BIDDING DOCUMENT (SINGLE-STAGE)

Issued on: 24-10-2019

for the

Procurement of

Design, Supply, Installation, configuration and training of Integrated Financial Management Information System (IFMIS) software and IT Infrastructure of BREB & PBSs

Package No. ISPG-05

Project: Technical Assistance Project for Institutional Strengthening of Rural Electrification Program (TAPP) of Rural Electricity Transmission and Distribution (T &D) project of IDA (Credit No.: 5381 BD)

Debasish Chakrabortty
Project Director, TAPP Project
Training Academy Building, 1st Floor
Nikunja-2, Khilkhet, Dhaka-1229, Bangladesh
Bangladesh Rural Electrification Board (BREB)

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Invitation for Bids (IFB)

24-10-2019

[Bangladesh]

Design, Supply, Installation, configuration and training of Integrated Financial Management Information System (IFMIS) software and IT Infrastructure of BREB

Package No. ISPG-05

Purchaser: *BANGLADESH RURAL ELECTRIFICATION BOARD (BREB)*

Project:*Technical Assistance Project for Institutional Strengthening of Rural Electrification Program (TAPP) of Rural Electricity Transmission and Distribution (T &D) project of IDA (Credit No.: 5381 BD)*

Contract title: *Design, Supply, Installation, configuration and training of "Integrated Financial Management Information System (IFMIS) software and IT Infrastructure of BREB".*

1.   This Invitation for Bids (IFB) follows the General Procurement Notice (GPN) for this project that appeared in BREB online on 24-10-2019

2.   The Government of the Peoples' Republic of Bangladesh has received financing in the amount of USD 6million equivalents from the World Bank toward the cost of the **Technical Assistance Project for Institutional Strengthening of Rural Electrification Program (TAPP) of Rural Electricity Transmission and Distribution (T&D) project of IDA (Credit No.: 5381 BD)** and it intends to apply part of the proceeds to payments for EPC plant, goods, works and consulting services to be procured under this project. The project is under implementation and major contracts have been awarded for power plant construction.

3.   Technical Assistance Project Proposal (TAPP) of Rural Electricity Transmission and Distribution (T&D) project under Bangladesh Rural Electrification Board (BREB) serves as the implementing agency for the project; and is now invites sealed bids from eligible Bidders for **Design, Supply, Installation, configuration and training of "Integrated Financial Management Information System (IFMIS) software and IT Infrastructure of BREB"** which includes project management, supply, installation, design, implementation, customization, integration, training and support. This contract duration is for 3 years including 05 month software development, software supply, and installation and commissioning which should be under full warranty. Post warranty service to be renewal yearly basis after 3 years contract subject to same project contract or separate contract.

4.   The proposed software system will be implemented in the Bangladesh Rural Electrification Board (BREB) to cover Head Office and 3 Warehouses (Savar, Chittagong & Khulna).

5.   Bidding will be conducted using the National Competitive Bidding (NCB) procedures specified in the World Bank's Guidelines: Procurement under IBRD Loans and IDA Credits, edition of *2011 **of the edition and of any applicable revisions to it** (should be the same as specified in the BDS for ITB Clause 1.3)]*, and is open to all Bidders eligible as defined in these Guidelines, that meet the following minimum qualification criteria:

- Bidder (Each partner in case of Joint Venture) company must have been running business in IT sector for a minimum of Five (5) years
- Bidder (each partner in case of Joint Venture) must have been in operation in IT sector a minimum of Five (5) years and single bidder or one JV partner have sound experience in Customized/Commercial off-the-shelf (COTS) Financial Management Software systems or ERP for a minimum of Five (5) years.

- . Bidder (Any partner in case of Joint Venture) must have at least 1 (one) "Custom Development or Customized Commercial off-the-shelf (COTS) : Financial Management Software systems or ERP software System" contract involving installation, implementation and technical support provided in Last 5 years with a minimum value of BDT 80 Lacs by single or multiple contracts (up to four). At least one above software is fully operational for at least 2 (two) years.

- Bidder must have completed within the last five (5) years at least two (2) "Customized/Commercial off-the-shelf (COTS) Financial Management Software systems" or ERP software solution contract involving installation, implementation and technical support for the above software solution with a minimum value of BDT 80 Lacs of each contract and is fully operational for at least 2 (two) years.

- Bidder (Any partner or combined in case of Joint Venture) shall demonstrate average annual business turnover of at least BDT 5 Crore calculated as total certified payments received for contract in progress or completed within last five (5) years from IT business

- Bidder (single or joint venture) must demonstrate minimum availability of liquid assets of BDT 2 Crore. (Documentary proof required: Latest audited financial statements and/or line of credit)

- Bidder (single or at-least one partner in case of joint venture) must be certified by valid SEI-CMM level minimum 3 or valid ISO9001:2015 or latest.

- Bidder must engage one or more firms registered in Bangladesh to provide warranty and post-warranty support services (i.e. post implementation support services) under the contract resulting from this bidding process. The firm(s) must have fully functional office in Bangladesh and continued IT business in Bangladesh for the last 5 (five) years. The bidder may engage the firm(s) to provide post implementation support services either as partner of the Joint Venture or Subcontractor or Agent as specified in documents ITB & SCC section. The scope of support services must be mentioned in the scope of Joint Venture Agreement in case of Joint Venture Partner or Authorization letter in case of Subcontractor or Agent agreement in case of an Agent.

6.   Interested eligible Bidders may obtain further information from TAPP Project under Bangladesh Rural Electrification Board (BREB) and inspect the bidding documents at the address given in section from 10:00 am to 4:00 pm. A pre-bid meeting will be held on 11am 13/11/2019 at Training Room No. 701, Training Academy Building (6th Floor), BREB, with the potential bidders.

7.   A complete set of bidding documents in English may be purchased by interested Bidders on submission of a written application to the address below (letter or email) and upon payment of a nonrefundable fee of BDT 4,000/-. The method of payment will be in the form ofA Pay order or Bank Draft in favor of the Bangladesh Rural Electrification Board (BREB)'.

8.   Bids must be delivered to the address below at or before 12:00 PM on 25/11/2019 Late Bids will not be accepted. Bids will be opened in the presence of Bidder's representatives who choose to attend at the address below at 12:30 PM on 25/11/2019

9.   Bids need to be secured by a bid security. The amount of Bid Security required is
BDT: 25,00,000/-

10.   Website publication of bid document will be available in PDF format on Bangladesh Rural Electrification Board (BREB) website for all visitors. Please note that bidders must purchase bid documents to be eligible for bid submission.

11.   The attention of prospective Bidders is drawn to (i) the fact that they will be required to certify in their bids that all software is either covered by a valid license or has been produced by the Bidder and (ii) that violations are considered fraud, which can result in ineligibility to be awarded World Bank-financed contracts.

Mr. Debasish Chakrabortty
Project Director, TAPP Project
Training Academy Building, 1st Floor
Nikunja-2, Khilkhet, Dhaka-1229.
Bangladesh Rural Electrification Board (BREB), Dhaka
Tel: 02-8900145
E-mail: envreb@gmail.com
Web: www.reb.gov.bd

SECTION I. INSTRUCTIONS TO BIDDERS (ITB)

(Single-Stage Bidding)

Notes on the Instructions to Bidders (ITB) for a single-stage bidding process

This section of the Bidding Document provides the information necessary for Bidders to prepare and submit responsive bids that meet the Purchaser's requirements. The ITB describes the critical steps of bid submission, opening and evaluation, and the award of contract.

The ITB is to be used unchanged. Section II, which consists of the Bid Data Sheet (BDS), is designed to include provisions that supplement or specify additional information beyond that included in the ITB. This information is specific to each procurement and must be filled in completely by the Purchaser.

Matters governing the performance of the Supplier, payments under the Contract, and the risks, rights, and obligations of the parties under the Contract during actual performance are not included in the ITB, but rather are covered in the General Conditions of Contract (Section IV) and/or the Special Conditions of Contract (Section V). Different sections of the Bidding Document should not overlap or duplicate the coverage of a particular topic, to avoid creating ambiguity and/or contradictions.

The ITB and BDS do not form part of the final Contract.

Table of Clauses

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.[1] In pursuance of this policy, the Bank:
		(a) defines, for the purposes of this provision, the terms set forth below

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[1] 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.

as follows:

(i)   "corrupt practice"[1] 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"[2] 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"[3] 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"[4] 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 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-clause3.1 (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;

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[1]   "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.

[2]   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.

(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).

6.3   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 permitted.   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. Questions 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 currency components.Prices must 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 of 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:

(a) 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.

(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:

(a) the Bidder's technical bid, i.e., a detailed description of the 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;

(b) an item-by-item commentary on the Purchaser's Technical Requirements, demonstrating the substantial responsiveness of the Information System offered to those requirements. In demonstrating responsiveness, the 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-by-item commentary and any catalogs, technical specifications, or other preprinted materials submitted with the bid, the item-by-item commentary shall prevail;

(c) a Preliminary Project Plan describing, among other things, 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, and interrelationship of all key activities needed to complete the Contract. The Preliminary Project Plan must also 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. *[2]*." 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 *13-06-2019 at 12.30 PM* 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 Modification of Bids

23.1   The Bidder may withdraw, substitute, or modifyits bid after submission, provided that written notice of the withdrawal, substitution, or modification is received by the Purchaser prior to 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 e-mail, 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 modifiedin 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 "BIDSUBSTITUTIONNOTICE" 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 "BIDMODIFICATIONNOTICE" 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.
25. Clarification of Bids	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. For 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 local currencies and amounts into a single currency **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 (Post-qualification).

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 life-cycle 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.

(d)   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_j = the Category Technical Score of category "j"

W_j = 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.

I = 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. POSTQUALIFICATION 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 Market 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 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: **BANGLADESH RURAL ELECTRIFICATION BOARD(BREB)** Name of authorized Purchasing Agent: Debasish Chakrabortty Project Director, TAPP Project Training Academy Building, 1st Floor Nikunja-2, Khilkhet, Dhaka-1229. Bangladesh Rural Electrification Board (BREB), Dhaka Tel: 02-8900145 E-mail: envreb@gmail.com, Web: www.reb.gov.bd Description of the System for which bids are invited: Procurement of Design, Supply, Installation, configuration and training of Integrated Financial Management Information System (IFMIS) software and IT Infrastructure of BREB
ITB 1.2	Title of IFB: **Design, Supply, Installation, configuration and training of "Integrated Financial Management Information System (IFMIS) software and IT Infrastructure of BREB"** Package No: ISPG 05 Name of resulting Contract(s): *Technical Assistance Project for Institutional Strengthening of Rural Electrification Program (TAPP) of Rural Electricity Transmission and Distribution (T &D) project of IDA (Credit No.: 5381 BD)*
ITB 1.4	Alternative e-Tendering procedures are not available in this procurement.
ITB 2.1	Name of the Borrower: **The Peoples' Republic of Bangladesh.** Loan or credit number: 5381 BD Loan or credit amount: **USD 06million equivalent** *as stated in the Loan Agreement governing the Project]* Name of Project: **Technical Assistance Project for Institutional Strengthening of Rural Electrification Program (TAPP) of Rural Electricity Transmission and Distribution (T &D) project**

| ITB   6.1 (a) | **Qualification requirements for Bidders are:**

TOTAL YEAR OF EXPERIENCE:
  • Bidder (Each partner in case of Joint Venture) company must have been running business in IT sector for a minimum of Five (5) years.
    Documentary proof required:
      • Certificate of Incorporation;
      • Memorandum of association and Articles of association
      • Company Trade Licenses.
      • VAT Certificate
      • TAX Certificate.

  • ~~Bidder (each partner in case of Joint Venture) must have been in operation in IT sector~~ **a minimum of Five (5) years and single bidder or one JV partner** ~~have sound experience in Customized/Commercial off the shelf (COTS) Financial Management Software systems or ERP for a minimum of Five (5) years. Documentary proof required: 1) Certificate of Incorporation; Memorandum of association and Articles of association, 2) Audited financial statement of last 05[five] years; 3) List of activities performed in the last 5 (five) years) to the similar field. 4) List of Contract document executed in Last 5 years.~~

SPECIFIC CONTRACT EXPERIANCE:
Bidder (Any partner in case of Joint Venture) must have at least 1 (one) "Custom Development or Customized Commercial off-the-shelf (COTS) : Financial Management Software systems or ERP software System" contract involving installation, implementation and technical support provided in Last 5 years with a minimum value of BDT 80 Lacs by single or multiple contracts (up to four). At least one above software is fully operational for at least 2 (two) years.
Documentary proof required:
  (i)   List of Notification of Award (NOA), Contract Agreement, and Work order received from Purchaser in Last 5 years.
  (ii) List of Contract document or Work order executed in Last 5 years.
  (iii) List of Work Completion Certificates in Last 5 years with proper contact information.
[Note: Experience of parent or any affiliate organization shall not be considered in evaluation. Any such attempt will be treated as fraudulent practices as described in ITB 3 of the bidding document.]

  • ~~Bidder must have completed within the last five (5) years at least two (2) "Customized/Commercial off-the-shelf (COTS) Financial Management Software systems" or ERP software solution contract involving installation, implementation and technical support for the above software solution with a minimum value of BDT 80 Lacs of each contract and is fully operational for at least 2 (two) years. Provide such evidence with the copy of NOA, Contract document and work completion certificate.~~
  • ~~In case of joint venture, the partner in charge (i.e. lead partner) must have at least 1 (one) "Customized/Commercial off-the-shelf (COTS) Financial Management Software systems" or ERP software Implementation Service business experience with a minimum value of BDT 80 Lacs and~~ |

is fully operational for at least 2 (two) years. (Documentary proof required: (i) Installation, completion/ operational acceptance certificate from end users; (ii) 2 (two) years successful operation certificate from end users. [Note: Experience of parent or any affiliate shall not be considered in evaluation. Any such attempt will be treated as fraudulent practices as described in ITB 3 of the bidding document.]

TURN OVER EXPERIENCE:
- Bidder (Any partner or combined in case of Joint Venture)shall demonstrate average annual business turnover of at least BDT 5Crore calculated as total certified payments received for contract in progress or completed within last five (5) years from IT business.

- In case of JV, Lead partner must demonstrate a minimum of 40% of the average annual turnover**within last five (5) years** and second member of a joint venture shall demonstrate a minimum average annual turnover of 25% of the overall required average annual turnover **within last five (5) years** but all partners together meet 100% requirement. (Documentary proof required: Audited financial statements of last 05 years)

LIQUID ASSETS:
- Bidder (single or joint venture) must demonstrate minimum availability of liquid assets of BDT 2Crore. (Documentary proof required: Latest audited financial statements and/or line of credit)

QUALITY STANDARD:
- Bidder (single or at-least one partner in case of joint venture) must be certified by valid SEI-CMM level minimum 3 or valid ISO9001:2015 or latest. (Documentary proof required: Copy of certificate with valid dates.)

Bidder must engage one or more firms registered in Bangladesh to provide warranty and post-warranty support services (i.e. post implementation support services) under the contract resulting from this bidding process. The firm(s) must have fully functional office in Bangladesh and continued IT business in Bangladesh for the last 5 (five) years. The bidder may engage the firm(s) to provide post implementation support services either as partner of the Joint Venture or Subcontractor or Agent as specified in documents ITB & SCC section. The scope of support services must be mentioned in the scope of Joint Venture Agreement in case of Joint Venture Partner or Authorization letter in case of Subcontractor or Agent agreement in case of an Agent.

Qualification Criteria for Proposed Subcontractors

- Subcontractors responsible for IT system software implementation should meet the following :
- Subcontractor are allowed to perform following key components:
- Warranty and Post Warranty Support Service only
- Must be certified by a valid ISO 9001-2015 certification or latest (Documentary proof required: Copy of certificate with valid dates.)
- Must be in the IT business for at least 05 years. (Documentary proof required: (i) Certificate of incorporation; (ii) List of activity performed in

	last 5 (five) years.) - Must have at-least one (1) implementation experience within last 5 (five) years in the respective area in which the firm is expected to subcontract. (Documentary proof required: End user certificate or the certificate from the supplier under which the firm completed the activities as subcontractor.) - Subcontractor must meet the eligibility criteria as outlined in ITB Clause 6.1 (c) for Bidders and in SCC clause for Software and Services. [Note: Experience of parent or any affiliate shall not be considered in evaluation.
ITB 6.1 (b)	Manufacturer's Authorizations for Information Technologies either combined or single - except for those technologies which the Bidder itself manufactures are required for the following types/categories:
ITB 6.1 (c)	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. Joint Venture partner shall contractually liable for subcontractor but it has to declare if assign any. If the Bidder proposes to use Subcontractors for the provision of certain key services, written agreements by the proposed firms to provide these services in case of contract(s) resulting from this bidding are required for the following types/categories of services: - Customized Software Development - Warranty and post Warranty support Service only for Software

The table below appears within the ITB 6.1 (b) cell:

IT INFRASTRUCTURE - PASSIVE	
01	10KVA Online UPS
02	Copper and Fiber structure cabling
03	DC Racks , KVM Switch, Monitor
NETWORK SWITCH & FIREWALL - ACTIVE	
04	DATACENTER CORE SWITCH
05	BUILDING FLOOR ACCESS SWITCH
06	DC FIREWALL
SERVER , STORAGE, TAPE, SYSTEM & DB SOFTWARE	
07	SERVER TYPE-1
08	SERVER TYPE-2
09	SAN STORAGE- ALL FLASH
10	SAN SWITCH
12	DISK BACKUP SYSTEM
13	OEM SOFTWARE(S) LICENSE

	&Hardware.

B. THE BIDDING DOCUMENTS

ITB 10.1	Purchaser's / duly authorized Purchasing Agent's address: For **Clarification of Bid purposes** only, the Purchaser's or Employer's / duly authorized Purchasing Agent's address is: **Attention:** **Debasish Chakrabortty** **Project Director, TAPP Project** **Training Academy Building, 1st Floor** **Nikunja-2, Khilkhet, Dhaka-1229.** **Bangladesh Rural Electrification Board (BREB), Dhaka** **Tel: 02-8900145** **E-mail: envreb@gmail.com,** **Web: www.reb.gov.bd** Requests for clarification should be received by the Purchaser no later than 21 after IFT release. Bidder shall submit clarification in official letter pad using authorized signatory of company who purchased the bid document.
ITB 10.2	Dates, times, and places for the pre-bid meeting: Date: **13/11/2019** **Time: Local Time 11:00AM** **Place:** **PD office, Training Academy Building,** **1st Floor, Nikunja-2,** **Bangladesh Rural Electrification Board (BREB),** **Khilkhet, Dhaka-1229.**

C. PREPARATION OF BIDS

ITB 12.1	The language of the bid and of all correspondence and documents related to it is: **English**. In addition, the Bidding Documents have been issued in **English**. Bidders are permitted, at their choice, to submit their bids in one of the two languages specified. Bidders shall not submit bids in more than one language. The Contract to be signed with the winning Bidder shall be written in the language in which the bid was submitted, which will be the language that shall govern the contractual relations between the Purchaser and the winning Bidder. This will be the only Contract version which the winning Bidder shall sign.
ITB 14.1	*Depending on whether recurrent cost items are required or not, state the following:* Recurrent cost items are *[if applicable: **not**]* required.

ITB 14.4	The Incoterms edition is *"Incoterms 2000 — 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)	For foreign goods transportation with insurance up to project site, Bangladesh basis: If the goods are offered from outside the Purchaser's country, the port of entry will be any Sea, Air or Land port or any combination of these ports. I. Customs duties, Value Added Taxes(CD &VAT) and all related applicable taxes of the imported materials under the Contract (incurred at the port of entry) shall be paid by the supplier and also customs formalities including appointment of, and payment to, clearing and forwarding (C&F) agent shall be done by the Supplier. Port dues and all other charges shall be borne by the Supplier. II. The name of the place of destination for supply of goods at BREB Central Warehouse Savar, Dhaka and III. The named place of destination for final installation, commissioning, testing shall be the Bangladesh Rural Electrification Board (BREB), REB Bhaban, Nikunja - 02, Khilket, Dhaka 1229, Bangladesh; Project sites and at the Bangladesh Computer Council Data Center.
ITB 14.4 (c)	The supplier will borne the responsibility of local transportation, C&F commission & other associated costs and all necessary insurances of the Goods to the Project Sites.
ITB 14.5	*Not applicable*
ITB 14.7	Prices quoted by the Bidder shall be *fixed.*
ITB 15.1 (b)	The currency to be used for quoting prices of the Goods and Services components of the System offered locally, as well as local currency expenditures for local technical support, training, maintenance, transportation, insurance, and other local services incidental to delivery, installation and operation of the System, is Bangladesh Taka (BDT).
ITB 16.2 (c)	In addition to the topics described in ITB Clause 16.2 (c), the Preliminary Project Plan must address the following topics: The Preliminary Project Plan must address the following topics: • Bidder's Project management structure • Work breakdown structure and sequencing and time frame for each planned activity • Resource deployment plan with area wise breakdown, duration and indication of onsite/offsite availability. • Project milestones and performance indicators that may be used to monitor progress • Project communication plan • Change management and Adaptability plan • Training and knowledge transfer plan • Testing and Quality Assurance plan • Deliverable acceptance plan

	• Handover plan for all business user guides, operation manuals, as-built system drawing and technical documents • Risk management plan • Support plan for each of End-User Helpdesk, Post Go-Live Active support plan, Warranty Service Plan, Documentation • After warranty period yearly service plan
ITB 16.3	In the interest of effective integration, cost-effective technical support, and reduced re-training and staffing costs, Bidders are required to offer specific brand names and models for the following limited number of specific items: As appropriate for Hardware and OEM software
ITB 17.1	A bid security will be required.
ITB 17.7	Bid security is required as per the provision of ITB 17.1. If a bidder withdraws its bid during the period of bid validity or a successful bidder fails to accept the award of contract or sign the contract in that case the bid security shall be forfeited and may be debarred from participation of future bidding process for a minimum period of 2 (Two) years.
ITB 18.1	The bid validity period shall be one hundred and fifty days after the deadline for bid submission, as specified below in reference to ITB Clause 21.
ITB 19.1	Required number of bid hard copy - one (1) original and two (02) copies; In addition, the Bidder shall provide electronic copy of the entire Bid in PDF format with searchable text function in a Pen Drive. In addition, Bidder shall also provide, price schedules and technical specification of each product in MS Excel format separately for computing and comparison purpose to facilitate ease of evaluation

D. SUBMISSION OF BIDS

ITB 20.2 (a)	The address for bid submission is: **Debasish Chakrabortty** **Project Director, TAPP Project** **Training Academy Building, 1st Floor** **Nikunja-2, Khilkhet, Dhaka-1229.** **Bangladesh Rural Electrification Board (BREB), Dhaka** **Tel: 02-8900145** **E-mail: envreb@gmail.com** **Web: www.reb.gov.bd**
ITB 21.1	**The deadline for Bid submission is:** Date: **25/11/2019** **Bangladesh Local Time:12.00 PM**

E. BID OPENING AND EVALUATION

ITB 24.1	The Bid opening shall take place at:

	The Project Director, TAPP Project **Training Academy Building, 1st Floor** **Nikunja-2, Khilkhet, Dhaka-1229.** **Bangladesh Rural Electrification Board (BREB), Dhaka** **Tel: 02-8900145** **E-mail: envreb@gmail.com** **Web: www.reb.gov.bd** Date: **25/11/2019** **Bangladesh Local Time:12.30 PM.**
ITB 27.1	The currency chosen for the purpose of converting to a common currency is: N/A
ITB 28.1	Bids for Subsystems, lots, or slices of the overall Information System will ***not*** be considered in bid evaluation.
ITB 28.4	The bid evaluation ***will not*** take into account technical factors in addition to cost factors.
ITB 28.5	a),(b) The technical evaluation categories and the features to be evaluated within each category are as follows: Technical Score – Evaluation Criteria - Technical Score weight is 70% - **Criteria are as follows:**

01	Capacity, expertise and experience in similar projects	40%
02	Understanding of the requirement of the assignment & Solution	15%
03	Staff Qualifications and competencies for this assignment	35%
04	Training & Change and adaptability Management Experience and methodology of the assignment	10%

STAFF QUALIFICATION & EXPERTISE COMPOSITION OF PROJECT TEAM

Following are the minimum number of proposed team with required qualification and experience. Proposed Team members cannot be changed without strong ground and must be taken prior permission from BREB authority. BREB reserves the right to accept/reject any team member change request.

- Project Team Leader (1 person):
- Head of IT Infrastructure (1 Person):

- Business Process Expert (2 persons):
- System Analyst (2 persons):
- Database Expert(2 persons):
- Programming Expert (6 persons):
- System Admin & Security Expert(1 person):
- Training Expert (2 persons):
- Documentation Specialist (1 person):
- Application Layer Technical Support (2 persons):

- ~~Project Manager (Team Leader) – 1 No.~~
- ~~System Analyst/Deputy Project Manager~~
- ~~Senior IT Infrastructure Expert – 1 No.~~
- ~~IT Infrastructure Expert – 1 No.~~
- ~~Business Analyst – 1 No.~~
- ~~IT Database Administrator Expert – 1 No.~~
- ~~Computer Programmer – 6 Nos.~~
- ~~Assistant Computer Programmer – 6 Nos~~

Qualifications & Experience of Project Manager (Team Leader):

- Must have at least Post GraduateDegreeinComputer Science and Engineering/Electrical/Mechanical with sufficient skills & training in accounting, finance, and business related field or a professionally qualified accountant with valid membership of a professional accounting body
- Proposed Project Manager must have 10 years professionalexperience in project management and methodologypracticein software development project. Qualification to be qualify using industry recognized PRINCE2 or PMP certification or equivalent any professional certification.
- ~~A professional qualification in an industry recognized project management methodology and practice such as PRINCE2 or PMP is required with experience in software Project~~
- Software project management documentation experience required
- A good knowledge of Enterprise Resource Planning (ERP) is required
- IT infrastructure skills with project management software experience required
- Must possess at overall 10 (Ten) years of working experience in the area of software development, implementation, support and project management.
- Preference will be given in experience in Government or semi government organization software project development and delivery
- Having good communication skill and draft report abilities; and
- Have very good command in Bangla and English

Qualifications & Experience of ~~Senior~~Head ofIT Infrastructure Expert

- Minimum Bachelor in Computer Science//Computer

Engineering/Information Technology/Electrical from any recognized university.
- Should have at least 10 years' experience in Server Administration, Storage, Networking, Virtualization, Data Security and Data Centre technology & management
- Good experience required in Web base application deployment and data synchronization
- Experience in under Storage Area Network (SAN) environment
- Vendor Certification required in respective field of Server Administration, Networking, Security and Data Centre
- Having advanced professional international certification/accreditation will be plus
- Having good communication skill, very good command in Bangla and English

Qualifications & Experience of ~~IT Infrastructure Expert~~/System Admin & Security Expert

- Minimum Bachelor in Computer Science/Computer Engineering/Information Technology/Electrical from any recognized university.
- Should have at least 5 years' experience in Server Administration, Storage, Networking, Virtualization, Data Security and Data Centre technology & management
- Sound knowledge and 5 years hands-on experience on Switching and Routing
- Good experience required in Web base application deployment and data synchronization
- Experience in under Storage Area Network (SAN) environment
- Vendor Certification is required in respective field of Server Administration, Networking, and Security
- Having advanced professional international certification/accreditation will be plus
- Having good communication skill with Have very good command in Bangla and English

Qualifications & Experience of Business Analyst:

- Must have at least Master Degree in Business Education from any recognized university with IT/MIS education or minimum Bachelor Degree with Professional Accountancy Qualification with IT education
- Should have at least 5 years' professional experience in the area of software development project and work with project management team
- Preference will be given in experience in Government or semi government organization software project development and delivery
- Good experience required in high-level requirements and capture business needs and clearly articulates the Business Requirement Documentation (BRD) and translate to functional specification

	- Experience in coordinating a project delivery by participating in design reviews and walk-through to communicate systems designs and validate proposed solutions - Experience in Integration Testing, User Acceptance Testing (UAT) and Functionality Testing will be treated as an added advantage - Excellent communication skills and a cooperative, positive attitude and draft report abilities - Have very good command in Bangla and English **Qualifications & Experience of System Analyst**: - Must have at least Bachelor in Computer Science/Electronics/Applied Physics degree with IT qualification. - Must possess at overall 5 years of working experience in the area of software development, implementation and QC environment - Writing software requirements specifications (SRS), User Manual and other analysis works. - Experience in analyzing Accounts, Payroll, Inventory and Management - Excellent capability to translate complex client requirement to technical implementation. - Very good understanding of UML and BPMN. - Assist the project manager/technical manager by managing client expectations through careful and proactive communications regarding requirements and changes. - Excellent capability of Data Analysis and Manage change document. - Excellent capability of fitting requirements with UI/UX. - Manage requirements gathering into automated prototype. **Qualifications & Experience of Database Administrator/Database Expert**: - Must have at least Bachelor in Computer Science/Electronics/Applied Physics degree with IT qualification. - Should have relevant Vendor certificates - Experience in Installing and upgrading the database server and application Tools, Good experience in Database Performance Tuning, modifying the database structure, as necessary, from information given by application developers - Experience Planning for backup and recovery of database information and under Storage Area Network (SAN) environment - Must possess at overall 5 years of working experience in the area of software development, implementation and QC environment - **Qualifications & Experience of Computer Programmer:** - Must have at least Bachelor Degree in Computer Science/Computer Engineering or other Engineering degree with IT qualification. - Should have relevant Vendor certificates. - Must possess at overall 5 years of working experience in the area of software development, implementation and QC environment.

	Qualifications & Experience of Training Experts: ▪ 5 years of experience as a Training Expert or similar role ▪ 5 years of experience with designing training programs and workshops ▪ Experience in Track trainees success and progress ▪ Experience in Identify & Evaluate training needs according to needs ▪ Knowledge of various training and teaching methods ▪ Good knowledge of talent management and succession planning methods ▪ Excellent decision making and organizational skills ▪ Great time-management, interpersonal and communication skills ▪ Proficiency in MS Office and database software ▪ Bachelor degree in Education/HR, Training, or related field. **Qualifications & Experience of Documentation Specialist:** ▪ Degree in Communications or Computer Science or related field ▪ 2 Years' experience as Documentation expert or Executive ▪ Proficiency with scanning and administrative technology. ▪ Experience in Content Writing, Software documentations ▪ Proficient in all Microsoft Office applications. ▪ Outstanding organizational skills & Multitasking ability. ▪ Experience in interpersonal skills written and verbal communication ~~**Qualifications & Experience of Assistant Computer Programmer:**~~ ~~▪ Must have at least Diploma in Computer Science or Computer Engineering or Electrical Engineering or Power Engineering or Mechanical Engineering with IT qualification.~~ ~~▪ Should have relevant Vendor certificates.~~ ~~Must possess at overall 2 years of working experience in the area of software development, implementation and QC/UAT environment.~~
ITB 28.6 (c) (i)	The Purchaser *shall* not accept deviations in the schedule of installation and commissioning specified in the Implementation Schedule.
ITB 28.6 (c) (ii)	The Purchaser shall not accept deviations in the payment schedule in the SCC.
ITB 28.6 (d)	Not Applicable

F. POST QUALIFICATION AND AWARD OF CONTRACT

ITB 31.2	As additional post qualification measures, if the purchase whishes then the Information System (or components/parts of it) offered by the Lowest Evaluated Bidder may be subjected to the following tests and performance benchmarks prior to Contract award: • Email or visits or interviews with the Bidder's clients referenced • Site inspections (if available in Bangladesh) • Online Client Interaction and Live software demonstration.
ITB 33.1	Maximum increase or decrease up to 20%.
ITB 38.1	The Adjudicator will be appointed as per the provision of GCC 6.1.4

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

Notes on the Eligible Countries section

If any countries fall under para. 1.8 (a) of the Guidelines, their names need to be filled in at the place indicated in the text of this Section.

Finally, all explanatory notes, including this page, need to be removed.

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: *[list the countries, if any, that meet the criteria mentioned above; otherwise write: "**none**"]*

> With reference to paragraph (ii) above: *[list the countries, if any, that meet the criteria mentioned above; otherwise write: "**none**"]*

SECTION IV. GENERAL CONDITIONS OF CONTRACT

Notes on the General Conditions of Contract (GCC)

The General Conditions of Contract (GCC) contained in this section are to be read in conjunction with the Special Conditions of Contract (SCC) in Section V and the other documents listed in the Contract Agreement. Together they form a complete document expressing all the rights and obligations of the parties to the Contract.

The GCC must remain unaltered. Contract-specific information, deletions, extensions, and modifications to the GCC shall be introduced only through the SCC.

Table of Clauses

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.

(x)   "Bidding Documents" refers to the collection of 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 in the Bidding Documents reflect the 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.

(v)   "Services" means all technical, logistical, 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, Pre-commissioning, 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 (i.e., "firmware"), 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**   6.1   Adjudication
   Disputes

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, or

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 9.8constitute 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, Pre-commissioned, 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 local 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 the 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 within 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.

18.2.2   Subject to the extensions and/or limitations **specified 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 be responsible for any discrepancies, errors or omissions in the specifications, drawings, and other technical documents that it has prepared, whether such specifications, drawings, and other documents have been approved by the Project Manager or not, provided that such discrepancies, errors,

or omissions are not because of inaccurate information furnished in writing to the 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 instructions and shall be relieved 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.

26. Installation of the System

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. The 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 third-party 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 not 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.

39.2.5   If before or during the preparation of the Change 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 accordingly. Under such circumstances, the 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 obstructivepractices,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"[1] 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"[2] 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"[3] 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"[4] 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 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:

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[1] "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.

[2] 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.

(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.

41.2.6   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 Supplier may terminate the Contract 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 thereunder, 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)

Notes on preparing the Special Conditions of Contract (SCC)

The SCC are analogous to the Bid Data Sheet (BDS) in that they are used to specify in one place all the important information, deletions, changes, and additions relating to a standard part of the Bidding Documents necessary to provide proper contractual coverage for a particular Information System (System). In this instance, the deletions, changes, and additions relate to the General Conditions of Contract (GCC). Users should avoid in general, however, introducing major changes to the GCC. The standard GCC provisions provide a balanced framework within which a System can be supplied and installed that is fair to both the Purchaser and the successful Bidder. Major changes can upset this balance and therefore will require the clearance of the Regional Procurement Advisor.

As for the BDS, illustrative sample text and explanatory notes are provided for each Special Condition to assist the Purchaser in preparing more appropriate and focused SCC. Much of the sample text may be adopted directly. The Purchaser may have to modify or expand the suggested text, however, to accommodate the specific circumstances of the Purchaser, the Purchaser's Country and/or the System the Purchaser wishes to procure. In particular, the Purchaser must ensure that the SCC clearly and completely specify:

(a) all the Contract-specific information that the GCC explicitly state will be specified in the SCC (e.g., governing law and language, names of the Purchaser and the Supplier, currency(ies) of payment);

(b) any modifications to the GCC that are required so that the Contract fits the specific circumstances of the System (e.g., details of the operational acceptance tests that will be carried out or the specific nature of any maintenance service obligations that the Supplier will have to carry out);

(c) any GCC clause, sub-clause that is non-applicable and should be deleted; and

(d) any additional Contract conditions called for by the specific nature of the procurement and the risks associated with it, which are not adequately covered by the standard GCC.

Since the SCC complete, complement, and extend the GCC, the structure of the SCC presented here is designed to mirror that of the GCC themselves. For ease of use, most, if not all SCC clauses should be explicitly linked to specific standard GCC clauses and sub-clauses and be presented in the same sequence. The Purchaser should take great care to maintain and verify the accuracy of all cross references used linking the two sections. Also, in preparing the SCC, the Purchaser should avoid at all costs introducing duplications and/or contradictions between the SCC and the GCC. When such contradictions occur, the SCC prevail over the GCC, but in the process they create ambiguity and confusion that can undermine the Purchaser's ability to exercise its rights under the Contract. In addition to maintaining the harmony between the SCC and the GCC, the Purchaser should also ensure that the Technical Requirements (and the Implementation Schedule that is part of the Technical Requirements) and the SCC remain internally consistent.

These SBD are written so that a single Contract can cover, if needed, all the supply and service responsibilities potentially required throughout the life-cycle of a typical Information System, including:

(a)   The period covering the supply, Delivery, Pre-commissioning, Installation, Commissioning, and Operational Acceptance of the System;

(b)   The Warranty Period, following Operational Acceptance, during which the System is in use and the Supplier remains liable for the repair of any defects that are discovered in the System, and to provide any other Services specified in these SCC; and

(c)   The Post-Warranty Services Period, during which the Supplier is obligated to provide those Goods and Services that were: (i) identified in the Recurrent Cost Sub-Table and (ii) specified in Clause 7.3 of the SCC as obligations of the Supplier. These obligations may include, for example: providing software licenses annually, emergency repair and other technical support, hardware and software maintenance, etc.

To the extent that the items in the Post-Warranty Services Period can be classified as normal recurrent operational costs of the Purchaser (as compared with one-time costs associated with the Contract), the ability of the World Bank to finance them may be affected, since normally such costs are the responsibility of the Borrower. Provided, however, the World Bank has established so-called Country Financing Parameters with the country of the Purchaser, an enlarged scope might exist for financing recurrent costs by the World Bank in accordance with the Financing Guidelines of April 2004. In order to reduce the administrative complexity of contracts, recurrent and other cost items not financed by the World Bank but taken into consideration in the Evaluated Bid Priceshould be acquired under separate, free-standing contract(s) between the Purchaser and the Supplier (or other suppliers). These contracts are either self-financed or financed by other lenders. However such costs are financed, it is in the Purchaser's interest to carefully identify the key recurrent cost items that are likely to be required in the Bidding Documents and invite Bidders to quote for them in competition, because more economic prices are likely to result.

In addition to specifying these items in the Recurrent Cost Sub-Table of the Bidding Document and incorporating them into the bid evaluation process specified in the ITB and BDS, the Purchaser must also specify the technical and other features of these recurrent obligations in the Technical Requirements and/or the SCC. For example, the coverage period, the required response times, and how the maintenance services are carried out all need to be defined.

Table of Clauses

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.

Note: The following are sample clauses. The Purchaser must complete, modify, add, or delete the following sample SCC clauses as appropriate. If a GCC clause is not applicable to the specific procurement, then add a clause to the SCC stating that the specific GCC clause is deleted. Also, whenever the GCC does not cover an important contractual matter, then add a suitable clause or clauses, in the most appropriate place in 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: Procurement Policies, Guidelines And Documents are Projects prior to July 1, 2016 to follow.
GCC 1.1 (b) (i)	The Purchaser is: **Bangladesh Rural Electrification Board**
GCC 1.1 (b) (ii)	The Project Director is: **Debasish Chakrabortty** **Project Director, TAPP Project** **Training Academy Building, 1st Floor** **Nikunja-2, Khilkhet, Dhaka-1229.** **Bangladesh Rural Electrification Board (BREB), Dhaka** **Tel: 02-8900145E-mail: envreb@gmail.com**
GCC 1.1 (e) (i)	The Purchaser's Country is: Peoples' Republic of Bangladesh
GCC 1.1 (e) (iii)	The Project Site(s) are: I. **Nikunja-2, Khilkhet, Dhaka-1229.** **Bangladesh Rural Electrification Board (BREB), Dhaka** II. **Central Ware House, Nabinagar, Savar, Dhaka** II. **Central Ware House, Faujdarhat, Chattogram** V. **Central Ware House, Shiromani, Khulna**
GCC 1.1 (e) (x)	The Contract shall continue in force until the "Integrated Financial Management Information System and all the IT Infrastructure" have been provided unless the Contract is terminated earlier in accordance with the terms set out in the Contract.
GCC 1.1. (e) (xii)	Post-warranty maintenance services: Post-Warranty Service period is three (3) years. Vendors should submit the planning & pricing for post-warranty support in their proposals and it will be part of the evaluation criteria. BREB would have the flexibility to buy post-warranty support in the current contract or in a separate contract.

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	**Fallback address of the Purchaser:** **Debasish Chakrabortty** **Project Director, TAPP Project** **Training Academy Building, 1st Floor** **Nikunja-2, Khilkhet, Dhaka-1229.** **Bangladesh Rural Electrification Board (BREB), Dhaka** **Tel: 02-8900145E-mail: envreb@gmail.com** **Web: www.reb.gov.bd**

5.   Governing Law (GCC Clause 5)

GCC 5.1	The Contract shall be interpreted in accordance with the laws of Bangladesh.

6.   Settlement of Disputes (GCC Clause 6)

GCC 6.1.4	The Appointing Authority for the Adjudicator is: President of the Institution of Engineers' Bangladesh (IEB) in consultation with the Executive Director of the Bangladesh Computer Council (BCC) for IT Infrastructure& Hardware devises and Bangladesh Association of Software and Information Services (BASIS) for "Integrated Financial Management System (IFMIS) softwareat the request of either/both parties and appoint the Adjudicatorafter due consultation with both parties.
GCC 6.2.3	Any dispute between the Purchaser and a Supplier arising in connection with the present Contract shall be referred to arbitration in accordance with the Bangladesh Arbitration Act 2001. The place of Arbitration shall be Dhaka in Bangladesh.

