraph, need to be adjusted to precisely reflect the provisions specified in the SCC.

6.2 Advance Payment Security

Demand Guarantee Beneficiary: Date: ADVANCE PAYMENT GUARANTEE No.: **Guarantor:** _____ We have been informed that _____ (hereinafter called "the Applicant") has entered into Contract No. _____ dated ____ with the Beneficiary, for the execution of _____ (hereinafter called "the Contract"). Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum _____ (_____) 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 (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 the costs of mobilization in respect of the Works; 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.

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

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 Employer.

nas	been	credited	to the	e Applican	t on	IUS	account	number		at
adva payr upor perc payr	nnce payment cent our rent of ment, or	yment rep rtificates w eceipt of a the Accep on the	aid by to thich sha copy of the Core day of	guarantee she Applicantel be presented the interintent Amou, 2tee must be re-	t as spected to up the payon the payon the spectrum the payon the	pecifius. To ment s procheve	ed in cop his guaran certificat ovisional er is earlie	oies of int ntee shall of e indication sums, has r. Conseq	erim statem expire, at th ng that nine been certi- uently, any	nents or e latest, ety (90) fied for demand
Rev	ision, IO		5	the Uniform 758, excep					`	,
[sign	nature(s	s)]								

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

Insert the expected expiration date of the Time for Completion. The Employer should note that in the event of an extension of the time for completion of the Contract, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months][one year], in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."

7. Installation and Acceptance Certificates

7.1 Installation Certificate

Date: [insert: date]

Loan/Credit Number: [insert: loan or credit number from IFB]

IFB: [insert: title and number of IFB]

Contract: [insert: name and number of Contract]

To: [insert: name and address of Supplier]

Dear Sir or Madam:

Pursuant to GCC Clause 26 (Installation of the System) of the Contract entered into between yourselves and the [insert: name of Purchaser] (hereinafter the "Purchaser") dated [insert: date of Contract], relating to the [insert: brief description of the Information System], we hereby notify you that the System (or a Subsystem or major component thereof) was deemed to have been correctly installed on the date specified below.

- 1. Description of the System (or relevant Subsystem or major component: [insert: description]
- 2. Date of Installation: [insert: date]

Notwithstanding the above, you are required to complete the outstanding items listed in the attachment to this certificate as soon as practicable. This letter shall not relieve you of your obligation to achieve Operational Acceptance of the System in accordance with the Contract nor of your obligations during the Warranty Period.

For and on behalf of the Purchaser

Signed:

Date:

in the capacity of: [state: "Project Manager" or state the title of a higher level authority in the Purchaser's organization]

7.2 Operational Acceptance Certificate

Date: [insert: date]

Loan/Credit Number: [insert: loan or credit number from IFB]

IFB: [insert: title and number of IFB]

Contract: [insert: name of System or Subsystem and

number of Contract]

To: [insert: name and address of Supplier]

Dear Sir or Madam:

Pursuant to GCC Clause 27 (Commissioning and Operational Acceptance) of the Contract entered into between yourselves and the [insert: name of Purchaser] (hereinafter the "Purchaser") dated [insert: date of Contract], relating to the [insert: brief description of the Information System], we hereby notify you the System (or the Subsystem or major component identified below) successfully completed the Operational Acceptance Tests specified in the Contract. In accordance with the terms of the Contract, the Purchaser hereby takes over the System (or the Subsystem or major component identified below), together with the responsibility for care and custody and the risk of loss thereof on the date mentioned below.

- 1. Description of the System (or Subsystem or major component): [insert: description]
- 2. Date of Operational Acceptance: [insert: date]

This letter shall not relieve you of your remaining performance obligations under the Contract nor of your obligations during the Warranty Period.

For and on behalf of the Purchaser

Signed:

Date:

in the capacity of: [state: "Project Manager" or higher level authority in the Purchaser's organization]

8. CHANGE ORDER PROCEDURES AND FORMS

Date: [insert: date]

Loan/Credit Number: [insert: loan or credit number from IFB]

IFB: [insert: title and number of IFB]

Contract: [insert: name or System or Subsystem and

number of Contract]

General

This section provides samples of procedures and forms for carrying out changes to the System during the performance of the Contract in accordance with GCC Clause 39 (Changes to the System) of the Contract.

Change Order Log

The Supplier shall keep an up-to-date Change Order Log to show the current status of Requests for Change and Change Orders authorized or pending. Changes shall be entered regularly in the Change Order Log to ensure that the log is kept up-to-date. The Supplier shall attach a copy of the current Change Order Log in the monthly progress report to be submitted to the Purchaser.

References to Changes

- (1) Request for Change Proposals (including Application for Change Proposals) shall be serially numbered CR-nnn.
- (2) Change Estimate Proposals shall be numbered CN-nnn.
- (3) Estimate Acceptances shall be numbered CA-nnn.
- (4) Change Proposals shall be numbered CP-nnn.
- (5) Change Orders shall be numbered CO-nnn.

