

BIDDING DOCUMENT

**Procurement of GOODS &
SERVICES**

**FOR AMI INTER-OPERABILITY
LAB**

Supply and Installation

IESCO/PMU/ Goods & Services/ NCB 272/2025

(Single Stage Two Envelop E-Bidding Procedure)

(National Competitive Bidding)



**ISLAMABAD ELECTRIC SUPPLY
COMPANY**

December, 2025



BIDDING DOCUMENT FOR PROCUREMENT OF

Tender No.

IESCO/PMU/ Goods & Services / NCB-272

*Under IESCO own Resources ADB-IESCO AMI Project Counterpart funding
Budget 2025-26*

**Single Stage-Two Envelope
(SSTE) E-Bidding Procedure**

**Chief Engineer (Development) IESCO
Project Management Unit
Islamabad Electric Supply Company
Street No. 40 Sector G-7/4 IESCO H/Q
ISLAMABAD**

December, 2025

Issue No. _____ Date _____ NCB- _____ /2025-26

Name of Firm: _____

**Chief Engineer (Development)
Project Management Unit
IESCO Islamabad**

PREFACE

Public Procurement is carried out in Pakistan in accordance with the provisions laid down in Public Procurement Regulatory Framework consisted of Public Procurement Ordinance- 2002; Public Procurement Rules-2004 and allied Regulations, Regulatory Guides and Guidelines.

National Standard Bidding/Procurement Documents are developed by PPRA for standardizing the procurement procedures and practices in the procuring agencies of the Federation of Pakistan and has the status of the Regulations in terms of section 27 of the PPRA Ordinance read with Rule-23(4) of Public Procurement Rules.

As EPC Bidding Document is not developed yet, the same has been prepared in the light of PPRA guide lines & ADB Standard EPC Bidding document. IESCO being a public organization under federation is bound to adhere to PPRA rules.

Bidding Documents for Procurement of Goods & Services

PART-A - BIDDING PROCEDURE & REQUIREMENTS

Section I - Invitation to Bids

Section II- Instructions to Bidders (ITB)

This Section provides information to help Bidders prepare their Bids. Information is also provided on the submission, opening, and evaluation of Bids and on the award of Contracts. *This Section contains provisions that are to be used without modifications.*

Section III- Bid Data Sheet (BDS)

This Section includes provisions specific to procurement and to supplement Section-II, Instructions to Bidders. This section may be customized where option is available, in accordance with the requirements of the Procuring Agency.

Appendix-A Qualification and Evaluation Criteria.

Section IV - Eligible Countries

This Section contains information regarding eligible countries.

Section V - Technical Specifications, Schedule of Requirements

This Section includes the details of specifications for the goods to be procured and schedule of requirements.

Section VI - Standard Forms

This Section includes the standard forms for the Bid Submission, Price Schedules, and Bid Security etc. These forms are to be completed and submitted by the Bidder as part of its Bid.

PART-B - CONDITIONS OF CONTRACT AND CONTRACT FORMS

Section VII - General Conditions of Contract (GCC)

This Section includes the general clauses to be applied in all the contracts. *This Section contains provisions that are to be used without modifications.*

Section VIII - Special Conditions of Contract (SCC)

This Section consists of Contract Data and Specific Provisions which contains clauses specific to this contract. This section may be customized where option is available, in accordance with the requirements of the Procuring Agency.

Section IX - Contract Forms

This Section contains forms which, once completed, will become part of the Contract. The forms for **Performance Security** will be submitted by the successful bidder to whom Letter of Acceptance is issued, before the award of contract.

Integrity Pact

The successful bidder shall be required to furnish Integrity Pact as per the attached format.

Additional - IESCO's Mechanism for Blacklisting of Contractors / Consultants / Manufacturers

PART-A
BIDDING PROCEDURE & REQUIREMENTS

SECTION-I
INVITATION TO BIDS



Invitation for Bids (IFB)

1. IESCO PMU invites e-Bids from the firms / manufacturers who are registered with PPRA EPADS, under National Competitive Bidding (NCB) using Single Stage Two Envelope E-Bidding Method in accordance with the provision of PPRA Rules.
2. IESCO PMU has reserved the funds for the procurement planned during the financial year 2025-26. It is intended that part of the proceeds of the funds will be used to cover eligible payment under the contract for Procurement of Goods & Services for AMI Interoperability Lab.

Eligibility

The invitation for Bids is open to all bidders meeting the following requirements:

- a) Registration with PPRA, including the use of EPADS.
- b) Bidder or its manufacturer or JV (any partner) shall have successfully completed at least One (01) number of contract of same nature/type. "Same nature/type" means supply & installation of electrical equipment & gauges, building material, wiring etc at any lab having comparable characteristics/ features such as moisture controlled and quantum.