B. SUBJECT MATTER OF CONTRACT

7. Scope of the System (GCC Clause 7)

GCC 7.3	The Supplier's obligations under the Contract will include the following recurrent cost items, as identified in the Recurrent Cost tables in the Supplier's Bid: the recurrent cost items/services that are included in the Contract as per cross reference to the place in the Technical Requirements where each item/service is specified in detail.
	The Supplier agrees to supply spare parts required for the operation and maintenance of the Information System during Post-Warranty Service period is three (3) years or 36 Months starting with the completion of 36months full warranty period beginning with Operational Acceptance.

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

GCC 8.1	The Supplier shall commence work on the System within: *twenty one (21)*of days from the Effective Date of the Contract.
GCC 8.2	Operational Acceptance will occur on or before: Operational Acceptance date consistent with the Implementation Schedule in the Technical Requirements Section

9. Supplier's Responsibilities (GCC Clause 9)

GCC 9.9	The Supplier shall have the following additional responsibilities:None

10. Purchaser's Responsibilities (GCC Clause 10)

GCC 10.12	The Purchaser shall have the following additional responsibilities: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	Subject to the provisions of GCC Clause 12 (Terms of Payment), the Purchaser

shall pay the Contract Price to the Supplier according to the categories and in the manner specified below.   Only the categories Advance Payment and Complete System Integration relate to the entire Contract Price.   In other payment categories, the term "total Contract Price" means the total cost of goods or services under the specific payment category.   Within each such category, the Contract Implementation Schedule may trigger pro-rata payments for the portion of the total Contract Price for the category corresponding to the goods or services actually Delivered, Installed, or Operationally Accepted, at unit prices and in the currencies specified in the Price Schedules of the Contract Agreement.

A) Goods/Service/Training Payment Categories:

1. **GOODS**

   (i) Custom Software and its License:

   - Fifteen percent (15%) of the total amount as an advance payment against receipt of invoice and an irrevocable advance payment security for the equivalent amount made out in favor of the Employer. The advance payment security may be reduced in proportion to the value of the SOFTWARE licenses and related documents, as evidenced by shipping and delivery documents. This percentage exclusive of all Recurrent Costs, shall be paid against receipt of a claim accompanied by the Advance Payment Security specified in GCC Clause 13.2.

   - Sixty percent (60%) of the total or pro rata amount upon delivery to the carrier against receipt of invoice within forty-five (45) days after receipt of documents. This percentage exclusive of all Recurrent Costs.

   - Ten percent (10%) of the total or pro rata amount upon issue of the Inspection Certificate after Software License receive& inspection within forty-five (45) days after receipt of invoice. This percentage exclusive of all Recurrent Costs.

   - Five percent (5%) of the total or pro rata amount upon issue of the Operational Certificate after Software License installation, activation and commissioning within forty-five (45) days after receipt of invoice. This percentage exclusive of all Recurrent Costs.

   - Ten percent (10%) of the total or pro rata amount upon completion of Defect Liability period OR submission of a

performance security of the same amount to the Employer upon issue of the Operational Acceptance Certificate, within forty-five (45) days after receipt of invoice. This percentage exclusive of all Recurrent Costs., as final payment against User Acceptance Test (UAT) after the period of Operational Acceptance of the Software as an integrated whole.

Total: 100%

(ii) Hardware and Material:

- Fifteen percent (15%) of the total amount as an advance payment against receipt of invoice and an irrevocable advance payment security for the equivalent amount made out in favor of the Employer. The advance payment security may be reduced in proportion to the value of the Hardware Material and related documents, as evidenced by shipping and delivery documents. This percentage exclusive of all Recurrent Costs, shall be paid against receipt of a claim accompanied by the Advance Payment Security specified in GCC Clause 13.2.

- Sixty percent (60%) of the total or pro rata CIP amount upon delivery to the carrier against receipt of invoice within forty-five (45) days after receipt of documents. This percentage exclusive of all Recurrent Costs.

- Ten percent (10%) of the total or pro rata amount upon issue of the Inspection Certificate after Hardware Material and related documents receive & inspection within forty-five (45) days after receipt of invoice. This percentage exclusive of all Recurrent Costs.

- Five percent (5%) of the total or pro rata CIP amount upon issue of the Operational Certificate after Hardware Material installation, Configuration and commissioning within forty-five (45) days after receipt of invoice. This percentage exclusive of all Recurrent Costs

- Ten percent (10%) of the total or pro rata amount upon completion of Defect Liability period OR submission of a performance security of the same amount to the Employer upon issue of the Operational Acceptance Certificate, within forty-five (45) days after receipt of invoice. This percentage exclusive of all Recurrent Costs., as final payment against

User Acceptance Test (UAT) after the period of Operational Acceptance of the Software as an integrated whole

Total: 100%

2. **SERVICE(S):**

(i) **Software Development, Customization and Implementation Service(s) :**

- Fifteen percent (15%) of the total amount as an advance payment against receipt of invoice and an irrevocable advance payment security for the equivalent amount made out in favor of the Employer. The advance payment security payment to be adjusted to reduce in proportion to the value of the Software Customization and Implementation, as evidenced by actual work done. This percentage exclusive of all Recurrent Costs, shall be paid against receipt of a claim accompanied by the Advance Payment Security specified in GCC Clause 13.2.

- Fifty five percent (55%) of the total or pro rata amount upon actual Software Development Customization and Implementation and the go-live operational period with inspection as per schedule upon submission of invoice (s) within forty-five (45) days after receipt of software documents. This percentage exclusive of all Recurrent Costs.

- Twenty percent (20%) of the total or pro rata amount against the further COTS Software customization and development period starting after Go-Live period upon submission of invoice within forty-five (45) days after receipt of invoice. This percentage exclusive of all Recurrent Costs.

- Ten percent (10%) of the total or pro rata amount upon completion of Detect Liability period OR submission of a performance security of the same amount to the Employer upon issue of the Operational Acceptance Certificate, within forty-five (45) days after receipt of invoice. This percentage exclusive of all Recurrent Costs., as final payment against User Acceptance Test (UAT) after the period of Operational Acceptance of the Software as an integrated whole
Total: 100%

(ii)   Software Implementation Team:
- Fifteen percent (15%) related price of the entire Contract, exclusive of all Recurrent Costs, shall be paid against receipt of a claim accompanied by the Advance Payment Security specified in GCC Clause 13.2

- Team personal Payment to be paid per month basis against the submission of invoice. Seventy Five percent (75%) of the price of the services actually delivered will be paid monthly in arrears, on submission and Purchaser's approval of invoices as per schedule and work specification

- Ten percent (10%) of the total or pro rata amount upon completion of Detect Liability period OR submission of a performance security of the same amount to the Employer upon issue of the Operational Acceptance Certificate, within forty-five (45) days after receipt of invoice. This percentage exclusive of all Recurrent Costs., as final payment against User Acceptance Test (UAT) after the period of Operational Acceptance of the Software as an integrated whole
- Total: 100%

(iii)   Technical Support Team:
- Fifteen percent (15%) related price of the entire Contract, exclusive of all Recurrent Costs, shall be paid against receipt of a claim accompanied by the Advance Payment Security specified in GCC Clause 13.2

- Team personal Payment to be paid per month basis against the invoice and this service shall start from the specified date to continue until finished the 3 years' contract. Seventy Five percent (75%) of the price of the services actually delivered will be paid monthly in arrears, on submission and Purchaser's approval of invoices.

- Ten percent (10%) of the total or pro rata amount upon completion of Detect Liability period OR submission of a performance security of the same amount to the Employer upon issue of the Operational Acceptance Certificate, within forty-five (45) days after receipt of invoice. This percentage exclusive of all Recurrent Costs., as final payment against User Acceptance Test (UAT) after the period of Operational Acceptance of the Software as an integrated whole

<u>Total: 100%</u>

3.   **TRAINING:**

- Fifteen percent (15%) related price of the entire Contract, exclusive of all Recurrent Costs, shall be paid against receipt of a claim accompanied by the Advance Payment Security specified in GCC Clause 13.2
- Seventy Five percent (75%) of the pro-rata Contract Price for training services performed will be paid in arrears, on submission and approval of appropriate invoices and related documents. [indicate training]
- Ten percent (10%) of the total or pro rata amount upon completion of Defect Liability period OR submission of a performance security of the same amount to the Employer upon issue of the Operational Acceptance Certificate, within forty-five (45) days after receipt of invoice. This percentage exclusive of all Recurrent Costs., as final payment against User Acceptance Test (UAT) after the period of Operational Acceptance of the Software as an integrated whole

Total: 100%

4.   **RECURRENT COSTS**

- Fifteen percent (15%) related price of the entire Contract, exclusive of all Recurrent Costs, shall be paid against receipt of a claim accompanied by the Advance Payment Security specified in GCC Clause 13.2

- Seventy Five percent (75%) of the price of the services actually delivered will be paid Monthly or Quarterly or Half yearly or yearly in arrears, on submission and Purchaser's approval of invoices during the contract.

- Ten percent (10%) of the total or pro rata amount upon completion of Detect Liability period OR submission of a performance security of the same amount to the Employer upon issue of the Operational Acceptance Certificate, within forty-five (45) days after receipt of invoice. This percentage exclusive of all Recurrent Costs., as final payment against User Acceptance Test (UAT) after the period of Operational Acceptance of the Software as an integrated whole

Total: 100%

(a)   **Advance Payment**

Ten percent (10%) of the entire Contract Price, exclusive of all Recurrent Costs, shall be paid against receipt of a claim accompanied by the Advance Payment Security specified in GCC Clause 13.2.

(b)   **Goods:**

- *Software's:* Customized software development for "Integrated Financial Management Information System (IFMIS) software:
- Seventy percent (70%) of the total or pro-rata Contract Price based on each module development for this category against License Delivery, Software Delivery , Installation and Go-Live.
- Ten percent (10%) of the same price against configuration and Operational after go-live.

- **IT Infrastructure Hardware(s) & Others System (s) :**
- Seventy percent (70%) of the total or pro-rata Contract Price for this category against the progress delivery and Installation
- Ten percent (10%) of the same price against Operational Acceptance within 45 days of product delivery subject to hardware System operational.

- Sixty percent (60%) of the total or pro rata CIP amount upon Incoterm "CIP", upon delivery to the carrier against receipt of invoice within forty five (45) days after receipt of documents. This percentage exclusive of all Recurrent Costs.

- Ten percent (10%) of the total or pro rata CIP amount upon issue of the Inspection Certificate after Hardware Material and related documents receive & inspection within forty five (45) days after receipt of invoice. This percentage exclusive of all Recurrent Costs.

- Five percent (5%) of the total or pro rata CIP amount upon issue of the Operational Certificate after Hardware Material installation, Configuration and commissioning within forty-five (45) days after receipt of invoice. This percentage exclusive of all Recurrent Costs
-

(c)   **SERVICES: Training & Requiring cost or Warranty/License Renewal.**

Eighty percent (80%) of the total Contract Price for training services

	~~actually delivered to customer will be paid in arrears, on submission and Purchaser's approval of invoices.~~
	~~(d) **COMPLETE SYSTEM INTEGRATION**~~
	~~Ten percent (10%) of the entire Contract Price, exclusive of all Recurrent Costs, as final payment against Operational Acceptance of the System as an integrated whole.~~
	~~(e) **RECURRENT COSTS**[If any]~~
	~~One hundred percent (100%) of the price of the services actually delivered will be paid monthly or yearly in arrears, on submission and Purchaser's approval of invoices.~~
	All the payments shall be made within 45days of presentation of claim/clean invoice supported by a certificate from the Procuring Entity certified by Project Director and approved by Project Manager, declaring that the Goods/Services have been delivered and that all other contracted Services have been satisfactorily performed.
GCC 12.3	The Purchaser shall pay to the Supplier interest on the delayed payments at a rate of: The interest rate for the delayed payment will be prevalent bank rate per annum for local currency payments and 3-months LIBOR plus 1% for foreign currency payments.
GCC 12.4	For Goods and Services supplied locally, the Purchaser will pay the Supplier in *Bangladesh Taka.*
GCC 12.5	Payment for Goods & Services supplied from outside the Purchaser's Country shall be made in the form of an irrevocable letter of credit.

13.   Securities (GCC Clause 13)

GCC 13.2.1	The Supplier shall provide within twenty-eight (28) days of the notification of Contract award an Advance Payment Security in the amount and currency of the Advance Payment specified in SCC for GCC Clause 12.1 above.
GCC 13.2.2	Advance payment security shall be submitted in the form of Bank Guarantee
GCC 13.3.1	The amount of Performance shall be ten (10%) percent of the contract price and remain valid up to 28 (twenty eight) days after completion of warranty period. The Performance Security shall be in the form of a Bank Guarantee by a schedule bank of Bangladesh. The performance security must not be perforated, torn, sealed or signed by any party other than issuing bank. The Performance security shall be denominated in BDTcurrency.
GCC 13.3.4	The amount of performance security shall be reduced to 2% after expiration of

	01 year of warranty obligation.
	Performance security shall remain valid for 45 (Forty five) months from the date of contract signing covering warranty period.

14.   Taxes and Duties (GCC Clause 14)

GCC 14	Custom Duties, VAT, AIT and applicable all other duties/taxes shall be paid by the Supplier.

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, under the following circumstances: group reorganization of BREB/PBSs or change in name of the Purchaser.
GCC 15.4	The Purchaser's and Supplier's rights and obligations with respect to Custom Software or elements of the Custom Software are as follows: The Purchaser is the owner of the Custom Software (i.e. IFMIS and related custom software). The Purchaser's and Supplier's rights and obligations with respect to Custom Materials or elements of the Custom Materials are as follows: The Purchaser is the owner of the Custom Materials
GCC 15.5	No software escrow arrangement is required for the execution of the Contract

16.   Software License Agreements (GCC Clause 16)

GCC 16.1 (a) (iii)	The Standard Software license shall be valid *throughout the territory of the Purchaser's Country.* The software license must be in the name of the purchaser Bangladesh Rural Electrification Board (BREB) and not the bidder's name.

GCC 16.1 (a) (iv)	Use of the software shall be subject to the following additional restrictions *none*.
GCC 16.1 (b) (ii)	The Software license shall permit the Software to be used or copied for use or transferred to a replacement computer *provided the replacement computer falls within approximately the same class of machine and maintains approximately the same number of users, if a multi-user machine.*
GCC 16.1 (b) (vi)	The Software license shall permit the Software to be disclosed to and reproduced for use (including a valid sublicense) by *support service suppliers or their subcontractors, exclusively for such suppliers or subcontractors in the performance of their support service contracts.*
GCC 16.1 (b) (vii)	In addition to the persons specified in GCC Clause 16.1 (b) (vi), the Software may be disclosed to, and reproduced for use by persons authorized by BREB subject to the same restrictions as are set forth in this Contract.
GCC 16.2	The Supplier's right to audit the Standard Software will be subject to the following terms: the Purchaser will allow, under a pre-specified procedure, execution of embedded software functions under Supplier's control, and unencumbered transmission of resulting information on software usage.

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	There are no Special Conditions of Contract applicable to GCC Clause 17.7

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* *(d) Pre-commissioning and Operational Acceptance Testing Plan* *(e) Warranty Service Plan* *(f) Task, Time, and Resource Schedules* *(g) Post-Warranty Service Plan (if applicable)* *(h) Technical Support Plan (if applicable)* *(i) etc.* ***Further details regarding the required contents of each of the above chapters are contained in the Technical Requirements, Section (insert: reference)].***
GCC 19.2	Within Thirty (30) days from the Effective Date of the Contract, the Supplier shall present a Project Plan to the Purchaser. The Purchaser shall, within fourteen (14) 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, the Purchaser shall provide confirmation in writing to the Supplier. 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) 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) Monthly Report or One time report

	(i). Training participants test results of IFMIS software
	(ii). Monthly log of service calls and problem resolutions

20.   Subcontracting (GCC Clause 20)

GCC 20	There are no Special Conditions 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 a*s 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. System Requirements Blueprint and Fit-Gap Analysis System Design document for any custom software development Custom Report Development Data Migration Plan Training Plan

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 and shall obtain insurance from *any eligible country.*
GCC 22.5	The Supplier shall provide the Purchaser with shipping and other documents as specified in the GCC.

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.

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

GCC 24	BREB requires active support from suppliers' team during the go-live stabilization for a period of 12 weeks. Key staff from the suppliers' team should be retained onsite for maintenance and stabilization of the system.

25.   Inspections and Tests (GCC Clause 25)

GCC 25	There are no Special Conditions of Contract applicable to GCC Clause 25.

26.   Installation of the System (GCC Clause 26)

GCC 26	There are no Special Conditions of Contract applicable to GCC Clause 26.

27.   Commissioning and Operational Acceptance (GCC Clause 27)

GCC 27.2.1	Operational Acceptance Testing shall be conducted in accordance with Technical Requirements.
GCC 27.2.2	If the Operational Acceptance Test of the System, or Subsystem(s), cannot be successfully completed within *no more than ninety (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	Liquidated damages shall be assessed at one half of one percent (0.5%) per week of the respective phase contract price. The maximum liquidated damages are ten percent (10%) of the respective phase Contract Price.
GCC 28.3	Liquidated damages shall be assessed only with respect to achieving Operational Acceptance.

29.   Defect Liability (GCC Clause 29)

GCC 29.1	For Software, exceptions or limitations to the Supplier's warranty obligations shall be as follows: *None*
GCC 29.3 (iii)	The Supplier warrants that the following items have been released to the market for the following specific minimum time periods: *[state: "No specific minimum time requirements are established for this Contract other than that the Information Technologies must have been previously released to the market;" or specify: specific types of technologies and specific minimum time periods; for example, "All Standard Software must have been commercially available in the market for at least three months"].*
GCC 29.4	The Warranty Period shall be as follows:

Component #	Name of Component	Warranty (Year)
1.0	Hardware and Related Software	
1.1	All Hardware (Servers, SAN Storage, Network Equipment (Router, Firewall, Core Switch, Fabric Switch etc) and Active part of DR site	03
1.2	Virtualization Software	03
1.3	System and System Management, and	03

			Monitoring Software		
		1.4	System Back up and Security Software	03	
		1.5	Passive part of DC (from the date of operational acceptance of the system and subsystem)	03	
		2.0	Software Licenses and Updates (from the date of operational acceptance of the system and subsystem)	03	
		2.1	CustomsIntegrated Financial Management software (IFMIS)	03	
		2.2	General Purpose related, other application, standard, customer and 3rd party software	03	
		2.3	Database Software/RDBMS	03	
		2.4	e-mail/messaging software (if any)	03	
GCC 29.10	During the Warranty period, bidder will make available its key functional and technical support staff onsite and will respond to critical system or hardware failures that prevent business operations. Bidder will commence work on remediation within three (3) hours of notification for issues where one or more principal module of the software system or its supporting IT infrastructure is unavailable to the users (Severity 1 defect). Other less serious system issues must have work commenced to remedy defects in six (6) hours. If remediation is not completed within 24 hours bidder will be required to position its team onsite for this work.				

30. Functional Guarantees (GCC Clause 30)

GCC 30	Post Warranty & final acceptance after warranty. *NB.: Full Warranty is 36 months and Post-Warranty is 36 months*

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) | The Supplier shall obtain Third-Party Liability Insurance ~~in the amount of Bangladesh Taka 10,00,000/- with deductible limits of no more than Bangladesh Taka 30,000/-).The insured Parties shall be the Supplier and the Purchaser.~~ The Insurance shall cover the period from beginning date, in terms of the date of Contract Effectiveness until expiration date, in terms of the date of Operational Acceptance Certificate.

Insurance to be Taken Out by the Supplier:
In accordance with the provisions of GC Clause 37, the Supplier shall at its expense take out and maintain in effect, or cause to be taken out and maintain in effect, during the performance of the Contract, the insurances set forth helms in the sums and with the deductibles and other conditions specified. The identity of the insurers and the form of the policies shall be subject to the approval of the Employer, such approval not to be unreasonably withheld.

a)   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 which cover the Insurance of Goods (Hardware/Software) /spare parts materials covering all risks including war, strike, riots, civil commotion from the port of shipment to the port of discharge transit after discharge to the Site. And ware-house to warehouse anywhere in Bangladesh. The supplier shall promptly furnish one set of shipping documents, a copy of Bill of lading, invoice, packing list etc, of each consignment direct to the Employer well in time of the shipment of goods indicating the contract number and name of the insurer. If they fail to comply with this instruction they will be held responsible to compensate the losses if any arising out of the none-compliance of this conditions.

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 including third party liabilities wherever considered necessary by the Supplier and approved by the Employer. 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 of the Facilities followingEmployer's country Laws. 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) Workers' Compensation In accordance with the statutory requirements prevailing in the Purchaser's Country where the Facilities or any part thereof is executed. f) Employer Liability Not applicable The Supplier shall obtain Insurance as applicable in the local currency (Bangladesh Taka) from JibanBima Corporation is the state-run life insurance provider in Bangladesh. The insured Parties shall be the supplier and the purchaser. 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.
GCC 37.1 (e)	The Supplier shall obtain Worker's Compensation Insurance in accordance with the statutory requirements of Bangladesh. The Supplier shall obtain Insurance as applicable in the local currency (Bangladesh Taka) from JibanBima Corporation is the state-run life insurance provider in Bangladesh. The insured Parties shall be the supplier and the purchaser. 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. The Supplier shall obtain Employer's Liability Insurance in accordance with the statutory requirements of Bangladesh. The Supplier shall obtain Insurance as applicable in the local currency (Bangladesh Taka) from JibanBima Corporation is the state-run life insurance provider in Bangladesh. The insured Parties shall be the supplier and the purchaser. The Insurance shall cover the period from beginning date, relative to the Effective Date of the Contract expiration date, relative to the Effective Date of Contract or its completion. All the insurance will be done by an insurance company from the purchaser

	country as specified after successful award the contract.
	~~The Supplier shall obtain Worker's Compensation Insurance in accordance with the statutory requirements of Bangladesh. Specifically: The Insurance shall cover the period from beginning date, in terms of the date of Contract Effectiveness until expiration date, in terms of the date of Contract Effectiveness or Completion.~~
	~~The Supplier shall obtain Employer's Liability Insurance in accordance with the statutory requirements of Bangladesh. Specifically: The Insurance shall cover the period from beginning date, in terms of the date of Contract Effectiveness until expiration date, in terms of the date of Contract Effectiveness or Completion.~~
	~~All the insurance will be done by an insurance company from any eligible country.~~

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 will be no provision for increase of cost due to subsequent change requests/proposal after award of the contract. It will be bidder's responsibility to evaluate all the required project deliverables and incorporate all cost elements based on which the submission of bid will be considered complete in all respect. Additional elements required for completion of the project deemed included within the contract price.

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

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

41.   Termination (GCC Clause 41)

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

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)

Notes on preparing the Technical Requirements

The Technical Requirements should include all the technical details that Bidders need, in combination with the Implementation Schedule and the supporting System Inventory Tables, to prepare realistic, responsive, and competitive bids.

The Technical Requirements should, as much as possible, be based on and expressed in terms of the Purchaser's business, rather than technological needs. This leaves it up to the market to determine what specific Information Technologies can best satisfy these business needs. Nevertheless, in the case of a relatively straight-forward Information System, where the business needs have been clearly linked to technological requirements, it would be acceptable to prepare Technical Requirements that describe technologies known to satisfy those business needs. Even in these cases, however, the requirements must be vendor neutral and specified to elicit the widest range of possible technical responses.

References to brand names, catalog numbers, or other details that limit the source of any item or component to a specific manufacturer should be avoided. Where such references are unavoidable, the words "or substantially equivalent" should be added to permit Bidders to bid equivalent or superior technologies. Only in the most exceptional circumstances may Bidders be required to offer brand-name items and the equivalency clause be omitted. The World Bank's consideration for exception requires that:

(a) a brand-name component appears to have no equivalent or superior alternative, because of its unique ability to reliably interoperate with a relatively large base of existing technologies, to conform with the Purchaser's adopted technological standards, and to offer overwhelming savings in terms of avoided costs for retraining, data conversion, macro / business template redevelopment, etc.;

(b) the World Bank has agreed in advance, during project preparation, that such brand-name restrictions are warranted; and

(c) such brand-name components are the absolute fewest possible and each component has been explicitly identified in the Bid Data Sheet for ITB Clause 16.3 (ITB Clause 14.3 in the two-stage SBD).

Similarly, where national standards or codes of practice are specified, the Purchaser should include a statement that other national or international standards "that are substantially equivalent" will also be acceptable.

To help ensure comparable bids and ease Contract execution, the Purchaser's requirements must be stated as clearly as possible, with minimum room for differing interpretations. Thus, wherever possible, technical specifications should include definitive

characteristics and quantifiable measures. If technical characteristics in a specific range, or above or below specific thresholds, are required, then these should be clearly specified. For example, the expandability of a server should be stated as "no less than four processors." Technical specifications that state only "four processors" create unnecessary uncertainty for Bidders regarding whether or not, for example, a server that could be expanded up to six processor boards would be technically responsive.

Quantitative technical specifications must, however, be employed with care. They can dictate technical architectures and, thus, be unnecessarily restrictive. For example, a quantitative requirement for the minimum width of the data path in a processor may be unnecessarily restrictive. Instead, a specification of a required level of standard performance benchmark test may be more appropriate, allowing different technical approaches to achieving the Purchaser's functional and performance objectives. In general, the Purchaser should try to use widely accepted direct measures of performance and functionality whenever possible and carefully review specifications for those that might dictate technical architectures.

It is important that the Requirements clearly identify which are mandatory features (for which a bid's nonconformance might require rejection for non-responsiveness) and which are preferable features that can be included or excluded from a bid at the Bidder's option. To enhance the clarity of the specifications, Purchasers are advised to use the word "MUST" (in bold capitals) in sentences describing mandatory requirements. The Technical Responsiveness Checklist is also a useful device to ensure that mandatory and preferred features are clearly indicated.

This section of the SBD contains a sample outline that will help Purchasers organize and present in a comprehensive way both the business purpose and technical characteristics of the System to be supplied and installed. The major sections are:

(A)   Background (description of the project, history, and structure of the agency, purpose of the System, etc.)

(B)   Business Function and Performance Requirements

(C)   Technical Specifications

(D)   Testing Requirements

(E)   Implementation Schedule

(F)   Required Format for Technical Bid

(G)   Technical Responsiveness Checklist

(H)   Attachments (e.g., drawings of site premises, descriptions of existing technologies, sample data, and reports, etc.)

Preparation of the Implementation Schedule in Chapter E warrants further explanation and guidance.

Notes on preparing the Implementation Schedule

The Implementation Schedule presents in summary form:

(a)   the key Information Technologies, Materials, and other Goods and Services that comprise the System to be supplied and/or performed by the successful Bidder (including a breakdown showing all Subsystems);

(b)   the quantities of such Information Technologies, Materials, and other Goods and Services;

(c)   the site(s) where the System will be installed and the services performed; and

(d)   when Installation, and Operational Acceptance should take place for all Subsystems and/or major components of the System, and the overall System itself, as well as any other major Contract milestones. Note that the delivery date is not presented in the Implementation Schedule but left for bidders to provide. Delivery, under Incoterms 2000 for CIP, refers to the shipment date when the Supplier delivers the goods to the first carrier at the port of embarkation, not to the arrival of the goods at the destination site. Delivery (shipment) date therefore varies according to the country of origin of the goods and the Supplier's chosen method of transport.

The target completion dates given in the Implementation Schedule must be realistic, and the Schedule itself must contain enough clear information to enable Bidders to quickly prepare responsive bids with realistic and competitive prices. These prices are to submitted in the format of the Price Schedules included in the Sample Forms Section of these SBD. Thus, the breakdown provided in the Implementation Schedule should closely mirror that given in the Price Schedules. If inconsistencies are introduced in these two key forms, confusion and delays will likely occur during the evaluation.

The Implementation Schedule also fulfills a variety of other important functions:

(a)   the performance milestones in the Schedule are used to construct the payment schedule given in the Special Conditions of Contract;

(b)   the Schedule is a key tool that the Purchaser utilizes to monitor and supervise day-to-day performance by the Supplier;

(c)   the application of the liquidated damages provision in the General Conditions of Contract is linked directly to the dates given in the Schedule; and

(d)   the quantities for each item shown in the Schedule are used as the starting point for any quantity variations the Purchaser may wish to request at the time of Contract award pursuant to ITB Clause 33.1 (ITB Clause 45.1 in the two-stage SBD).

The sample tables provided in this section of the SBD are designed to help the Purchaser organize and present the necessary information. They comprise:

(a)   an Implementation Schedule Table;

(b)   System Inventory Tables (Supply and Installation cost items and Recurrent cost items);

(c)   a Site Table(s); and

(d)   a Table of Holidays and other Non-Working Days.

The Purchaser should modify these tables, as required, to suit the particulars of the System (and Subsystems) to be supplied and installed. The sample text provided for various sections of the tables is illustrative only and should be modified or deleted as appropriate.

The Implementation Schedule Table should provide:

(a)   brief identifying descriptions for the major Subsystems and/or major components of the System and the site(s) where they will be installed;

(b)   the Purchaser's required completion time, specified in weeks from the Effective Date of the Contract, for Installation and Achieving Operational Acceptance, for each Subsystem and major component, as well as for Operational Acceptance of the entire System itself (if required); and

(c)   a clear indication of which completion date(s) would be used for assessment of Liquidated Damages.

In specifying the Schedule, it is essential that the target completion dates be realistic and achievable in light of the capacity of both the average Supplier and the Purchaser to carry out their respective contract obligations. Also, the Purchaser must take care to ensure that the dates specified in the Schedule are consistent with any specified elsewhere in the Bidding Document, especially in the SCC (e.g., in relation to the Time for Achieving Operational Acceptance and/or times specified for the submission and acceptance of the Agreed and Finalized Project Plan).

The System Inventory Tables give a more detailed description of each of the Information Technologies, Materials, and other Goods and Services needed for the System (broken down by Subsystem, if applicable), the required quantities of each, and the location of each on a specific site (e.g., building, floor, room, department, etc.). Each entry in the System Inventory Tables should be cross referenced to the relevant section of the Technical Requirements where that component is described in greater detail. There are two sample formats given for the System Inventory Tables: one for the Supply and Installation cost items and the second for recurrent cost items needed (if any). The second version of the table permits the Purchaser to obtain price information about items that are needed during the Warranty and Post-Warranty Service Periods.

The Site Table(s) provides information regarding the physical location of the site(s) where the System is to be supplied, installed, and operated. The site(s) may consist of a number of branch offices in remote regions, different departments or offices in the same city, or a combination of these. The Purchaser must specify this information in sufficient detail so that Bidders can accurately estimate costs related to:

(a)   Delivery and insurance;

(b)   Installation, including cabling and inter-building communications, etc.;

(c)   any subcontracts needed to perform post-warranty operational support services, such as emergency repair, maintenance, and other support services; and

(d)   any other related Service obligations the successful Bidder will have to perform under the Contract, including related travel and subsistence costs.

This information will also help Bidders identify which site(s) may warrant a site visit during the period they are preparing their bids. If the System presents complex installation problems, a detailed site layout drawings should be included in the Bidding Document.

If the System comprises a number of Subsystems or components that can be supplied and installed separately and are organized into separate "lots" for bidding, evaluation, and Contract award purposes, each such lot should be described in separate sets of Implementation Schedule, System Inventory, and Site Tables.

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Technical Requirements

Note: The following is only a sample outline. Entries should be modified, extended, and/or deleted, as appropriate for the particular System to be supplied and installed.

A. BACKGROUND

0.1   The Purchaser

0.1.1   The Bangladesh Rural Electrification Board (BREB) is a semi-autonomous body implementing the Rural Electrification (RE) Program in Bangladesh since 1978 under the Power Division of the Ministry of Power, Energy and Mineral Resources, the People's Republic of Bangladesh. BREB is responsible for planning, financing, and installation of electricity distribution network throughout the rural areas of the country. BREB operated based on the concept of member-owned,PalliBidyutSamities (PBSs) which provide retail service, as well as operate and maintain the system. Currently 80 PBSs have been in commercial operation. BREB currently owns and operates about 3,23,539 KM distribution lines, 767 Nos. of 33/11 KV Sub-stations to serve 17.22 million consumers through 80 PBSs throughout the country.

Several donors have participated in the rural electrification program including Canada, Finland, Japan, Kuwait, Saudi Arabia, the United States, Netherlands, Norway, the Asian Development Bank, Islamic Development Bank and the World Bank.

0.1.2   BREB is the only organization which provides electrification to the rural areas of Bangladesh. Over the past years, the volume of works of the organizations has increased tremendously while the man power has been more or less the same as was in the inception. Works have become complex with expansion of system works and gradual increase of area coverage. The preparation of Accounts, Reports and other related documents are being consumed time unusually to handle this huge volume of works. Accurate Accounts, Reports and circulation of the same have become gigantic tasks of Accounting and Financial Management activities of BREB & PBSs.

0.1.3   Currently the activities under financial management are maintained and accomplished by few non-integrated software and Microsoft Excel at BREB & PBS offices. Such there are lack of accuracy and time consuming in compilation of management and operational reports. BREB decided to stimulate its organizational efficiency and effectiveness through adoption of integrated IT System and introduction of best practice business process across the organization.

0.1.4   The proposed Financial & Accounting Information System should be integrated and automated to improve the current situation and augment its Financial Management (FM) capacity. Initiate to determine functional and nonfunctional specification to identity improvement of existing business process with industry practice in an integrated IT System implementation through business process re-engineering to use widely in BREB main office and other remote offices. The BREB has undertaken a Technical Assistance Project under Rural Electricity Transmission and Distribution (T&D) Project of IDA (Credit No.: 5381 BD). Part of the proceeds of the Project will

be used to engage a consultancy service for "Integrated Financial Management Information System (IFMIS) of BREB".

0.2   Business Objectives of the Purchaser

0.2.1   The BREB is the organization which provides rural electrification to the whole Bangladesh and private generation and Distribution Company. Over the past years, the volume of works of the organizations has increased tremendously. Most of the accounting processes at BREB however are done paper-based and computer based Excel program and FoxPro Base Program in PBS offices. The BREB is preparing Financial & Budgetary Reports on computerized base MS Excel program which are not automated and integrated. As results the benefit of the automation software are absent to the BREB and it takes huge times in compiling financial reports.

It is envisage by the top management of the BREB that a BREB of BREB using a modern Financial Management Software is a demand to increase the operational and reporting efficiency of the organization and to keep update in the modern technological information age.

All back end office process like Financial Management including Budgetary Control System, Accounting, Asset Management, Payroll Management, Inventory Management, Equipment and Material Procurement, Project Financial Accounting with Management Reporting etc. would be integrated through the modern International Financial & Accounting Management Software. The system need to be robust enough to be integrated with Enterprise Resource Planning (ERP) system that might be introduced at the BREB at some point of time in the future.

The BREB has undertaken a Technical Assistance from World Bank under Technical Assistance Project for Institutional Strengthening of Rural Electrification Program of Rural Electricity Transmission and Distribution (T &D) project of IDA (Credit No.: 5381 BD). Part of the proceeds of the project will be used to engage procurement for the Design, Supply, Installation, configuration and training of "Integrated Financial Management Information System (IFMIS) software and IT Infrastructure of BREB & PBSs" of BREB.

0.2.2   A major activity under this program is the planned implementation Integrated Financial Management Information System (IFMIS) software of BREB & PBS

offices as identified by BREB management. The first phase will be BREB Office only and PBS Financial System will be implemented in second phase which is not a scope of work of this bidding document. Financial Management Software will support BREB & PBS in further strengthening the following core objectives:

- BREB needs a modern Financial Management Software capability so that Management has real time, accurate information on which to base decisions.

- BREB needs to build up a corporate information system providing a core financial system that are based on best practice business processes

- To maintain maximum availability of its generating assets and enhance their productivity by optimizing their operation and maintenance

- To manage its plant, financial and human resources as effectively as possible through the use of modern automated software tools.

- Financial Discipline – Efficient and effective financial information management, fund management and better internal controls capability.

- Establishing single source of information – Single data input across the system, no redundant/duplicate/departmental/project figures and processes.

- Minimal reconciliations – Minimizing reconciliations pertaining to accounting information at different accounting centers across the country, control and subsidiary ledger reconciliations, etc.

- Speed & certainty in service delivery – Timely and effective operation of budget management, cash management, revenue management, expense management, accounts management, employee payroll & benefit management, store & warehouse inventory management, etc.

- Real time information availability – Availability of Management Information (MIS) as on date pertaining to revenue, budget utilized, fund availability, etc. to support pro-active and timely decision making.

- User convenience – Users motivated to use system and find it simplifying their work with no repetitive task.

- Statutory compliance – Compliance with relevant Acts and Reporting requirements such as BRS, IFS, IFRS, VAT, TDS, etc.

- Ensuring real time audit trail at all accounting centers across the country.

0.2.3   BREB wishes to implement a Customized "Integrated Financial Management Information System (IFMIS) software and IT Infrastructure of BREB" for its Head Office, three warehouses, several project offices.

0.2.4   The **"Integrated Financial Management Information System (IFMIS) software and IT Infrastructure of BREB"** will be designed to support and automate BREB business processes for Budget, Finance, General Ledger, and Benefit Management with Employee Pay, Loan & Material Management, and MIS to support strategic, DPP and Revenue budgetary control and financial management functions.

0.2.4   BREB requires a Customized Integrated Financial Management Information System (IFMIS) software and IT Infrastructure of BREB & PBSs solution that includes integrated modules to provide business functionality by a Financial Management Software including General Ledger, DPP and Revenue Budget Control, PBS Loan, Form 550, PBS MIS, Bank Reconciliation & Cash management, Store, employee benefit management (GPF, BF, Pension & Gratuity) with employee pay and Central MIS Application - with industry standards features for Control, increase efficiency and Auditing.

0.2.5   Above modules will be implemented in two phases and current Bidding scope of work are as follows: IT Infrastructure along software modules of General Ledger, Material Management, Employee Benefit Management (GPF, BF, Pension & Gratuity) with Employee Pay.

0.4   Acronyms Used in These Technical Requirements

0.4.1

SL	TERM	EXPLANATION
1.	BREB	Bangladesh Rural Electrification Board
2.	PBS	Polli Buddut Samity
3.	IFMIS	Integrated Financial Management Information System
4.	ERP	Enterprise Resource Planning
5.	SABRE	System for Autonomous Bodies Reporting and Evaluation
6.	GPF	General Provident Fund
7.	BCC	Bangladesh Computer Council
8.	DC	Data Center
9.	DR	Disaster Recovery
10.	KB	Kilobyte
11.	MB	Megabyte
12.	MW	Mega watt
13.	SNMP	Simple Network Management Protocol

14.	bps	bits per second
15.	cps	characters per second
16.	DBMS	Database Management System
17.	DOS	Disk Operating System
18.	dpi	dots per inch
19.	Ethernet	IEEE 802.3 Standard LAN protocol
20.	GB	Gigabyte
21.	Hz	Hertz (cycles per second)
22.	IEEE	Institute of Electrical and Electronics Engineers
23.	ISO	International Standards Organization
24.	KB	kilobyte
25.	kVA	Kilovolt ampere
26.	LAN	Local area network
27.	lpi	lines per inch
28.	lpm	lines per minute
29.	MB	megabyte
30.	MTBF	Mean time between failures
31.	NIC	Network interface card
32.	NOS	Network operating system
33.	ODBC	Open Database Connectivity
34.	OLE	Object Linking and Embedding
35.	OS	Operating system
36.	PCL	Printer Command Language
37.	ppm	pages per minute
38.	PS	PostScript -- Adobe page description language
39.	RAID	Redundant array of inexpensive disks
40.	RAM	Random access memory
41.	RISC	Reduced instruction-set computer
42.	SCSI	Small Computer System Interface
43.	SNMP	Simple Network Management Protocol
44.	SQL	Structured Query Language
45.	TCP/IP	Transmission Control Protocol / Internet Protocol
46.	V	Volt
47.	WLAN	Wireless LAN

B. BUSINESS FUNCTION AND PERFORMANCE REQUIREMENTS

1.1   Business Requirements to Be Met by the System

1.1.1   Requirement of Integrated Financial Management Information System (IFMIS) Software

- Modules of IFMIS are: General Ledger, Materials Management– Central Warehouse, and Benefits Management with Employee Pay.

- IFMIS software will be mixed of Web based application architecture. All major reports, MIS and KPI Application need to be available in Web Interference.

- Software Deployment: IFMIS software will be deployed in BREB Office main server and remote connectivity required from anywhere in Bangladesh.

- IFMIS Application need to be successfully run from 3 Central Warehouses at Dhaka, Khulna and Chittagong

- IFMIS Web application/Interface of IFMIS software needs to be compatible with existing available PCs, Laptops and printers of BREB & PBSs offices.

- For second phase of work, there should be option for integration of existing/future PBS Billing and Collection system/Software with the proposed IFMIS Application. Mainly revenue, collection, receivable related journal transactions and few other quantitative data need to be integrated on daily basis. Integration option & scalability should accommodate but actual integration will be in Phase II project.

- Rollout Plan: The IFMIS application rollout plan of Piloting and Live Implementation are required. Piloting need to be carried out in BREB main Offices all departments, Three (3) Central warehouse, One (1) Project Office locations with all master data. A complete User Acceptance Testing (UAT) certificate required before full deployment.

- Rollout plan must include Work Schedule, Team Composition, Task Assignment and Staff scheduling.