On all forms, the numbering shall be determined by the original CR-nnn.

Annexes

- 8.1 Request for Change Proposal Form
- 8.2 Change Estimate Proposal Form
- 8.3 Estimate Acceptance Form
- 8.4 Change Proposal Form
- 8.5 Change Order Form
- 8.6 Application for Change Proposal Form

8.1 Request for Change Proposal Form

(Purchaser's Letterhead)

Date: [insert: date]

Loan/Credit Number: [insert: loan or credit number from IFB]

IFB: [insert: title and number of IFB]

Contract: [insert: name of System or Subsystem or number

of Contract]

To: [insert: name of Supplier and address]

Attention: [insert: name and title]

Dear Sir or Madam:

With reference to the above-referenced Contract, you are requested to prepare and submit a Change Proposal for the Change noted below in accordance with the following instructions within [insert: number] days of the date of this letter.

- 1. Title of Change: [insert: title]
- 2. Request for Change No./Rev.: [insert: number]
- 3. Originator of Change: [select Purchaser / Supplier (by Application for Change Proposal), and add: name of originator]
- 4. Brief Description of Change: [insert: description]
- 5. System (or Subsystem or major component affected by requested Change): [insert: description]
- 6. Technical documents and/or drawings for the request of Change:

Document or Drawing No. Description

- 7. Detailed conditions or special requirements of the requested Change: [insert: description]
- 8. Procedures to be followed:
 - (a) Your Change Proposal will have to show what effect the requested Change will have on the Contract Price.
 - (b) Your Change Proposal shall explain the time it will take to complete the requested Change and the impact, if any, it will have on the date when Operational Acceptance of the entire System agreed in the Contract.
 - (c) If you believe implementation of the requested Change will have a negative impact on the quality, operability, or integrity of the System, please provide a detailed explanation, including other approaches that might achieve the same impact as the requested Change.
 - (d) You should also indicate what impact the Change will have on the number and mix of staff needed by the Supplier to perform the Contract.
 - (e) You shall not proceed with the execution of work related to the requested Change until we have accepted and confirmed the impact it will have on the Contract Price and the Implementation Schedule in writing.
- 9. As next step, please respond using the Change Estimate Proposal form, indicating how much it will cost you to prepare a concrete Change Proposal that will describe the proposed approach for implementing the Change, all its elements, and will also address the points in paragraph 8 above pursuant to GCC Clause 39.2.1. Your Change Estimate Proposal should contain a first approximation of the proposed approach, and implications for schedule and cost, of the Change.

For and on behalf of the Purchaser

Signed:

Date:

in the capacity of: [state: "Project Manager" or higher level authority in the Purchaser's organization]

8.2 Change Estimate Proposal Form

(Supplier's Letterhead)

Date: [insert: date]

Loan/Credit Number: [insert: loan or credit number from IFB]

IFB: [insert: title and number of IFB]

Contract: [insert: name of System or Subsystem and

number of Contract]

To: [insert: name of Purchaser and address]

Attention: [insert: name and title]

Dear Sir or Madam:

With reference to your Request for Change Proposal, we are pleased to notify you of the approximate cost of preparing the below-referenced Change in accordance with GCC Clause 39.2.1 of the Contract. We acknowledge that your agreement to the cost of preparing the Change Proposal, in accordance with GCC Clause 39.2.2, is required before we proceed to prepare the actual Change Proposal including a detailed estimate of the cost of implementing the Change itself.

- 1. Title of Change: [insert: title]
- 2. Request for Change No./Rev.: [insert: number]
- 3. Brief Description of Change (including proposed implementation approach): [insert: description]
- 4. Schedule Impact of Change (initial estimate): [insert: description]
- 5. Initial Cost Estimate for Implementing the Change: [insert: initial cost estimate]

6. Cost for Preparation of Change Proposal: [insert: cost in the currencies of the Contract], as detailed below in the breakdown of prices, rates, and quantities.

For and on behalf of the Supplier

Signed:

Date:

in the capacity of: [state: "Supplier's Representative" or other higher level authority in the Supplier's organization]

8.3 Estimate Acceptance Form

(Purchaser's Letterhead)

Date: [insert: date]

Loan/Credit Number: [insert: loan or credit number from IFB]

IFB: [insert: title and number of IFB]

Contract: [insert: name of System or Subsystem and

number of Contract]

To: [insert: name of Supplier and address]

Attention: [insert: name and title]

Dear Sir or Madam:

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

- 1. Title of Change: [insert: title]
- 2. Request for Change No./Rev.: [insert: request number / revision]
- 3. Change Estimate Proposal No./Rev.: [insert: proposal number / revision]
- 4. Estimate Acceptance No./Rev.: [insert: estimate number / revision]
- 5. Brief Description of Change: [insert: description]
- 6. Other Terms and Conditions:

In the event that we decide not to order the Change referenced above, you shall be entitled to compensation for the cost of preparing the Change Proposal up to the amount

estimated for this purpose in the Change Estimate Proposal, in accordance with GCC Clause 39 of the General Conditions of Contract.