Terms & Conditions

3. National Competitive Bidding (NCB) will be conducted in accordance with **Single Stage Two Envelope E-bidding method**.
4. A complete set of Bidding Document contain detailed instructions/terms & conditions and specifications, are available for registered bidders on EPADS at (<http://www.eprocure.gov.pk>).
5. The e-bids have partial and incomplete documents shall be rejected.
6. The prospective bidder shall submit Bid security in an acceptable form mentioned in ITB in the amount fixed in **PKR 2,500,000/-** valid for 28 days beyond bid validity period in favor of Chief Engineer (Development), Islamabad. This must be before the bid closing time, failing which the e-bid shall be considered non-responsive liable to rejection. The bid shall be valid for a period of **90 days**.
7. All the interested Bidders are directed to apply through E-Pak Acquisition & Disposal System (E-PADS) portal online (www.eprocure.gov.pk) as per procedures laid down in the regulations of PPRA.
8. The bids will be received till **05.01.2026 up to 11:00 Hrs** and technical bids will be opened on **05.01.2026 at 11:30 Hrs** in the presence of participants or their authorized representatives (bearing authority letters) at time mentioned above on the same date in the office of Chief Engineer (Development), IESCO, Islamabad. Price proposal will be opened on EPADS of the bidders (s) who are declared technically responsive bidder (s).
9. Conditional e-bids shall not be accepted.
10. Pre-Bid meeting will be held at Chief Engineer (Development) IESCO Office, Head Office, Street No. 40, Sector G-7/4 Islamabad on **22.12.2025 at 1100 Hrs**.
11. In case of holiday announced by the Govt. of Pakistan, strike in IESCO or any other reasons whatsoever due to which this office remains closed on the above schedule tender opening date, the tender will be opened on next working day at the same time and place/venue.
12. IESCO reserves the rights to accept or reject all the e-bids as per PPRA rule 33(1).
13. This tender notice is also available at IESCO website www.iesco.com.pk and PPRA website www.ppra.org.pk

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CONTENTS

PREFACE.....	3
PART-A.....	6
BIDDING PROCEDURE & REQUIREMENTS.....	6
SECTION-I.....	6
INVITATION TO BIDS	6
SECTION-II	9
INSTRUCTION TO BIDDERS (ITBs).....	9
SECTION-III BID DATA SHEET Bid Data Sheet (BDS)	53
1. Evaluation Criteria.....	65
Section-IV Eligible Countries.....	79
SECTION-V	80
SCHEDULE OF REQUIREMENTS, TECHNICAL SPECIFICATIONS	80
SECTION-VI.....	115
STANDARD FORMS	115
List of Forms	116
SECTION-VII	293
GENERAL CONDITIONS OF THE CONTRACT	293
APPENDIX A.....	352
General Conditions of Dispute Board Agreement.....	352
SPECIAL CONDITIONS OF THE CONTRACT (SCC).....	359
SECTION-VIII.....	359
SECTION-IX	368
CONTRACT FORMS.....	368
Mechanism for Blacklisting Of Contractors / Consultants / Manufacturers	266

SECTION-II
INSTRUCTION TO BIDDERS (ITBs)

A. INTRODUCTION

1. Scope of Bid	1.1	The Procuring Agency (PA), as indicated in the Bid Data Sheet (BDS) invites Bids for procurement of goods and services as specified in specified in the BDS and Section V - Technical Specifications & Schedule of Requirements . The successful Bidders will be expected to deliver the goods and related services within the specified period and timeline(s) as stated in the BDS .
2. Source of Funds	2.1	Source of funds is referred in Clause-2 of Invitation for Bids.
3. Eligible Bidders	3.1	A Bidder may be natural person, company or firm or public or semi-public agency of Pakistan or any foreign country, or any combination of them with a formal existing agreement (on Judicial Papers) in the form of a joint venture, consortium, or association. In the case of a joint venture, consortium, or association, all members shall be jointly and severally liable for the execution of the Contract in accordance with the terms and conditions of the Contract. The joint venture, consortium, or association shall nominate a Lead Member as nominated in the BDS, who shall have the authority to conduct business for and on behalf of any and all the members of the joint venture, consortium, or association during the Bidding process, and in case of award of contract, during the execution of contract. <i>(The limit on the number of members of JV or Consortium or Association is prescribed in BDS, in accordance with the guidelines issued by the PPRA).</i>
	3.2	The appointment of Lead Member in the joint venture, consortium, or association shall be confirmed by submission of a valid Power of Attorney to the Procuring Agency.
	3.3	Verifiable copy of the agreement that forms a joint venture, consortium or association shall be required to be submitted as part of the Bid.
	3.4	Any bid submitted by the joint venture, consortium or association shall indicate the part of proposed contract to be performed by each party and each party shall be evaluated (or post qualified if required) with respect to