- Thereafter on successful completion of pilot implementation, the live rollout/Implementation to be carried out to BREB Main office, all Project offices of BREB specified in this document.

- Free Post Go-Live Warranty support – In addition to the Go Live implementation the consultant/Bidder shall undertake and provide one year onsite post go-live support from the date of "Go-live sign-off" and two years offsite/remote support for smooth implementation of IFMIS.

- Annual Technical Support (ATS) for IFMIS for a period of 3 years from Go-Live date. First year ATS will be onsite and offsite support may be provided during the balance period without compromising quality of support.

- The IFMIS software solution offered by the bidder must be customized software that is ready to deploy and complete within ~~9~~5 months period after issuing the Notification of Award (NOA) by BREB Project authority.

- Access the business intelligence need to make critical decisions – anytime, anywhere, and on any device

- Real Time Ready Analytics- Web Based Anytime, Anywhere Information

- Connecting to Multiple data sources and provides a unified view of the information to the end-user with cross-functional analytical reporting

- Provides real time information on Key Performance Indicators for management decision making across different Directorate/Division

- Self-service design allows the user to organise the analysis to fit their specific role and interest, combining related data into meaningful metrics

- Visual display with Graph & Chart in different modules.

- The Information System: integrated modules to cover the all costing of 3 years full warranty with 24/7 support service and renewal to be quoted for next ~~five~~/**three** years.

- Proposed Integrated Financial Management Information System (IFMIS) software and its modules must be proposed from single vendor

- A single vendor (must provide the application Financial Management systems which will fulfill the BREB business requirements and customization must consist there as a Programming facilities.

- All the functions of the application solution must have BI, Mobility & Social collaboration or they have to be in transaction level.

- The vendor (Bidder) must provide end to end solution with minimum 99.5% uptime. An official supporting document (proof of document) of the same is mandatory. Successful Bidder shall maintain Service Level Agreement (SLA) for the commitment.

- The vendor (Bidder) should provide 365X24X7 end to end Support of the application system till the end of the service period. A proper documentation has to be provided for the same.

- Bidder shall provide bundle package for five/three years to use Financial Management systems without any hidden cost. Bidder Yearly renewal cost including 24/7 support service to be declare in price schedule.

- High level application performance to be provided in proposed Customized Financial Management Software systems so that user easily generate any standard report or customize report within quickest possible time.

- The bidder must submit the bid for all the components with detailed specification as per defined Technical, Financial, Legal & General requirements. In case of incomplete or insufficient data the bid may be considered as non-responsive

1.1.2 Legal and Regulatory Requirements to be met by the proposed Information System

1.1.2.1 The Information System MUST comply with the following laws and regulations:

1.1.2.2 Bangladesh Accounting Standard (BAS), International Financial Reporting Standards (IFRS), Generally Accepted Accounting Principles (GAAP), Bangladesh Energy Regulatory Commission (BERC), etc. as appropriate, summarize: each relevant legal code and regulations that govern the business processes and procedures that will be automated with the Information System proposed for Integrated Financial Management Information System (IFMIS) software for Automation of Financial System/Reporting purposes.

1.1.2.3 Proposed information systems shall fulfill the functional and business requirements of BREB financial management system.

1.1.2.4 Successful Bidder shall collect all standard prescribed format of BREB and accommodate all in the proposed application system.

1.1.2.5 Successful Bidder shall understand the business requirements and functionalities of financial management system of BREB to cover the remote offices, regional offices and central offices and provide support services at the deployment phase as well as production phase during the contract.

1.1.2.6 Centralized web based application to serve to the remote offices through internet or WAN connectivity. Successful Bidder shall confirm the application performance and usability at end user premises and provide user training accordingly.

1.3   Related Information Technology Issues and Initiatives

1.3.1   *[if compatibility with existing systems based on other information technologies is an issue, or if the Purchaser plans to undertake any other information technology initiatives that might affect the most appropriate design or implementation strategy for the System to be supplied and installed, provide, at the appropriate level of detail: an overview of the related issue or initiatives]*

C. TECHNICAL SPECIFICATIONS

3.0   General Technical Requirements

3.0.1   Language Support: All information technologies must provide support for the English. Specifically, all application technologies and software must support the ISO character set and perform sorting according to Bangladesh Standard.

3.0.2   DATES: All information technologies MUST properly display, calculate, and transmit date data, including, but not restricted to 21st-Century date data. Required Date formats are DD-MM-YYYY, DD-Month-YYYY, Month DD, YYYY etc. where DD, MM and YYYY represent two-digit date value, two-digit month value and four-digit year value respectively as prescribed by Gregorian calendar and Bangla Academy for Bengali calendar.

3.0.3   Proposed software to be the bundle of all modules of IFMIS Software Application and supplier shall supply and install the same. Agreement of proposed software to be sign-off with BREB authorities to maintaining SLA 99.5% before implementation for the licensing.

3.0.4   Supplier shall specify the General-Purpose Software programming tools and libraries;

3.0.5   Supplier shall specify the Database Software and Development Tools; database type, database management feature; development tools and environments; etc.

3.0.6   Supplier shall specify the Business Application Software; specific business functions to be supported in native code; application management feature; customization options and tools; etc.

3.1   Computing Hardware Specifications

3.1.1   Summary of Goods

Goods	Qty	Unit
Design, Supply, Installation, configuration and training of Customized "Integrated Financial Management Information System (IFMIS) software and IT Infrastructure of BREB & PBSs" with specified modules for 3 years bundle license	1	Lot
NOC Furniture	As per spec	
Civil Work	As per spec	
Cable Trays	As per spec	
Industrial Socket	4	Nos
Electrical Enclosure And SLD Items	As per spec	

Electrical cables and others	As per spec	
DEHUMIDIFIER	1	Nos
10 KV Online UPS	2	Nos
Access Control System	2	Nos
Environment Monitoring System (EMS)	As per spec	
Automatic Fire Suppression System (AFSS)	1	Lot
Air Condition – Ceiling	2	Nos
Air Condition – Split	3	Nos
IP Camera and NVR	8	Nos
IT Infrastructure Project Coordination, Management & Site installation Services	As per spec	
Copper & Fiber Solution	As per spec	
42u Rack (Network & Server)	2	Set
Network Switch For Buildings & DC	16	Nos
Next Generation Firewall (NGFW) With IPS for DC	2	Nos
Server Type-1 for DC with License OS	1	Nos
Server Type-2 for DC with License OS	1	Nos
San Storage- all Flash	1	Nos
San Switch for DC	2	Nos
Disk Base Backup Server & Software For DC	1	Nos
Software License	25	NUP
Desktop Computers	19	Nos
Laptop Computer	2	Nos
Multimedia Projector	1	Nos
50" Inches 4K UHDLED TVs	3	Nos
24 port Access Switch for remote Office	5	Nos
Auto configured plug & play VPN Routersfor remote Office	5	Nos
Details find in individual specification section		

3.1.2 Summary of Implementation& Training Services

Service	Qty	Unit
IFMIS Application Implementation (Develop and customization) of proposed System with comply the purchaser business requirements specified in individual sections.	1	Lot
Assign to Software Implementation Team	25	Persons
Assign to Software Technical support Team	07	Persons
Implementation Service	1	Years
On-premises and remote site support service during the contract	3	Years
Local Technical		
Training-1 for 5 Days	12	Persons
Training-2 for 5 Days	68	Persons
Foreign Training		
Training-3 for 5 Days	6	Persons

Training-4 for 5 Days	6	Persons
Training-5 for 5 Days	12	Persons
Details find in individual specification section.		

2.1.2.1. BREB has identified IT Infrastructure as one of the important elements of its core IT infrastructure. BREB has decided to create a Data Center (DC) for BREB at its head office premises to consolidate the services, applications and infrastructure. The IT Infrastructure is proposed to be built on 500 square feet area including network operating center at a mid-level floor of the BREB head office building or as per management decision of the BREB.

2.1.2.2. The Infrastructure room shall be able to host all required hardware to run the applications and also to provide a fault proof environment to run the same. The Infrastructure room should be capable to provide an up time of 99% if generator and feeder line redundancy provide from authority and ensure the power 24/7. It was designed in a way that it offers scalability over a period of minimum eight (8) years.

2.1.2.3. Bidder must maintain the following points as per contract.

- The Selected Bidder will be responsible for the supply, installation, Integration, testing and commissioning of all server and storage equipment's and its components specified in specification.

- The Selected Bidder will be responsible for the supply all patch cable, fibre patch cord, power cable related to hardware implementation to maintain the quality, performance, bandwidth for the same. Every connecting cable should be organized with rack as per international standard structured cabling.

- Selected Bidder must ensure that the specified equipment's are fully operational, new and performs properly and meet the Technical Specification.

- At the time of installation and commissioning, Selected Bidder must provide Comprehensive system documentation of system deployed including diagrams, labelling, schematics, configuration and manuals etc.

- Selected bidder shall be responsible for operation & maintenance for the duration of warranty declaration without any extra cost or hidden charges.

- Successful bidder shall supply IP schema and details work plan which to be get approval from authority before start the implementation.

- Every configuration and as built drawings original software copy in CD and printed documentation shall provide to purchaser.

- Bidder shall dedicatedly assign Project Manager, Project Coordinator or Site Supervisor, Certified Site Engineers, Site Technicians during the period of server and storage

implementation and its virtualization environment and quote for the same within product cost. Duty to be assign on site during implementation.

- Language Support: All information technologies must provide support for the English. Specifically, all display technologies and software must support the ISO character set and perform sorting according to Bangladesh Standard.

- DATES: All information technologies MUST properly display, calculate, and transmit date data, including, but not restricted to 21st-Century date data. Required Date formats are DD-MM-YYYY, DD-Month-YYYY, Month DD, YYYY etc. where DD, MM and YYYY represent two-digit date value, two-digit month value and four-digit year value respectively as prescribed by Gregorian calendar and Bangla Academy for Bengali calendar.

- Electrical Power: All active (powered) equipment must operate on voltage range 220v +/- 20v and frequency range 50Hz +/- 2Hz. All active equipment must include power plugs standard in BANGLADESH.

- Environmental: Unless otherwise specified, all equipment must operate in environments of 04 to 45 degrees centigrade, 20 to 95 percent relative humidity, and 0 to 40 grams per cubic meter of dust.

- Safety: Unless otherwise specified, all equipment must operate at noise levels no greater than 52 decibels. All electronic equipment that emits electromagnetic energy must be certified as meeting US FCC class B or EN 55022 and EN 50082-1, or equivalent, emission standards.

- Licensing for all software (where applicable) must be registered through Regional Headquarters, under which Bangladesh falls, of the global software vendors for ensuring convenient upgrade facility and renewal (as and when necessary) by the time of operational acceptance test is completed. Local Service and maintenance should be provided locally for the project period including post warranty support services.

- The Bidder should provide authorization letter(s) from the respective hardware and software vendor(s).

3.1.3   DC & OTHER DIAGRAM:

3.1.3.1 Introduction

Bidder shall establish an IT Infrastructure Room at BREB. It requires the vendor to supply & install the detailed specifications and proposed Bill of Materials as required for key

building blocks of the Infrastructure Room & Power Room. Thus, based on requirements, the scope of work is in below. Commissioning of all the delivered materials as per the Specification & BOM, determining Test Scenarios for various infrastructure facilities. Vetting of Test Procedures after installation agreed with purchaser.

3.1.3.2 Infrastructure Room Diagram

IT Infrastructure Room area is designed with measurement 12 Feet x 11 feet = 132 Square feet for Server Room and 11 Feet x 9 feet = 99 Square feet for Power Room.
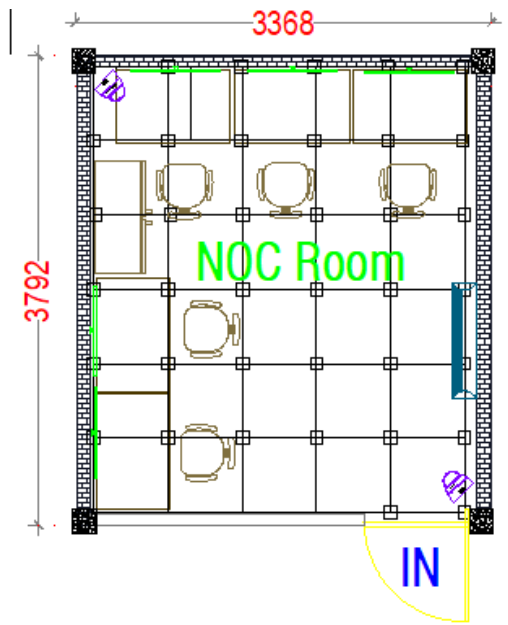
3.1.3.3   NOC Diagram

- Network Operating Center (NOC) area is 11feet X 13 feet: 143 square feet.
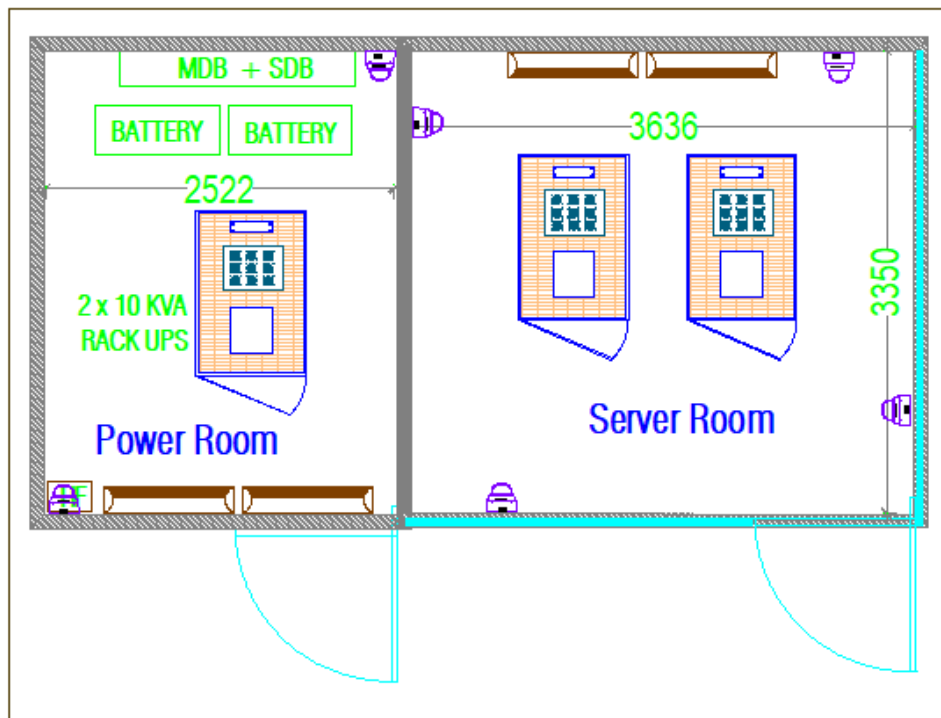
3.1.3.4 NOC Furniture:

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Standard	To be specified by the Bidder			
M	Brand	To be specified by the Bidder			
M	Country of origin	To be stated by the bidder/tenderer.			
M	Country of Manufacture	To be stated by the bidder/tenderer.			
M	Chair	All parts from castors to legs to hydraulic to mould to fabric/synthetic leather are made in Korea or Korean industrial standards. For e.g. fabric materials are hard-wearing, durable, and antiskid and many of them have water-resistant properties. Thick foam cushioning covered with best quality local rexine / fabric/synthetic leather for seat & back which increase strength. Swivel Low Back Chair. High quality Revolving chair with back tilt facility and strong PVC arms.Manual height adjustable.PVC leg with castors which ensure no rust. Best quality rust free dual-wheel provides easy mobility, Star head binding screw.Easy and damage free transportation.Free assembly service by expert technician. Ensure 1 Year full warranty.	5	Units	
M	Table	Custom Made Table as per diagram. Each table should have four Steel Leg and heat coated colour and top of that 1 inch partex board (White color) Ensure 1 year warranty	5	Nos	
M	Office Almirah	Custom made Office Almirah for files and documents.	1	Nos	
M	Custom/Clone	7 generation Processor Core-I 5 , 1TB HDD, 8GB	5	Nos	

Level	Description	Requirement	Qty	UoM	Bidder Response
	Computer	RAM,2 GB graphics card, ATX Power Supply , Wire Keyboard, Wireless Mouse			
M	Monitor	HP 27ES Full HD 27 Inch IPS LED Monitor	5	Nos	
M	PaesslerPRTG NMS	PRTG NMS software license for 2500 SENSORS interface	1	Nos	

3.1.3.5   CIVIL WORKS

For Server and power room

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Standard	To be specified by the Bidder			
M	Brand	To be specified by the Bidder			
M	Model	To be specified by the Bidder			
M	Country of Origin	To be specified by the Bidder			
M	Glass Doors	Tempered Glassdoor 3.5 feet including key lock and accessories	2	Nos	
M	Wall Partition Glass 10mm	10mmWall Partition Glass (4 feet x 8 feet) with aluminum frame and upper glass with frame to cover 10 feet ceiling with Aluminum Thai (upper and lower) frames and accessories as per drawing Brand:To be specified by the Bidder Model:To be specified by the Bidder Country of Origin:To be specified by the Bidder	20	sqft	
M	WALL	254mm brick wall construct with first class bricks in cement mortar (1Cement:5 sand). All complete as per diagram. Minimum 1/2" thick plaster (1:4) with walls both inner/outer surface of the wall ,finishing the corner and edges in/c removing the existing damp plaster (if necessary), washing of sand ,cleaning the surface with clean water, all necessary materials etc. complete.	510	Sqft	
M	Wall Color	Industrial paint & Color Brand:To be specified by the Bidder Model:To be specified by the Bidder Country of Origin:To be specified by the Bidder	1100	Sqft	
M	Installation	Installation, Testing and commissioning	1	Job	

3.1.3.6   CABLE TRAYS

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Standard	To be specified by the Bidder			
M	Country of Origin	To be specified by the Bidder			
M	Cable Tray	500mm(W) x 40mm (H) X 2mm	5	Mts	
M	Cable Tray	100mm (W) x 30mm (H) x 1.6mm	5	Mts	
M	Cable Tray	500mm(W) x 50mm (H) X 2mm (Raceway)	10	Mts	
M	Accessories	Accessories/ supplies (GI piple Tees, bends, Crossing as per site requirement)	1	Lot	

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Service	Supply & Installation of : Cable Trays/ Raceways & steel Fabrication, Prefabricated perforated type GI cable trays including Tees / Bends / Crossing / Reducers /Coupling to be generally laid in false floor/cable trench, on as per site requirement. Brand:Local	1	Lot	

3.1.3.7   INDUSTRIAL SOCKET

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Standard	To be specified by the Bidder			
M	Country of Origin	To be specified by the Bidder			
M	Brand	ABB or Schneider			
M	Model	To be specified by the Bidder			
M	Feature	Industrial socket IP22, 1 phase 3 pin, 32A twist lockable type surface counted industrial socket outlets without MCB (suitable to accept 3C-4 Sq. mm FRLS copper flexible cable) including making connection c.(cable is included from the scope of this item)	4	Nos	

3.1.3.8   ELECTRICAL ENCLOUSRE AND SLD ITEMES:

SINGLE LINE DIAGRAM

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Standard	To be specified by the Bidder			
M	Country of Origin	To be specified by the Bidder			
M	Brand	To be specified by the Bidder			
M	Type	Enclosure from Local Manufacturer and comply the SLD and approve from authority. ALL SLD Electrical components must be the same manufacturer either ABB or SCHNEIDER ELECTRIC or EATON equivalent. Must mention individual model and brand for the proposed items in BoM			
M	Electrical Enclosure	Electrical Enclosure must contain multiple Panels which described in below	1	Set	
	Feature	Electrical Enclosure panels shall make from Local Manufacturer and accommodate all SLD components to the individual section panel and must maintain all safety of IEC and IP Ratings applicable for Electrical Enclosure: Panel shall be Floor standing, well ventilated to maintain the temperature inside up to 40°C. With the provision of Bus bar termination on top and cable entrance at the bottom. BUSBAR capacity shall follow same or more indicated in SLD. Panel mounted compact & built in leakage current protected LED Indication lamp shall be provided for phase indication, Status indication as per provided SLD. All pilot lamp shall be protected by long duration fuse with fuse holder with blown fuse indication. Push button shall be available for the state I (utility), O (off) along with indication. Operating and control equipment shall be power via galvanic isolation by transformer. Maximum Allowable dimension to be complete within power room area indicated in diagram. According to the provided SLD and the shop drawing, arrangement has to be done and approve from consultant In particular following feature shall be applied in the MDB along with proposed Drawing. 1. Shall be provided with Phase indication, status indication (NO, OFF & TRIP) 2. Remote ON & OFF push button 3. Shall be provided with status indication (NO, OFF, Locked) Remote ON & OFF push button. 4. Electrical interlock if required. 5. The control and indication component shall be isolated by Isolation transformer with protection as per design. 6. This system shall be introduced to monitor all the functionality / status from a remote web based facility for the component has remote monitoring option with basic communicable			

Level	Description	Requirement	Qty	UoM	Bidder Response
		ports shall confirm RS485 or SNMP and Ethernet 7. Monitor centrally with software.			
M	MDB Q.0.2	100A, MCCB, 25KA with 3x100/5A CT& MFM. MFM shall display the details of Current & Voltage, utilization and it shall have provision of RS485 or Modbus TCP or Ethernet. Purchaser must ensure automatic RYB phase detection between ATS and keep same RYB for the IT Infrastructure UPS. So that changes phases doesn't impact to the IT Infrastructure UPS. Purchaser will drop line upto MDB and bidder shall install it into MDB.	1	Nos	
M	**MCCB Q.B.0**	**63A TP 25kA MCCB**	1	Nos	
M	MCB Q.B.1 to Q.B.4	25A TP 10kA MCB and	4	Nos	
M	Q.A.1 to Q.A.2	32A TP MAGNETIC CONTROLER 2NO+2NOC and TIMER for Automatic Air Condition Timer controlling between two 4 Ton Air Condition.	2	Nos	
M	MCB Q.B.5 to Q.B.6	25A DP 10kA MCB and	2	Nos	
M	**MCCB Q.C.0**	**40A TP TMD 25kA MCCB**	1	Nos	
M	RCBO Q.C.4 to Q.C.6	16A DP30mA RCBO	3	Nos	
M	MCB Q.C.1 to Q.C.3	10A SP 6KA MCB for the lighting	3	Nos	
M	SPD.1 & 2	50A TP 25 KA MCCB for Type: T1+T2	2	Nos	
M	AUX.P PANEL Q.D.1	6A DP 6KA MCB	1	Nos	
M	AUX.P PANEL Q.D.2	1KVA 1PH 230/230V ISOLATION TRANSFERMER	1	Nos	
M	AUX.P PANEL Q.D.3	6A DP 6KA MCB	1	Nos	
M	**Q.F1.1 to Q.F1.6 UPS SDB-1 & SDB-2**	**32A MCCB 25A**	6	Nos	
M	RCBO Q.M.1 to Q.M.2	32A DP 30mA RCBO for UPS-1	2	Nos	
M	MCB Q.M.3	20A SP 6KA MCB for UPS-1	1	Nos	
M	RCBO Q.M.4	16A DP 30mA RCBO for UPS-1	1	Nos	
M	RCBO Q.N.1 to Q.N.2	32A DP 30mA RCBO for UPS-2	2	Nos	
M	MCB Q.N.3	20A SP 6KA MCB for UPS-2	1	Nos	
M	RCBO	16A DP 30mA RCBO for UPS-2	1	Nos	

Level	Description	Requirement	Qty	UoM	Bidder Response
	Q.N.4				
M	Digital Energy Meter	Digital Energy Meter shall place at the source of Power distribution. Energy meter should have either Ethernet or Modbus or RS485 connectivity.	4	Nos	
M	Supply and works	Installation and commissioning including all required standard cables required	1	set	
M	Warranty	1 year			

3.1.3.9   ELECTRICAL CABLES and Others:

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Standard	To be specified by the Bidder			
M	Country of Origin	To be specified by the Bidder			
M	Brand	BRB OR equivalent to be specified by the Bidder			
M	Type	All electrical cables must be FRLS qualified.			
M	AC SDB to 4.0 TON AC Cables	4X1C-4.0sqMM BYA(FRLS)+1C-4.0 sqMM BYA(FRLS)-ECC	30	Meter	
M	AC SDB to 2.0 TON AC Cables	2X1C-4.0sqMM BYA(FRLS)+1C-4.0 sqMM BYA(FRLS)-ECC	60	Meter	
M	Light and Utilities power cables	2X1C-2.5sqMM BYA(FRLS)+1C-2.5sqMM BYA(FRLS)-ECC	350	Meter	
M	UPS-1 SDB to UPS-1 input cable	4X1C-10sqMM NYY(FRLS)+1x1C-10sqMM BYA(FRLS) –ECC	20	Meter	
M	UPS-1 output to UPS-1 MCB	4X1C-10sqMM NYY(FRLS)+1x1C-10sqMM BYA(FRLS) –ECC	20	Meter	
M	UPS-2 SDB to UPS-2 input cable	4X1C-10sqMM NYY(FRLS)+1x1C-10sqMM BYA(FRLS) –ECC	20	Meter	
M	UPS-2 output to UPS-2 MCB	4X1C-10sqMM NYY(FRLS)+1x1C-10sqMM BYA(FRLS) –ECC	20	Meter	
M	Power Distribution unit to RACK Industrial Socket	1X2C-6sqMM BYA(FRLS)+1C-6sqMM BYA(FRLS)-ECC	40	Meter	
M	DC Earthling Cable	BYA 25 RM Cable Green	100	Meter	
	Others				
M	Universal SOCKET	3 PIN Wall Mount SOCKET	4	Nos	
M	Light Switch Board	Wall Mount Board	3	Nos	
M	Light ON/OFF Switch	Wall mount ON/OFF Switch	20	Nos	
M	MK BOX	WALL MOUNT MK BOX	20	Nos	
M	Manual Transfer Switch	Manual Transfer Switch for UPS	2	Nos	
M	Emergency Light	Emergency Light : Long backup after power failure	6	Nos	
M	T-8 LED Light	Cylindrical Down T-8 LED Light with Shade (23 watt)	14	Nos	
M	Channel works	Channel works for lighting	500	Rft	
M	Accessories	Pipe, Chanel, TAPE, Screw and others	1	Lot	
M	Supply and works	Supply , Installation and commissioning of all items listed above including all required standard cables	1	set	

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Warranty	1 year			

3.1.3.10   DEHUMIDIFIER

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Standard	To be specified by the Bidder			
M	Country of Origin	To be specified by the Bidder			
M	Brand	To be specified by the Bidder			
M	Type	Dehumidifier			
M	Feature	Capacity: 20 Liter. 3 in 1 – Dehumidifier, Air Purifier and Dryer. Moisture Removal: 20 Liters / Day. Water Tank Capacity: 5 Liters. Power Controls: LCD Display / Touch Control	1	Nos	
M	Supply and Install	Operational and functional in DC & Power room environment	1	Nos	

3.1.3.11   10 KV Online UPS

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Standard	To be specified by the Bidder			
M	Country of Origin	Switzerland or EU equivalent			
M	Country of Manufacture:	Switzerland or EU equivalent			
M	Shipment from	from Switzerland or EU equivalent			
M	Brand	ABB or substantially equivalent			
M	Model	PowerScale- 10 KVA or substantially equivalent			
M	Item	10 KVA Online UPS	2	Nos	
M	Type	Tower type three phase.			
M	Feature	Backup time 30 Minutes Backup at pf: 0.9			
M	Type of Battery	OEM recommended original Battery Sealed Maintenance Free VRLA Battery Must be ensurebest quality battery and batterymanufacturedate not more than six months when supply to authority. Date and Brand of battery must take the approval from authority. Battery part number should be mentioned before delivery.			
M	No of Battery	Mention the Number of Batteries for Half(0.5) hour backup at full load with pf= 0.9			
M	AH of Batter	Mention the Ampere Hour (AH) of each offered Batteries for half hour backup			
M	Components	Factory fitted Battery pack orExternal Battery Cabinet, DC Cables for Battery, Connectors, Lugs, Circuit Breaker/Fuse and accessories			
M		SNMP Card for Remote Monitoring System			
M	Supply and works	Installation and commissioning including all	2	Nos	

Level	Description	Requirement	Qty	UoM	Bidder Response
		required standard cables required from SDB to battery cabinets , RACK SDB and up to Rack Distribution socket			
M	Warranty	1 year			

3.1.3.12   ACCES CONTROL SYSTEM for DOORS.

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Standard	To be specified by the Bidder			
M	Country of Origin	To be specified by the Bidder			
M	Country of Manufacture:	To be specified by the Bidder			
M	Brand	To be specified by the Bidder			
M	Model	To be specified by the Bidder	2	Nos	
M	Features	Authentication (Finger, PIN, Card)			
M		LCD Display			
M		Identification Method: FP, ID+PW, ID+FP, ID+Card, Card			
M		Identification Time: ≤ 0.5 second			
M		Register Method: Fingerprint, Password, ID			
M		Fingerprint Capacity: 2000			
M		Record Capacity: 50000			
M		EM locks			
M		Z-L' bracket			
M		Push Button-For Exit & Exit System			
M		Power Cable			
M		Cabling with conduit & fittings with UTP or Power cable			
M		ACS Software central software			
M	Card	Standard 125KHz EM card	10	Nos	
M	Services	Installation and Commissioning	2	Nos	
M	Warranty	1 year			

3.1.3.13   ENVIRONMENT MONITORING SYSTEM (EMS):

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Standard	To be specified by the Bidder			
M	Country of Origin	To be specified by the Bidder			
M	Country of Manufacture:	To be specified by the Bidder			
M	Brand	To be specified by the Bidder			
M	Model	ENVIROMUX-5D or To be specified by the Bidder	1	Nos	
M	Temperature/Humidity	ENVIROMUX-STHS	2	Nos	
M	Liquid Detection Sensor	ENVIROMUX-LDx-25ft	2	Nos	
M	GSM Modem	ENVIROMUX-3GU	1	Nos.	
M	Accessories	Cat6 Cable, Clamp, Connector, Power, etc.	1	Lot	

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Services	Installation, Testing and commissioning	1	Job	
M	Warranty	1 year			

3.1.3.14 ~~FIREEXTINGUISHER:~~AUTOMATIC FIRE SUPPRESSION SYSTEM FOR SERVER & POWER ROOM

~~Level~~	~~Description~~	~~Requirement~~	~~Qty~~	~~UoM~~	~~Bidder Response~~
~~M~~	~~Standard~~	~~To be specified by the Bidder~~			
~~M~~	~~Country of Origin~~	~~To be specified by the Bidder~~			
~~M~~	~~Country of Manufacture:~~	~~To be specified by the Bidder~~			
~~M~~	~~Brand~~	~~To be specified by the Bidder~~			
~~M~~	~~Model:~~	~~To be specified by the Bidder~~			
~~M~~	~~Type~~	~~Hand held fire extinguisher - Class(NFPA 75)~~	~~4~~	~~Nos~~	
~~M~~	~~Feature~~	~~Modular Automatic Type (Powder type) Supply of Automated modular ABC 10 Kg Powder Type Fire Extinguisher, (MAP 50), Stored Pressure Type, Working Temp: 30oC to +55oC, Propellant: Dry Nitrogen, applicable on Class A,B,C and electrically started Fire, Temperature rating: 57oC/68oC/79oC, weight of extinguisher 16kg 165pprox..~~	~~4~~	~~Nos~~	
~~M~~	~~Services~~	~~Installation & Commissioning~~	~~4~~	~~Set~~	

Level	Requirement	Qty	UoM	Bidder Response
M	**NOVEC-1230 with Cylinder & Accessories**			
M	**NOVEC-1230 with Cylinder & Accessories**	160	Kg	
M	**Suppression Agent(GAS): NOVEC-1230 (Server & Power Room)**			
M	Brand: 3M	2	Set	
M	**100 LTR Gas CYL with all accessories**			
M	Working Pressure: 42 bar or 70 bar			
M	Nozzle area Coverage: 360◦			
M	Brand: To be specify by bidder	2	Nos	
M	**STEEL NOZZLE 360° 1/2"**	2	Nos	
M	**STEEL NOZZLE 360° 1"**	1	Lot	
M	**Mechanical and Electrical fittings**			
M	Schedule 40 pipe 11/2"Dia, Korea	1	Lot	
M	Schedule 40 pipe 11/4"Dia,Korea	1	Lot	
M	Schedule 40 pipe 3/4"Dia,Korea	1	Lot	
M	Schedule 40 pipe 1/2"Dia,Korea	1	Lot	
M	MS Fittings	1	Lot	
M	Fire resistance cable, BRB	1	Lot	
M	Best Quality Local Painting, Burger or equivalent	1	Lot	

Level	Requirement	Qty	UoM	Bidder Response
M	PVC Pipe 3/4" conduit, fittings & caution sign	1	Lot	
M	Others accessories	1	Lot	
M	**CONTROL PANELWITH Two GAS RELEASE EXTINGUISHING SYSTEM.**			
M	**Digital Control Panel and all detector and alarm components either EN54or UL certified but not mix mode.**			
M	**Addressable FIRE ALARM AND DETECTION CONTROL PANEL WITH Two GAS RELEASE EXTINGUISHING SYSTEM.** 4 Detection zone with 2 Extinguishing area along with monitoring software and computer system Brand: To be specify, Origin: To be specify	1	Nos	
M	**Seal Lead-Acid Battery, 12V each 7.2 ah,**	2	Nos	
M	**Photo electric smoke detector with built in isolator and EN54or UL certified** Highly reliable and accurate thanks to Intelligent Signal Processing (ISP). Earliest detection of lightest smoke with dual optical versions (Dual-Ray technology) Monitors environment for electromagnetic influence for fast root-cause analysis.Automatic and manual address setting Intelligent Addressable smoke detector c/w mounting Base Inbuilt Two Fault Isolator Module	12	Nos	
M	**Heat Detector with built in isolator and EN54or UL certified** Intelligent Addressable Heat detector c/w mounting Base Inbuilt Two Fault Isolator Module Converter measures the temperature-dependent voltage at regular intervals. Depending on the specified detector class, the temperature sensor triggers the alarm status when the maximum temperature of 54 °C or 69 °C is exceeded (thermal maximum), or if the temperature rises by a defined amount within a specified time (thermal differential).	12	Nos	
M	**Double Action Addressable Manual Call Point, EN54 or UL Standard**	4	Nos	
M	**Sounder with double flash light**	2	Nos	
M	**Input Interface Modules; EN54 or UL Standard**	4	Nos	
M	**Wall-mount Multi-candela Horn Strobes** Sleek modern aesthetics Multiple voltages (12 VDC or 24 VDC) Voltage test points Eight strobe candela options and three horn volume options Universal mounting base	2	Nos	
M	**Supervised Output Modules FOR GAS DISCHARGE SIGN AND DOUBLE FLASHING LIGHT** Relay Interface Modules Low Voltage Maximum switching current of 5 A/30 V DC (type DIN rail), 1 A/30 V DC (type in-built), 0.5 A/42.4 V AC (both variants) Low current consumption Maintains loop functions in the event of wire interruption or short-circuit thanks to two integrated isolators	2	Nos	
M	**Automatic AC Shut Down Device**	6		
M	**Relay Interface Modules Low Voltage; EN54 or UL Standard**	4	Nos	
M	**Bell- 6" Red**	2	Nos	
M	**Manual Release or Break Glass**	2	Nos	
M	**Exit Sign**	2	Nos	

Level	Requirement	Qty	UoM	Bidder Response
M	**Gas Discharge Sign**	2	Nos	
M	2x1.5 RM fire alarm cable Fire Resistance & Fire Rated	10	coil	
M	Consumable Item: PAVC Pipe Junction Box, Socket, PVC elbow, tee, L- Joint, etc.	500	meter	
M	MODBUS converter for Integration with DCIM/BMS	1	Lot	
M	**Installation and commissioning**	1	Job	

3.1.3.15   AIR CONDITION

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Standard	To be specified by the Bidder			
M	Country of Origin	To be specified by the Bidder			
M	Country of Manufacture:	To be specified by the Bidder			
M	Brand	GENARAL OR GREE OR EQUIVALENT To be specified by the Bidder			
M	Model	To be specified by the Bidder			
M	Type	Ceiling Type Air Condition Capacity: 4.0 Ton (45000BTU to 48000 Btu/h) Powerful Cooling Slim and Compact Design Double Auto Swing Wide and Long Airflow	2	Nos	
M	Type	Split Type Air Condition Capacity: 2.0 Ton (24,000 BTU) Latest Technology Powerful Cooling Anti-bacterial Filter & Deodorizing Filter Multi Airflow for Better Air Circulation	3	Nos	
M	Supply and Installation	Installation and commissioning including all cables, pipe and accessories	5	Nos	
M	Warranty	2 years full warranty and services			

3.1.3.16   IP CAMERA AND NVR

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Standard	To be specified by the Bidder			
M	Country of Origin	To be specified by the Bidder			
M	Country of Manufacture:	To be specified by the Bidder			
M	Brand	TYCO OR EQUIVALENT To be specified by the Bidder			
M	Model	DSC-D114-28 or EQUIVALENT To be specified by the Bidder			
M	IP Camera	IP Camera	8	Nos	

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Feature	2 Megapixel / Dual Codec & Streaming / Powerful IR / 3D DNR			
M		2 Megapixel 1/3 Progressive Scan CMOS Image Sensor			
M		H.264/MJPEG Dual Codec & Streaming			
M		Fixed Lens 2.8mm F2.0			
M		Video Resolution 1920X1080			
M		Noise Reduction 3D DNR			
M		IR Range upto 30 meters			
M		IP 66 Housing			
M		Power over Ethernet PoE (802.3af)			
M		ICR IR cut filter with auto switch			
M		ONVIF Supported			
M	NVR	16 port NVR	1	Nos	
M		Western Digital 2TB Surveillance HDD (Violet Model)	4	Nos	
M	PoE Switch	D-Link 24 Port PoE Switch	1	Nos	
M	Patch Cord	D-link Patch Cord	16	Nos	
M	VMS	Video Management & Recording Software	1	Nos	
M	CAT6 cable	CAT6 D-Link Cable	1	Box	
M	Supply and Install	Installation and Commissioning including cabling and related accessories.	13	Nos	
M	Warranty	1 year full warranty and services			

3.1.3.17   IT Infrastructure/Datacenter Project Coordination, Management & Site installation Services

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Activities	Bidder shall allocate this resources for site installation and coordination and shall provide as built drawing. During installation take approval for product and planning diagram.			
M	Resource Type	One Project Manager (one person)	2	Month	
M	Resource Type	One Project Coordinator or Site Supervisor	2	Month	
M	Resource Type	One Site Engineer	2	Month	
M	Resource Type	Two Site Technician	2	Month	

3.1.3.18   COPPER & FIBER SOLUTION:

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Standard	MUST be ETL Certified. Manufacturer and TIA/EIA Member.			
M	Country of Origin	To be specified by the Bidder			
M	Country of Manufacture:	To be specified by the Bidder			

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Brand	CommScope (Genuine Systimax) or Molex or Panduit or Substantial Equivalent to be specified by the Bidder			
M	ITEM	All item to be same manufacturer and submit MAF including email contact for verification and Mobile Number for Part number details verification. Bidder must submit all datasheet for the proposed manufacture product.			
M	Model/Part No	To be specified by the Bidder			
	COPPER				
M	305 meter BOX	LSZH Type CAT 6A UTP	1	BOX	
M	Copper Patch Panel	24 port 1U Patch Panel loaded with RJ45 type Keystone Modular jack shall support CAT6A	2	Nos	
M	Patch Cord for DC	3 Meter LSZH Type CAT6A patch card	24	Pcs	
M	Patch Cord for DC	5 Meter LSZH Type CAT6A patch card	10	Pcs	
M	Cable Manager for DC	24 port with Front and Rear Panel	2	Nos	
M	Copper Patch Panel for Buildings floor	24 port 1U Patch Panel loaded with RJ45 type Keystone Modular jack shall support CAT6	16	Nos	
M	Cable Manager for Buildings floor	24 port with Front and Rear Panel	16	Nos	
M	Patch Cord for Buildings floor	1 Meter CAT6 Patch Cord	150	Nos	
M	Patch Cord for Buildings floor	3 Meter CAT6 Patch Cord	150	Nos	
M	Faceplate for Buildings floor	1 port face plate with loaded module	150	Nos	
M	MK Boxes	MS 18 Gage	150	Nos	
M	CAT6 Cable BOX	CAT6 LSZH Cable with 305 meter	35	Box	
M	uPVC pipe & Channel	To laying cable inside	500	Meter	
M	HDPE PIPE:	RFL 1.5" Diameter	500	Meter	
M	Ladder	ALUMINIUM Cable Ladder (8 inch GAP in each segment)	25	meter	
M	JI Wire	JI Wire for PIPE inside	1	Lot	
M	Accessories	Accessories (Cable Tie, Screw, GI wire, Royal Plug, Royal Bolt, PVC Pipe Jointer (L, T, & Intersection shape), Clump, PVC Tape, Masking Tape, Rivet, High Quality nylon Fastener etc)	1	Lot	
M	Services	Supply Marking TAG/Labeling/TAPE for UTP LAN. Label shall be High adechive Tempered plastic paper with Machine printed numbering.	1	Lot	
M	Installation & Testing	1.Crimping: Crimping of Patch Panel 2.Crimping: Crimping of Module Jack 3. Laying: Cable Laying on Cable Tray & Pipe/Channel. 4.Rack Dressing: Rack Dressing 5. Labeling: Cable, Patch Panel labelling Must comply with TIA/EIA standard 6. Cable Analyzer Testing Report 7. Design: Shall submit As-Build CAD Design and Drawing after implementation acceptance.	1	Lot	
	FIBER				