For and on behalf of the Purchaser

Signed:

Date:

in the capacity of: [state: "Project Manager" or higher level authority in the Purchaser's organization]

8.4 Change Proposal Form

(Supplier's Letterhead)

Date: [insert: date]

Loan/Credit Number: [insert: loan or credit number from IFB]

IFB: [insert: title and number of IFB]

Contract: [insert: name of System or Subsystem and

number of Contract]

To: [insert: name of Purchaser and address]

Attention: [insert: name and title]

Dear Sir or Madam:

In response to your Request for Change Proposal No. [insert: number], we hereby submit our proposal as follows:

- 1. Title of Change: [insert: name]
- 2. Change Proposal No./Rev.: [insert: proposal number/revision]
- 3. Originator of Change: [select: **Purchaser / Supplier**; and add: **name**]
- 4. Brief Description of Change: [insert: description]
- 5. Reasons for Change: [insert: reason]
- 6. The System Subsystem, major component, or equipment that will be affected by the requested Change: [insert: description]
- 7. Technical documents and/or drawings for the requested Change:

Document or Drawing No. Description

8. Estimate of the increase/decrease to the Contract Price resulting from the proposed Change: [insert: amount in currencies of Contract], as detailed below in the breakdown of prices, rates, and quantities.

Total lump sum cost of the Change:

Cost to prepare this Change Proposal (i.e., the amount payable if the Change is not accepted, limited as provided by GCC Clause 39.2.6):

- 9. Additional Time for Achieving Operational Acceptance required due to the Change: [insert: amount in days / weeks]
- 10. Effect on the Functional Guarantees: [insert: description]
- 11. Effect on the other terms and conditions of the Contract: [insert: description]
- 12. Validity of this Proposal: for a period of [insert: number] days after receipt of this Proposal by the Purchaser
- 13. Procedures to be followed:
 - (a) You are requested to notify us of your acceptance, comments, or rejection of this detailed Change Proposal within [insert: number] days from your receipt of this Proposal.
 - (b) The amount of any increase and/or decrease shall be taken into account in the adjustment of the Contract Price.

For and on behalf of the Supplier

Signed:

Date:

in the capacity of: [state: "Supplier's Representative" or other higher level authority in the Supplier's organization]

8.5 Change Order Form

(Purchaser's Letterhead)

Date: [insert: date]

Loan/Credit Number: [insert: loan or credit number from IFB]

IFB: [insert: title and number of IFB]

Contract: [insert: name of System or Subsystem and

number of Contract]

To: [insert: name of Supplier and address]

Attention: [insert: name and title]

Dear Sir or Madam:

We hereby approve the Change Order for the work specified in Change Proposal No. [insert: number], and agree to adjust the Contract Price, Time for Completion, and/or other conditions of the Contract in accordance with GCC Clause 39 of the Contract.

- 1. Title of Change: [insert: name]
- 2. Request for Change No./Rev.: [insert: request number / revision]
- 3. Change Order No./Rev.: [insert: order number / revision]
- 4. Originator of Change: [select: Purchaser / Supplier; and add: name]
- 5. Authorized Price for the Change:

Ref. No.: [insert: number] Date: [insert: date]

[insert: amount in foreign currency A] plus [insert: amount in foreign currency B] plus [insert: amount in foreign currency C] plus [insert: amount in local currency]

- 6. Adjustment of Time for Achieving Operational Acceptance: [insert: amount and description of adjustment]
- 7. Other effects, if any: [state: "none" or insert description]

For and on behalf of the Purchaser

Signed:

Date:

in the capacity of: [state: "Project Manager" or higher level authority in the Purchaser's organization]

For and on behalf of the Supplier

Signed:

Date:

in the capacity of: [state "Supplier's Representative" or higher level authority in the Supplier's organization]

System.

1.

2.

3.

4.

5.

6.

7.

8.6 **Application for Change Proposal Form**

(Supplier's Letterhead)

Date: [insert: date] Loan/Credit Number: [insert: loan or credit number from IFB] IFB: [insert: title and number of IFB] name of System or Subsystem and Contract: [insert: number of Contract] To: [insert: name of Purchaser and address] Attention: [insert: name and title] Dear Sir or Madam: We hereby propose that the below-mentioned work be treated as a Change to the Title of Change: [insert: name] Application for Change Proposal No./Rev.: [insert: number / revision] dated: [insert: date] Brief Description of Change: [insert: description] Reasons for Change: [insert: description] Order of Magnitude Estimation: [insert: amount in currencies of the Contract] Schedule Impact of Change: [insert: description]

Effect on Functional Guarantees, if any: [insert: description]

8. Appendix: [insert: titles (if any); otherwise state "none"]

For and on behalf of the Supplier

Signed:

Date:

in the capacity of: [state: "Supplier's Representative" or higher level authority in the Supplier's organization]