Level	Description	Requirement	Qty	UoM	Bidder Response
M	FIBER Patch Panel for DC	24 port Fibre 19" Patch Panel loaded with complete adapters with pigtails and splice sleeves and it should support duplex type LC-LC adapter for multimode OM3 cables	4	Nos	
M	Fibre Patch Cord for DC	OM3 type 5 meter LC-LC duplex patch cord	40	Nos	
M	OM3 Fibre Cable for DC and Building interconnect	OM3 type armour 12 core Fibre cable , LSZH	2000	meter	
M	FIBER Patch Panel for building floors	12 port Fibre 19" Patch Panel loaded with complete adapters with pigtails and splice sleeves and it should support duplex type LC-LC adapter for multimode OM3 cables	16	Nos	
M	Fibre Patch Cord for building floors	OM3 type 3 meter LC-LC duplex patch cord	32	Nos	
M	Fibre Joints & Splice and labelling	Services for fibre cable slicing, Jointing and Dressing	226	Nos	
M	Fibre Laying with HDPE or UPVC pipe	Services for Fibre laying	2000	meter	
M	Underground fibre works	UNDER GROUND fibre laying around the CAMPUS	80	meter	
M	PIT	PIT Point Construction as required to FIBER BEND point	2	set	
M	9U Rack	Standard Features of 9U Server Rack Cabinet branded by NetRack: -> 600 x 600 x 501mm (Width x Dept. x Height) -> 2 x 4-inch Fan (Low Noise) on Vented Top Flush Panel -> 2 x Side Door with Cam Lock -> Front Door –Glass with Cam Lock -> 4 x Panel Mount with Unit Indication -> 1 x Integrated Wall Mounting Panel -> 1 x Power Distribution Unit (6 Way surge protected PDU) -> Finish with Epoxy Powder Coating ->Colour : Black	16	Set	
M	Services	Supply Marking TAG/Labelling/TAPE for FIBER. Label shall be High adhesive Tempered plastic paper with Machine printed numbering.	1	Lot	
M	Installation & Testing	3. Organizing: fibre core Cable to Patch Panel 3. Fibre Cable/Patch cord Laying on Rack. 4. Rack Dressing: Rack Dressing 5. Labelling: Cable, Patch Panel labelling Must comply with TIA/EIA standard 6. Cable Analyzer Testing Report 7. Design: Shall submit As-Build CAD Design and Drawing after implementation acceptance.	1	Lot	

3.1.3.19   42U RACK (NETWORK & SERVER)

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Standard	EIA-310-E standard			
M	Country of Origin	To be specified by the Bidder			
M	Brand	NETRACK or DELL or HP or Substantial Equivalent to be specified by the Bidder			
M	MODEL	To be specified by the Bidder			
M	Type	42U Rack	2	Sets	
M	Feature	• Static load rating of 2,500 lbs for 42U • Large open base for cable entry and exit • Rack-top cable exits with adjustable, sliding door and removable tail bar • Reversible front door can be configured to open from left or right, with lock • Dual rear doors with lock (same key as front door) • Split side panels, with locks (same key as doors) • Removable front and rear doors have an 80% open perforation pattern to aid in thermal management • Reinforced frame for stability • Adjustable square- hole EIA mounting posts can be positioned forward or backward within the rack • U- space numerical markings on both front and rear mounting posts • Rear-mount vertical PDU trays • Rotating rear casters to easily position rack • Easily accessible levelling feet • Horizontal Cable Organiser • Levellers, Swing Handle and Mechanical Lock, FAN, Cable management Arm • The rack front door to have locking system with 4 digit numeric lock with spy key for enhanced security if available			
M	Accessories	Supply Standard accessories and ensure mountings kits , nuts available			
M	Installation	Supply and Install at client side. Make sure rack-mount equipment compliant to the EIA-310-E standard			
M	Warranty	3 year			
	RACKiPDU	**Intelligent Switched PDU**			
M	Standard	To be specified by the Bidder			
M	Country of Origin	To be specified by the Bidder			
M	Brand	To be specified by the Bidder			
M	Model	To be specified by the Bidder			
M	Intelligent Switched PDU	General:Output (21) IEC320 C13 (3) IEC320 C19 Input (1) IEC320 309 attached power cord, 3 meters long Protection (3) 16 AMP Circuit Breaker Communication DHCP Indication (1) Green LED	4	Nos	

Level	Description	Requirement	Qty	UoM	Bidder Response
		Circuit Status (3) Red LED Output Status (24) Green LED Network (1) RJ45 for Ethernet Temp./Humidity (1) RJ11 for ENV probe connection PDU ID 1 Digits Seven Segment for PDU Identification Current Meter 3 Digits Seven Segments for True RMS Meter Range: 0A ~ 20 A Resolution: 0.1A Precision: +/-2%+/-0.1AMP Operation Nominal Voltage 230V Voltage 200V~ 240V full range Frequency 50/60HZ full range Max. Output Current 32 Amp Temperature 0 ~ 40 Celsius degree Humidity 0% ~ 90% Meter True RMS CurrentMeter, Power Monitor Total Power Monitoring by Meter, Web, SNMP, Free BundleSoftware Protocols TCPIP, SNMP, DHCP, UDPOutlet Control Individual, Power Delay Power On/Off Sequence can be Defined Alarm Thresholds UserDefined Alarm Thresholds for Warning and Overload Event Alert Email, Trap, Audible Alarm Temp./Humidity Option Accessory			
M	Warranty	1 year.			
	RACK ATS	**Automatic Transfer Switch**			
M	Standard	To be specified by the Bidder			
M	Country of Origin	To be specified by the Bidder			
M	Brand	To be specified by the Bidder			
M	Model	To be specified by the Bidder			
M	Automatic Transfer Switch	Automatic Transfer Switch / Per Outlet Monitor and Switch Output (6) IEC320 C13 (2) IEC320 C19 Input (2) attached IEC309 plugs, 3 meters Output Protection (2) 20 AMP Circuit Breaker Operation Nominal Voltage 200V ~240V On-Line Voltage 180V~ 262V Frequency 50/60Hz Max. Output Current 32 Amp Transfer Time 8~16ms	2	Nos	

Level	Description	Requirement	Qty	UoM	Bidder Response
		Meter True RMS Current Meter, Voltage, Frequency, Power Factor, Active Power, Apparent Power, Total kWh, Sub-totalkWh. Power Monitor Per Outlet Output Current and Total Power Monitoring by Meter, Web, SNMP, Free Bundle Software Protocols Http, Https, Ipv4/v6 SNMPv1/v3, DHCP, UDP, SSH, SSLv3, TLS1.0,TLS1.1,TLS1.2 Outlet Control Individual, Group, Schedule, Auto Ping , Trap Events Power Delay Power On/Off Sequence can be Defined Alarm Thresholds User-Defined for Warning and Overload Event Alert Email, Trap, Audible Store events and data records Temp./Humidity Option Accessory Power Action Automatic Transfer Switch			
M	Warranty	1 year.			
M	8 port KVM Over IP Switch	Minimum 8 Port digital IP KVM switch with 8 unit KVM adapter integrated with mouse and necessary accessories and cables. Enclosure Type: Rack-mountable Ports: 8 x KVM port(s) KVM Users Qty: Min 1 local user, 1 IP user Remote Management Protocol: True serial support over Telnet/SSH Features: 128-bit encryption, LDAP support, firmware upgradable, Virtual Media support, SSH support, Common Access Card (CAC) reader support, Smart Card reader support, FIPS 140-2 compliant cryptography, Enhanced serial adapters, Advanced remote management Power: AC 230 V Manufacturer Warranty: 2 years warranty and supplied item must be integrated with offered Server port and connecting distance and prefer to same brand of server.	2	set	
M	Rack Console with Monitor	Min 17 inch Rack Console Monitor (LCD with 1U Tray), Space-saver server Keyboard with Touchpad, USB plus PS/2 connections. Supplier shall ensure compatibility of space for the accommodation in Rack. Warranty: 2 years warranty and supplied item must be integrated with offered Server port and connecting distance and prefer to same brand of server.	2	Set	

3.1.4   Primary Server Room & Network

3.1.4.1   NETWORK DIAGRAM:

We have considered only PHASE-1 items for this tender process. Phase-2 with appropriate specification will be implement in future at BCC IT Infrastructure or elsewhere upon approval from REB authority. Phase-1 implementation shall complete as per below diagram. Successful bidder shall supply IP schema and details work plan which to be get approval from authority before start the implementation.
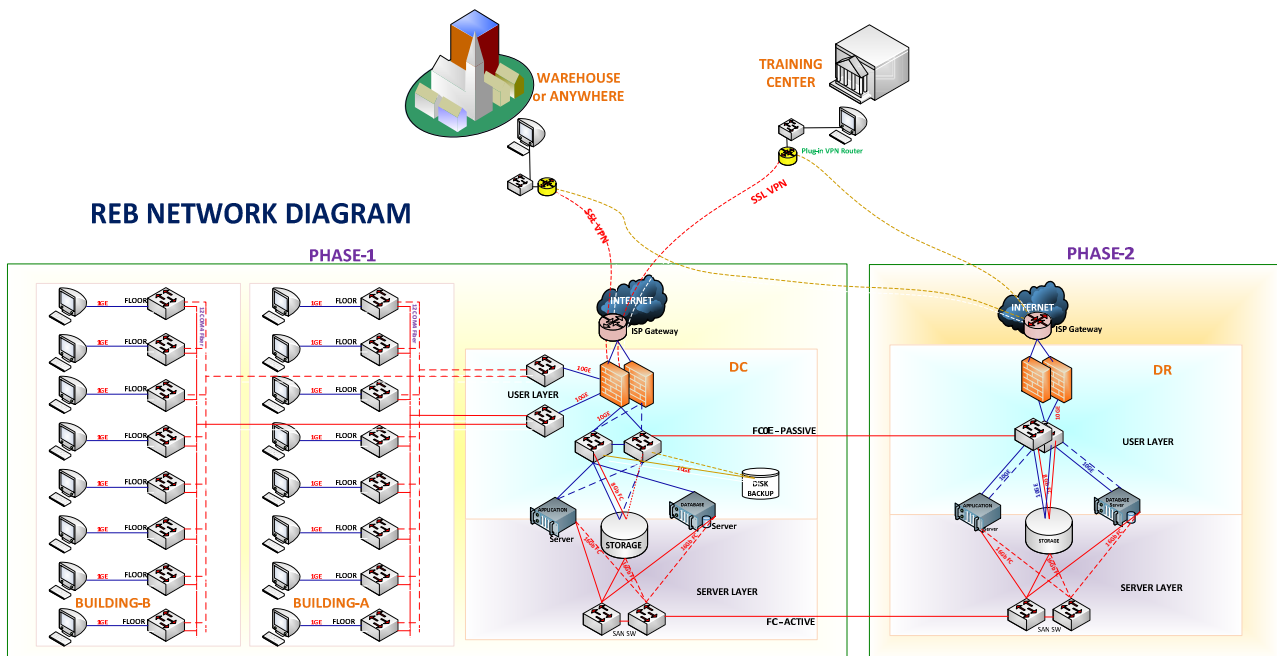
- PHASE-2 part or DR is for future provision and it is not part of this contract.
- To provide internet; ISP shall provide their own **ISP Router** at Customer End. So Bidder do not have to quote for it.
- Bidder shall provide Plug-in VPN router(s) and Switch (s) at remote sites and details specified in specification.
- The items are indicated in Phase-1 part are the scope of bidder except the ISP router part and details specified in specification.

3.1.4.2   NETWORK SWITCH for BUILDINGS & DC

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Standard	To be specified by the Bidder			

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Country of Origin	To be specified by the Bidder			
M	Country of Manufacture:	To be specified by the Bidder			
M	Brand	HPE or DELL or ALE or substantially Equivalent To be specified by the Bidder			
M	MODEL	To be specified by the Bidder			
M	SWITCH TYPE-1	Gigabit Ethernet 1RU chassis. 24 10/100/1000 BaseT, 2 fixed SFP+ 1G/10G ports, 1 expansion slot. 10G uplink speed enabled by default. Includes: internal AC PSU, power cord, Network Expansion Slot, Rack mounts, Console either RJ45 to DB9 or USB to RJ-45 cable shall provide withconverter adaptorfor Switch management. Min. Performance Capacity: Switch capacity with 2x10 G ports and 2x10 G stacking: 128 Gb/s Switch frame rate with 2x10 G ports and 2x10 G stacking: 95.3 Mp/s Stacking capacity (aggregated):40 Gb/s Layer-2/Layer-3 Routing and Multicast • Layer-2 switching ¬ Up to 16,000 MACs ¬ Up to 4000 VLANs ¬ Up to 2000 ACLs ¬ Latency: < 4 µs ¬ Max Frame: 9216 bytes (jumbo) • Ipv4 and Ipv6 ¬ Static routing for Ipv4 and Ipv6 ¬ RIP v1 and v2 for Ipv4; RIPng for Ipv6 ¬ Up to 256 Ipv4 and 128 Ipv6 static and RIP routes ¬ Up to 128 Ipv4 and 16 Ipv6 interfaces ¬ Up to 1000 Arp entries • Multicast ¬ IGMPv1/v2/v3 snooping for optimized multicast traffic ¬ Multicast Listener Discovery (MLD) v1/ v2 snooping ¬ Up to 1000 multicast groups per stack ¬ IP Multicast VLAN (IPMVLAN) for optimized multicast replication at the edge, saving network core resources • Network protocols ¬ DHCP relay including generic UDP relay ¬ ARP ¬ Dynamic Host Configuration Protocol (DHCP) relay ¬ DHCP relay to forward client requests to a DHCP server	16	Nos	
	SWITCH TYPE-2 High Level Fabrication	1RU 10GE L3 fixed chassis with min 20 SFP+ ports, one optional module slot. Front to back	4	Nos	

Level	Description	Requirement	Qty	UoM	Bidder Response
	Switch **Software Defined Networking (SDN)**	cooling. Includes AC power supply and cord. Ships with user manuals access card, rack mounts, and USB to RJ-45 console cable withadaptorfor Switch Management. Hot-swappablePower supplies: Primary and Redundant Redundant fans:3+1or 2+1 or 1+1 OS license included for all port. Min switching capacity 640 Gb/s Non-blocking Min Throughput 480 Mp/s Latency Sub microsecond (µs) Offered Switch shall Support: Software Defined Networking (SDN) Converged storage I/O: FcoE , VSAN, Fibre Channel. Quality of Service (QoS) Ipv6 routing Ipv4/Ipv6 multicast Ipv4 routing Advanced security with MAC-based authentication Advanced Layer 2 & 3 services			
M	Fiber Channel port or card required at two switches (SWITCH TYPE-2)	Supplier shall provide active 8 port (8G FC) or equivalent card in expansion slot of SWITCH TYPE-2. All FC port license to be active from day one. Bidder shall supply and install fibre channel communication with related SFP.	2	set	
M	SFP-10G-SR	10 Gigabit optical transceiver SFP+. Supports multimode fiber over 850nm wavelength nominal) with an LC connector. Typical reach of min 300m	64	Nos	
M	SFP-FC-SR for SWITCH TYPE-2B	Triple-speed SFP+ Fiber Channel optical transceiver. Supports multimode fiber 850nm wavelength with an LC connector. Supports auto-sensing 8G Fibre Channel (FC), 4GFC and 2GFC.	12	Nos	
M	SFP-10G-T	10 Gigabit copper transceiver SFP+). 10Gbase-T 10 Gigabit Ethernet Transceiver SFP MSA) – Supports category 6a/7 cabling copper cabling up to 30m. This transceiver supports 10Gbs full-duplex mode only.	12	Nos	
M	SFP-10G-ER	10 Gb optical transceiver (SFP+). Supports monomode/Single mode fibre over 1550 nm wavelength (nominal) with an LC connector. Typical reach of 40 km	2	Nos	
M	SFP-10G-LR	10 Gb optical transceiver (SFP+). Supports monomode fiber over 1310 nm wavelength (nominal) with an LC connector. Typical reach of 10 km.	2	Nos	
M	QSFP-40G-C3M	40 Gigabit direct attached copper cable 3m, QSFP+ for stacking between switches.	4	Nos	
M	Supply and Install	Installation and Commissioning above switches including cabling and related accessories.	1	set	
M	Warranty	1 year full warranty and services			

3.1.4.3 NEXT GENERATION FIREWALL (NGFW) WITH IPS for DC

Bidder shall supply, install & warranty support for the Next Generation Firewall (NGFW) with IPS shall support Next Generation Cybersecurity Solutions with ATP, Next-Gen Network Security, Security Heartbeat, Secure Web Gateway, Layer-7 Application Control, Layer-8 User Control, Integrated Next-Gen Sandbox and Advanced Bandwidth Management.

Level	Description	Requirement	Qty	UoM	Bidder Response
M	NGFW UTM	Next Generation Firewall with HA for server room	2	Nos	
M	Quality/Safety Certifications	CB, UL, CE, FCC Class A, ISED, VCCI, RCM, CCC, BIS, MSIP/KCC, Checkmark, ICSA Labs, ISO			
M	Brand	To be mentioned by the bidder			
M	Model	To be mentioned by the bidder			
M	Country of Origin	To be mentioned by the bidder			
M	Environmental	Maintain International Quality Environmental Safety standard			
M	Part No	Bidder should submit BOQ of proposed device including the details part numbers. Bidder should submit the required performance document for the proposed device.			
M	Form Factor	1U Rack Mountable with Rack Mounting Kit with sliding rails			
M	Hardware Architecture	The device should have physical multi-core processors and should not be any proprietary ASIC-based processor			
M		The device should have at least 12GBphysical memory			
M		The device should have at least 1x 180GB SSD from day 1			
M		The device should have multi-function LCD display with navigation			
M		The device should have one internal auto-ranging 110-240VAC, 50-60 Hz power supply unit with optional redundant external PSU			
M	Interface requirement	The device should have at least 6x8x1GbE built-in Copper & 2x 1GbE built-in SFPand 2x 10GbE built-in SFP+ interfaces from day 1 and should be freely configurable as LAN, WAN & DMZ ports			
M		The device should have 1x expansion slot for future extension of 1GbE Copper/ 1GbE SFP/10GbE SFP+ and provide 4port 10 Gbe SFP+ card with Four 10GbE SFP+ module from day one.			
M		The device can be upgraded to minimum			

Level	Description	Requirement	Qty	UoM	Bidder Response
		1620ports 1GE interfaces any time			
M		The device should have 3x USB, 1x Micro USB, 1x COM (RJ45) and 1x HDMI port			
M	Security Performance	min 32 Gbpsor higher Firewall throughput			
M		min 12Gbps or higher Firewall IMIX throughput			
M		Minimum 6Gbps NGFW throughput			
M		IPS throughput should be minimum 8.5Gbps			
M		minimum 3.2Gbps or higher VPN throughput			
M		Minimum 6Gbps or higher Antivirus (proxy) throughput			
M		2.4 million or more Firewall packets per second (1518 byte packet size)			
M		Minimum Concurrent Ipsec VPN Tunnels >= 2,500			
M		Minimum Concurrent SSL VPN Tunnels >= 300			
M		Minimum Concurrent connections >= 17,500,000 (17.5m)			
M		Minimum New connections/Sec >= 200,000 (200k)			
M		Minimum concurrent access points supports >= 150			
M		Maximum licensed users should be unrestricted/unlimited			
M	Firewall General Features	Firewall rule Control Center widget monitors firewall rule activity for business, user and network policies and tracks unused, disabled, changed and new policies			
M		Unified policy model enabling all business, user and network rules to be managed on a single screen with powerful filtering and search options			
M		Firewall rule templates for common business applications like Microsoft Exchange, SharePoint, Lync, and much more defined in XML enabling customization and sharing			
M		Policy natural language descriptions and at a-glance policy enforcement indicators			
M		Custom IPS, Web, App, and Traffic Shaping (QoS) settings per user or network rule on a single screen			
M		Layer-8 user identity awareness across key areas of the firewall			
M		Security Heartbeat connecting central managed endpoints with the Firewall to share health status and telemetry			
M		Policy support for Security Heartbeat to			

Level	Description	Requirement	Qty	UoM	Bidder Response
		automatically isolate or limit network access to compromised systems			
M		User Threat Quotient for identifying risky users based on recent browsing behavior and ATP triggers			
M		Application Risk Meter provides and overall risk factor based on the risk level of applications on the network			
M		Full-featured centralized management with Firewall Manager available as a hardware, software, or virtual appliance			
M		Graphical interactive control center with traffic-light style indicators for important alerts			
M		Advanced trouble-shooting tools in GUI (e.g. Packet Capture)			
M		High Availability (HA) support clustering 2 devices in active-active or active-passive mode.			
M		HA Support for dynamic addresses on WAN interfaces			
M		Full command-line-interface (CLI) accessible from GUI			
M		Role-based administration			
M		Automated firmware update notification with easy automated update process and roll-back features			
M		Reusable system object definitions for networks, services, hosts, time periods, users and groups, clients and servers			
M		Self-service user portal			
M		Configuration change tracking			
M		Flexible device access control for services by zones			
M		Email or SNMP trap notification options			
M		SNMP and Netflow support			
M		Central management support from Firewall Manager or Cloud Firewall Manager			
M		Backup and restore configurations: locally, via FTP or email; on-demand, daily, weekly or monthly			
M		API for 3rd party integration			
M		Remote access option for OEM Support			
M		Web-based license management via OEM Portal			
M	Firewall, Networking & Routing features	Stateful deep packet inspection firewall			
M		FastPath Packet Optimization			
M		User, group, time, or network based policies			
M		Access time polices per user/group			
M		Enforce policy across zones, networks, or			

Level	Description	Requirement	Qty	UoM	Bidder Response
		by service type			
M		Zone isolation and zone-based policy support			
M		Default zones for LAN, WAN, DMZ, LOCAL, VPN and WiFi			
M		Custom zones on LAN or DMZ			
M		Customizable NAT policies with IP masquerading			
M		Flood protection: DoS, DdoS and portscan blocking			
M		Country blocking by geo-IP with simple country and continent selections			
M		Routing: static, multicast (PIM-SM) and dynamic (RIP, BGP, OSPF)			
M		Per-rule and policy based routing by source, destination, user/group or layer-4 service			
M		Upstream proxy support			
M		Protocol independent multicast routing with IGMP snooping			
M		Bridging with STP support and ARP broadcast forwarding			
M		VLAN DHCP support and tagging			
M		Simultaneous DHCP Server and Relay support			
M		Multiple bridge support			
M		WAN link balancing: multiple Internet connections, auto-link health check, automatic failover, automatic and weighted balancing and granular multipath rules			
M		Wireless WAN support			
M		802.3ad interface link aggregation			
M		Full configuration of DNS, DHCP and NTP, Dynamic DNS			
M		Dual anti-virus engines, at least one AV should be from Gartner Leader Quadrant under Endpoint Protection category			
M		Ipv6 support with tunneling support including 6in4, 6to4, 4in6, and Ipv6 rapid deployment (6rd) through Ipsec			
M	Layer-8 Bandwidth Management Features	Flexible network or user based traffic shaping (QoS) (enhanced Web and App traffic shaping options are included with the Web Protection Subscription)			
M		Set user-based traffic quotas on upload/download or total traffic and cyclical or non-cyclical			
M		Enhanced traffic shaping (QoS) options by web category or application to limit or guarantee upload/download or total traffic priority and bitrate individually or shared			
M		Real-time VoiP optimization			
M	Integrated Wireless	Simple plug-and-play deployment of			

Level	Description	Requirement	Qty	UoM	Bidder Response
	Security	wireless access points (Aps) – automatically appear on the firewall control center (no additional hardware wireless controller required)			
M		Central monitor and manage all Aps and wireless clients through the built-in wireless controller			
M		Bridge Aps to LAN, VLAN, or a separate one with client isolation options			
M		Multiple SSID support per radio including hidden SSIDs			
M		Support for the latest security and encryption including WPA2 Personal and Enterprise			
M		Support for IEEE 802.1X (RADIUS authentication)			
M		Support for 802.11r (fast transition)			
M		Hotspot support for (custom) vouchers, password of the day, or T&C acceptance			
M		Wireless guest Internet access with walled garden options			
M		Time-based wireless network access			
M		Wireless repeating and bridging meshed network mode with supported Aps			
M		Automatic channel selection background optimization			
M		Support for HTTPS login			
M		Rogue AP detection			
M	Authentication	Transparent, proxy authentication (NTLM/Kerberos) or client authentication			
M		Authentication via: Active Directory, eDirectory, RADIUS, LDAP and TACACS+			
M		Transparent Authentication Suite (STAS) server authentication agents for Active Directory SSO			
M		Client authentication agents for Windows, Mac OS X, Linux 32/64			
M		Authentication certificates for iOS and Android			
M		Single sign-on: Active directory, eDirectory			
M		Authentication services for Ipsec, L2TP, PPTP, SSL			
M		Captive Portal			
M		Two factor authentication (one-time password support) for Ipsec and SSL VPN, user portal, and Web Admin			
M	User Self-Service Portal	Download the OEM provided Authentication Client			
M		Download SSL remote access client (Windows) and configuration files (other OS)			

Level	Description	Requirement	Qty	UoM	Bidder Response
M		Hotspot access information			
M		Change user name and password			
M		View personal internet usage			
M		Access quarantined messages for Email Protection			
M		Setup two-factor authentication with QR Code			
M	VPN Features	Site-to-site VPN: SSL, Ipsec, 256- bit AES/3DES, PFS, RSA, X.509 certificates, pre-shared key			
M		L2TP and PPTP			
M		Remote access: SSL, Ipsec, iPhone/iPad/Cisco/Android VPN client support			
M		SSL client for Windows & configuration download via user portal			
M		Authentication: Pre-Shared Key (PSK), PKI (X.509), Smartcards, Token and XAUTH			
M		Encryption: AES (128/192/256), DES, 3DES (112/168), Blowfish, RSA (up to 2048 Bit), DH groups 1/2/5/14, MD5 and SHA-256/384/512			
M		Intelligent split-tunneling for optimum traffic routing			
M		NAT-traversal support			
M		Client-monitor for graphical overview of connection status			
M		Unique encrypted HTML5 self-service portal with support for RDP, HTTP, HTTPS, SSH, Telnet and VNC			
M		Central Management of all Remote Ethernet Devices (RED)			
M		Automatically connects through a cloud-based provisioning service (No configuration necessary)			
M		Secure encrypted tunnel using digital X.509 certificates and AES256- encryption			
M		Virtual Ethernet for reliable transfer of all traffic between locations			
M		IP address management with centrally defined DHCP and DNS Server configuration			
M		Remotely de-authorize RED devices after a select period of inactivity			
M		Compression of tunnel traffic			
M		VLAN port configuration options			
M		Firewall-to-Firewall RED Tunnels			
M		Multilingual: German, English and French			
M	Integrated Sandbox Protection against APT & Zero-day attacks	Fully Integrated next generation sandbox protection that should be worked together with Network Protection, Email Protection & Web Protection			

Level	Description	Requirement	Qty	UoM	Bidder Response
M		Detect, block and gain visibility into evasive zero-day targeted attacks in active content such as executable, PDFs, Office Documents, and more			
M		Previously unseen suspicious files are detonated in the cloud-sandbox and monitored before being released to the end-user			
M		Complete reporting on all suspicious file activity including detailed sandbox analysis results			
M		Targeted attack protection, visibility, and analysis			
M		Blocks evasive threats with granular, incident based reports			
M		Inspects executable and documents containing executable content: Windows executable (including .exe, .com, and .dll); Word documents (including .doc, .docx, docm and .rtf) ; PDF documents; Archives containing any of the file types listed above (ZIP, BZIP, GZIP, RAR, TAR, LHA/LZH, 7Z, Microsoft Cabinet); Supports more than 20 file types.			
M		Dynamic malware behavior analysis runs files in real environments			
M		Deep forensic reporting – accelerate response to advanced threats with simple incident-centric breach analysis			
M		In-depth malicious file reports and dashboard file release capability: Average analysis time less than 120 seconds; Flexible user and group policy options on file type, exclusions, and actions on analysis;			
M		Comprehensive environment coverage including Windows, Mac, and Android			
M		Supports one-time download links			
M	Intrusion Prevention (IPS)	High-performance, next-gen IPS deep packet inspection engine with selective IPS patterns for maximum performance and protection			
M		Thousands of IPS signatures			
M		Support for custom IPS signatures			
M		Flexible IPS policy deployment as part of any network or user policy with full customization			
M	Advance Threat Protection (ATP) and Security Heartbeat	Advanced Threat Protection (Detect and block network traffic attempting to contact command and control servers using multi-layered DNS, AFC, and firewall)			
M		Security Heartbeat instantly identifies compromised endpoints including the host,			

Level	Description	Requirement	Qty	UoM	Bidder Response
		user, process, incident count, and time of compromise			
M		Security Heartbeat policies can limit access to network resources or completely isolate compromised systems until they are cleaned up			
M		Destination Security Heartbeat automatically protects healthy systems from connecting to compromised endpoints and servers			
M		Block all traffic to or from non-managed devices and endpoints without a Security Heartbeat			
M	Web Security Gateway	Enterprise-grade Secure Web Gateway web policy engine with top-down execution and inheritance with flexible user/group policy definitions, customizable activities, block/warn/allow actions, and time-of-day and day-of-week constraints			
M		High-performance fully transparent proxy for anti-malware and web-filtering			
M		Enhanced Advanced Threat Protection (ATP)			
M		URL Filter database with millions of sites across 92 categories backed by OEM Security Labs			
M		Surfing quota time policies per user/group			
M		Access time polices per user/group			
M		Malware scanning: block all forms of viruses, web malware, 184rojans and spyware on HTTP/S, FTP and web-based email			
M		Advanced web malware protection with JavaScript emulation			
M		Live Protection real-time in-the-cloud lookups for the latest threat intelligence			
M		Dual advanced malware detection engine for dual-scanning, Dual AV, at least one AV should be from Gartner Leader Quadrant under Endpoint Protection category			
M		Real-time or batch mode scanning			
M		Pharming Protection			
M		HTTP and HTTPS scanning and enforcement on any network and user policy with fully customizable rules and exceptions			
M		SSL protocol tunneling detection and enforcement			
M		Certificate validation			
M		High performance web content caching			
M		Forced caching for Endpoint Protection updates			
M		File type filtering by mime-type, extension			

Level	Description	Requirement	Qty	UoM	Bidder Response
		and active content types (e.g. ActiveX, applets, cookies, etc.)			
M		YouTube for Schools enforcement policy			
M		Safe-Search enforcement policy			
M		Creativecommons image search enforcement policy			
M		Google Apps/G-Suite domain enforcement policy			
M		Unscanable content handling options			
M		Support for adding custom 3rd party URL databases			
M	Layer-7 Application Protection and Control	Enhanced application control with signatures and Layer 7 patterns for thousands of applications			
M		Dynamic application identification utilizes the Synchronized Security Heartbeat link with the endpoint to determine apps responsible for generating unknown traffic on the network			
M		Micro app discovery and control			
M		Application control based on category, characteristics (e.g. bandwidth and productivity consuming), technology (e.g. P2P) and risk level			
M		Per-user or network rule application control policy enforcement			
M		Limit access to a selected Google Apps domain to reduce the risk of data loss from users transferring documents to their personal Google Apps			
M	Built-in Logging and Reporting	Built-in on-box reports with custom reporting options. Bidder can offer separate product/solutions to provide full integrated reporting features			
M		Dashboards on Traffic, Security, and User Threat Quotient (UTQ)			
M		Applications Report on Application Risk, Blocked Apps, Web Uses, Search Engines, Web Servers, FTP			
M		Network & Threats Report on IPS, Advanced Threat Protection (ATP), Wireless, Security Heartbeat			
M		VPN Reports			
M		Email usage and protection reports			
M		Compliance reports i.e., PCI-DSS, HIPAA, GLBA, SOX, FISMA, NERC CIPv3, and CIPA			
M		Report anonymization			
M		Report scheduling to multiple recipients by report group with flexible frequency options			
M		Export reports as HTML, PDF, Excel (XLS)			
M		Report bookmarks			

Level	Description	Requirement	Qty	UoM	Bidder Response
M		Full log viewer available from every screen that pops-open in a new window			
M		Customized log viewer refresh period and color coded log lines for easy trouble-shooting			
M		Log retention customization by category			
M		Current Activity Monitoring including system health, live users, Ipsec connections, remote users, live connections, wireless clients, quarantine, and DoS attacks			
M		Security Audit Report including layout, presentation and information			
M	Subscription	Next Generation Firewall EnterpriseSecurity Subscriptions for 5 years The following security subscriptions should be provided to cover all mentioned features & specifications from day 1			
M		Next Generation Firewall with VPN, Routing, WAN Link Load Balancing, Link Aggregation, Traffic Shaping & Quota (Bandwidth Management), Layer-8 User Identity, Authentication, Built-in Wireless Controller with self-service user portal, captive portal, VPN, 2FA			
M		Network Protection Subscription includes Next-Gen IPS, RED, HTML5, ATP, Dual Anti-malware, Security Heartbeat			
M		Web Protection Subscription includes Enterprise-grade SWG, Proxy, Advanced Web Threat Protection, URL Filtering, App control, Web & Application traffic shaping & quota (Bandwidth Management), Dual AV, Web Content Caching,			
M		Integrated Next-Generation Sandbox Protection Subscription includes zero-day threat protection with dynamic malware behavior analysis, Inspection of over 40 file types, Support of one time links, Integration into security dashboard, Coverage of Windows, Mac, iOS and Android environments			
M	Training	Two days Technical Training should be provided on offered product locally			
M	Warrantyand Support	Mentioning manufacturer warranty part number should be quoted, minimum Three (3)years full warrantyand two (2) years post warranty. It should be provided for this unit from the date of successful commissioning.			
M		Advanced hardware replacement warrantyincluding Three (3)full warranty and Two (2) post warranty.			
M		24x7 Enhanced Support via telephone &email with remote access support by			

Level	Description	Requirement	Qty	UoM	Bidder Response
		manufacturer directly.			
M		Free Security Updates, Patches, Software Features Updates & Upgrades			

3.1.5 SERVER AND STORAGE

3.1.5.1 SERVER TYPE-1

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Standard	To be specified by the Bidder			
M	Country of Origin	To be specified by the Bidder			
M	Country of Manufacture:	To be specified by the Bidder			
M	Brand	HPE or SUN or LENOVO or DELL or substantially equivalent Internationally reputed brand			
M	Model	To be mention by the bidder			
M	Type	High Performance Rack Server	1	Nos	
M	Processor	Min. Intel Xeon Platinum 8153 2.0G, 16C/32T, 10.4GT/s 3UPI, 22M Cache, Turbo, HT (125W) DDR4-2666or Higher			
M	No. of Processor	Two (2)			
M	Chipset	Min. Intel C610 chipset or higher			
M	Memory	Install Min. 256 GB (8 x32GB) RDIMM 2666MT/s or HigherDual Rank			
M	Memory Slots	Support Min. 24 memory Slots			
M	Hard Disk Drives	Min. 4x 1.92**TB** SSD SAS Mix Use 12Gbps 512n 2.5in Hot-plug Drive. Min. Sixteen (16) disk drives bay supported			
M	RAID	RAID ControllerMin 4GB NV cache supporting RAID Level 0,1,5, 6, 10			
M	Graphics Controller	Integrated Graphics standard			
M	Boot optimize storage card	Controller card + with Two (2) M.2 Sticksminimum 240G (RAID 1), FHor minimum 240G capacity Two (2) PCIe/NVMe/SFF based SSD and bidder shall proof boot optimize storage feature.			
M	ESXi Hypervisor	VmwareESXi 6.5 U1 Embedded Image on Boot optimize storage card			
M	ESXi Software with license	VmwarevSphere Enterprise Plus with 3 Years production or pro support for software Qty: Two (2) processors license			
M	Optical drive	Integratedor USB external DVD +/-RW			
M	Network cards	2 x Dual Port 10GbE SFP+ network adapter with all optical Trans receiver including fiber & copper patch cord			
M	FC HBA	2 x Single Port 16 Gb Fiber channel HBA with all optical Trans receiver including fiber patch			

Level	Description	Requirement	Qty	UoM	Bidder Response
		cord			
M	PCI-e Expansion slot	Min. 7 PCI-expansion slot			
M	Security features	TPM 2.0, Cryptographically signed firmware, Secure Boot, System Lockdown, Secure erase			
M	Remote Management	**IP Based**Dedicated remote management controller with enterprise remote management features			
M	Power supply	Dual, Hot-plug, Redundant Power Supply (1+1), maximumup to 1100W efficiency power supply			
M	Cooling Fans	Min. Four (4)hot plugs fans with full redundancy			
M	Availability	Hot-plug hard drives, hot-plug redundant power			
M	Operating system support	Microsoft® Windows Server 2008 R2; Microsoft Windows Server 2012; Microsoft Windows Server 2012 R2; Novell® SUSE Linux Enterprise Server; Red Hat® Enterprise Linux; Vmware® ESX®			
M	System Management software (License)	The server system agent-free capabilities of the embedded Remote Access Controller with Lifecycle Controller to simplifies and automates server lifecycle management tasks. Server management software tool for simplifies server setup, health monitoring, power and thermal control and for remote administration			
M	IO & Ports	Video, USB 3.0, dedicated remote management port ~~Direct USB~~			
M	Form Factor	2U Rack mountable with Rail kit including front side server bezel and accessories			
M	Quality certifications	ISO, FCC Class A/B, Bidder has to submit appropriate documents for the certification			
M	Installation and commissioning	Successful bidder shall supply and install server including OS & VMWARE software and confirm the requirements and provide support services for 3 years.			
M	Microsoft Windows server License	Microsoft Windows server 2016 Standard Edition 16 core license to be supply from offer server manufacturer or Open volume license under VLSC. Preferred Electronic license.	2	Nos	
M	Warranty & Support	Manufacturer provided three (3) years full warranty including spare parts replacement and services.			
M	On-site Local Support	3 Years	36	Month	

3.1.5.2   SERVER TYPE-2

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Standard	To be specified by the Bidder			
M	Country of Origin	To be specified by the Bidder			
M	Country of Manufacture:	To be specified by the Bidder			
M	Brand	HP or SUN or LENOVO or DELL or substantially equivalent Internationally reputed brand			
M	Model	To be mention by the bidder			
M	Type	High Performance Rack Server	1	Nos	
M	Processor	Min. Intel Xeon Platinum 8153 2.0G, 16C/32T, 10.4GT/s 3UPI, 22M Cache, Turbo, HT (125W) DDR4-2666or Higher			
M	No. of Processor	Two (2)			
M	Chipset	Min. Intel C610 chipset or higher			
M	Memory	Install Min. 512 GB (16 x32GB) RDIMM 2666MT/sor Higher Dual Rank			
M	Memory Slots	Support Min. 24 memory Slots			
M	Hard Disk Drives	Min. 4x 1.92 **TB**SSD SAS Mix Use 12Gbps 512n 2.5in Hot-plug Drive. Min. Sixteen (16) disk drives bay supported			
M	RAID	RAID Controller Min 4GB NV cache supporting RAID Level 0,1,5, 6, 10			
M	Graphics Controller	Integrated Graphics standard			
M	Boot optimize storage card	Controller card + with Two (2) M.2 Sticks minimum 240G (RAID 1), FH or minimum 240G capacity Two (2) PCIe/NVMe/SFF based SSD and bidder shall proof boot optimize storage feature.			
M	ESXi Hypervisor	VmwareESXi 6.5 or higherU1 Embedded Image on Boot optimize storage card			
M	ESXi Software with license	VmwarevSphere Enterprise Plus with 3 Years pro support for software Qty: Two (2) processors license			
M	Optical drive	Integratedor USB external DVD +/-RW			
M	Network cards	2 x Dual Port 10GbE SFP+ network adapter with all optical Trans receiver including fiber & copper patch cord			
M	FC HBA	2 x Single Port 16 Gb Fiber channel HBA with all optical Trans receiver including fiber patch cord			
M	PCI-e Expansion slot	Min. 7 PCI-expansion slot			
M	Security features	TPM 2.0, Cryptographically signed firmware , Secure Boot ,System Lockdown, Secure erase			
M	Remote Management	**IP based**Dedicated remote management controller with enterprise remote management features			
M	Power supply	Dual, Hot-plug, Redundant Power Supply (1+1), maximumup to 1100W efficiency power supply			
M	Cooling Fans	Min. 6Four (4)hot plugs fans with full redundancy			
M	Availability	Hot-plug hard drives, hot-plug redundant power			
M	Operating system support	Microsoft® Windows Server 2008 R2; Microsoft Windows Server 2012; Microsoft Windows Server 2012 R2;Novell® SUSE® Linux Enterprise Server; Red Hat® Enterprise Linux;			

Level	Description	Requirement	Qty	UoM	Bidder Response
		Vmware® ESX®			
M	System Management software (License)	The server system have agent-free capabilities of the embedded Remote Access Controller with Lifecycle Controller to simplify and automates server lifecycle management tasks. Server management software tool for simplifies server setup, health monitoring, power and thermal control and for remote administration			
M	IO & Ports	Video, USB 3.0, dedicated remote management port.~~Direct USB~~			
M	Form Factor	2U Rack mountable with Rail kit including front side server bezel and accessories			
M	Quality certifications	ISO, FCC Class A/B, Bidder has to submit appropriate documents for the certification			
M	Installation and commissioning	Successful bidder shall supply and install server including OS & VMWARE software and confirm the requirements and provide support services for 3 years.			
M	Microsoft Windows server License	Edition 16 core license to be supply from offer server manufacturer or Open volume license under VLSC. Preferred Electronic license.	2	Nos	
M	vCenter server	VmwarevCenter server with 3 Years production or pro support for software Qty: 1 unit	1	Nos	
M	Warranty & Support	Manufacturer provided three (3) years full warranty including spare parts replacement and services.			
M	On-site Local Support	3 Years	36	Month	

3.1.5.3   SAN STORAGE- ALL FLASH

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Standard	To be specified by the Bidder			
M	Country of Origin	To be specified by the Bidder			
M	Country of Manufacture:	To be specified by the Bidder			
M	Brand	HP or SUN or LENOVO or DELL or EMC or DELL-EMC or substantially equivalent Internationally reputed brand			
M	Model	To be mention by the bidder			
M	Type	Enterprise class ALL FLASH SAN STORAGE	1	Nos	
M	Controller	Minimum Dual controller (Active-Active). Each controller CPU based on Intel Xeon/ASIC/RISC based processor minimum 8 core 2.4 GHz.			
M	Memory (Cache)	Minimum 64 GB system memory (per controller) total 128GB in storage system.			
M	Storage **IOPS** and capacity	a) Bidder must proof min 133,700 IOPS from Manufacturer with workload 50% Read and			

Level	Description	Requirement	Qty	UoM	Bidder Response
		50% Write capacity to the proposed storage system and provide manufacturer document at the time of bid submission Min. 21 x 1.92TB RI SSD SAS 12Gbps Disk drives with one unit hot spare. Bidder shall provide min 24 TB usable capacity and min 29+TB Effective Capacityusing RAID mix percentage in single tier min 65% RAID5 and other RAID 35% after compression & Deduplication parameter 1.33:1to the proposed system. OR b) Bidder must proof min 170,500 IOPS from Manufacturer with workload67% Read and 33% Write capacity to the proposed storage system and provide manufacturer document at the time of bid submission Min. 21 x 1.92TB RI SSD SAS 12Gbps Disk drives with one unit hot spare. Bidder shall provide min 24 TB usable capacity and min 29+TB Effective Capacity using RAID mix percentage in single tier min 65% RAID5 and other RAID 35%after compression & Deduplication parameter 1.33:1 to the proposed system. OR c) Bidder must proof min 189,000 IOPS from Manufacturer with workload 67% Read and 33% Write capacity to the proposed storage system and provide manufacturer document at the time of bid submission Min. 21 x 1.92TB RI SSD SAS 12Gbps Disk drives with one unit hot spare. Bidder shall provide min 24 TB usable capacity and min 29+TB Effective Capacity using RAID mix percentage in single tier min 65% RAID5 and other RAID 35% after compression & Deduplication parameter 1.33:1 to the proposed system.			
M	Storage expansion	The array must be scalable at least 210+ drives without controller upgrade/ replacement/ adding or external storage virtualization.			
M	Front End Ports	Each controller configured with Min. Quad ports 16 Gbps FC interfaces and **as optional**1 x Dual Port 10Gbps iSCSI interfaces**if available**. **Bidder shall supply**with all optical Trans receivers including 10m fiber & 3m coper patch cords			
M	Back end Ports	Minimum 12 Gb Four (4) backend ports for Disk Enclosure connectivity including fiber & copper patch cord			

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Raid support	RAID 0, 1, 5, 6, 10**or RAID1+0, 5, 6**, and**/or** RAID 10 DM (dual mirror); any combination of RAID levels can exist on a single array			
M	Auto Tiering **OR** Automatic Storage Tiering	Policy-based migration based on real-time data usage, customizable 512KB-4MB page size. Support two SSD tiers (write- and read-intensive SSDs). OR The Storage should have Automatic Storage Tiering of a quality of storage service feature that enables logical volumes or LUNs to span different tiers of storage and transparently move portions of the logical volume between tiers of storage to deliver consistent performance and throughput.			
M	Raid tiering	The storage system has auto-provisions and dynamically restripes multiple RAID levels on the same tier; no need to pre-allocate RAID groups OR The storage system should support data movement between tiers with different RAID levels.			
M	Thin Provisioning	The storage system active by default on all volumes, operates at full performance across all features			
M	Snapshot/Point in time cope	The storage system support thin snapshot .The snapshot can perform records changes only and snapshots auto-migrate to lower-cost disk types, Snapshots can be recovered either read-write or read-only.			
M	Thin clones	Clone standalone volumes with zero duplication of data Clones maintain independent snapshots and replicationIdeal for VDI, test/dev, other applications that require discrete instances of common data			
M	Deduplication& compression	Storage system has inbuilt Intelligent deduplication and compression technology .It can option select per volume The license must include with offered storage system			
M	Replay Manager	Application-consistent snapshots in Microsoft or Vmware environments			
M	Volume Mobility	The storage system support live Migrate (included in base product) enables host-transparent data movement among arrays			
M	Replication	Synchronous/Asynchronous via FC or iSCSI Target/source relationships may be one-to-many or many-to-one The storage system have feature on demand the replication types and topologies can change			
M	Business continuity	The storage have feature volume can bi-			

Level	Description	Requirement	Qty	UoM	Bidder Response
		directional auto-failover auto-repair continuous operations, disaster recovery, disaster avoidance Includes third-site (tertiary) replication options with Live Volume Managed Replication Zero RTO/RPO with customizable site failover SLAs per volume Does not require identical hardware at each site Vmware Metro Stretch Cluster, Vmware Site Recovery Manager support			
M	Federated multi-array systems	The storage system have functionality Live Migrate (included in base product) enables host-transparent movement of volumes among arrays Snapshots maintained/preserved during migration			
M	Software Licenses	The features and functionality mention in specs license must be included with the storage system from day one. The storages licenses should be offered entire number disk drives /Total capacity supported by the system from day one. Software licenses shall include and cover three 3 years from day one.			
M	Host OS Support	Microsoft Windows Server®, Oracle® Solaris, Oracle Enterprise Linux, IBM® AIX®, SUSE® Enterprise Linux®, Vmware, Citrix® XenServer®, RedHat.			
M	Power supply	Dual, Hot –plug Redundant power supplies			
M	Fans	Redundant cooling Fans.			
M	Quality certifications	FCC Class A/B, Energy Star for quality assurance Bidder has to submit appropriate documents for the certification			
M	Support & Warranty	Manufacturer provided three (3) years full warranty including spare parts replacement and services. The services will cover hardware & software. The manufacturer have own parts exchange center /ware-house within Dhaka city.			
M	On-site Local Support	3 Years	36	Month	

3.1.5.4   SAN SWITCH

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Standard	To be specified by the Bidder			
M	Country of Origin	To be specified by the Bidder			
M	Country of Manufacture:	To be specified by the Bidder			
M	Brand	Brocade/any other substantially equivalent Internationally reputed brand to be specified by the Bidder or source by HP or SUN or LENOVO or DELL-EMC			
M	Model	To be mention by the bidder			
M	Type	SAN SWITCH	2	Nos	
M	Ports	12 X 16 Gbps Short Wave SFP transceiver with activated port license; Future scalable option up to			

Level	Description	Requirement	Qty	UoM	Bidder Response
		24 ports.			
M	Performance	Auto-sensing of 4, 8,16 Gbps port speeds, on-blocking			
M	Aggregate Bandwidth	Minimum 384 Gbps with up to 24 ports x minimum 16 Gbps (Data rate)			
M	Classes of service	Class 2, Class 3, Class F (inter-switch frames)			
M	Port types	FL Port, F Port, and E Port; self-discovery based on switch type (U Port)			
M	FC Cable	Minimum 24 Pcs Fibre Cable LC/LC 10M multimode			
M	Management access	10/100/1000 Ethernet (RJ-45), serial port			
M	Diagnostics	POST and embedded online/offline diagnostics			
M	Software	Extended fabric license with Management software			
M	Peripherals and Accessories	All required peripherals and accessories should be supplied with the products			
M	Power Supply	Redundant power supply			
M	Chassis	1U Rack Mountable			
M	Warranty& Support	Manufacturer provided three (3) years full warranty including spare parts replacement and services. The services will cover hardware & software.			
M	On-site Local Support	3 Years	36	Month	

3.1.5.5   TAPE LIBRARY

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Standard	To be specified by the Bidder			
M	Country of Origin	To be specified by the Bidder			
M	Country of Manufacture:	To be specified by the Bidder			
M	Brand	HP or SUN or LENOVO or DELL-EMC or ActiDATA or substantially equivalent Internationally reputed brand to be specified by the Bidder			
M	Model	To be mention by the bidder			
M	Type	TAPE LIBRARY	1	Nos	
M	Tape Drive	Minimum of Two (2) x LTO7 FC tape drives			
M	Capacity	Minimum 24 Cartridge slots.			
M	Barcode reader and LCD panel	Barcode reader integration and LCD panel information display within system			
M	Connectivity	Min. two port 8Gbps native FC connectivity to SAN switches			
M	Management	Web based remote management, Tape Library shall have GUI Panel			
M	Form Factor	Rack Mountable with Rail Kit and Accessories			
M	Media Cartridges	Min. 2 qty of cleaning cartridge and 24 Qty of LTO 7 Tapes with bar code labels			
M	Software	Backup software of "Disk based backup" system shall support TAPE backup system or provide enterprise level backup software reputed brand			

Level	Description	Requirement	Qty	UoM	Bidder Response
		(EMC Networker/ Symantec Netbackup/ Commvault, HP Data Protector etc./Veeam Enterprise Level highest edition or Dell EMC Data Domain backup appliances software).			
M	Warranty& Support	Three (3) years full warranty with spare parts replacement and service support. The Manufacturer should have own parts exchange centre /ware-house within Dhaka city			
M	On-site Local Support	3 Years	36	Month	

3.1.5.6   DISK BASE BACKUP

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Standard	To be specified by the Bidder			
M	Country of Origin	To be specified by the Bidder			
M	Country of Manufacture:	To be specified by the Bidder			
M	Brand	Internationally reputed brand to be specified by the Bidder			
M	Model	To be mention by the bidder			
M	Type	DISK BASE BACKUP **(SERVER TYPE BUT NOT APPLIANCE)** 19" Rack Mount RAID 5 Storage Server, Redundant Power (1+1) supply	1	Nos	
M	Capacity	24TB usable storage capacity from day one but expandable to min 96TB			
M	OS	pre-loaded with Ubuntu Linux O/S			
M	Processor	Two Intel XEON Bronze 3104 Processor, 2 X 8-Cores (16 core)			
M	RAID Card	12Gb/s SAS/SATA RAID Controller, 1Gb DDR4 Cache with battery backup			
M	RAM	2 X 32GB DDR4 ECC Registered DIMM Module			
M	HDD TYPE for Storage	Combination of Enterprise Class SAS 12Gb/s			
M	Solid State NVME PCI-Express Drive	1.2TB PCIe based Server Accelerating flash card or NVME Solid-State Drive for 1.2TB PCI-Express for accelerating the IOPS.			
M	Supports	Offered device shall support emulation of both VTL and NAS target (CIFS / NFS access)/ FC protocols.			
M	Feature	Offered device shall have the ability to configure at least combination of tape Libraries & NAS targets.			
M	Host Interface	Offered device shall have Minimum of 2 x 16Gbps Fiber Channel connections and minimum of 2 x 10Gbps Ethernet connection.			
M	OS support	Proposed disk based backup system should be able to interface with various industry leading server platforms and operating systems.			
M	Backup Software &Platform	Must support industry leading backup software (EMC Networker/ Symantec Netbackup/ Commvault, HP Data Protector etc./Veeam			

Level	Description	Requirement	Qty	UoM	Bidder Response
		Enterprise Level highest edition or Dell EMC Data Domain backup appliances software) to keep back up from 8 sockets servers (each server two socket).			
M	Warranty	3 yearsfor Hardware and Software.			
M	On-site Local Support	3 Years	36	Month	

OR

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Standard	To be specified by the Bidder			
M	Country of Origin	To be specified by the Bidder			
M	Country of Manufacture:	To be specified by the Bidder			
M	Brand	Internationally reputed brand to be specified by the Bidder			
M	Model	To be mention by the bidder			
M	Type	Supply and install 19"Rack-mount, 2U DISK BASE BACKUP APPLIANCE	1	Nos	
M	Capacity and features	• The proposed integrated backup appliance must bundled with backup software and backup storage within 2U • The proposed integrated backup appliance must include backup agents for database such as MS SQL, Oracle DB and SAP HANA. • The proposed integrated backup appliance must include an ESXi with 40 vCPU • The proposed integrated backup appliance must provide at least 24 TB usable storage capacity after raid and de-duplicated usable capacity and be able to expand to 96 TB usable capacity within 2U • The proposed integrated backup appliance must be able to upgrade its after de-duplicated usable capacity with a minimum incremental license upgrade of 12TB per upgrade • The proposed integrated backup appliance must include 24TB usable capacity license			
M	Hardware specification	• The proposed integrated backup storage must support 18 slot for 3.5" 12TB SAS Hard disk drive and form 2 RAID 6 groups and 1 RAID 1 group • The proposed integrated backup storage must be within 2U in rack • The proposed integrated backup storage must come with minimum Dual-Processor Xeon Silver 4114, 2.2 GHz or higher • The proposed integrated backup storage must come with 256 GB RAM or higher • The proposed integrated backup storage			

Level	Description	Requirement	Qty	UoM	Bidder Response
		must come with240 GB SSD capacity Boot Optimized Storage Solution Card or higher capacity. • ~~The proposed integrated backup storage may come with1.6 TB NVMe Card or higher~~ • **Write performance capacity Min 7 TB/hour** • The proposed integrated backup storage must come with2 x 10Gbit Ethernet ports or **8x 10G SFP Optical Links and/or2x 16 Gb FC**and provide all proposed SFP transceiver from day one. • ~~The proposed integrated backup storage must support up tomin~~ **8x 10G SFP Optical Links**~~ports~~ • The proposed integrated backup storage must support up toDual 1100W Power Supplies			
M	Software License	Provide 24TB usable capacity license from day one and should have expansion license provision increment of 12 TB capacity upgrade license			
M		Appliance must have backup software within offered package. Bidder shall supply Backup software with Appliance" shall support enterprise level backup and it should be reputed brand same to the offered server OEM.. If Appliance doesn't contain package software may propose the following any software's: EMC Networker/ Symantec Netbackup/ Commvault, HP Data Protector etc./Veeam-Enterprise Level highest edition or Dell EMC Data Domain backup appliances software.			
M	Warranty	3 years for Hardware or Software.			
M	On-site Local Support	3 Years	**36**	**Month**	

3.1.5.7 SOFTWARE LICENSE:DATABASE LICENSE:

Level	Description	Requirement	Qty	UoM	Bidder Response
M	ORACLE DATABASE	ORACLE DATABASE ENTERPRISE EDITION Named User Plus (NUP) license with Software Update License & Support for 3 years	25	NUP	
~~M~~	~~ORACLE DATABASE OR MS SQ~~	~~ORACLE DATABASE ENTERPRISE EDITION OR MS SQL ENTERPRISE~~ ~~Twenty Five (25)Named User Plus license with Software Update License & Support for 3 years~~	~~25~~	~~NUP~~	

3.1.5.8 Penalty Clause for downtime:

- If there is a connection problem then Service Provider must inform BREB within 4 hours.

- Connection must be restored within 24 hours. If connection is not restored within 48 hours then there will be a penalty of BDT 2, 000 for each day or part of day.

3.1.5.9 Service Monitoring:

- Bandwidth provided by bidder should be measurable by MRTG or Nagios or other similar tool.

- Bandwidth/performance monitoring tool will have to be provided to BREB by bidder

- Bandwidth should not fall below 90% of quoted bandwidth.

3.1.6   Others Associated Components

3.1.6.1 Desktop Computer

SL. No.	Item	Specification
1	Brand & Model	To be mentioned by the bidder
2	Processor	7th or latest Gen Intel Core™ i5 (3.4 GHz orabove up to 3.8 GHz with IntelTurbo Boost, 6 MB cache, 4 cores)
3	Clock Speed	3.4 GHz or above up to 3.8 GHz with Intel. Turbo Boost Technology
4	Motherboard	Intel® **Q270** Chipset
5	Chipset	Intel® **Q270** Chipset
6	RAM	8GB (1x8GB) 2400MHz or higher DDR4 Memory, 4 DIMM slots; up to 32GB
7	Hard Disk Drive	1 TB SATA HDD 7200 rpm
8	Multimedia	DVD-RW SATA
9	Keyboard	USB Keyboard
10	Mouse	USB Optical & Scroll Mouse
11	Graphics	Intel HD Graphics 630or higher
12	NIC	10/100/1000 (Build in/ Integrated)
13	Operating Systems	Genuine Microsoft Windows 10 Professional Edition
14	Antivirus	Provide Latest release licensed Antivirus
15	Offline UPS	Min 1200 VA Offline UPS with 30 minutes Back up either APC or Prolink Brand
16	Casing	Micro Tower Casing
17	Monitor	18.5" or higherLED LCD Monitor
18	Warranty	3 Years Full Warranty
19	Total Desktop Quantity	19Nos Desktop computers

3.1.6.2 Laptop Computer

2. Laptop		
1	Brand	Internationally Reputed Brand
2	Model	To be mentioned by the bidder (To be supported by Catalogue / Brochure)
3	Country of Origin	To be mentioned by the bidder (To be supported by Catalogue / Brochure)
4	Assembled in	To be mentioned by the bidder (To be supported by Certificate of assembly)
5	Processor	Intel® Core™ i5-7200U Processor (3M Cache, 2.50 GHz up to 3.10 GHz)or Higher.
6	Memory (RAM)	Minimum 8GB, DDR4, expandable up to 16GB
7	Graphics Card	Integrated Intel HD Graphics
8	Hard Disk Drive	Min. **1TB** 7200 RPM 2.5" SATA Hard Drive
9	DVD Drive	DVD +- RW (Optical Drive)
10	Memory Slots	Minimum 2 Slots (DIMM)
11	I/O Ports	Minimum 3 USB port, 1 VGA port,1 RJ-45 port, audio in/out,1 HDMI Port, Integrated Wireless LAN, Bluetooth, Card Reader,Webcam.
12	Colour	Black
13	Display	15.6" WLED
14	Battery and Backup	Min 6 cell Li-ion battery and 1.5 hours backup
15	Operating Systems	Genuine Microsoft Windows 10 Professional Edition
16	Warranty	03 (Three) years Comprehensive with parts and labor
17	Total Laptops	2 Nos

3.1.6.3 Multimedia, TV, Routers

1. Multimedia Projector – 1 Quantity		
Brand	Any International Reputed Brand: To be mentioned by the Tenderer	
Model	To be mentioned by the Tenderer	
Country of Origin	To be mentioned by the Tenderer	
Country of Manufacturer	To be mentioned by the Tenderer	
Resolution	XGA (1024 x 768)	
Technology	DLP	
Brightness	Min. 3500 ANSI Lumens	
Contrast Ratio	Min 2100: 1 contrast ration or higher	

Lamp Life	Standard Mode: Min 3000 Hours
Input signals :	Computer input: VGA, SVGA, XGA, SXGA, SXGA+, MAC16. Video input: NTSC, PAL, SECAM, .
Input / output terminals :	Video input : S-Video: Jack x 1, Composite video : RCA jack x 1, Component video : via D-sub Audio input : RCA jack x 1 (L/R), Stereo-mini jack x 2 Computer input : Analog RGB: 15-pin Mini-Dsub x 2 Audio output : Stereo Mini jack x 1 RGB output : Analog RGB: 15-pin Mini-Dsub x 1
Sound System	High Stereo Sound System
Standard Accessories	RGB Cable, Remote Control, Batteries, Lens cap, Strap, Soft carrying bag, Filter cover, Power cord & Manual book, Presenter etc.
Screen Size	30" to 300"
Screen	Standard auto motorized screen
Warranty	03 (Three) years full comprehensive warranty
Total Quantity	1 Nos
2. 50" inches LED TVs	
Brand	Any International Reputed Brand: (Sony/SAMSUNG or Equivalent)
Model	To be mentioned by the Tenderer
Country of Origin	To be mentioned by the Tenderer
Country of Manufacturer	To be mentioned by the Tenderer
Technology	4K UHD Smart LED TVs
Measurement	Minimum 50 inch or higher
Sound System	High Stereo Sound System
Standard Accessories	RGB Cable, Remote Control, Batteries, Lens cap, Strap, Soft carrying bag, Filter cover, Power cord & Manual book, Wall Hanging, Presenter etc.
Warranty	03 (Three) years full comprehensive warranty
Total Quantity	LED TV 3 Nos

3. Router Remote Office Communication Equipment's

3a. Access Switch Specification for Remote offices:

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Standard	To be specified by the Bidder			
M	Country of	To be specified by the Bidder			

Level	Description	Requirement	Qty	UoM	Bidder Response
	Origin				
M	Brand	To be specified by the Bidder			
M	Model	To be mention by the bidder			
M	Type	Bidder shall supply and install Layer 2 SWITCH at remote location	5	Nos	
M	Feature	L2 Managed 24 port Ethernet Switch 24 x 1000M Ethernet Ports 4 x 1000M Combo port 4 GEM OGE SFP+ 4 x 10GE SFP+ fiber link port. Switching Capacity/Backplane 256 128 Gbps Forwarding rate 96Mpps Consumption <40W Flash memory: 8M Max VLANs 4K VLAN IDs: 4094 Jumbo frames: 9216 bytes VLAN, STP, Multicast, IPv4, IPv6, Security features, Reliability, iaoS Console, Telnet, SSH 2.0, SNMP, TFTP WEB and NMS based management style Standard 220V power supply 1U Rack mounted Thunder-proof			
M	Chassis	1U Rack Mountable			
M	Warranty& Support	Manufacturer provided three (3) years full replacement warranty within 72 hours including spare parts replacement and services. The services will cover hardware & software.			
M	On-site Local Support	3 Years	36	Month	

3b. VPN Router Specification for Remote offices

Level	Description	Requirement	Qty	UoM	Bidder Response
M	Standard	CE, FCC Class A, VCCI, C-Tick, UL			
M	Country of Origin	To be specified by the Bidder			
M	Brand	To be specified by the Bidder			
M	Model	To be mention by the bidder			
M	Type	Bidder shall supply and install plug & play VPN Router at remote location	5	Nos	
M	Environmental	Maintain International Quality Environmental Safety standard			
M	Part No	Bidder should submit BOQ of proposed device including the details part numbers. Bidder should submit the required performance document for the proposed device.			
M	Form Factor	Desktop/wall/rack (optional)			
M	Capacity	Maximum Users: Unrestricted			

Level	Description	Requirement	Qty	UoM	Bidder Response
M		Maximum Throughput: 360Mbps			
M	Physical Interface	The device should have at least 4x 10/100/1000 base-TX LAN Interfaces & 2x 10/100/1000 Base-TX WAN Interfaces from day 1			
M		The device should have 2x USB, 1x RJ45 Console			
M		LED Display: Power, Error, 4 x LAN, 2 x WAN			
M		Power Supply: 100-240 V, 50-60 Hz, 1.3 A			
M	Features	Plug-n-Play deployment without requirement of experts for remote offices			
M		Should have the strongest AES-256 levels encryption ensuring a tamper- and hack-proof, secure connection			
M		Flexible configuration to enable direct Internet access from the remote location			
M		Security Policies should be integrated and configured automatically from Head Office's Firewall device			
M		Centralized Management from Head Office			
M	Warranty and Support	Mentioning manufacturer warranty part number should be quoted, minimum 3 (Three) years warranty. It should be provided for this unit from the date of successful commissioning.			
M		3 Years Advanced hardware replacement warranty			
M		24x7 Enhanced Support via telephone & email with remote access support by manufacturer directly			
M		Free Security Updates, Patches, Software Features Updates & Upgrades			

3.2   Software Specifications

2.2.1. Bidder shall provide all features outline in AS-IS requirements and TO-BE requirements to the proposed Customized "Integrated Financial Management Information System (IFMIS) software and IT Infrastructure of BREB" software and fulfill the customization or development to comply the same.

2.2.2. It is set by the BREB that the functional requirement of Finance, Accounts, Employee Benefit with Pay, Business Intelligence, and Store need to be automated by a proposed Customized "Integrated Financial Management Information System (IFMIS) software and IT Infrastructure of BREB" Software for Automation of Financial System/Reporting Application software. Bidder Services to support its business using Customized "Integrated Financial Management Information System (IFMIS) software and IT Infrastructure of BREB & PBSs" Software systems for Automation of Financial System/Reporting. This application system should have all standard features by default as well as customization features to be developed to cover the BREB perfect business requirements. This functional requirements are numbered and organized below for easy reference and exactly correspond to the Technical Responsiveness Checklist that the bidders must fill out. In addition, BREB 'AS-IS' Business requirement are outlined in other section to be meet by the proposed financial management application with appropriate modules and are cross-referenced with these functional requirements. Bidders must ensure that they review

both the Technical Responsiveness Checklist and the 'AS-IS' business requirements to formulate their responses to meet the financial management applications and software modules requirements of BREB.

2.2.3 Details Requirement of Custom Software Application

SL	Modules Name	User : BREB Directorates, Division & Projects Offices
01	General Ledger	Accounts, Project Offices
02	Material Management -Warehouse	Central Warehouse, CS&M, MPSS
03	Benefit Management with Employee Pay	Accounts Directorate, Project Offices
Note: Integration with existing software required in BREB HO Central Accounts. Integration with Finance & Accounting software and Payroll software. Integration may require for General Ledger Journal Transaction only.		

The Integrated Financial Information System (IFMIS) is modular base web base application for complete Accounting & Financial software for BREB. The details of modules are as follows:

2.2.4 General Ledger

- BREB requires General Ledger functionality to support its accounting and reporting requirements under accrual basis accounting standards, ensuring full integrity, transparency and auditability of all transactions. The General Ledger should provide full consolidation and reporting capabilities for the whole of BREB, with the ability to report at multi segment. The application system must be able to produce a variety of reports and standard financial statements including Trial Balance, Balance Sheet Reports & Statements of Cash Flow (aggregate receipts and payments); Budget Performance Statements, performance indicators, as well as management reports supporting effective financial management and control.

- General Ledger Extender functionality should support Journal postings, Accruals, Closing and Consolidation process that create accrual transactions (adjusting) and closing entries needed at the end of a period (month or year) for reporting purposes. It should also control and execute period-end system processes needed by the system to open a new reporting period, such as rolling forward account balances or reversing certain year-end entries. This process should support the preparation of consolidated financial statements by identifying information needed in that process. The system

should provide for an automated year-end rollover of appropriate system tables into the new fiscal year. The system should support controlled ledgers posting across reporting periods to facilitate the closing process.

- General Ledger Analysis and Reconciliation process should support control functions. The Core financial system must provide information to determine that balances in the General Ledger control accounts agree with detailed subsidiary accounts and for reconciling system balances with financial information contained in reports from external systems. As internal controls improve and system integration increases, the likelihood of out-of-balance conditions decreases; however, the possibility of such conditions will always exist as a result of system failures, incorrect transaction definitions, etc.

- General Ledger is advance General Ledger modules which include from Journal Voucher creation to Financial Statement reports with additional features of multiple Trail Balances consolidation, additional statement and reports of features which was outline in AS- IS statement of this bidding document.

- Consolidations provides a feature set that allows to define the level of detail to consolidate and provides a comprehensive audit trail. Consolidations are able to accommodate in such a way that information can be easily transferred to other locations, allowing subsidiaries and holding companies to run without being on the same network.

- General Ledger should able to generate financial reports and close accounts on unit office wise in addition to close accounts on centralize financial reports of BREB.
  - Generate Daily, Monthly, Quarterly, Semiannually, Annually Control Ledger, Cash Book, different Schedule, Trial Balance in all segment level of Chart of Accounts.
  - Consolidated BREB financials to generate Financial Statement as per Bangladesh Accounting Standard (BAS) and International Financial Accounting Standard (IFRS)
  - Provide built-in standards reports/printouts of master data setup, audit trial

- This module needs to facilitate to update all master data such as Chart of Accounts, Voucher Number and different offices name by the user.
  - Easy Configuration of Voucher Type
  - Financial Period/Month Locking features
  - Facility to record accounting transactions for different voucher types such as Journal Voucher, Payment Vouchers and Receipt Vouchers etc.

- Some Key features need to be ensured by software are as follows:
  - General Ledger can handle all financial record-keeping and reporting needs.

- GL to set up and maintain the general ledger accounts, to enter or transfer transactions from various sources, and to print a number of general ledger reports, including a chart of accounts, trial balance, posting journal, and transactions listing.
- History and Inquiry screens to look up information about General Ledger accounts and the transactions posted to these accounts.
- The system administrator must assign users security authorization for General Ledger screens.
- To perform fast data queries and then drill down to the source for more details.
- There need to be month-end and year-end procedures process to automatically update all balances and history every time you post, all you need to do is make the adjusting entries.

- Control & Audit standard features for financial compliance require that management have clear visibility across the enterprise, have effective internal controls, and operate efficiently.

- List of required Financial Reports.
  1. Statement of Financial Position
  2. Statement of comprehensive income
  3. Statement of changes in equity
  4. Statement of Cash Flows Statement
  5. Notes/Schedules to the financial statement

- Multiple segmental basis flexible configuration management for defining Chart of Accounts as used by the BREB

- Easy Configuration of Voucher Type with prefix, suffix and range of department

- Financial Period/Month Locking features

- Facility to record accounting transactions for different voucher types such as Accounts Payable Voucher and Journal Vouchers with proper identification of Division and Section

- Update Daily Cash Collection Register (DCR) and Voucher Cheque Register (VCR)

- Unlimited Number of Bank Account Code with Bank Details required in master data

- Statement of Cash Movement (all Bank) a special Ledger required

- Provide automated support for reconciling bank accounts within the system with Banks records

- Statement of FDR and other Investment Report, VAT & Income Tax Schedule

- Provide forecasting of cash requirements based on forecasted demand and schedule of receipts and payments
- Easy manageable Year End functionality for closing Revenue and Expenses to Retail Earning code as per accounting standard.

2.2.5 **Material Management**

- The Material Management of Electrical goods and related accessories are important activities of BREB. Central Warehouses are in Khulna, Dhaka Savar and Chittagong and they maintain the all material stock for whole BREB Project Offices and PBS offices. The process of purchase of Electrical and related goods start in the MPSS of BREB Head Office. BREB procure common material & stock for emergency needs of the Projects and PBSs office. When any PBS & project require common material then they can purchase it from BREB by making payment. MPSS Received requisition from PBS for material and make allocation of material after checking the quantity in software, hard copy or phone. This Allocation note is send to Central Warehouse and CS&M.
- Material Management System is a complete multi-location inventory management system that keeps track of stock levels and process of inventory receipts, shipments, returns, and adjustments management software solution.
- Material Management System start with acquisition to issue material to project or different office with proper accounting transaction track record.
- Easily track your inventory as it moves through your enterprise utilizing configurable options to manage the processes
- Need to access real-time data to streamline decision making and improve operations
- Need to handle fractional quantities to four decimal places and maintain different units of measure for purchasing, selling, and stock-keeping
- Check stock level, manage inter-warehouse transfer and generate reports for specific warehouses within seconds at your fingertips
- Reports of Material Management are
    o Supplier Information
    o Project and Office Information
    o Project wise Balance Vs Un-Allocated Status Report
    o Unallocated Material by MPSS
    o Uncarried Material by PBS Wise by CS&M

- o Item wise Issue Report (PBS or Project) with Work Order reference
- o Single Project Material Balance Report
- o Contract, sub package wise Material Receiving Report (MRR)
- o Material Procurement Status Report (Regular Material)
- o Material Receiving Report (MRR)
- o Store Ledger (Project wise)
- o Issue Voucher
- o Gate Pass
- *More details are given in AS- IS statement section.*

2.2.6   Benefit Management& Employee Pay

- Employee Benefit Management is the Sub System of the Payroll Management of the BREB which are General Provident Fund (GPF), Gratuity, Pension and Benevolent Fund. All data will come from Payroll Management deduction. BREB has its own policy which are similar to other governmental organization which need to follow in detail. All benefit Policy updates features including Loan Installment, Interest and adjustment

- GPF is a major fund which are to be fully tract of each employee. Employee takes loan against GPF which are deducted every month on installment basis. Interest on loan are charge to employee. Each employee has GPF card where details addition and deduction are recorded. Transfer of each employee from one Unit office to other Unit Office are to process. While transferring from one office to another office an accounting journal are created by contra account.

- End of Service period an employee enjoy Pension benefit as per government standard rules which need recorded and maintain with payment processing option including Journal.

- There are other type of Loan such as Housing Loan taken for certain period of time. Interest are charges for the HB loan. Full Policy document are to be followed. All kind of loan disbursement process are to be recorded.

- All Benefits outstanding opening Balance need to be upload. Monthly Process to generate balances of GPF, Loan, Pension, BF and Interest on different funds balances.

- At the end of Service period of an Employee, final Settlement Process are to be update including all payment due to employee after deduction of receivable from him with reports

- All Standard reports of Benefits Management which includes master data, policy and audit trail. GPF, Gratuity, Pension, Loan & Other Funds Register. Journal Voucher for Loan disburse & adjustment, GPF of an employee Transfer, Final Settlement

- All benefit Policy updates features including Loan Installment, Interest and adjustment

- All Benefits opening Balance upload

- Monthly Process to generate balances of CPF, GPF, Loan, BF, Group Insurance (GI) and Interest on different funds balances.

- Proper accounting for BF & GI of each employee and disbursement of BF.

- Loan Disbursements, Interest and collection of GPF, House Loan etc

- Printing of Official Receipt (OR) by Disbursement Division

- GPF, CPF Budget and Expenses Statement

- Gratuity Fund Budget and Expenses Statement

- GPF & CPF Register Maintenance

- BF, GI Budget and Expenses Statement

- Gratuity & Pension Fund Balance sheet

- Monthly Schedule of GPF, CPF with deduction of Advance on GPF, CPF

- Employees Final Settlement Process & Statement of GPF & CPF

- All Standard reports of Benefits Management which includes master data, policy and audit trail

- GPF, Gratuity/Pension, CPF, Loan & Other Funds Register

- Gratuity/Pension Bill wise Account Payable Voucher (APV) preparation

- Budget Provision Gratuity/Pension and accounting

- Account Payable Voucher for Loan disburse & adjustment, GPF of an employee Transfer, Final Settlement

- Integration with Payroll & General Ledger Modules

- Details policy and other standard prescribe can be obtain from the PBDB office and other information given on AS-IS statement

2.2.6.1 Employee Pay

- Proposed Payroll management module shall accommodate existing and future employee's salary record of BREB as per office wise. Currently there are around 80 offices all over the countries. All employees' employment basic information, pay scale, salary related

information and processes need to be accommodate to the proposed system. Bidder team shall gather details of prescribe formats and business functionalities from appropriate authorities besides the following information in below.

- Payroll function should accurately compute the payroll for each employee including earnings, deductions and tax obligations in a regular payroll cycle. To ensure proper and prompt payment of salary with accounting. Key features & processing include:

  - Government Pay Scale maintain and update facility

  - Pay and allowances (including over-time pay) as per government pay scale.

  - Benefits and Compensation including Yearly increment, Basic Allowances plus house rent or accommodation (house or dormitory), medical, conveyance, transportation, education, allowance, GOB contribution of Provident fund, bonus and leave encashment.

  - Deductions including provident fund contribution, Advance Income tax (AIT), revenue stamp, transport charges and others

  - Flexible Pay Calendar setting

  - Employees all benefits deduction with closing balances.

  - Bonus Bill, Bonus Advice

  - Payroll and monthly Payroll Sheet

  - Generate Pay Slip, Bank Advice Letter for Salary Disbursement

- BREB computes Income Tax obligation for deduction at source. Each office calculate tax obligation and payment to Income Tax Department as per government rules. The system should process Tax computation and produce necessary statement in this regards.

- Payroll should be tightly integrated with the payables function so that salaries can be paid by multiple payment methods including directly into employee Bank accounts through Bank Advice or by Cheque.

- Proposed payroll shall generate a Card of the BREB standard prescribe format to be used for particular employee's salary. Proposed payroll system need to keep of each employee's history per office location basis and transfer accountability from one office to another office for the clearance.

  - Proposed payroll shall provide all transactions to facilitate the transfer of an employees.
  - Transfer Employee, Approve Transfer, and View Transfer Status.

- Provide a modern Payroll Management system which include
  o Government Pay Scale Update

  o Employee Type, Location, Revenue Project, Employee Status, Charge Status, Directorate, Division, Offices, Pay Type, Pay Code, Allowance, Deductions etc Master Data updates

  o Loan, Advance against Benefit deductions with opening balances

  o All employee Benefit deductions

  o Flexible Pay Calendar setting

  o Income Tax setting as per current Assessment Year

- Employees Basic information (Personal & Official)

- Employee Transfer from one location to others

- Provide processes to calculate monthly earnings, deductions and benefits

- Generate Pay Slip, Bank Advice Letter for Salary Disbursement

- Generate Salary Journal Voucher on Directorate, Office or Section wise

- Generate all Earning and Deduction Schedule

- For more information can be obtain from AS-IS statement of the bidding document.

2.2.7 Integration with Existing software

- Integration with existing software required in BREB Head Office for Central Accounts. A specification need to prepare for the integration activities.

2.3 System Management, Administration, and Security Specifications

2.3.3 Software Requirement

- BREB requires Customized "Integrated Financial Management Information System (IFMIS) Software systems for Automation of Financial System/Reporting which will be web-based software Application solution that includes integrated modules to provide a full accounting and financial functionality Solution and proposed application will fulfill the requirement with hardware, software and storage must consist there as a service that will give the facilities for customization of software as well as development facilities. All Modules should be fully integrated with one-time data entry and rules based accounting. Bidder shall propose Customized "Integrated Financial Management Information System (IFMIS) Software and its modules as bundle package including support subscription and warranty for the three (3) years. Renewal of proposed software over the 3 years period to be quote yearly basis.

- Configurable Customization of Financial & Accounting Application: The system should provide General flexibility, through configurable parameters, support automated workflow and provide systematic controls based on BREB processes, rules and thresholds;

- Multi-Language: The system must provide Multi-language support, i.e. English and Bengali Language Support; Bengali is needed for reports and some documents like SOP, notes, attachments etc. Unicode should be supported.

- Application System Upgrade and Patches: The system must provide for managing upgrades and system patching for the proposed Application solution as recommended by manufacturer; Make sure that up gradation and patch doesn't impact on customization on application

- End User Support: The system must provide End-user support including online screen help and error messages.

- Alert & Messaging. The system must provide alerts to users who need to take any action within the system. The system should provide for managing exception alerts.

- Document Management: The system must provide ability to access and display documents from external document management repositories.

- Internet Access: The system must have a secure internet access portal to support users who will only have internet based access to Customized "Integrated Financial Management Information System (IFMIS) Software.

- Security: Proposed Application solution must meet International standard information security classification. The application must provide secure web-based applications with adequate protection for databases. Customized "Integrated Financial Management Information System (IFMIS) Software must secure their application architecture with appropriate security so that purchaser never loss data.

- Access Control:
  o The system must require a logon with a valid user ID and Password with captcha and second layer interface as memorable keyword to enter into application. Memorable keyword to be maintain by particular user. The system must provide features for ensuring a strong password, changes to password based on user or changes forced by administrator, blocking user ID due to failed logon attempts or by a system administrator.
  o The system should have the ability to restrict access to critical data based on user-roles to prevent unauthorized use and to audit changes to data within the system. The system

should provide audit trails for transaction updates and retrieval of designated critical data. Audit trails will identify all information by:

- o User identification
- o Network terminal identification
- o Date and time
- o Kind of data accessed or transaction executed

- Interoperability, System Interfaces & Exchange of Data

  o BREB requires controlled exchange of data with external systems through industry standard interfaces. Examples are receiving data from Public sector and commercial Banks, sending data to payment systems and one-way import of data from other system as when required. It is the future need and not falls in current scope of work.

  o All imported data must undergo data validation to ensure full integrity. Interfacing should facilitate the full conversion of electronic data files into the required format for the proposed Financial & Accounting Application solution. It is envisaged that the BREB IT Team will operate the system and manage scheduling and daily operations of data exchanges.

  o Interoperability: The system should be designed for interoperability using industry standard protocols. Proposed Financial & Accounting Application should be able to integrate with an Enterprise Service Bus (ESB) to connect with external systems and be able to support bi-directional data feeds. System should support exchange of data through multiple protocols including Web Services, Application Programming Interface (API) and Service Oriented Architecture (SOA).

2.3.4 Reporting and Analytical Functions

- A major consideration of Customized "Integrated Financial Management Information System (IFMIS) Software system is its reporting capabilities. BREB wishes to maximize the utilization of financial information in the system. BREB wants to ensure that the system provides full flexibility of report production and that running large reports does not impact system performance.

  o A full suite of standard reports should be provided for all modules. Bidders should provide a comprehensive list of all relevant reports available in each module. All standard reports should be parameter driven and provide for range of data selection; grouping; aggregation; and sorting with different frequencies. It should be possible to use standard reports as templates for producing other reports, which can be stored in the system for continued use.

o   BREB should have the flexibility to design and program their custom reports. Data should be available for downloading to excel for analytical and formatting purposes.

o   Attachment 1, Description of 'AS-IS' Business Processes of BREB for a sample of key custom reports that will be required. Bidder shall generate all reports as per BREB format and business requirements. Detailed report formats will be provided during implementation.

2.3.5   **The proposed solution must be capable of satisfying the following functional requirements:**

o   Provision to maintain data for 99 year and multi-site operation in BREB & PBS offices

o   Providing a robust user account and user access control management to the system of modules, Transaction screens and to Add/Delete/Modify of each.

o   Flexible configuration management for defining Chart of Accounts (COA) of BREB & PBSs, Voucher Types, Financial Periods, Economic codes, Layout of Vouchers, Debit & Credit Note etc.

o   Facility to record accounting transactions for different voucher types such as Journal Voucher, Payment Vouchers and Receipt Vouchers etc.

o   Facility to record receipts against revenue recognized as per Chart of Accounts Code.

o   Provision of multi-level electronic approval cycle for the vouchers with the facility to attach supporting documents and define authorization limits.

o   Provision to maintain bank account details information and to prepare bank reconciliation

o   Easy Facility to record supplier invoices and payment thereof with computation of withholding Tax, SD, VAT etc.

o   Provision to define budget against each head of account code and economic codes created in the system with a capability of revision of budget in a Financial Year.

o   IFMIS modules Integration needed as per transaction nature.

o   Facility to incorporate the economic codes of Bangladesh Govt. for better budgetary management system

o   Faster and real-time availability of seamless information without manual interventions, across all units' and location based on user rights and authorization ensuring no room for duplication of data input and chronological process.

o   Provide built-in standards reports/printouts with global standard of information captures templates and report templates across all levels of business functions of BREB & PBS and customization as per requirements of the users.

- o Provision of flexible Report Writer allowing the user to design financial statements at their own e.g. Profit and Loss, Balance Sheet, Schedules etc.
- o Provision for full Audit Trail to track user actions of add, modify and delete ensuring corporate good governance through system audit and availability of Management Information (MIS) and dashboards for decision making across organization's hierarchy.
- o Data consolidation using off-line mode Import / Export of data from remote sites
- o Scalability and Integration ability should be there in IFMIS application two database instances.
- o Scope needed for future Integration to Prepaid Meter Billing Software

2.3.6 Estimated Transactional/Non- Transactional Data Sizing Parameters Overview:

INPUT	Duration
# of working hours/day	8
# of working days/week	5
# of working days/month	22
# of working weeks/year	52

Application Transaction Users	Section/Location	PC/User
# of PC in REB Head Office	1	100
# of PC in Central Warehouse	3	21
TOTAL	4	121

Application Non-Transaction Users	Section	PC/User
# of PC in PBS Office	80	320
# of PC Project Office	20	20
Total PCs	100	340

	Decimal in Byte	Binary in Byte
1 GB (per disk manufacturers)	1,000,000,000	1,073,741,824

Application Transaction Users	minute	hour	day	week	year
# of PC in REB Head Office	100	6,000	48,000	240,000	12,480,000
# of PC in Central Warehouse	21	1,260	10,080	50,400	2,620,800
Total PCs	121	7,260	58,080	290,400	15,100,800

Application Non-Transaction Users	minute	hour	day	week	year
# of PC in PBS Office	320	19,200	153,600	768,000	39,936,000
# of PC Project Office	20	1,200	9,600	48,000	2,496,000
Total PCs	340	20,400	163,200	816,000	42,432,000

ASSUMPTIONS [Frequency of Use (interactions)]	User	minute	hour	day	week	year
Application transaction users	1	1	60	480	2400	124,800
Reporting (25%)	1	0.25	15	120	600	31200
Casual end users (30%)	1	0.3	18	144	720	37440
Interactions per transaction		1				
Peak factor		2				

TARGET	PC/User	minute	hour	day	week	year
Application transaction users	121	121	7,260	58,080	290,400	15,100,800
Application Non-transaction or Casual users	340	340	20,400	163,200	816,000	42,432,000
Sub-Total	461	461	27,660	221,280	1,106,400	57,532,800
Reporting (25%)	115	115	6,915	55,320	276,600	14,383,200
Casual end users (30%)	138	138	8,298	66,384	331,920	17,259,840
Grant Total	715	715	42,873	342,984	1,714,920	89,175,840

Peak Transection/Sec	11.91	25	33
Peak Transection/Min	715	1500	2000

BLOCK PROJECTIONS	
"Size" of transaction, bytes	4096 Minimum common block size for flash devices is 4096 bytes (4KB)
Block size is the size of each individual I/O request. Block sizes are frequently powers of 2 Common:	512B, 1KB, 2KB, 4KB, 8KB, 16KB, 32KB, 64KB, 128KB, 256KB, 512KB, 1MB

Years	1	2	3	4	5	10	15
Total Transection in Year	89,175,840.00	178,351,680.00	267,527,520.00	356,703,360.00	445,879,200.00	891,758,400.00	1,337,637,600.00
"Size" of transaction, bytes	4,096.00	4,096.00	4,096.00	4,096.00	4,096.00	4,096.00	4,096.00
Total Transection in Year in bytes	365,264,240,640.00	730,528,481,280.00	1,095,792,721,920.00	1,461,056,962,560.00	1,826,321,203,200.00	3,652,642,406,400.00	5,478,963,609,600.00
1 GB (per disk manufacturers) in Decimal in Byte	1,000,000,000.00	1,000,000,000.00	1,000,000,000.00	1,000,000,000.00	1,000,000,000.00	1,000,000,000.00	1,000,000,000.00
Total Transection in Year in GB	365.26	730.53	1,095.79	1,461.06	1,826.32	3,652.64	5,478.96
Total Transection in Year in TB	0.37	0.73	1.10	1.46	1.83	3.65	5.48

If we consider 6 times scalibility with backup is required usable capcaity in 15 years.	32.87	TB

2.3.7   **Infrastructure Sizing and Computing Performance:**

- The proposed customized "Integrated Financial Management Information System (IFMIS) Software will support 635 main (core) professional business users in future and currently there will be 235 main (core) users. The system must support 80 concurrent users and deliver a response time under 5 second for normal screen transaction processing in the coming days.

  o The system platform specifications shall provide sufficient processing and storage capabilities to support the volume estimates period of three (3) years at a 20% annual growth rate.

  o Data will be stored for fifteen (15) years – bidders are expected to size the storage capacity accordingly. "Estimated Transactional/Non- Transactional Data Sizing Parameters Overview" discussed in other section.

  o Production environments should be designed with high availability as a requirement.

  o Summary of User License by Functional Area/Location:

BREB offices wise IFMIS Modules and Users

Places / Location	No. of Location	Web Interface	Modules Names	Total Users
BREB Head Office (HO)	1	Yes	• General Ledger • Benefit Management with Employee Pay • Material Management	150
BREB Central Warehouse (Savar, Chittagong & Khulna)	3	Yes	• Material Management System	25
Project Offices (In HO and other places)	13	Yes	• General Ledger	60
Total Number of Web IFMIS software Application –				235

- Software Instances: The Proposed customized "Integrated Financial Management Information System (IFMIS) Software Application is a critical system and must have at the minimum four instances - production, QA, test and development versions. Bidders may propose additional instances for example training, sandbox etc.

- Data Backup and Disaster Recovery:

  o The Proposed customized "Integrated Financial Management Information System (IFMIS) Software Application solution must provide for full backup, recovery and restore

facilities for the database within the overall solution to enable complete file restoration and recovery.

- o Backup solution must provide the facility to back up data and application software using modern back-up technology.

- o The Proposed customized "Integrated Financial Management Information System (IFMIS) Software Application shall have Active Passive redundant database environment between DC and it must support the capability for replication of the database and libraries to the DC.

- Illustrative Architecture Diagram: Bidder shall provide systems as per architecture diagram to run the application and database on infrastructure. The Software Vendor/Bidder must meet the operational computing performance and size on the infrastructure for optimum performance of customized "Integrated Financial Management Information System (IFMIS) Software systems.

  - o Successful bidder shall provide details of business process diagram as well as presented in a formal system analysis formats e.g., process model and data model, use-case model, entity-relation diagrams, swim-lane diagrams, etc.

  - o As appropriate, prepare a subsection for the Background and Informational Materials with samples of existing standardized reports, data entry forms, data formats, data coding schemes, etc. which the Information System will need to implement; reference these materials.

2.4 Project Management Requirements

2.4.3 Implementation Project Methodology:

- Bidder will propose a robust Proposed customized "Integrated Financial Management Information System (IFMIS) Software Application system implementation methodology and project methodology that will ensure successful implementation based on their practice. Bidder should describe their implementation approach and methodology that is suitable for BREB within targeted timeline specified in implementation schedule. The implementation approach should be grounded in their past successful experience.

- Bidder should describe their approach and methodology for Application modules, configuration and customization, reports development, system interface and integration, Data Warehouse and Business Intelligence development, Data migrations etc.

- The project methodology must address the following topics but not limited:
  - Project team and management structure, controls & roles
  - Project communication, monitoring and reporting
  - Project delivery documentation
  - Organizational Change management (for Proposed customized "Integrated Financial Management Information System (IFMIS) Software adoption
  - Training, and knowledge transfer
  - Testing and Quality Assurance
  - Issues& escalation management
  - Change management (of project scope)
  - Risk management
  - Support management for each of End-User Helpdesk, Go-Live Active support, Warranty service & Post-Warranty service

2.4.4   **Project Planning Requirements:**

- Proposed customized "Integrated Financial Management Information System (IFMIS) Software Application system will be implemented in phases:

  - Implementation will cover BREBHead Office, 3 Central Warehouse (Savar, Khulna and Chittagong).
  - BREB requires roll-out the temporary Go-Live as pilot basis to make it stable for during testing period of the system. Key project team members in technical & all functional areas are expected to be retained onsite during the testing and stable period.
  - BREB requires 24/7 local support service and troubleshooting during the contract. Only stable version to be published for full Go-Live to BREB officially after Operational Acceptance Testing is completed.
  - A preliminary implementation schedule is included in the bid document. Bidders are expected to propose their project plan within specified time line as per their assessment and should take into account the BREB change management consideration. Please note that bid prices shall specify individually prices for implementation and local 24/7 support service per year with the resource specified in other section.
  - Vendor should propose the Bidder full-warranty support service cost for three (03) years and Post-warranty support service cost per year basis up to next three (03) years which start after 3 years Bidder full-warranty support service.

- Bidder's proposed project plan must be in both task breakdown form and Gantt chart form.

- The Preliminary Project Plan must address (but not limited to) the following topics indicating respective timelines:
    - o Bidder's Project team structure
    - o Work breakdown structures, activity sequencing and time frame for each planned activity
    - o Resource deployment plan with area wise breakdown, duration and indication of onsite/offsite availability.
    - o Project milestones and performance indicators that may be used to monitor progress
    - o Customization, Interface& report development plan
    - o Data Warehouse and BI system development plan
    - o Data Migration plan
    - o Training, and knowledge transfer plan
    - o Testing and Quality Assurance plan
    - o Operational acceptance plan
    - o User & Technical documentation plan
    - o Support plan for each of End-User Helpdesk, Go-Live plan, Local support service with resources, Bidder Warranty& Post-Warranty support Service plan

- Bidder must describe it's project team structure with names of members, roles, duration of deployment indicating onsite/offsite for all functional, technical and management areas.
- Bidder should clearly identify roles and time needed from BREB business users for a successful implementation. Identify business users time required for detailed business requirements definition, testing, data migration, super-user training, end-user training and final operational acceptance.
- Change Request: Bidder must accept and adhere to the change request process and forms described in this bid document. No change request will be accepted outside of this defined process.

2.4.5   Project Team Qualification:

- The onsite Project Manager must have a minimum of 3 years' experience with at least Two (2) successfully completed Customized ERP multiple Financial Module or Customization of COTS Application or COTS ERP projects as project manager with one project completed in the proposed customized "Integrated Financial Management Information System (IFMIS)

Software Application solution as project manager. Experience with Financial Software/ERP implementation in the energy sector or power generation company would be preferable. (Documentary proof required: 1) Details CV with candidates signature and proposer's authorization; 2) Work experience certificates as project manager [All declared work experience certificates included must be substantiated by certification of work completion issued by the respective client in favor of the candidate only and clearly mentioning scope and value of the project.)

- Key onsite functional team leads should be identified for General Ledger, Finance, Payroll, Benefit Management, and Material Management. Each functional team lead should have at least three (3) years of experience on the proposed software solution. Other functional team members should have at least two (2) years of experience on the recommended software solution. Experience with ERP in energy sector would be recognized.

- Key onsite technical team leads should be identified for Proposed customized "Integrated Financial Management Information System (IFMIS) Software Application and its report development, Interface development, Data Warehouse and BI development and Data migration functions. Each technical team lead should have at least three (3) years of experience on the proposed software solution. Other technical team members should have at least two (2) years of experience on the recommended software solution. Experience with Financial Custom Application/ERP-BI in energy sector would be recognized.

- Project technical team must include onsite Software & system Experts with relevant certifications and at least 5 years of experience in on the recommended proposed customized "Integrated Financial Management Information System (IFMIS) Software Application technical platform.

- Bidder must have at least one certified Professional from each areas of expertise noted below:
  - Project Management(PMP/Prince2 certification)
  - System Administrator with significant experience implementing solutions with the proposed hardware.
  - Database Administrator with Performance Tuning.
  - Customization & report developer(s).
  - Data Warehouse/Business Intelligence developer.

- The technical team must have at least 2 years of experience with storage and high volume Data replication and database migration in an Active-Active and Active-Passive mode of database replication between two data centers.

- Copies of details CV with candidate's signature and proposer's authorization; Work experience certificates must be included for all project team members.

2.5   Service Specifications

2.5.3   System Analysis, Design and Customization/Development

2.5.3.1.The Supplier MUST perform the following Analysis and Design activities using a formal system analysis/development methodology with the following key activities and design deliverables.

- Detailed Analysis: Successful bidder shall provide SystemDesign Document; Details of as-built business Requirements analysis; Interfacing with modules; Software/System Test Descriptions; Software/System Test Plan, etc.

- Physical Design: Successful Bidder shall specify and submit: Software Design Description; Interface Design Document; Database Design Document; etc.

- Integrated System: Successful Bidder shall specify and submit: User's Manual; Operations Manual; Source Code if any; CASE Files; etc.

2.5.4   Software Customization / Development

2.5.4.1.   Proposed customized "Integrated Financial Management Information System (IFMIS) Software Application must meet the customization and development features to fulfill the BREB & PBS requirements. Bidder shall choose appropriate application module programming application tools for the development and customization so that customized "Integrated Financial Management Information System (IFMIS) Software Application meet the AS-IS and TO-BE requirements of BREB & PBS.

2.5.4.2.   The Supplier MUST perform Software Customization / Development using a formal software development methodology with the proposed Programming technologies and/or tools to Automation of Financial System/Reporting of BREB.

2.5.4.3.   Bidder shall describe in details for the proposed Development Method (e.g., Cascade, Rapid Application Development; and/or Open Standards (e.g., Java, XML, etc.); and/or CASE tools, etc., Development IDE for the customization on proposed platform. To make it customization all required licenses to include in bundle package with specifying the tools names in BoM.

2.5.4.4.   Proposed Customized "Integrated Financial Management Information System (IFMIS) Software Application must ensure that software in build feature or tools shall support customization and developments later on.

2.5.5   **System Integration (to other existing systems)**

The Bidder MUST perform the Integration Services with existing available software information systems of BREB related to financial & accounting transaction those incorporate to the proposed financial management software. Successful bidder shall integrate technical and functional level of integration with the proposed Information System. Proposed customized "Integrated Financial Management Information System (IFMIS) Software Application system should have provision to system integrate with other authorize organization such as PolliBiddutSamity (PBS), BERC etc. as when BREB approved for particular field, reporting and format integration. Should provide an easy facility/option (like as API) so that other software of the BREB, PBS or any running software can able to access for pushing and pulling data in the near future

2.5.6   **Training and Training Materials**

2.5.6.1   The Supplier MUST provide the following Training Services and Materials.

- Capacity building of the users of the IFMIS modules - The Bidder shall be required to prepare a capacity building plan. The capacity building program shall have the objectives of aligning the senior management, application users and IT personnel in the use of all the functionalities and features of the IFMIS and IT Infrastructure. Conduct extensive training to employees that best meets the need and to form dedicated team for IFMIS implementation for successful IT system and time to time changes adaption.

- The Bidder shall be required to conduct/arrange formal local and international change management workshops/training as per IFMIS software and IT Infrastructure.

- Organize a team to provide extensive training to establish an own technical and functional component of "IFMIS" application to facilitate easy transfer of knowledge, align change management, transformation of resources and dashboards analytics for decision making across organizational hierarchy.

- Ensuring IT infrastructure capacity building training for System Administration, hardware, Networking, Data Centre for easy adoption of new IT solution. Internet and network security, system security and monitoring, database and web application, software system and server administration to grasp the new system ownership capability.

- Trainings to be provided by consultant shall include class room training session and on the job trainings to the concerned users of IFMIS modules with a view to build their capacity in operating, installation, configuration and troubleshooting of the IFMIS

application.

- Training to BREB personnel on IFMIS software operation, troubleshooting and administration, understanding of database design, software development tools, language and full understanding of source code and system auditing related confidential task necessitated to handover the technology.

- Development of training material and training tools. These training programs (certification, if necessary) may be divided into broad categories like, executive training, training for trainers (TOT) and solution operation trainings for all end users and beneficiaries etc.

- Most of the training venue will be outside of BREB office. Resource persons, training material, equipment computer and software, stationery and refreshment should be provided by Bidder firm. Bidder should include total and number of trainings and participants, estimated resources transformation cost for each training module related with implementation of IFMIS application & IT infrastructure.

2.5.6.1.1   Local Technical Training & Certification (Training: 1 & 2):

2.5.6.1.1.1 TRAINING 1: IT INFRASTRUCTURE MANAGEMENT SYSTEM

o The bidder shall provide theoretical and hands-on training on the supplied equipment/facilities to the technical personnel of BREB. Following generic areas shall be included in the training program. Actual content of each item shall, however, be customized to match the systems offered by the Supplier. The course module will cover at least the following broad topics:

▪ Design and Architecture of the subsystem (Server System, NOC and Power System)
▪ Details of Installed Hardware
▪ Function of different subsystems of various systems installed under this purchase
▪ Details of Installation and Configuration
▪ Day-to-day operational activities
▪ Day-to-day maintenance activities
▪ Troubleshooting of various systems installed under this purchase.

o All such training contents with schedule need to be approved by the purchaser before organization of the training.

o BREB will provide training room with chair and table but the Supplier has to arrange all other logistic supports.

- o   The training shall include the following:
- o   Number of Batch: 1(One)
    - ▪   Batch on IT Infrastructure: Power System, Server, Storage and Software Application System
    - ▪   Number of participants: 12 Maximum
    - ▪   Number of minimum training days: 5
- o   Per diem to Participants: BD Taka 1,200 (One thousand and Two hundreds) per day per person for each working day
- o   Training Materials have to be provided
- o   Refreshment: 2 Times a day + Lunch
- o   The Supplier shall arrange quality trainers with adequate experience and provide required training documents, refreshment etc. The profile of the Trainer shall be submitted to the BREB authority by the Supplier for getting approval before start of the training.

2.5.6.1.1.2 TRAINING 2: IFMIS SOFTWARE FOR APPLICATION USERS

- o   The bidder shall provide theoretical and hands-on full accommodation based training on the IFMIS application (all modules) for approx 75 persons. The IFMIS software training course modules need to be validated by BREB Consultant. The training shall include the following:
- o   Number of Batches: 3 (Three)
    - ▪   Number of participants in each Batch: 25 Maximum
    - ▪   Number of minimum training days: 4
    - ▪   Training Material Hard copies need to be provided to each trainee
    - ▪   Number of participants: **68**max
    - ▪   Outside the BREB & PBS office full accommodation & food based training need to be provided
    - ▪   Per diem to Participants: BD Taka 1,200 (One thousandand Two hundreds) per day per person for each training day
    - ▪   Training Venue (outside the Dhaka Metropolitan area) should be standard resort/Hotel/Banglu within 25 KM from BREB Head Office which include 4 days twin sharing accommodation with Breakfast, Lunch, Dinner and Refreshment: 2 Times for Days training program have to be arrange
    - ▪   Drop and Pick Vehicle from BREB Head Office to Training venue need to be arrange for two times.

2.5.6.1.1.3 Overseas Training (Training: 3, 4 & 5):

o   Bidder shall arrange overseas Operational Training at Malaysia or Singapore for the core technical team of the Proposed IFMIS Software& IT Infrastructure Solution. They shall provide training schedule after discuss with purchaser; high skilled certified trainers, training materials & Examinations for core technical team. Their recommendation based on this training enhances the smooth operation and future improvement of the proposed Systems.

o   Bidder shall provide vendor certified training material, one time vendor certification exam fee, stationery and refreshment during the training for IT Infrastructure and RDBM database

o   Practical training will include participants setting up the environment and configuring various scenarios.Bidder must take appropriate training schedule and collect approval for the same from the project authority. Bidder should include all those facilities and quote the same in details.

2.5.6.1.1.4 TRAINING 3 & 4: IT INFRASTRUCTURE & RDBMS TRAINING

o   After installation and commissioning of the hardware, software and communication system, ICT directorate has to maintain and operate the system. To support on the system the following foreign training is required for the IT personnel.

o   The bidder shall propose foreign training on the Server and Application Systems to be supplied under this Tender and as mentioned below at any international institution/training center of any country, where there is adequate facility and resource persons available for both theoretical and hands on technical trainings. The bidders are encouraged to arrange these trainings with offered system/equipment vendor's original training center/LAB. The Training materials (software and hardware), Manuals and documents (Hardcopy/CDs) required for the training should be provided to each participant.

o   The Foreign Training will be held as per the following format:

1. IT Infrastructure management system:

   Participants: 6 Persons (Min 5 working days training)

2. Data Base management system (RDBMS):

   Participants: 6 Persons (Min 5 working days training)

   o   Per diem charge to Trainees: US$ 196 (One Hundred Ninety Six Only) per day per person including Hotel Accommodation and food

- o Other Facilities to be provided:
    - Both-way Economy Class Air Ticket with Airport Transfer to Hotel
    - Local Transportation
    - Medical Services (if required)
    - Visa Processing with charges
- o The course module will cover at least the following broad topics:
    - Details of Installed Hardware (Server and Storage)and Software (Operating System & Application Software)
    - Details of Installation and Configuration
    - Day-to-day operational activities
    - Day-to-day maintenance activities
    - Troubleshooting of various systems installed under this purchase.

2.5.6.1.1.5 TRAINING 5: CHANGE MANAGEMENT FOR IFMIS SOFTWARE

- o Extensive Training and Motivational Training required to BREB & PBS Divisional Head and Implementation team members consist from BREB Head Office and PBS offices.
    - The Bidder shall be required to prepare a capacity building plan for Change Management Training
    - The Bidder shall be required to conduct/arrange formal an international Change Management workshops/training as per IFMIS software and IT Infrastructure Rollout requirement of BREB & PBS
- o The Foreign Training will be held as per the following format:
    - 4 days (6 Hours Daily) Training on Change Management with Lunch facilities
    - Number of management and core implementation team persons: 12 (Twelve)
    - Number of minimum Training days (excluding travel time): 4(Four)
    - Per diem charge to Trainees: US$ 196 (One Hundred Ninety Six Only) per person [max 5 days] including Hotel Accommodation with Food
    - Both-way Economy Class Air Ticket (with Airport Transfer to Hotel)
    - Visa Processing activities with Charges

2.5.6.1.1.6   **HANDS-ON TRAINING on IT INFRASTRUCTRE**

The supplier shall provide "Hands-On Training" during installation, configuration and commissioning of the network. BREB Engineers shall be directly attached with the engineers/technicians involved in the building up of the network. A complete log of the installation process should be maintained for future reference.

Training Table

SL	Name of Training	No of Participants	Duration (Days)
A. Local Training			
Training 1	IT Infrastructure Management System	12	5 Days 30 hours
Training 2	IFMIS Software for Application users	68	5 Days 30 hours
B. Overseas Training in Malaysia/ Singapore			
Training 3	IT Infrastructure Management System	6	5 Days 30 hours
Training 4	Data Base management system (RDBMS)	6	5 Days 30 hours
Training 5	Change Management on IFMIS Implementation	12	5 Days 30 hours

o   Bidder shall have to specify the institute and place of all overseas & local training listed above. For detail specification of training,

o   The Bidder shall provide a description of their approach to delivering training and a detailed training plan by user-roles for business and technical staff. Bidders may provide differentiated training for power users and separately for end-users. The Bidder shall provide a preliminary training plan including details of

  •   Description of training course

  •   Course title

  •   Learning objective

  •   Class size and composition

  •   Course duration

- Class outline (subject area, topics and critical learning points)

- Delivery methods

- Location of course offerings

- Training materials, lunch and refreshments, per diem etc.

- The bidder shall provide a description of their approach to updating the training plan as details of training requirements are finalized during the course of the project.

2.6 Data Conversion and Migration

2.6.3   The Supplier MUST provide services and tools to perform the following

Data Conversion and Migration Services for the proposed application software:

a) Convert volume of data from Excel format to the proposed software. Supplier shall be responsible for organize the data structure from Excel data to the database of application. They may use media of data but make sure errors free timing of conversion; quality assurance and validation methods; etc. for the perfect migration.

b) Proposed application may require old historical data those shall incorporate or import from Excel using standard format of Data Migration. Supplier shall be responsible for the proper migration. Proper quality assurance and validation methods must be taken into consideration.

c) **As the project implementation time is limited to only 5 months as such the historical data is the opening balance (Trial Balance), Employee all benefit (GF,CPF,HBLetc) balances in a cut of date on 31st December 2019 which need to upload in the IFMIS Application. No transactional data need to upload.**

2.7 Documentation Requirements

2.7.3   The Supplier MUST prepare and provide the following Documentation.

2.7.3.1.1   End-User Documents: Supplier shall provide color printed type(s) 75 units books for end-user operation manual/documents of proposed IFMIS application software; language and content to be in English; Also provide non-restricted (not password protected) MS Word and pdf formats documents in CD; To make this finalize; take approval from the authority for the quality control and revision management; medium; reproduction and distribution methods; etc.

2.7.3.1.2   Technical Documents: Supplier shall provide color printed type(s) 5 units books of Technical Operation manual/documents of proposed application; language and

content to be in English; non-restricted(not password protected) pdf formats documents in CD; To make this finalize; take approval from the authority for the quality control and revision management; medium; reproduction and distribution methods; etc.

2.7.3.1.3   Full set of software architecture and designing documentation with source code of IFMIS application software will be the property of BREB. IT infrastructure Design and Installation Diagram and related documentation should also need to be submitted. The Consultant firm should hand over to the Project Director or PMU, UREDS Project or BREB authority after go Live User Testing completion.

2.8   Requirements of the Supplier's Technical Team

The Supplier MUST maintain a technical team of the following roles and skill levels during the <u>Supply and Installation Activities</u> under the Contract for the proposed Customized "Integrated Financial Management Information System (IFMIS) software and IT Infrastructure of BREB & PBSs" delivery. For some of the activities and Tasks, this technical team shall perform duty at BREB on-premises during office time as defined in other section and contract period.

2.8.3   Software Implementation Team:

Bidder shall assign on-premises & Off-premises Software Implementation Team for ~~1 year~~ 5 months and finish all tasks within this deadline. Supplier shall complete the implementation within the time line indicated in implementation schedule. Following are the minimum number of proposed team with required qualification and experience. Proposed Team members cannot be changed without strong ground and must be taken prior permission from BREB authority. BREB reserves the right to accept/reject any team member change request.

2.8.3.1 <u>Project Team Leader (1 person)</u>: Supplier shall submit CV which specify the details of education/certifications, ~~12~~/10 years' of experience in Project Management in Software development platform, demonstrated successful experience in, and similar project experience; professional skills and certification etc. Must have PMP or Prince2 certified

2.8.3.2 <u>Head of IT Infrastructure Expert (1 Person)</u>: Supplier shall submit CV which specify the details of education/certifications, 10 years' of experience in Project Management in Software development platform, demonstrated successful experience in, and similar

project experience; professional skills and certification etc. Must have PMP or Prince2 certified

2.8.3.3 <u>Business Process Expert in Financial management Application (2 persons)</u>: Supplier shall submit CV which specify the details of education/certifications, years' of experience in, demonstrated successful experience in, and similar project experience; professional skills and certification etc.

2.8.3.4 <u>System Analyst/Deputy Project Team Leader (2 persons)</u>:Supplier shall submit CV which specify the details of education/certifications, years' of experience in, demonstrated successful experience in, and similar project experience; professional skills and certification etc.

2.8.3.5 <u>Database Expert(2 persons)</u>: Supplier shall submit CV which specify the details of education/certifications, years' of experience in, demonstrated successful experience in, and similar project experience; professional skills and certification etc.

2.8.3.6 <u>Programming Expert (6 persons)</u>:Supplier shall submit CV which specify the details of education/certifications, years' of experience in, demonstrated successful experience in, and similar project experience; professional skills and certification etc.

2.8.3.7 <u>System Admin&Security Expert(1 person)</u>:Supplier shall submit CV which specify the details of education/certifications, years' of experience in, demonstrated successful experience in, and similar project experience; professional skills and certification etc.

2.8.3.8 <u>Training Expert (2 persons)</u>: Supplier shall submit CV which specify the details of education/certifications, years' of experience in, demonstrated successful experience in, and similar project experience; professional skills and certification etc.

2.8.3.9 <u>Documentation Specialist (1 person)</u>:Supplier shall submit CV which specify the details of education/certifications, years' of experience in, demonstrated successful experience in, and similar project experience; professional skills and certification etc.

2.8.4   **Software Technical Support Team:**

Software Technical Support Team shall work with the guidance of Project implementation team and provide continuing support to the BREB during the full-warranty & Post warranty contract

period. Successful bidder shall submit CV(s) to the project authority for the interviewing and selection processes. Project Authority will finalize the candidate based on Education, Certification, quality, capacity and Experience/expertise level. **Bidder shall assign on-premises Technical Support team from the week 21** and provide on-premises support services (24/7/365) up to Week 52. After that these team continuing all support per year renewal basis. During this time any changing/customization and its support service (24/7/365) will perform these resources. Bidder must confirm their technical capability and high skilled levels to provide successful support services. System Analyst and Database Expert to be assign from the Software Implementation team and selected to be the best resources approved by project authority and this dedicated resources must provide service until finish the contract. Bidder must ensure that each technical person defined in below getting remuneration must be paid within 7 days after the end of the each month period. Bidder must be submit paid Bank depositary slip of each person to the authority and counter sign for the same for validation and release the payment. Remuneration of each resources of Technical support team to be quoted in price schedule.

2.8.4.1 <u>System Analyst (1 person)</u>:   Supplier shall submit CV which specify the details of education/certifications, years' of experience in, demonstrated successful experience in, and similar project experience; professional skills and certification etc.

2.8.4.2 <u>Database Expert(1 person)</u>:   Supplier shall submit CV which specify the details of education/certifications, years' of experience in, demonstrated successful experience in, and similar project experience; professional skills and certification etc.

2.8.4.3 <u>Programming Expert(2 persons)</u>:   Supplier shall submit CV which specify the details of education/certifications, years' of experience in, demonstrated successful experience in, and similar project experience; professional skills and certification etc.

2.8.4.4 <u>System Administration / Security Expert(1 person)</u>:   Supplier shall submit CV which specify the details of education/certifications, years' of experience in, demonstrated successful experience in, and similar project experience; professional skills and certification etc

2.8.4.5 <u>Application Layer Technical Support (2 persons)</u>:   Supplier shall submit CV which specify the details of education/certifications, years' of experience in, demonstrated successful experience in, and similar project experience; professional skills and certification etc.

2.9   Technical Support

2.9.3   Warranty Defect Repair

The Supplier MUST provide the following services under the Contract period:

<u>Warranty Defect Repair Service</u>: If any trouble occur or determine any error or bug in software operation; supplier shall solve this ticket during contract coverage period; response time and problem-resolution performance standards; modes of service, such as on-site, on-call, or return to warehouse; etc. to be define in SLA while make the contract agreement.

2.9.4   **Technical Support**

The Supplier MUST provide the following services under the Contract or, as appropriate under this contracts.

2.9.4.1 Support methodology

- o End-User Support Helpdesk: Bidder must provide local 24x7 End-User Support helpdesk with staff onsite at the end-user locations at Head office, three Central Warehouse and two PBS. Helpdesk must provide Tier-1 support for Proposed Customized "Integrated Financial Management Information System (IFMIS) software Application. The local Helpdesk must provide Tier-1 onsite support and reference to tier-2 staff for more complex issues. Local partners are acceptable for Tier-1 Proposed Customized "Integrated Financial Management Information System (IFMIS) Application software helpdesk support with issue escalation to Tier-2 to onsite/offsite locations. Local partners Helpdesk staff can be trained for Proposed Customized "Integrated Financial Management Information System (IFMIS) software Application support during implementation. Supplier must have the capability to provide local 24x7 support using certified engineers. Helpdesk should be established and commence operation when end-users are trained (and gradually build up staffing) and continue through the end of the Warranty period and post-warranty period.

- o Post Go-Live Active Support: During the three months period after Go-Live bidder's team will provide onsite support with key resources placed onsite to help stabilize the system, maintenance work, and to ensure that data migration and reports are performing correctly. Bidder's team will execute the knowledge transfer plan so that BREB IT team and business users are fully conversant with Standard Operating Procedures (SOP). This stage will also prepare the purchaser's business and technical team to undertake Operational Acceptance Testing at the end of the active support period.

o During the Post Go Live Active Support period, bidder must provide End-User Support Helpdesk as per requirements and will make available its key resources onsite (Tier-1) and over the phone (Tier-2) for consultation and will respond to critical system or hardware failures that prevent business operations.

The following SLA's will be required for outages and defects:

- Severity Level 1 – Critical outage disabling the entire system; or that negatively affects all users of the system – ~~with immediate effect~~/**within 6 hours of notification.**

- Severity Level 2 – Faults affecting an individual business function; or faults affecting the performance of the system; or inability to conduct transactions – within 4 hours of notification.

- Severity Level 3 – Faults that impact the operational efficiency of an individual business function – within 24 hours of notification.

- Severity Level 4 – Minor defects or faults that impact individual users – within 48 hours of notification.

o During the Warranty period, bidder will inform purchaser and apply critical upgrades or patches in a reasonable timeframe as recommended by the manufacturer.

o Business End-User documents: Bidder will provide end-user documentation detailing business process supported, screen navigation and error actions. Scope should cover all user roles and actions performed including data entry, report generation,

- Training document
- User manuals
- As-built diagram and document of ICT Infrastructure
- Application installation and configuration document of as-built system
- System Operation Procedures (SOP) for business processes

o Technical Documents: Bidder will provide detailed technical documentation including systems architecture, labeling and schematics, system design technical specification and standard operating procedures for operating the proposed financial management application system.

- Overview of operating environment
- Architecture diagram of IT Infrastructure System

- Infrastructure and software in detail, labeling and schematics

- Proposed Customized "Integrated Financial Management Information System (IFMIS) Application" software configuration and Customization procedure.

- System backup and recovery plan

- System Operation manual

- Installation procedures

- Security configuration

o Post-Warranty Service: Bidder will provide three (3) years support service during the full-warranty period and post-warranty shall start after the end of full-Warranty Support. Post-Warranty support service is the yearly renewal warranty to be provided yearly basis until finish three years. Full-warranty and Post-Warranty support service must include provision of i) End-User Support Helpdesk as per onsite support by a dedicated team iii) bug fixes and enhancements iv) regular support for upgrades/patches to latest versions of Proposed "Integrated Financial Management Information System (IFMIS) Application" software, operating system and database v) provide a hotline support vi) access to a vendor customer support website vii) security alerts and critical patch upgrades and viii) performance tuning.

o BREB would have the flexibility to buy post-warranty support in the current contract or in a separate contract. Service Level Agreements (SLAs) during the Post-Warranty will be the same as during full-Warranty Support period. At the end of Post-warranty Support period, BREB may rebid the contract. Primary supplier must be ready to transfer support knowledge and hand-over to a new bidder if different contract awarded other than primary supplier.

o During the post-warranty period, bidder will make available its key resources onsite (Tier-1) and over the phone (Tier-2) for consultation and will respond to critical system or hardware failures that prevent business operations.

The following SLA's will be required for outages and defects:

- Severity Level 1 – Critical outage disabling the entire system; or that negatively affects all users of the system – ~~with immediate effect/~~within 6 hours of notification.

- Severity Level 2 – Faults affecting an individual business function; or faults affecting the performance of the system; or inability to conduct transactions – within 4 hours of notification.

- Severity Level 3 – Faults that impact the operational efficiency of an individual business function – within 24 hours of notification.

- Severity Level 4 – Minor defects or faults that impact individual users – within 48 hours of notification

o Bidders must ensure onsite local support in a written form for the Hardware, System Software, Proposed "Integrated Financial Management Information System (IFMIS) Application" software package and other components being offered in their bid and demonstrate Tier-1 onsite dedicated support capability with a named support team with at least 04 resources (01 technical & 03 functional/techno-functional) for the specified post-implementation support period (warranty and post-warranty).

SUPPORT TICKING SYSTEM:

o Supplier shall supply, install and configure **web basedSITEHELPDESK-IT software** (www.sitehelpdesk.com) on premises of BPDB along with a server hardware (min Xeon E3-2134 3.5GHz, (8M Cache, 4C/8T, 71W)- C246- 2x16GB UDIMM, 2666MT/s- 4x1TB 7.2K RPM NLSAS 12Gbps- RAID 10, 5- 1xPSU 350W- Latest edition Windows Server Standard edition- 3Years Warranty) and it should cover the ticketing service with 5 Operator & SLA monitor (Service Level monitoring) component and quote for the same. Purchaser shall see the details of Ticket, User support / hot line, coverage period; response time and problem resolution performance standards; etc. to be escalated from this software. Details feature of this software in below
   o Comprehensive registration and maintenance facilities for all the IT services, infrastructure, systems, software, equipment, and their users in organization
   o Integrated record keeping with Service, Incident, Change, Release, Financial, Problem and Configuration management backed up with audit tracking, service level and process control to help you achieve ITIL (IT Infrastructure Library) and BS15000 requirements.
   o Unique business continuity features that conform to the disaster recovery record keeping requirements of ISO 17799.
   o Integrates with WMImonitor for web browser based Hardware and Software Inventory auditing and physical configuration change control. Monitoring of service update sand system events.

2.10   Consumables and Other Recurrent Cost Items

Not Applicable

2.11   Other Non-IT Goods

Not Applicable

D. TESTING AND QUALITY ASSURANCE REQUIREMENTS

3.0 Inspections

3.1.1   Application Inspections: Bidder shall arrange inspection for financial management application of the Information Technologies prior to their delivery and implementation to the sites. Bidder shall communicate with BREB Consultant of proposed Customized "Integrated Financial Management Information System (IFMIS) software and make its inspection parameters with the assistance of the Purchaser and get approval from appropriate authority for the same.

3.2 Pre-commissioning Tests

3.2.1   In addition to the Supplier's standard check-out and set-up tests, the Supplier (with the assistance of the Purchaser) must perform the following tests on the System and its Subsystem-1, Subsystem-2, to Subsystem-n shall meet all the requirements before Installation will be deemed to have occurred and the Purchaser will issue the Installation Certificate(s) (pursuant to GCC Clause 26 and related SCC clauses).

- Unit test
- Integration Test
- Regression Test

3.2.2   Supplier shall specify the pre-commissioning test criteria of each module, sub-module, sub etc. and functional parameters (tests, test conditions, success criteria, etc) are to be approve from the BREB authority

3.3 Operational Acceptance Tests

3.3.1   Pursuant to GCC Clause 27 and related SCC clauses, the Purchaser (with the assistance of the Supplier) will perform the following tests on the System and its Subsystems following Installation to determine whether the System and the Subsystem-1, Subsystem-2, Subsystem-n shall meet all the requirements mandated for Operational Acceptance.

- Unit test
- Integration Test
- Regression Test

3.3.2   Bidder will provide comprehensive documentation and test cases for the purchaser to conduct the Operational Acceptance Test. All system configuration, custom software, reports must be delivered and full data migration should be completed for Operational Acceptance test to commence.

3.3.3   Business users (with bidders support) will ensure that all data migration and initial data entry is correct and operating as per requirements. Business users (with bidders support)will ensure that process are running correctly, reports generated match with other previous reports and that data interfaces with other external system are performing correctly.

3.3.4   Technical team and business users (with bidders support) will ensure that system performance, security tests and documentation is as per requirement.

3.3.5   The Entire System: Ten weeks of successful operation of each functional module, interfaces, monthly closing process, and adequate system performance will constitute 'testing of the entire system'. Successful operation of the system after Go Live for Ten week period would be required for Operational Acceptance of requirement functionality.

3.4 Data Migration

3.4.1   Bidder should clearly describe their approach to data migration and the methodologies and tools that will be used to identify, capture, validate and migrate required data into the new Proposed Customized Integrated Financial Management Information System (IFMIS) software system.

3.4.2   Supplier will facilitate and ensure that all required data is migrated in the new system prior to go live and operational acceptance test.

E. IMPLEMENTATION SCHEDULE

Implementation Schedule Table

System, Subsystem, or lot number: *[if a multi-lot procurement, insert: **lot number,** otherwise state **"entire System procurement"**]*

*[Specify**desired installation and acceptance dates for all items in Schedule below, modifying the sample line items and sample table entries as needed.]***

Line Item No.	Subsystem / Item	Configuration Table No.	Site / Site Code	Delivery (Bidder to specify in the Preliminary Project Plan)	Installation (weeks from Effective Date)	Acceptance (weeks from Effective Date)	Liquidated Damages Milestone
A	**Project Plan**						
A.1	Implementation Project Plan & Schedule in details with Gantt chart in Microsoft Project format.	- -	- -		- -	W1 to W1	no
A.2	Professional/ Skilled team Allocation for the *"Software Implementation Team"*					W2 to W2	
A.3	Project kick-off with detailed roll-out plans					W2 to W2	
B	**Functional, Architectural and Performance Requirements**						
B.1	Functional Requirements Gathering					W2 to W3	
B.2	Functional Analysis					W3 to W4	
B.3	IFMIS Software Design					W4 to W5	
B.4	Software Modules Design					W4 to W5	
B.5	Infrastructure Design					W3 to W4	
C	**Supply, Install, Configure, Development & Customization, Testing & Commissioning**						
C.1	IT Infrastructure DC					W5 to W12	
C.2	IT Infrastructure – Networking and Passive					W5 to W12	

Line Item No.	Subsystem / Item	Configuration Table No.	Site / Site Code	Delivery (Bidder to specify in the Preliminary Project Plan)	Installation (weeks from Effective Date)	Acceptance (weeks from Effective Date)	Liquidated Damages Milestone
C.3	Customized "Integrated Financial Management Information System (IFMIS) software					W5 to W10	
C.4	Software Installation, Configuration on Infrastructure					W15 to W18	
C.5	IFMIS Software Development & Customization					W11 to W12	
C.6	Software Module Integration & Quality Testing on Infrastructure					W12 to W13	
C.7	Software interfacing, Data Migration & Report Generation					W14 to W14	
C.8	Performance Testing & Risk Mitigation					W15 to W15	
C.9	Go-Live, Performance Monitor & Change Management					W15 to W16	
C.10	Testing and Quality Assurance					W16 to W17	
C.11	Inspections					W18 to W18	
C.12	Pre-commissioning Tests					W18 to W18	
C.13	Operational Acceptance Tests					W19 to W19	
C.14	Go-Live & Final Acceptance					W21 to W21	
D	**Documentation for Proposed System & Individual Modules**					W5 to W15	
D.1	As Built Design and Drawing Documentation					W5 to W15	
D.2	Functional Documentation					W5 to W15	
D.3	Operational Documentation					W5 to W15	
D.4	Reporting Documentation					W5 to W15	

Line Item No.	Subsystem / Item	Configuration Table No.	Site / Site Code	Delivery (Bidder to specify in the Preliminary Project Plan)	Installation (weeks from Effective Date)	Acceptance (weeks from Effective Date)	Liquidated Damages Milestone
D.5	User Manual and Guide for individual Module and Offices.					W10 to W30	
E	**Training & Skill Development**						
E.1	*Local Professional Skill Development training for Operation*						
	Training-1					W5 to W15	
	Training-2					W5 to W15	
E.2	*Foreign Training*						
	Training-3					W5 to W20	
	Training-4					W5 to W20	
	Training-5					W5 to W20	
F	**Support Service, Operation & Maintenance & Warranty**						
F.1	SITEHELPDESK-IT					W15	
F.2	Local Resource allocation for *"Software Technical Support Team"* to cover Operation & Maintenance under **Full Warranty** (Provide service from W21 to W21 and then renew per year basis up to W154)					W21	
F.3	Renewal of next 3 years proposed Customized "Integrated Financial Management Information System (IFMIS) software& warranty after 3 years warranty.					W154 to W308	
F.4	Local Resource allocation for "Software Technical Support Team" to cover Operation & Maintenance under **Post-Warranty**(Renew per year basis)					W154 to W308	

Note: Refer to the System Inventory Table(s) below for the specific items and components that constitute the Subsystems or item. Refer to the Site Table(s) below for details regarding the site and the site code.

- - indicates not applicable. " indicates repetition of table entry above.

System Inventory Table (Supply and Installation Cost Items) *[insert: **identifying number**]*

System, Subsystem, or lot number: *[if a multi-lot procurement, insert: **lot number,** otherwise state **"entire System procurement"**]*

Line item number: *[specify: **relevant line item number from the Implementation Schedule (e.g., 1.1)**]*

*[as necessary for the supply and installation of the System, specify: **the detailed components and quantities in the System Inventory Table below for the line item specified above, modifying the sample components and sample table entries as needed.** Repeat the System Inventory Table as needed to cover each and every line item in the Implementation Schedule that requires elaboration.]*

Component No.	Component	Relevant Technical Specifications No.	Additional Site Information (e.g., building, floor, department, etc.)	Quantity
1.	Hardware (Headquarters)		- -	- -
1.1	Hardware -- Finance Department		Main Building, fourth floor	- -
1.1.1	Advanced workstations		"	4
1.1.2	Standard workstations		"	12
1.1.3	High-speed laser printer		"	1
1.1.4	Standard-speed laser printer		"	3
1.1.4	Continuous-feed printer		"	3
1.1.5	etc.			
:				
2.	LAN (Headquarters)			- -

Component No.	Component	Relevant Technical Specifications No.	Additional Site Information (e.g., building, floor, department, etc.)	Quantity
2.1	Wiring Closet Hardware		One set each for floors 1-5 of Main Building and floors 3-4 of Annex	- -
2.1.1	Hubs		"	7
2.1.2	Punch-down panel		"	7
2.1.3	Uninterruptible power supply (small)		"	7
2.1.4	Lockable equipment rack		"	7
2.1.5	etc.			
:				
2.2	In-building Wiring			- -
2.2.1	Server Room		Room 44, 4th floor of Annex	- -
2.2.1.1	dedicated telephone lines (data)		"	2 nodes
2.2.2	Backbone and risers (fiber optic)		Server room and all wiring closets	28 nodes
2.2.3	Departmental wiring			- -

Component No.	Component	Relevant Technical Specifications No.	Additional Site Information (e.g., building, floor, department, etc.)	Quantity
2.2.3.1	Finance Department		Main Building, 4th floor, all offices, secretarial stations, and printer stations	40 nodes
:				
3.	General-Purpose Software			
:				

Note: - - indicates not applicable. " indicates repetition of table entry above.

System Inventory Table (Recurrent Cost Items) *[insert: **identifying number**]*

System, Subsystem, or lot number: *[if a multi-lot procurement, insert: **lot number,** otherwise state **"entire System procurement"**]*

Line item number: *[specify: **relevant line item number from the Implementation Schedule (e.g., z.1)**]*

*[as necessary for the supply and installation of the System, specify: **the detailed components and quantities in the System Inventory Table below for the line item specified above, modifying the sample components and sample table entries as needed.** Repeat the System Inventory Table as needed to cover each and every line item in the Implementation Schedule that requires elaboration.]*

Component No.	Component	Relevant Technical Specifications No.	Y1	Y2	Y3
1.	Warranty Defect Repair		all items, all sites, included in the Supply and Install Price	all items, all sites, included in the Supply and Install Price	all items, all sites, included in the Supply and Install Price
2.	Software/Firmware Licenses and Updates:		all items, all sites, included in the Supply and Install Price	all items, all sites, included in the Supply and Install Price	all items, all sites, included in the Supply and Install Price
3.	Technical Services				
3.1	Sr. Systems Analyst		80 days	40 days	20 days
3.2	Sr. Programmer		20 days	40 days	60 days
3.3	Sr. Specialist, …. etc.		- -	20 days	20 days

Note: - - indicates not applicable. " indicates repetition of table entry above.

Site Table(s)

System, Subsystem, or lot number: *[if a multi-lot procurement, insert: **lot number,** otherwise state **"entire System procurement"**]*

*[specify: **the detailed information regarding the site(s) at which the System is to be operated**]*

Site Code	Site	City / Town / Region	Primary Street Address	Drawing Reference No. (if any)
HQ	BREB Head Office			
R1	BREB Project Sites (Head Office Only)			
R2	Savar Warehouse			
R3	Chittagong Warehouse			
R4	Khulna Warehouse			

Table of Holidays and Other Non-Working Days

*[specify: **the days for each month for each year that are non-working days, due to Holidays or other business reasons (other than weekends).]**

Month	20xy	20xy+1	20xy+2	....			...	20zz
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								

F. REQUIRED FORMAT OF TECHNICAL BIDS

5.1   Description of Information Technologies, Materials, Other Goods, andServices

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.

5.1.2   *[specify: any other technical information related to the Information Technologies, Materials, other Goods, and Services necessary to assess the responsiveness of the Technical Bid, for example, histories of the Information Technologies offered, if demonstrated capacity to revise and extend these technologies is a mandatory criterion for technical responsiveness to be used in the evaluation.]*

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 *[state: "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)]*. 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 *[for example, specify: what steps will be taken if there is a failure; how project progress will be reported; etc.]*.

5.3.2   *[specify: 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

Note on Preparation of the Checklist for Purchasers: The following is a sample format that is designed to help Bidders quickly understand:

    (a)   the Technical Specification given in the Technical Requirements;

    (b)   whether each Requirement is mandatory or only "preferred"; and

    (c)   to ensure that each Bidder includes along with a specific response to the Purchaser, a cross reference to the supporting information provided elsewhere in its Technical Bid.

It is important that the tables be prepared carefully and completely, with accurate references to the relevant section and paragraph numbers in the Technical Requirements so that Bidders will be more likely to submit complete information, particularly regarding the mandatory and scored Requirements. In preparing each Checklist entry, Purchasers should start with an abbreviated text of each Requirement so that Bidders can quickly confirm that they are responding to the right Requirement. Inconsistencies between the Checklist and the referenced section in the Technical Requirements should be avoided. Giving Bidders a revisable, "electronic" version of the Checklist as part of the Bidding Document will enhance the completeness of bids.

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, which 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.

An editable electronic version of a word file of the Technical Responsiveness Checklist will be available to bidders for ease of inputting their response. Please note that in case of any discrepancy between the editable version and the bid document, the bid document version will be considered the original. Legend: Legend: Mandatory (m), Preferred (p) Proposed Customized "Integrated Financial Management Information System (IFMIS) software Application System Availability: Standard (S), Custom (C), None (N)

Bidder shall fill-up the below sections in details in order to demonstrate the capability to comply the Customization and developments facilities in proposed Customized "Integrated Financial Management Information System (IFMIS) software of Financial Management System.

Section	Description	M, P	S C N	Substantiation with reference to technical document
1.1.1	Integrated Financial Management Information System (IFMIS) Application software	M		
1.1.2.	Legal and Regulatory Requirements to be met by the proposed Information System	M		
2.0	General Technical Requirements	M		
2.1	Computing Hardware Specifications	M		
2.2	Software Specifications	M		
2.3	System Management, Administration, and Security Specifications	M		
2.4	Project Management Requirements	M		
2.4.3	Project Team Qualification:			

2.5	Service Specifications	M		
2.5.2	Software Customization / Development	M		
	Training and Training Materials	M		
2.6	Data Conversion and Migration	M		
2.7	Documentation Requirements	M		
2.8	Requirements of the Supplier's Technical Team	M		
2.9	Technical Support	M		
3.0.	Inspections	M		
3.2	Pre-commissioning Tests	M		
3.3	Operational Acceptance Tests	M		
3.4	Data Migration	M		
H	Attachment 1 – AS IS Statement	M		

H. ATTACHMENTS

Attachment 1.Existing Information Systems / Information Technologies/Description of 'AS-IS' of finance and accounting business processes of BREB

1.2.1   FINANCE & ACCOUNTING DIRECTORATES

The Member Finance under the Board of Director of BREB is the highest authority of the Financial & Accounting System policies and operational activities are executed by the several directorate. The Controller of Finance is the head of all Finance and Account directorates.

1.2.2   BREB OFFICES INVOLVE IN ACCOUNTING & FINANCIAL OPERATIONS AND LINK TO OTHER DIRECTORATES OFFICES

The BREB Finance and Accounts business functionalities are management by the Finance Directorate and Accounts Directorate. These two directorates involves in all activities and task of whole BREB which include Budgeting, Local and International Fund Management, Accounting and reporting. Existing following Directorates, Project Offices users are involved in all financial & accounting transaction.

1.2.3   Directorate of Accounts:

o **General Accounting Division:** Accounts Division is the main Central Accounts Office who compile all the offices Trail Balances to one single Trail Balance for the BREB final Financial Statements and other related disclosure as per regulatory requirement.

- This General Accounts Division under Accounts Directorate is the core/central division of accounts of BREB.
- 15 Digit Accounts Code is use for each Account Code of all the BREB Offices including Project and PBS offices
- Accounts Payable Voucher (APV) a double entry Voucher are created by Internal Bill, External Bill, Disbursement Division and Benefit Division
- All other Division under this Directorate and Project offices send accounting information through Monthly Journal Voucher (JV) to compile of final accounts.
- All running Project offices Journal Voucher (JV) soft copy and hard also send to this Division on monthly basis
- All JVs are verify, checked and sorted
- Posting to Control Ledger and Subsidiary Ledger by paste in Excel formatted General Ledger Accounts
- In excel automatically Income Statement and Balance sheet are updated
- Revenue Expenditure Report are created in Excel
- All Capital Expenditure are recorded in Continue Property Record (CPR) in Excel
- Depreciate Rate are given yearly basis in excel to calculate the Depreciation expenses
- All Investment in FDR and Income Accrual Journal Voucher (JV) came from Disbursement Division
- Debit/Credit Memo are required for Loan amortization and loan allocation Journal Voucher
- PBS Loan:

o All JVs related to Loan in kinds DSL came from Project, Internal and External Division are sorted for Control Ledger and subsidiary Ledger
o This Division prepare Loan Schedule and reconcile with all PBS offices
o All Loan Ledgers printing and filling hard copy
o Accounting Transaction of PBS Loan
  ▪ DSL Invoice Principal – (Yearly Two times)
    ▪ DSL Principal –DrandLoan in Kinds - Cr
    ▪ DSL Interest – Dr. and Interest Income - Cr
  ▪ Moratorium Interest (After 5 years)
    ▪ Loan in Kinds – Dr and Moratorium Interest - Cr
    ▪ DSL Adjustment
    ▪ Agricultural Rebate/Cross subsidy – Dr
    ▪ DSL (Principal/Interest –Cr

- **Report Listing of General Accounting**
    ▪ Ledger Reports
    ▪ P&L Statement, Balance Sheet, Cash Flow Statement (CFS)
    ▪ Capital Expenditures Schedule
    ▪ Loan Schedules
    ▪ FDR Statements
    ▪ Other Schedules

Business Process Flow Diagram — General Accounts Division

Received JVs in hard copy and Soft copy
- All Collection and Expenditures Journal are received for Internal Bill, External Bills, Disbursement Divisions
- FDR & Income Accrual from Disbursement Division
- Debit/ Credit Memo with Loan amortization and loan allocation received from Loans & Audit Directorate
- PBS Loans: Loan in kinds DSL received from Project and External Division

All JVs are checked, verify and sorted

Posting/Paste in Control & Subsidiary Account wise in Excel Formatted General Ledger
- Provision for Depreciation as applicable rates, Audit Fees
- Project Closing Journal

Reports Updates P&L, Balance Sheet, Revenue & Capital Expenditure Statement
- All Capital Expenditure are recorded in Continue Property Record (CPR)
- Prepare Loan Schedule and reconcile with all PBS
- Print Loan Ledgers and do filling of hard copy

o **Internal Bill**

Business Process Flow Diagram   **Internal Bill (Payroll)**

Salary Sheet	Hard copy Salary Sheet are received from 80 REB Offices (except Project Staffs) by 20th of each Month
Check & Verified	Information such as OT, Transfer, Transport Bills, Working days, Date of Next Increment (DNI), Deduction etc
APV	Individual employee wise, Accounts Payable Voucher (APV) are prepared
Pay Slip	Print the Pay Slips according to REB Office wise
Summery Sheet	Each REB office wise Salary summery sheet is prepared & send to respective REB Offices with a forwarding
Bank Advice	A Bank Advice with an Employee list having Bank Account in BREB Branch JB Bank is prepared for payment by disbursement Division
Employee List	Another employee list having Bank account in JB Branch offices (Other than REB Branch) is prepared for making payment by Telegraphic Transfer (TT).
Send	These two lists are send to Disbursement Division for necessary action for payment

Continue to Next

Business Process Flow Diagram   **Internal Bill (Payroll)**

Continue from Previous

CPR	End of the month individual details of entitlements, deduction and net amount are recorded in Cheque Payroll Register (CPR)
JV	End of the month, with all Pay, Allowance & Deductions, the JV is prepared showing Control & Subsidiary Ledger Account and send to General Accounts Division
Check & Verified	JVs are reconciled between Internal Division and the Disbursement Division and send to General Accounts Division
Deduction Statements	Separate Statements are prepared for all the deductions like CPF, GPF, AIT, Loans & Advance, Benevolent Fund (BF), Group Insurance (GI) and House Building Advance etc.
Send	Send these Concern Deduction Statements to Benefit Division for ledger posting
Loan & Advance Ledger	Deduction for Loan & Advance (such as House Building Advance) are posted in respective ledger in Payroll Section
Bank Advice	At the end of month, Payroll section makes advice to the Disbursement Division to transfer fund to concern Bank accounts of all deductions amount such as CPF, GPF, BF and GI

Business Process   Internal Bill (Payroll)

Report Listing of Payroll Section

1. Accounts Payable Voucher
2. Journal Voucher
3. Pay Slip
4. Salary Summary Sheet
5. Cheque Payroll Register
6. Bank Advice for Salary Payment
7. Employee List for TT
8. Loans & Advance Ledger
9. Deduction Statements
10. Bank Advice for Fund Transfer (Deductions)

Accounting Transaction

....

Basic Pay	....	Dr
House Rent Allowance	....	Dr
Medical Allowance	....	Dr
Tiffin Allowance	....	Dr
GPF	....	Cr
House Building Advance	....	Cr
Transport Fare (Income)	....	Cr
Accounts Payable Voucher	....	Cr

....

While Advance are given to employees

House Building Loan	....	Dr
Accounts Payable Voucher	....	Cr

Business Process Flow Diagram   Internal Bill (TA/DA, Advance/Imprest)   Revenue/ Project

TA/DA Bills	TA/DA Bill are received from BREB 80 offices
Check & Verified	On the basis of applicable rules and regulation, this section check all the TA/DA & Advance Bills before making payment clearance for disbursement
Envelop APV	After checking all, the Bills are kept in the envelop writing proper classification of accounts on the face of the envelop with Voucher No, Accounts Code, Dr/Cr amount and date of Voucher
Approval	The Bill with Voucher envelop submitted to concerned Assistance Director (Finance) for his verification & Approval
APV	Afterward Accounts Payable Voucher (APV) is prepared in Excel for further compilation of JV
Approval	Send to concerned Deputy Director/Director/Controller of Finance for final Approval
Send	After Approval, the Advice/TT send to Disbursement Division to make payment by Cheque
Journal Voucher	Month end, Assistance Director prepare Journal Voucher(JV) in excel showing accounts head wise consolidated Debit and Credit amount for all the Transactions of the month
Send	After reconciliation of the JV with disbursement Division, the Journal Voucher (JV) is sent to General Accounts Div.

Business Process-Report | Internal Bill (TA/DA, Advance/Imprest) | Revenue/ Project

Report Listing of TA/DA, Advance/Imprest (Revenue/Project)

1. Accounts Payable Voucher
2. Journal Voucher
3. Any Ledger Reports based on
   - From/To: Single/Multiple Accounts
   - From/To: Date Range
   - From/To: Cost Centre Range

ACCOUNTING TRANSACTION (Example)

....
TA Advance	.....	Dr
Accounts Payable Voucher	.....	Cr

....
TA Bill	.....	Dr
TA Advance	.....	Cr
Accounts Payable Voucher	.....	Cr

....
For Issuing Debit Memo

....
| Concerned PBS | ..... | Dr |
| Income | ..... | Cr |

- Each REB report has Form No which need to be labeled in every report
- All Reports printing will be in date range of Daily/ Monthly/Yearly basis
- Project/ REB Office wise range wise selection in major reports
- Some reports are required to print in Bangla Font

o **External Bill**

Business Process | External Bill Division

ORGANOGRAM
External Bill Division

Deputy Director, External Bill
↓
Assistant Director, Suppliers — Assistant Director, Contractors
↓
Accountant | Accountant | Accountant — Accountant | Accountants | Accountant

- Yellow mark are vacant

Number of User of the IFMIS Software
- **Power Users : Two**
- **Report Viewer : One**
- **Entry Users : Six**
- **Total: Nine**

Suppliers section
All kinds of suppliers bills such as Office Rent, Gas & Fuel, Electricity, WASA, Insurance, and Repairs & Maintenance are settled in this section.

Contractors section
Nature of contractor's Bill are Line Construction, Sub-Station, Consultancy services etc.

Business Process Flow Diagram   External Bill Division   Supplier/Contractor

Supplier Bills	**Received Bill from Supplier**
Verified	**Checked & Verified and Audited as per Rules and Regulation with relevant contract agreement**
Prep. Voucher	**After checking all, the Bills are kept in the envelop writing proper classification of accounts on the face of the envelop with Voucher No, Accounts Code, Dr/Cr amount and date of Voucher**
Verification by AD	**The Bill with Voucher envelop submitted to concerned Asstt. Director (Finance) for his verification & Approval**
APV	**Afterward Accounts Payable Voucher (APV) is prepared by AD for further compilation of JV**
Approval	**Send to DD/Director/Contr of Finance for final Approval. Approval Limit Rules followed**
Send	**After Approval, the Voucher with Bank Advice is send to Disbursement Division to make payment by Cheque**
Journal Voucher	**Month end, Assistance Director prepare Journal Voucher(JV) in excel showing accounts head wise consolidated Debit and Credit amount for all the Transactions of the month**
Send	**After reconciliation of the JV with Disbursement Division, the Journal Voucher (JV) is send to General Accounts Div.**
Reports	**Month end, prepare the AIT & VAT Reports. Send to concern authority & Disbursement Division**

Business Process Flow Diagram   External – AIT & VAT   Supplier/Contractor

Supplier Bills	**AIT & VAT deducted from Bills are accumulated fortnightly/Monthly**
Verified	**Prepare Bill/Voucher showing classification of accounts on the face of the Envelop**
Prep. Voucher	**The Bill with Voucher envelop submitted to concerned Assistance Director (Finance) for his verification & Approval**
Verification by AD	**The Bill with Voucher envelop submitted to concerned Asstt. Director (Finance) for his verification & Approval**
APV	**Afterward Accounts Payable Voucher (APV) is prepared in Excel for further compilation of JV**
Approval	**Send to concern Deputy Director/Director/Controller of Finance for final Approval. Approval Limit Rules followed**
Send	**After Approval, the Bills with Envelop is send to Disbursement section to make payment by Cheque to Bangladesh Bank**
Journal Voucher	**Month end, Assistance Director prepare Journal Voucher(JV) in excel showing accounts head wise consolidated Debit amount and Credit for all the APV of the month**
Send	**After reconciliation of all the APV with disbursement division, the Journal Voucher (JV) is send to General Accounts Div.**
Reports	**Month end, prepare the AIT & VAT Reports and send to concern authority and Disbursement Division**

Business Process   External Bill Division

Construction Section   Business Process of Contractor is same

Business Rules of Contractor and Supplier Section

- Accepting MRR for material procurement through bidding which are received in **Central Warehouse** are price as 100%+10% Overhead +1% IPDC)= 111%. [If goods are for Project office].

  ....

- **Foreign Procurement** claim
  Having received the documents via Disbursement Division regarding payment made by LC (Letter of Credit), Voucher is prepared same way showing classification of Accounts Head in the top of Envelop and send to Disbursement Division specifying **"Cheque Not to be Issued"** mark

  ....

- **Bills Approval Limit :**

Deputy Director	-	Bill upto Tk. 7,50,000/-
Director	-	Bill upto Tk. 50,00,000/-
Controller (Finance & Accounts)	-	Above Tk. 50,00,000/-

Business Process   External Bill Division

Report Listing of External Bill [Suppliers & Contractors]

1. Accounts Payable Voucher
2. Journal Voucher [As formatted]
   - A/c No, Sub Ledger, General Ledger
3. ADP Reports [Expenditure]
   - Economic Code, REUP/BDP-1
4. APV [Date, Vendor, Vr No, A/c No, Amount, Project Name]
5. WIP Progress Reports
6. Fund Transfer Report [Deduction from Bills]
7. Debit/Credit Memo [Material pricing]
8. Invoice for Short Term Loan [Debit In]
9. LD (Liquidity Damage) Report
10. Other Penalty Report
11. Advance Schedule (Ledger A/c)
12. AIT & VAT Statement [VDS from suppliers]
13. Security Deposit(SD)-
    - Capital and Revenue Reports

- Each REB report has Form No which need to be label in every report

- All Report printing will be in date range of Daily/ Monthly/Yearly basis

- Project/ REB Office wise range wise selection in major reports

- Some report are required to print in Bangla Font

o **Material Accounting**

Business Process Flow | Material Accounting | Foreign Procurement

Docs Sets	Received Tender Docs, NOA, Delivery Schedule from Procurement Directorate
MRR	Received the Material Receiving Report (MRR) from Central Warehouse
Verify	Check and verify MRR with previously received documents
Material Pricing	11% [10% for overhead and 1% for IDCP (Interest During Construction Period] is added with the purchase value for final Pricing of the Material
Mat. Register	Records the Received Material Items with quantity, price & other information in the Material Register
Bill Received	Received Bills for 10% retention money of purchase goods from CS&M Division
Verify	Check and calculate the LD, Shortage, penalty, other deductible for the Net amount payable on 10% retention
Payment Order	Send Payment Order (addressing Bank) of 10% retention money Bill to Disbursement Division for payment
Journal Voucher	In month end, Journal Voucher (JV) is prepared with all the retention Bills and send to General Accounts Division

Business Process Flow | Material Accounting | Local Procurement

MRR	Received the Material Receiving Report (MRR) from External Bill (Supplier) Division
Mat. Register	Record the Received Material Items with quantity, price & other information in the Local Material Register
Issue Voucher	Received the Issue Voucher from Central Warehouse as per allotment letter of MPSS
Debit Memo	Issue monthly Debit Memo consolidating the value of all the material issued to a PBS for recording a Long Term Loan for that PBS
Journal Voucher	In month end, Journal Voucher (JV) is prepared with all the retention Bills and send to General Accounts Division
Reconcile	On monthly basis, reconcile the Material Accounting Division quantities Balance with Central Warehouse material quantity Balances

Business Process — Material Accounting

Report Listing of Material Accounting

1. Journal Voucher (JV)
   - A/c No, Sub Ledger, General Ledger
2. Statement of Store in Transit
3. Statement of 10% Retention Money
4. Statement of CD VAT
5. Debit/Credit Memo
6. Material Register

Accounting Transaction [Foreign & Local Purchase]
....

For Material Procurements

| Material Account | ---- | Dr. |
| Store In Transit Account | ---- | Cr. |

....

For Long Term Loan Liability of PBS for material

| Long Term Loan-PBS | ---- | Dr. |
| Material Account | ---- | Cr. |

- All Report format will be attached in Roadmap
- Each REB report has Form No which need to be label in every report
- All Report printing will be in date range of Daily/ Monthly/Yearly basis
- Project/ REB Office wise range wise selection in major reports

---

o **Disbursement Division**

Business Process — Disbursement Division

ORGANOGRAM
Disbursement Division

Deputy Director, Disbursement Division
→ Assistant Director
→ Accountant
→ Asst. Accountant / Asst. Accountant / Asst. Accountant / Asst. Accountant / Asst. Accountant
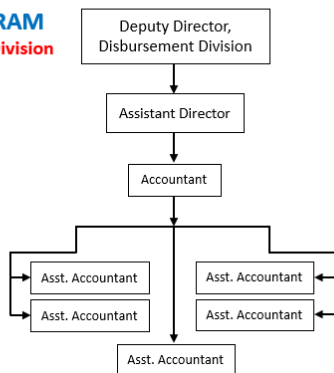
Number of User of the IFMIS Software
- **Power User : One**
- **Report Viewer : One**
- **Entry User : Six**
- **Total: Eight**

- This Division deals with all kind of Fund collection (GOB or non-GOB) and payment of the BREB including Investment in FDR.
- FMT Cell and Loans & Audit Directorate also send Notes/Order of Disbursement to this Division
- No Cash Transaction are done in BREB
- Approx. 36 Bank Accounts maintain as per classification of Fund, Benefits etc
- No Accounts Payable Vouchers are generated in this Division rather do Journal Vouchers
- Fund are transfer from one Bank account to other Bank accounts as when required by the authority
- This Division also made investment in FRD and other instrument and record the accounting Journal
- At the end of year, Interest income on investment are recorded as accounting journal.

Business Process Flow Disbursement Division

Collections

Docs Sets	Received Docs from all accounts Division, FMT Cell and Loan & Audit Directorate
OR	Issues Official Receipt (OR) in BREB prescribe Form after receiving Cheque, PO/DD from Government, PBSs offices
Update DCR	Update the Daily Collection Register (DCR) after depositing all Cheques to Bank account
Journal Voucher	In month end, Journal Voucher (JV) is prepared with all the collected Cheques & send to General Accounts Division
Reconciliation	At the end of month, Bank account wise Bank Reconciliation are prepared

Payments

APV	Received Accounts Payable Voucher (APV) from other Division of Accounts Directorate
Issue Cheque	Issue Cheque against every Accounts Payable Voucher (APV)
Update VCR	Update the Voucher Cheque Register (VCR) with the all payment and Cheques
Journal Voucher	In month end, Journal Voucher (JV) is prepared with all the payment Cheques & send to General Accounts Division
Reconciliation	At the end of month, Bank account wise Bank Reconciliation are prepared

Business Process Disbursement Division

Report Listing of Disbursement

1. Journal Voucher
2. Daily Collection Register
3. Voucher Cheque Register
4. Statement of FDR (Fund wise)
5. Donor Report?
6. GOB Report?
7. Statement of Bank Account
8. Bank Reconciliation Statement
9. Income Tax Schedule
10. VAT Schedule
11. Account Ledger (Details)

- All Report format will be attached in Roadmap

- Almost each REB report has Form No which need to be label in every report

- All Report printing will be in date range of Daily/ Monthly/Yearly basis

- Project/ REB Office wise range wise selection in major reports

Accounting Transaction [Few example]

....
For Collection
Bank Account   ----   Dr.
Income/Equity/Account   ----   Cr.
....
For Disbursement
Expenses A/c/ Investment A/c   ----   Dr.
Bank Account   ----   Cr.

o **Benefit Division (GPF,CPF & Pension)**

Business Process Flow   Benefit Division – GPF, CPF

FUND TRANSFER FOR GPF DEDUCTION

FUND TRANSFER-GPF		
Advice Received	Every month Payroll section inform External & Benefit Division to transfer the amount of deduction made for GPF and CPF from salary of the employees
Envlp Voucher	External Bill Division prepares voucher and sends to Disbursement Division
Rcvd Cheque	Received Cheque from Disbursement Division
Return Cheque	Return the Cheque to Disbursement Division specifying the heads of accounts to be Debited and Credited for the fund transfer
Received OR	Benefit Division receives the copy of Official Receipt (OR) of Fund Transfer from Disbursement Division
Up. GPF Ledger	Receives JV from Disbursement Division for posting in GPF Control Ledger
Invest GPF/CPF	Benefit Division invests the amount of GPF/CPF in FDR or Saving Certificate with the decision of the Board of Trustees of GPF/CPF.

Business Process Flow   Benefit Division – GPF, CPF

TRANSFER OF BOARD CONTRIBUTION TO CPF

FUND TRANSFER-CPF		
Advice Received	Every year BREB makes proper budget provision for Board contribution to CPF. Based on sanctioned budget Benefit Division informs External Div. through notes.
Envlp Voucher	External Bill Division prepares Voucher & APV for the fund transfer.
Rcvd Cheque	Received Cheque from Disbursement Division
Return Cheque	Return Cheque to Disbursement Division specifying the heads of accounts to be Debited and Credited for the fund transfer.
Received OR	Benefit Division receives the copy of Official Receipt (OR) of Fund Transfer from Disbursement Division
Up. GPF Ledger	Receives JV from Disbursement Division for posting in CPF Control Ledger
Invest GPF/CPF	Benefit Division invests the amount of GPF/CPF in FDR or Saving Certificate with the decision of the Board of Trustees of GPF/CPF.

Business Process Flow — Benefit Division – GPF, CPF

PROCEDURES FOR FINAL SETTLEMENT OF GPF/CPF

Final Settlement

Step	Description
Fin. Settlement	Benefit Division send Final settlement of GPF/CPF information of the employee to Personnel Directorate when it became due to incumbent
Office Order	Personal Directorate issues Office Order specifying the amount payable to incumbent
Received Bill	Received the Bill from the incumbent along with the Office Order of final settlement and then prepares voucher (envelope) and APV for the same.
Send Voucher	Benefit Division sends the voucher to Disbursement Division for their necessary action
Prepare Cheque	Disbursement Division prepares Cheque and hand over the same to the incumbent
Control Ledger	As per receiving Journal Voucher (JV) from Disbursement Division, this Division make proper posting in Control Ledger
Advance Bill	Same procedure is followed for GPF/CPF Advance Bill. Controller (Accounts & Finance) is the sanctioning authority for any kind of GPF/CPF Advance

Business Process Flow — Benefit Division – PENSION/GRATUITY

PROCEDURES FOR FINAL SETTLEMENT OF PENSION/GRATUITY

Final Settlement

Step	Description
Fin. Settlement	Benefit Division send Final settlement of Pension/Gratuity information of the employee to Personnel Directorate when it became due to incumbent
Office Order	Personal Directorate issues Office Order specifying the amount payable to the incumbent
Received Bill	Received the Bill from the incumbent along with the Office Order of final settlement and then prepares voucher (envelope) and APV for the same.
Send Voucher	Benefit Division sends the voucher to Disbursement Division for their necessary action
Prepare Cheque	Disbursement Division prepares Cheque and hand over the same to the incumbent
Control Ledger	As per receiving Journal Voucher (JV) from Disbursement Division, this Division make proper posting in Control Ledger
Advance Bill	Same procedure is followed for Pension/Gratuity Advance Bill. Controller (Accounts & Finance) is the sanctioning authority for any kind of Pension/Gratuity Advance

Business Process Flow | **Benefit Division** | PENSION/GRATUITY CASE SETTLEMENT

Personnel Directorate prepare all primary formalities (Last Pay, No demand Certificate, Service Continuity, Conduction of Internal Audit, Departmental Proceedings etc.)
Received Pension cases for necessary recommendation of the Pension Determination Committee which is headed by the Director (Accounts).
Conducts necessary verification on the pension cases and place the same to Pension Determination Committee meeting
Prepares detailed minutes for the pension cases with the Pension Determination Committees opinion and send back to Personal Directorate.
Having received back the pension cases, Personal Directorate issues pension sanction order specifying amount payable to the incumbent.
The incumbent then submit Pension/Gratuity bill to Benefit Section enclosing pension sanction order with the bill.
Having received the Bill from the incumbent along with the Office Order of Pension/Gratuity, Benefit Division prepares voucher (envelope) and APV for the same.
Benefit Division sends the voucher to Disbursement Section for their necessary action and retains the APV for its record.
Disbursement Division prepares Cheque and provide it to the incumbent keeping payment records in VCR (Voucher Cheque Register).
Benefit Division makes proper posting in the related Control Ledger receiving Journal Voucher (JV) for pension/gratuity payment from Disbursement Section.
Every month Benefit Division received back all vouchers sent to Disbursement Division earlier with a list along with Cheque information
Benefit Division verify all the vouchers received back from Disbursement Division with the APV prepared & preserved in the Benefit Division.
Proper reconciliation in between Benefit Division and Disbursement Division is made as and when required.
Same procedure is followed for leave encashment at the time of employee's PRI.

Business Process Flow | **Benefit Division** | FUND TRANSFER FOR PENSION/GRATUITY

• Every year BREB makes proper budget provision for Pension/Gratuity payment
• Having sanctioned budget, Benefit Division informs External Bill Division through notes.
• Being informed from Benefit Division, External Bill Division prepares Voucher for the same and also prepares APV (Accounts Payable Voucher) for their records
• External Bill Division sends the voucher to Disbursement Division for necessary action
• Disbursement Division prepares Cheque and hand over the same to Benefit Division keeping payment records in VCR (Voucher Cheque Register).
• Benefit Division returns the Cheque to Disbursement Division specifying the heads of accounts to be Debited and Credited for the fund transfer.
• After transfer has been made by Disbursement Division, Benefit Division receives copy of Official Receipt (OR) from Disbursement Division in favour of the said fund transfer.
• It also receives JV from Disbursement Division for proper posting in the Control Ledger
• Keeping required liquidity for payment Benefit Division invests the amount of Pension/Gratuity Fund in FDR or elsewhere with the decision of the Board of Trustees for Pension/Gratuity.

Business Process Flow | **Benefit Division** | TRANSFER OF FUND FOR BF/GI

- In Payroll Section of Internal Bill Division, deducted monthly Tk. 50 from the pay bill irrespective of all employees and Tk. 40 only from the pay bill of the officers of BREB.
- Through a note Payroll section inform Disbursement/External Bill/Benefit Division to transfer the amount of deduction made for BF and GI from salary of the employees.
- Having received this, External Bill Division prepares voucher and APV for the same and sends the voucher to Disbursement Division. External Bill Division preserves the APV.
- External Bill Division sends the voucher to Disbursement Division for necessary action.
- Disbursement Division prepares Cheque and hand over the same to Benefit Division keeping payment records in VCR (Voucher Cheque Register).
- Benefit Division returns the Cheque to Disbursement Division specifying the heads of accounts to be Debited and Credited for the fund transfer.
- Benefit Division receives the copy of Official Receipt (OR) from Disbursement Division in favour of the said fund transfer by the Disbursement Division.
- It also receives JV from Disbursement Division for proper posting in the Control Ledger
- Benefit Division invests the fund of BF/GI in FDR or Saving Certificate with the decision of the Board of Trustees of BF/GI. It also pay insurance premium when necessary.
- Bank Reconciliation is made by Disbursement Division as and when required.

Business Process | **Benefit Division**

Report Listing of Benefits Division

1. GPF & CPF Register Maintenance
2. GPF, CPF Budget and Expenses Statement
3. Bank Reconciliation Statement
4. Monthly Schedule of GPF, CPF with deduction of Advance on GPF, CPF
5. Final Settlement Statement of GPF & CPF
6. Gratuity Fund Budget and Expenses Statement
7. BF, GI Budget and Expenses Statement
8. Pension Fund Balance sheet
9. Gratuity Fund Balance Sheet
10. Pension Fund Register
11. Gratuity Fund Register

- All Report format will be attached in Roadmap

- Each REB report has Form No which need to be label in every report

- All Report printing will be in date range of Daily/ Monthly/Yearly basis

- Project/ REB Office wise range wise selection in major reports

Business Process Flow `Benefit Division`   PAYMENT FROM GROUP INSURANCE (GI) FUND

- **Bangladesh Jiban Bima Corporation submits yearly bill for Group Insurance premium.**
- **After preparing voucher, Benefit Division sends the same to Disbursement Division keeping APV (Accounts Payable Voucher) in the section for own records.**
- **Disbursement Division prepares Cheque and hand over the same with JV to Benefit Section keeping payment records in VCR (Voucher Cheque Register) for their use.**
- **Benefit Division hand over the Cheque to Jiban Bima Corporation via Board Secretary.**
- **Procedure for transferring fund for Board contribution to GI is the same as the procedure followed for Board contribution to Contributory Provident Fund (CPF).**

Business Process Flow `Benefit Division`   PAYMENT FROM BENEVOLENT FUND (BF)

- **Payment applicable only for the deceased family of the BREB employees.**
- **Deceased family entitled to receive the amount determined as per rule for 15 years if the employee died in running of the service.**
- **Deceased family entitled to receive the amount determined as per rule for the rest period of 10 years from the date of retirement if the employee dies after his retirement.**
- **Collecting necessary information for applicable entitlement Personal Directorate issues Office Order in favour of the deceased family.**
- **Having received the bill from the deceased family along with the Office Order Benefit Division prepares voucher and APV (Accounts Payable Voucher) for the same. The voucher is signed by the BF Trustee Board members in due course.**
- **Benefit Division then prepares Cheque against the BF Bank A/C kept in Uttara Bank Ltd. Khilkhet Branch, Dhaka, and hand over the same to the deceased family.**

1.2.4 MPSS Directorate

Business Process — MPSS Directorate

ORGANOGRAM
MPSS Directorate

Director, MPSS

Deputy Director 1 | Deputy Director 2 | Deputy Director 3 | Deputy Director 4

Asstt. Engineer 1 | Asstt. Engineer 2 | Asstt. Engineer3 | Asstt. Engineer 4

Data Entry Operator 1 | PA | Driver | Peon | Data Entry Operator 2

- Insurance Fund: REB procure common material & stock for emergency needs of the Projects and PBSs office.
- When any PBS & project require common material then they can purchase it from REB by making payment.
- One Store Management Software is use both for PBS and REB Central Warehouse but functionality of PBS & REB is different.
- All PBS use this software and updated in REB web base software in the evening
- REB can view the updated only PBSs stock balances from web base software installed in REB ICT
- Central Warehouses are in Khulna, Dhaka Chittagong and they maintain the stock in locally installed software

Business Process Flow Diagram — MPSS Directorate

Prepare APP	Prepare the Annual Procurement Plan (APP) as per the DPP
Prepare BOM	After approval of APP, prepared the Bill of Material (BOM). BOM prepared as per field requirement of Quantity, Price and material name as per procurement Package
Price & Delivery Schedule	Preparation of Price Schedule, Delivery Schedule as per BOM & inclusion of Specification
Send to PD/ Procurement Div.	Sending of BOM, Price Schedule, Delivery Schedule, Specification to Procurement Director/ PD office of Tendering
Technical Evaluation	Technical Evaluation of Tendered Items
Received Repulsion	Received requisition from PBS for material
Make Allocation	MPSS make allocation of material after checking quantity in software, hard copy or phone
Allocation sent	This Allocation note is send to Central Warehouse and CS&M

Business Process   MPSS Directorate

Report Listing of MPSS

1. Project wise Balance Vs Un-Allocated Status Report
   • This is Central warehouse Report
2. Store Ledger (Project wise)
3. This is Central warehouse Report
4. More Reports are available in MPSS Directorate

• All Report format will be attached in Roadmap

• Each REB report has Form No which need to be labeled in every report

• All Report printing will be in date range of Daily/ Monthly/Yearly basis

• Project/ REB Office wise range wise selection in major reports

1.2.5 Procurement Directorate

Business Process   **Procurement Directorate**

ORGANOGRAM
Procurement Directorate

Director – Procurement

Deputy Director, Import Div - 1

Deputy Director, Import Div - 1

Deputy Director, Local Purchase

Assistant Director, (Admin)

Assistant Director, (Admin)

Assistant Director, (Admin)

Assistant Director, (Admin)

Assistant Director, (Admin)

Assistant Director, (Admin)

Data Entry Operator

Data Entry Operator

Data Entry Operator

Data Entry Operator

• Yellow marks are vacant

Number of User of the IFMIS Software
   • **Power User : Four**
   • **Report Viewer : Three**
   • **Entry User : Three**
   • **Total: Ten**

Business Process Flow Diagram — Procurement Directorate

Process Step	Description
Received APP	Receiving Annual Procuring Plan (APP) & Bill of Materials from the Directorate of MPSS
Prepare Tender	Preparing Tender Documents as per Standard Tender Document (STD) of CPTU or customized as per their Guidelines of Public Procurement Act -2006 & PP Rules -2008
Publish Tender	Publishing Tender Notice in Newspaper, CPTU's website or e-GP
Enlist Suppliers	Enlistment of supplier as per LTM (Limited Tendering Method) according to the PPR-2008
Form Committee	Formation TOC, TSC & TEC as per PPR-2008
Tender Opening	Receiving & Opening the tenders by the Tender Opening Committee (TOC)
Presenting Tender	Presenting received Tenders & relevant Papers to the TSC & TEC for Evaluation of Tenders
Prep. & Presenting	Preparing and presenting Working Papers with TEC's recommendation to the Proper Approving Authority according to DFP, i.e Authorized officer, HOPE,BOARD
Govt. Approval	Purchase Proposal are sent to the Ministry & Cabinet Committee for Government Purchase for approval. Board approved Proposal sent to Development Partners for their concurrence

Contn. Next

Business Process Flow Diagram — Procurement Directorate

Contn. From previous

Process Step	Description
Issuing NOA	Issuing Notification of Award (NOA) in favour of successful bidder
Receiving PG	Receiving Performance Guarantee (PG) and its confirmation taken from concerned Bank
Signing Agreement	Signing of Contract Agreement between purchaser & successful bidder in stipulated time
LC or L. Com	For International Tendering, Letter of Credit (LC) opened after signing of Contract Agreement and special cases Letter of Commitment are prepared
Monitoring	Corresponding & monitoring the whole procurement activities from Tender evaluation, approval, to successfully executing the contract.
ADP Allocation	Executing the ADP allocation for goods purchase in favour of REB for each Fiscal Year (FY).
Preserving PG	Preserving Performance Guarantees for valid time span. Monitoring the validity period and take necessary action for extension of PGs if required
Releasing PG	Releasing Performance Guarantee (PG) after successfully executing the obligation of contract
Reply Audit	Preparing & presenting the reply for Audit objections against various funds

1.2.6   CS&M Directorate
   o   Central Warehouse (Savar, Khulna &Chittagong)

Business Process Flow Diagram CS& M Directorate

Prepare APP	Prepare project wise Annual Procurement Plan (APP), Estimation, selection of transport agency
Received Docs sets	Received documents from Procurement Directorate
Custom Clearance	Custom Clearance formalities by C&F agent for Imported materials
Insurance & Claim	Insurance Policy and claim activities for the imported goods
Bills Clearance	Activities related releasing of 90% Bill and 10% Bill of local material procurements
Allocation of Materials	Receive the Note of Allocation of materials from MPSS Directorate
Transportation	As per allocation of material, distribute material to different PBSs by Transport Agency
Receiving Receipt	Receiving Receipt (RR) received from Central Warehouse
Directly Delivered	Polls are directly received by PBS as per advise of MPSS & documents are received in CS&M
Directly Delivered	End of year, work for Physical Inventory valuation of different Warehouses and stores of PBS

Business Process   CS& M Directorate

Report Listing of CS&M

1. Project wise Payment Status Report
2. CS&M use Store Ledger Report of Warehouse
3. more report formats are available on request

- All Report format will be attached in Roadmap
- Each REB report has Form No which need to be label in every report
- All Report printing will be in date range of Daily/ Monthly/Yearly basis
- Project/ REB Office wise range wise selection in major reports

Business Process — Central Warehouse – Savar, Dhaka

ORGANOGRAM
Central Warehouse

```
                    ┌─────────────────┐
                    │ Deputy Director │
                    │ Central Warehouse│
                    └─────────────────┘
                             │        ┌──────────────┐
                             │        │  Assistant   │
                             │        │ Store Keeper │
                             │        └──────────────┘
                    ┌─────────────────┐
                    │  Store Keeper   │
                    └─────────────────┘
         ┌───────────┬──────────┬──────────┬───────────┐
   ┌──────────┐ ┌──────────┐ ┌──────────┐ ┌──────────┐
   │ Assistant│ │ Assistant│ │ Assistant│ │ Assistant│
   │  Store   │ │  Store   │ │  Store   │ │  Store   │
   │  Keeper  │ │  Keeper  │ │  Keeper  │ │  Keeper  │
   └──────────┘ └──────────┘ └──────────┘ └──────────┘
   ┌──────────┐ ┌──────────┐ ┌──────────┐
   │  Store   │ │  Store   │ │  Store   │
   │  Helper  │ │  Helper  │ │  Helper  │
   └──────────┘ └──────────┘ └──────────┘
```

Number of User of the IFMIS Software
- **Power User : Four**
- **Report Viewer : One**
- **Entry User : Three**
- **Total: Eight**

• Yellow marks are vacant

- Central Warehouse are in Savar, Khunla and CTG

- All Report printing will be in date range of Daily/ Monthly/Yearly basis

- Project/ REB Office wise range wise selection in major reports

Business Process Flow Diagram — Central Warehouse – Savar, Dhaka

Arriving of Material	After arriving the Materials, inform to the Inspection and Testing(IT) Division
Inspection by IT	Inspection is completed by IT Division
Issue MRR	After receiving the materials, they issue Material Receiving Report (MRR)
Send MRR	Send this MRR to MPSS, CS&M, Material Accounting, related Project office and supplier
Allocation Letter	Material Allocation letter is received from MPSS
Carrying Order Received	Carrying Order receive from CS&M Directorate and from concern Transportation Contractor
Requisition Received	Requisition given by Transport Contractor
Provide Issue Voucher & Gate Pass	If the material available (after checking in computer system) then provide Issue Voucher and Gate Pass
Physical Stock	In every June, Physical Stock taking are completed

Business Process   Central Warehouse – Savar, Dhaka

Report Listing – of Central Warehouse

- **REB Offices Report Request**
    - **Unallocated Material by MPSS**
    - **Uncarried Material by PBS Wise by CS&M**
    Almost there are 1300 items in storks and it takes huge time to compile the report in excel File
- **Item wise Issue Report (PBS or Project) with Work Order reference**
- **Project Director & MPSS**
    - **Contract, sub package wise Material Receiving Report (MRR)**
- **Issue Voucher**
- **Single Project Material Balance Report**
- **Material Procurement Status Report** (Supplier wise)
- **Material Receiving Report (MRR)**

- All Report printing will be in date range of Daily/ Monthly/Yearly basis
- Project/ REB Office wise range wise selection in major reports
- MIS Report all formulas are available

1.2.7   ICT Directorate

Business Process   ICT Directorate

ORGANOGRAM
ICT Directorate

Superintendent Engineer

Deputy Director, ICT

System Analyst

Assistant Programmer

Sub Assistant Engineer

Sub Assistant Engineer

AGM (IT)-7
JE(IT)-3
Billing Supervisor-1
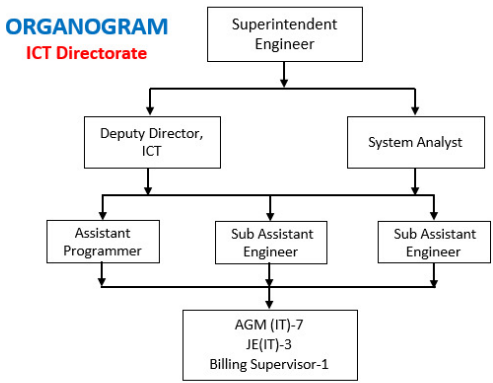
- REB Networking is used for Internet Sharing only
- Two Servers in BREB HO
- No License software are used other than few antivirus
- There 370 Billing Point of PBS

Number of User of the IFMIS Software
- **Power User : Three**
- **Report Viewer : One**
- **Entry User : Eleven**
- **Total: Fifteen**

Above data taken on 2016

BREB Offices	
Item Name	Quantity (Nos)
Server	2
Desktop Computer	355
Laptop	52
Laser Printer	160
Dot printer	0

PBS Offices	
Item Name	Quantity (Nos)
Server	319
Desktop Computer	4317
Laptop	78
Laser Printer	1147
Dot Printer	840

1.2.8   Existing Project Offices:

All project offices accounting transaction are link with Accounts Directorates and Finance Directorates. However existing list is given below:

Project List are available in BREB Office and can be obtain with the Bidding documents.

1.2.9   THE CHART OF ACCOUNTS (COA) & VOUCHER OF BREB

o   The Board approved Chart of Accounts (COA) & Voucher Format & Number series are the main heart for Books of Accounts recording and Financial Reporting purpose which are used by all offices finance and accounts section.

COA   **The Chart of Accounts (COA) of BREB & PBS**

COA is the heart of any Accounting & Finance Software as all Revenues, Expenses, Liabilities and Assets are recorded in Books of Accounts with predefine Accounts Codes wise for summarizing and reporting needs of the organization.

The Structure of BREB & PBS Chart of Accounts

General Ledger ID Code (GL)	4 digits
Subsidiary Ledger ID Code (SL)	2 digits
Cost Center ID Code (CC)	3 digits
Project ID Code (PI)	3 digits
Development Partner ID Code (DP)	2 digits
Agreement ID Code (AC)	<u>1 digits</u>
	15 digits

0000-00-000-000-00-0

COA Digits is not sufficient such in to increase in PI by one digit

The Chart of Accounts (COA) of BREB & PBS   **PROPERTY & ASSETS**

1 PROPERTY & ASSETS
2 EQUITY & LIABILITIES
4 REVENUE & INCOME
7 EXPENSE & LOSS

1 Land And Land Development
2 Structure & Improvements - Civil
3 Other Structure & Improvements - Civil
4 Office Furniture and Equipment
5 Rest House - Furniture & Equipment
6 Store, Shop & Laboratory Equipment
7 Communication Equipment
8 Training Equipment
9 Transportation Equipment

1 FIXED ASSETS / REB GENERAL PLANT
2 FIXED ASSETS/REB GENERAL PLANT (OTHERS)
3 FIXED ASSETS / REB ELECTRIC PLANT
4 BREB PRODUCTION PLANT
5 REB TRANSMISSION PLANT
6 Accumulated Provision for Depreciation (Cr)
7 CONSTRUCTION WORKS IN PROGRESS-BREB
8 CONSTRUCTION WORKS IN PROGRESS- PBS
9 RETIREMENT WORK IN PROGRESS-BREB

2 FIXED ASSETS
3 PROPERTY & INVESTMENTS
4 GENERAL FUNDS/ BANKS
5 PLANT MATERIALS AND SUPPLIES
6 ACCOUNT RECEIVABLES
7 OTHER CURRENT & ACCRUED ASSETS
8 DEFERRED DEBITS
9 CONTINGENT ASSETS

REB Offices
REB Offices- System Operation
REB Offices- Superintendent Engineer
REB Offices- XEN/ Dy. Director
REB Offices- Stores
Palli Bidyut Samity

0000- 00 - 000 – 000 – 00 - 0

Agreement ID Code

Development Partner ID Code

Sub-Ledger ID Code

Cost Center ID Code

Project Identifier

The Chart of Accounts (COA) of BREB & PBS   REVENUE & INCOME

1 PROPERTY & ASSETS
2 EQUITY & LIABILITIES
4 REVENUE & INCOME
7 EXPENSE & LOSS

1 Interest on Loan to PBS
2 INTEREST ON LOAN TO OTHERS
3 Dividend

1 Interest on Loan to RPCL

4121-00-000-000-00-0

1 OPERATING REVENUE
2 OTHER OPERATING REVENUE
3 NON-OPERATING REVENUE

0000-00-000-000-00-0

Agreement ID Code

REB Offices
REB Offices- System Operation
REB Offices- Superintendent Engineer
REB Offices- XEN/ Dy. Director
REB Offices- Stores
Palli Bidyut Samity

Sub-Ledger ID Code

Development Partner ID Code

Cost Center ID Code

Project Identifier

Details Chart of Accounts (COA) are available in Hard copy, Excel for study and updating in IFMIS software

Voucher Format of BREB & PBS

1 -500	Supplier
501-1000	Internal – TA/DA-Revenue
1001-1500	Internal –TA/DA- Project
1501-2000	External – Contractor
2001-2500	Benefit

Format of Voucher

Formatted with month name at the beginning and Voucher No and at the end a Year Suffix. Example : 08/505/2016

Attachement 2. Site Drawings and Site Survey Information

Attachment 3. Sample Reports, Data Entry Forms, Data, Coding Schemes, Etc.

Attachement 4. Relevant Legal Codes, Regulations, Etc.

Attachement 5. Available Training Facilities

Attachement 6. The Purchaser's Project and Corporate Management Structure

SECTION VII. SAMPLE FORMS

Notes to the Purchaser on preparing the Sample Forms

The Sample Forms provided in these SBD provide standard formats for a number of the key documents that the Purchaser and Bidders will exchange in the process of bidding, awarding, and implementing the Contract. Most of the Sample Forms are to be completed and/or modified by the Purchaser to suit the particular System being procured and included in the Bidding Document before they are released to potential Bidders, or to the winning Bidder, as the case may be. In turn, the Bidders or winning Bidder must complete other forms and submit them to the Purchaser. Notes providing instructions for the Purchaser, the Bidders, and the winning Bidder have been provided. To avoid confusion, the Purchaser should remove all the instructions to the Purchaser from the final version of the Bidding Document that is released to potential Bidders.

To the fullest extent possible, the typographical aides used in the previous sections of the SBD continue in this section. General explanatory text that appears in sans serif typeface (such as this text) remains intended for the Purchaser (hence should be removed from the final version of the Bidding Document). General instructions or explanatory text aimed at Bidders and/or the winning Bidder appear in standard roman typeface, but indicators are included showing they are aimed at Bidders. Instructions that appear directly in the Forms, continue to be in italicized roman typeface, set off with square brackets and generally intended for the Bidders or the winning Bidder. If an instruction is meant for the Purchaser, it is identified as such. Purchasers are encouraged to provide as many of these Sample Forms as possible in revisable, electronic format in or with the Bidding Document. This will expedite bid preparation, reduce the number of inadvertent mistakes made by Bidders, and, as a result, simplify the evaluation.

Bid Submission Form and Contract Agreement: Except as indicated by blanks and/or instructions to fill in information, the text of the Bid Submission Form and the Contract Agreement should be left unaltered in the Bidding Document from how it appears in these SBDs. At the time of Contract award, the Purchaser has an opportunity to add the final details needed in the Contract Agreement form, by making any necessary insertions or changes to Article 1.1 (Contract Documents) and Article 3 (Effective Date) and listing only the actual Appendices that will be incorporated in the final Contract. (These Appendices should also be completed in accordance with the instructions provided at the beginning of each Appendix.)

Since the Price Schedules will form part of the final Contract, if there have been any corrections or modifications to the winning bid resulting from price corrections, pursuant to the Instructions to Bidders, these too should be reflected in the Price Schedules at the time of Contract award and appended to the Contract Agreement in Appendix 6 (Revised Price Schedules).

Price Schedules: The price breakdown given in the sample Price Schedules generally follows the usual breakdown requested for Information Technology procurement, except that further breakdowns are required (e.g., between Technologies/Goods and Services, and between Technologies and other Goods supplied domestically or from

abroad) in order for the domestic preference procedure to be applied (except if the procurement falls under the 2004 Guidelines, in which case domestic preference does not apply in this SBD). It is essential that Bidders submit their prices in the manner prescribed by the Price Schedules. Failure to do so may result in loss of the preference, if applicable.

For the more straightforward or well specified Systems that are covered by the single-stage bidding process, the Purchaser is encouraged to fill in the precise System, Subsystem, component, and item/description details in the Price Schedules prior to issuance of the Bidding Document. This will result in bid pricing that is more uniform, making the comparison of bid prices more efficient and reducing the number of ambiguities that require clarification. If Bidders are left to fill in item/description details (which may be necessary for complex Systems when such details cannot be easily identified in advance by the Purchaser), the commercial evaluation becomes more difficult. Other guidance and instructions appear in the subsection containing the schedules and in the schedules themselves.

Manufacturer's Authorizations and agreements by key subcontractors: In accordance with ITB Clauses 6.1 (b) and (c), Bidders may be required to submit, as part of their bids, Manufacturer's Authorizations and written agreements by Subcontractors proposed for key services. For the Manufacturer's Authorization, the format provided in the SBD should be used. There is no particular format 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 major goods and/or services that the Bidder proposes to subcontract. The list should also include the names and place 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), a Bidder must submit, as part of its bid, a list of all the Software it will provide, assigning each item to one of the following categories: (A) System, General-Purpose, or Application Software; or (B) Standard or Custom Software. The Bidder must also submit a list of all Custom Materials. These should be recorded in the sample List of Software and Materials Table included in the Bidding Document. If provided for in the Bid Data Sheet, the Purchaser may reserve the right to assign key System Software items to a particular category.

Bidder Qualification forms: As required by ITB Clause 6.1.

Forms for securing the bid: If the BDS for ITB Clause 17 (ITB Clause 29 in the two-stage SBD) requires that bids be secured, the Purchaser should include the related form(s) in the Bidding Document, as provided in this Section of the SBD. Depending on what type of security the BDS requires, one form (Bid-Securing Declaration), two forms (Bank Guarantee and Bid Bond), or all three forms, should be included. If the Purchaser wishes to use another form, it must obtain the World Bank's prior no-objection. Some of the variable fields (such as the duration of sanctions in case of the Bid-Securing Declaration) need to be pre-filled by the Purchaser.

Performance Security: Pursuant to GCC Clause 13.3, the successful Bidder is required to provide the Performance Security within twenty-eight (28) days of notification of Contract award.

Advance Payment Security: Pursuant to GCC Clause 13.2, the successful Bidder is required to provide a bank guarantee securing the Advance Payment, if the SCC related to GCC Clause 12.1 provides for an Advance Payment.

Installation and Operational Acceptance Certificates: Recommended formats for these certificates are included in these SBD. Unless the Purchaser has good reason to require procedures that differ from those recommended, or to require different wording in the certificates, the procedures and forms shall be included unchanged. If the Purchaser wishes to amend the recommended procedures and/or certificates, it may propose alternatives for the approval of the World Bank before release of the Bidding Document to potential Bidders.

Change Order Procedures and Forms: Similar to the Installation and Operational Acceptance Certificates, the Change Estimate Proposal, Estimate Acceptance, Change Proposal, Change Order, and related Forms should be included in the Bidding Document unaltered. If the Purchaser wishes to amend the recommended procedures and/or certificates, it may propose alternatives for the approval of the World Bank before release of the Bidding Document.

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 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 supply, install, achieve Operational Acceptance of, and support the Information System under the above-named Contract in full conformity with the said Bidding Documents for the sum of:

*[insert: **amount of local currency in words**]*   *([insert: **amount of local currency 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 of Agent	Amount and Currency	Purpose of 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 .... Subcontractor agreements..		
Attachment 3..		
Attachment 4..		
Attachment 5..		
Attachment 6..		
....		

2. PRICE SCHEDULE FORMS

Note: in information systems procurement, the Contract Price (and payment schedule) should be linked as much as possible to achievement of operational capabilities, not just to the physical delivery of technology.

2.1 Preamble

Note: Purchasers should highlight any special requirements of the System and Contract in a Preamble to the Price Schedules. The following is an example of one such preamble.

General

1. The Price Schedules are divided into separate Schedules as follows:

    2.2 Grand Summary Cost Table

    2.3 Supply and Installation Cost Summary Table

    2.4 Recurrent Cost Summary Table

    2.5 Supply and Installation Cost Sub-Table(s)

    2.6 Recurrent Cost Sub-Tables(s)

    2.7 Country of Origin Code Table

    *[insert: **any other Schedules as appropriate**]*

2. The Schedules do not generally give a full description of the information technologies 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.

3. 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

4. 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.

5. Bid prices shall be quoted in the manner indicated and in the currencies specified in ITB Clauses 14 and 15 (ITB Clauses 27 and 28 in the two-stage SBD). Prices must correspond to items of the scope and quality defined in the Technical Requirements or elsewhere in these Bidding Documents.

6. 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 (ITB Clause 38.2 in the two-stage SBD).

7. Payments will be made to the Supplier in the currency or currencies indicated under each respective item. As specified in ITB Clause 15.1 (ITB Clause 28.1 in the two-stage SBD). The price of an item should be unique regardless of installation site.

2.2   Grand Summary Cost Table

		*[insert: **Local Currency in BDT**]* Price
1.	Supply and Installation Costs (from Supply and Installation Cost Summary Table)	
2.	Recurrent Costs (from Recurrent Cost Summary Table)	
3.	Grand Totals (to Bid Submission Form)	

Name of Bidder:		
Authorized Signature of Bidder:		

2.3   Supply and Installation Cost Summary Table

System or Subsystem number: *[if a multi-lot procurement, insert:* **Subsystem number;** *otherwise state* **"entire System   procurement"** *][as necessary for supply, installation, and achieving Operational Acceptance of the System, specify items in the Table below, modifying, deleting, or expanding the sample line items and sample table entries as needed.]*

Costs MUST reflect prices and rates quoted in accordance with ITB Clauses 14 and 15 (ITB Clauses 27 and 28 in the two-stage SBD).

		Supply & Installation Prices	
			Locally supplied items
Line Item No.	**Subsystem / Item**	**Supply and Installation Cost Sub-Table No.**	*[Local Currency in BDT]* Price
0	Project Plan	- -	- -
1	Software	1.1	
1.1	Customized "Integrated Financial Management Information System (IFMIS) software	1.1	
2	Project plan & Implementation	1.1	
3	Computer Hardware	1.1	
3.1	Computer Hardware & System Software	1.1	
4.0	Others Associated Components	1.1	
5.0	Training	1.1	
6.0	Support	1.1	

Line Item No.	Subsystem / Item	Supply and Installation Cost Sub-Table No.	Supply & Installation Prices
			Locally supplied items
			[Local Currency in BDT] Price
6.1	Project Office & Facility *	1.1	
SUBTOTALS			
TOTAL (To Grand Summary Table)			

Note: - - indicates not applicable. "indicates repetition of table entry above. Refer to the relevant Supply and Installation Cost Sub-Table for the specific components that constitute each Subsystem or line item in this summary table

* All the relevant cost for project office, office furniture, office equipment, communication (phone, fax), data connectivity, transportation, training facilities etc. will be the responsibility of the suppliers (according to the GCC 9.9).

Name of Bidder:	
Authorized Signature of Bidder:	

2.4   Recurrent Cost Summary Table

System or Subsystem number: *[if a multi-lot procurement, insert: **Subsystem number**, otherwise state **"entire System procurement"**][as necessary for the operation of the System, specify items in the Table below, modifying the sample line items and sample table entries as needed.]*

Costs MUST reflect prices and rates quoted in accordance with ITB Clauses 14 and 15 (ITB Clauses 27 and 28 in the two-stage SBD).

Line Item No.	Subsystem / Item	Recurrent Cost Sub-Table No.	*[insert:* **Local Currency** *]* Price
z	Recurrent Cost Items		
z.1	Recurrent Cost Items	n.1	
z.2	Recurrent Cost Items	n.2	
	Subtotals (to Grand Summary Table)		

Note: Refer to the relevant Recurrent Cost Sub-Tables for the specific components that constitute the Subsystem or line item in this summary table.

Name of Bidder:	
Authorized Signature of Bidder:	

2.5   Supply and Installation Cost Sub-Table*[1.1]*

System or Subsystem number: *[if a multi-lot procurement, insert: Subsystem number; otherwise state "entire System procurement"]*

Line item number: *[specify: relevant line item number from the Supply and Installation Cost Summary Table (e.g., 1.1)]*

[as necessary for supply, installation, and achieving Operational Acceptance of the System, specify: the detailed components and quantities in the Sub-Table below for the line item specified above, modifying the sample components and sample table entries as needed. Repeat the Sub-Table as needed to cover each and every line item in the Supply and Installation Cost Summary Table that requires elaboration.]

Prices, rates, and subtotals MUST be quoted in accordance with ITB Clauses 14 and 15 (ITB Clauses 27 and 28 in the two-stage SBD). Unit prices for the same item appearing several times in the table must be identical in amount and currency.

Compo-nent No.	Component Description	Country of Origin CODE	Quantity	Unit Prices / Rates [insert: local currency in BDT]	Total Prices [insert: local currency in BDT]
1.0	Design, Supply, Installation, configuration of Customized "Integrated Financial Management Information System (IFMIS) software Modules: • General Ledger • Material Management • Benefit Management with Employee Pay		1 Lot		
2.0	Project plan & Implementation, Customization including interfacing and opening Balance data entry		1 Lot		
3.0	**IT INFRASTRUCTURE**	--	--	--	--
3.1	NOC Furniture& Equipment		As per spec		
3.2	*Civil Work*		As per spec		
3.3	*Cable Trays*		As per spec		
3.4	Industrial Socket		4Nos		
3.5	Electrical Enclosure And Sld Items		As per spec		

Compo-nent No.	Component Description	Country of Origin CODE	Quantity	Unit Prices / Rates [insert: local currency in BDT]	Total Prices [insert: local currency in BDT]
3.6	Electrical cables and others		As per spec		
3.7	DEHUMIDIFIER		1Nos		
3.8	10 KV Online UPS		2Nos		
3.9	Access Control System		2Nos		
3.10	Environment Monitoring System (EMS)		As per spec		
3.11	Automatic Fire Suppression System (AFSS)		1 Lot		
3.12	Air Condition – Ceiling		2Nos		
3.13	Air Condition – Split		3 Nos		
3.14	IP Camera and NVR as per spec		8Nos		
3.15	IT Infrastructure Project Coordination, Management & Site installation Services		As per spec		
3.16	Copper & Fiber Solution		As per spec		
3.17	42u Rack , iPDU, KVM Sw and LED/LCD Monitor		2 Set		
3.18	Network Access Switch (16) & Core Switch (2) for Buildings &Server Switch (2) for DC and related accessories		20 Nos		
3.19	Next Generation Firewall (NGFW) With IPS for DC		2 Nos		
3.20	Server Type-1 for DC with License for OS& VMWARE vSphereEnterprise		1Nos		
3.21	Server Type-2 for DC with License for OS and VMWARE vSphereEnterprise &vCenter		1Nos		
3.22	San Storage- all Flash		1Nos		
3.23	San Switch for DC		2Nos		
3.24	~~Tape Library with backup software For Dc~~		~~1Nos~~		
3.25	Disk Base Backup Server or Appliance&related Software For DC		1Nos		
3.26	Oracle DATABASE Software Licensefor 3 years		25 NUP		
4.0	**Others Associated Components**	--	--	--	
4.1	Desktop Computer		19Nos		
4.2	Laptop Computer		2Nos		

Compo-nent No.	Component Description	Country of Origin CODE	Quantity	Unit Prices / Rates [insert: local currency in BDT]	Total Prices [insert: local currency in BDT]
4.3	Multimedia Projector		1Nos		
4.4	50" Inches 4K UHD LED TVs		3 Nos		
4.5	24 port Access Switch for Remote offices		5 Nos		
4.6	Auto Plug-in zero configuration VPN Routersfor Remote offices		5 Nos		
5.0	**Training**	--	--	--	--
5.1	Local- Training-1 (IT)30 hours for 25 persons		5 Days		
5.2	Local- Training-2 (IFMIS) 30 hours for 68persons		5 Days		
5.3	Foreign Training-3 (IT)30 hours for 6 persons		5 Days		
5.4	Foreign Training-4 (DBMS)30 hours for 6 persons		5 Days		
5.5	Foreign Training-5 (CM)30 hours for 6 persons		5 Days		
6.0	**Support**				
6.1	Project Office & Facility *				

Note: - - indicates not applicable.

Name of Bidder:	
Authorized Signature of Bidder:	

2.6   Recurrent Cost Sub-Table*[insert: identifying number]*

Lot number: *[if a multi-lot procurement, insert: **lot number,** otherwise state **"single lot procurement"**]*

Line item number**:** *[specify: **relevant line item number from the Recurrent Cost Summary Table (e.g., z.1)**]*

Currency: *[specify: **the currency of the Recurrent Costs in which the costs expressed in this Sub-Table are expressed**]*

*[as necessary for operation of the System, specify: **the detailed components and quantities in the Sub-Table below for the line item specified above, modifying the sample components and sample table entries as needed.** Repeat the Sub-Table as needed to cover each and every line item in the Recurrent Cost Summary Table that requires elaboration.]*

Costs MUST reflect prices and rates quoted in accordance with ITB Clauses 14 and 15 (ITB Clauses 27 and 28 in the two-stage SBD). Unit prices for the same item appearing several times in the table must be identical in amount and currency.

Component No.	Component	Maximum all-inclusive costs (for costs in *[insert: **currency**]*)						
		Y1	Y2	Y3	Y4	...	Yn	Sub-total for *[insert: **currency]***
1.	All Hardware (Servers, Storages, tape backup system etc.), Network equipment's (Router, Firewall, Core switch, Fabric switch etc.), Desktop, Laptop, Projector, Scanner etc. and active& passive part of DR site Maintenance	Incl. in Warranty	Incl. in Warranty	Incl. in Warranty				
2.	Software Licenses & Updates	Incl. in Warranty	Incl. in Warranty	Incl. in Warranty				
3	Customized IFMIS software	Incl. in Warranty	Incl. in Warranty	Incl. in Warranty				
4	Other Application, Standard, Custom and 3rd party Software	Incl. in Warranty	Incl. in Warranty	Incl. in Warranty				

Component No.	Component	Maximum all-inclusive costs (for costs in *[insert: currency]*)						Sub-total for *[insert: currency]*
		Y1	Y2	Y3	Y4	...	Yn	
5	Database Software/RDBMS	Incl. in Warranty	Incl. in Warranty	Incl. in Warranty				
6	System Security Software (Anti-virus etc.)							
7	Support Services							
8	2.8.4.1 System Analyst (1 person) 2							
9	2.8.4.2 Database Expert(1 person)							
10	2.8.4.3 Programming Expert (2 persons):							
12	.8.4.4 System Administration / Security Expert(1 person):							
14	2.8.4.5 Application Layer Technical Support (2 persons):							
	Annual Subtotals:							- -
Cumulative Subtotal (to *[insert: currency*] entry for *[insert: line item]* in the Recurrent Cost Summary Table)								

Name of Bidder:		
Authorized Signature of Bidder:		

2.7   Country of Origin Code Table

Country of Origin	Country Code		Country of Origin	Country Code		Country of Origin	Country Code

3. OTHER BID FORMS AND LISTS

3.1   Manufacturer's Authorization

Invitation for Bids Title and No.:
[If applicable:] Lot, Slice, Subsystem No(s).:

To: _____

WHEREAS _____ who   are   official   producers   of
_____ and   having   production   facilities   at
_____ do   hereby   authorize
_____ located   at
_____ (hereinafter, the "Bidder") to submit a bid
and subsequently negotiate and sign a Contract with you for resale of the following Products produced by us:

                                                                                                      .

We hereby confirm that, in case the bidding results in a Contract between you and the Bidder, the above-listed
products will come with our full standard warranty.

Name   In the capacity of

Signed

Duly authorized to sign the authorization 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.

3.2   List of Proposed Subcontractors

	Item	Proposed Subcontractor	Place of Registration & Qualifications

3.3   Software List

Software Item	(select one per item)			(select one per 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

Nationality 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

Name of Bidder or partner of a Joint Venture

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 turnover data (applicable activities only)	
Year[1]	Turnover
1.	
2.	
3.	
4.	
5.	
[1] Commencing 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:

Annual turnover data:						
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 Currency	
7.	Amount 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 _____ under/over original contract amount (if over, provide explanation).	
11.	Special contractual/technical requirements.	
12.	Indicate the approximate percent of total contract value 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	Estimated completion date	Average monthly invoicing over last six months
1.				
2.				
3.				
4.				
5.				
etc.				

3.5.5 Financial Capabilities

Name of Bidder or partner 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 BDT for the previous five calendar years. Based upon known commitments, summarize projected assets and liabilities 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 information in BDT	Actual: Previous five years					Projected: Next two 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
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~~/One 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

3.5.6aCandidate Summary

Name of Bidder

Position		Candidate
		Prime Alternate
Candidate information	Name of candidate	Date of birth
	Professional qualifications	
Present employment	Name of Employer	
	Address of Employer	
	Telephone	Contact (manager / personnel officer)
	Fax	Telex
	Job title of candidate	Years with present Employer

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

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

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)

4. BID-SECURING DECLARATION

IFB: *[insert: **title and number of IFB**]*

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

We, the undersigned, declare that:

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

We accept that we, and in the case of a Joint Venture all partners to it, will automatically be suspended from being eligible for participating in bidding for any contract with you for the period of time of *[Purchaser insert: **number of months or years**]*, in case of, and starting from the date of, breaching our obligation(s) under the bidding conditions due to:

(a)   withdrawing our bid, or any part of our bid, during the period of bid validity specified in the Bid Submission Form or any extension of the period of bid validity which we subsequently agreed to; or

(b)   having been notified of the acceptance of our bid by you during the period of bid validity, (i) failing or refusing to execute the Contract Agreement, or (ii) failing or refusing to furnish the performance security, if required, in accordance with the Instructions to Bidders.

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

If the submission of alternative bids was permitted, and in case we did submit one or more alternative bids, this Bid-Securing Declaration applies to these parts of our bid as well.

Signed: *[insert: **signature of person whose name and capacity are shown below**]*

Name: *[insert: **name of person signing the Bid-Securing Declaration**]*, in the capacity of *[insert: **legal capacity of person signing the Bid-Securing Declaration**]*

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

Dated on _____ day of _____, 20__

[add Corporate Seal (where appropriate)]

[Note to Bidders: Joint Ventures need to ensure that, their Bid-Securing Declaration meets the requirements for Joint Ventures as stated in the ITB Clause on "Securing the Bid".]

4A. 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.]

4B. BID SECURITY (BID BOND)

BOND NO.: _____

BY THIS BOND, *[insert: **name of Bidder**]* as Principal (hereinafter called "the Principal"), and *[insert: **name, legal title, and address of surety**]*, authorized to transact business in*[insert: **name of Purchaser's country**]*, as Surety (hereinafter called "the Surety"), are held and firmly bound unto *[insert **name of Purchaser**]* as Obligee (hereinafter called "the Purchaser") in the sum of *[insert **amount of Bond in currency, figures and words**]*, for the payment of which sum, well and truly to be made, we, the said Principal and Surety, bind ourselves, our successors and assigns, jointly and severally, firmly by these presents.

WHEREAS the Principal has submitted a written bid to the Purchaser dated the ___ day of _____, 20__, for the execution of *[insert: **name of contract**]* (hereinafter called "the Bid"). If the Principal was permitted by the bidding conditions to submit alternative bid(s) and did so, then these are deemed part of the Bid and thus covered by this Bond.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Principal:

(a) withdraws the Bid (or any parts of it) during the period of the Bid's validity specified in the Bid Submission Form, or any extension of the period of the Bid's validity the Principal subsequently agreed to, notice of which to the Surety is hereby waived; or

(b) having been notified of the acceptance of the Bid by the Purchaser during the period of the Bid's validity, (i) fails or refuses to execute the Contract Agreement, or (ii) fails or refuses to furnish the performance security, if required, in accordance with the Instructions to Bidders;

then the Surety undertakes to immediately pay to the Purchaser up to the above amount upon receipt of the Purchaser's first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser shall state that the demand arises from the occurrence of any of the above events, specifying which event(s) has/have occurred.

The Surety hereby agrees that its obligation will remain in full force and effect up to and including the date 28 days after the date of expiration of the Bid's validity.

IN TESTIMONY WHEREOF, the Principal and the Surety have caused these presents to be executed in their respective names this ____ day of _____ 20__.

Principal: _____   Surety: _____

[add Corporate Seal(s) (where appropriate)]

_____   _____

[Signature]   *[Signature]*

_____   _____

*[state: **printed name and title**]*   *[state: **printed name and title**]*

[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 Bid Bond 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.

  Contract Documents

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

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.

Article 2.

Contract Price and Terms of Payment

2.1   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 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.

Article 3.

Effective Date for Determining Time for Operational Acceptance

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, 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.

Appendixes

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

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

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

and

[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.

Software Item	(select one per item)			(select one per 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)**[1] **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)**[1] **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,[2] 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)]

_____

[1]   *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 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 Form (Bank Guarantee)

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

Beneficiary:_[insert: Name and Address of Purchaser]_

Date:_[insert: date]_

ADVANCE PAYMENT GUARANTEE No.:_[insert: Advance Payment 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, an advance payment in the sum of _[insert: amount in numbers and words, for currency of the advance payment]_is to be made to the Supplier against an advance payment guarantee.

At the request of the Supplier, we hereby irrevocably undertake to pay you any sum or sums not exceeding in total the amount of the advance payment referred to above, upon receipt by us of your first demand in writing declaring that the Supplier is in breach of its obligations under the Contract because the Supplier used the advance payment for purposes other than toward the proper execution of the Contract.

It is a condition for any claim and payment to be made under this guarantee that the advance payment referred to above must have been received by the Supplier on its account _[insert: numberand domicile of the account]_.

For each payment after the advance payment, which you will make to the Supplier under this Contract, the maximum amount of this guarantee shall be reduced by the ninth part of such payment.[1] At the time at which the amount guaranteed becomes nil, this guarantee shall become null and void, whether the original is returned to us or not.

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

_____
[Signature(s)]

---

[1] _This sample formulation assumes an Advance Payment of 10% of the Contract Price excluding Recurrent Costs, and implementation of the main option proposed by this SBD in the SCC for GCC Clause 13.2.2 for gradually reducing the value of the Advance Payment Security. If the Advance Payment is other than 10%, or if the reduction in amount of the security follows a different approach, this paragraph would need to be adjusted and edited accordingly._

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 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]***

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**]*

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:

        We hereby propose that the below-mentioned work be treated as a Change to the System.

1.   Title of Change: *[insert: **name**]*

2.   Application for Change Proposal No./Rev.: *[insert: **number / revision**]*dated: *[insert: **date**]*

3.   Brief Description of Change: *[insert: **description**]*

4.   Reasons for Change: *[insert: **description**]*

5.   Order of Magnitude Estimation: *[insert: **amount in currencies of the Contract**]*

6.   Schedule Impact of Change: *[insert: **description**]*

7.   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**]*