		its contribution only, and the responsibilities of each party shall not be substantially altered without prior written approval of the Procuring Agency and in line with any instructions issued by the Authority.
	3.5	The invitation for Bids is open to all prospective bidder, supplier and manufacturers subject to any provisions of incorporation or licensing by the respective national incorporating agency or statutory body established for that particular trade or business.
	3.6 .	Foreign Bidders must be locally registered with the appropriate national incorporating body or the statutory body, before participating in the national/international competitive tendering with the exception of such procurements made by the foreign missions of Pakistan. For such purpose the bidder must have to initiate the registration process before the bid submission and the necessary evidence shall be submitted to the procuring agency along with their bid, however, the final award will be subject to the complete registration process.
	3.7	A Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidder(s) may be considered to have a conflict of interest with one or more parties in this Bidding process, if they: a) are associated or have been associated in the past, directly or indirectly with a firm or any of its affiliates which have been engaged by the Procuring Agency to provide consulting services for the preparation of the design, specifications and other documents to be used for the procurement of the goods and related services to be purchased under this Invitation for Bids. b) have controlling shareholders in common; or c) receive or have received any direct or indirect subsidy from any of them; or d) have the same legal representative for purposes of this Bid; or e) have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the Bid of another Bidder, or

		influence the decisions of the Procuring Agency regarding this Bidding process; or f) Submit more than one Bid in this Bidding process.
	3.8	(a) A Bidder may be ineligible if – (b) he is declared bankrupt or, in the case of company or firm, insolvent; (c) payments in favor of the Bidder is suspended in accordance with the judgment of a court of law other than a judgment declaring bankruptcy and resulting (in accordance with the national laws) in the total or partial loss of the right to administer and dispose of its property; (d) legal proceedings are instituted against such Bidder involving an order suspending payments and which may result, in accordance with the national laws, in a declaration of bankruptcy or in any other situation entailing the total or partial loss of the right to administer and dispose of the property; (e) the Bidder is convicted, by a final judgment, of any offence involving professional conduct; (f) the Bidder is blacklisted and hence debarred due to involvement in corrupt and fraudulent practices, or performance failure or due to breach of bid securing declaration. (g) The firm, supplier and contractors blacklisted or debarred by a foreign country, international organization, or other foreign institutions for the period defined by them.
	3.9	Bidders shall provide to the Procuring Agency evidence of their eligibility, proof of compliance with the necessary legal requirements to carry out the contract effectively.
	3.10	Bidders shall provide such evidence of their continued eligibility to the satisfaction of the Procuring Agency, as the Procuring Agency shall reasonably request.
	3.11	Bidders shall submit proposals relating to the nature, conditions and modalities of sub-contracting wherever the sub-contracting of any elements of the contract amounting to the more than ten (10) percent of the Bid price is envisaged.

4. Eligible Goods and Related Services	4.1	All goods and related services to be supplied under the contract shall have their origin in eligible source countries, and all expenditures made under the contract will be limited to such goods and services. For purpose of this Bid, ineligible countries are stated in the section-4 titled as "Eligible Countries".
	4.2	For purposes of this Clause, "origin" means the place where the goods are mined, grown, cultivated, produced, manufactured, or processed, or through manufacture, procession, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its imported components or the place from where the related services are/to be supplied.
	4.3	The nationality of the supplier that supplies, assembles, distributes, or sells the goods and services shall not determine the origin of the goods.
	4.4	To establish the eligibility of the Goods and the related services, Bidders shall fill the country-of-origin declarations included in the Form of Bid.
	4.5	If so required in the BDS , the Bidder shall demonstrate that it has been duly authorized by the manufacturer of the goods to deliver in Pakistan (or in respective country in case of procurement by the Pakistani Missions abroad), the goods indicated in its Bid.
5. One Bid per Bidder	5.1	A bidder shall submit only one Bid, in the same bidding process, either individually as a Bidder or as a member in a joint venture or any similar arrangement.
	5.2	No bidder can be a sub-contractor while submitting a Bid individually or as a member of a joint venture in the same Bidding process.
	5.3	A person or a firm cannot be a sub-contractor with more than one bidder in the same bidding process.
6. Cost of Bidding	6.1	The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Procuring Agency shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

B.BIDDING DOCUMENTS

7. Contents of Bidding Documents	7.1	The goods and related services required, bidding procedures, and terms and conditions of the contract are prescribed in the Bidding Documents. In addition to the Invitation to Bids, the Bidding Documents which should be read in conjunction with any addenda issued in accordance with ITB 9.2 include: Section I -Invitation to Bids Section II Instructions to Bidders (ITBs) Section III Bid Data Sheet (BDS) Section IV Eligible Countries Section V Technical Specifications, Schedule of Requirements Section VI Forms – Bid Section VII General Conditions of Contract (GCC) Section VIII Special Conditions of Contract (SCC) Section IX Contract Forms Additional: IESCO Mechanism of Blacklisting of Contractor/Supplier/Manufacturer/Consultant/Firm/JV
	7.2	The number of copies to be completed and returned with the Bid is specified in the BDS .
	7.3	Deleted
	7.4	The Procuring Agency is not responsible for the completeness of the Bidding Documents and their addenda, if they were not obtained directly from the Procuring Agency or the signed pdf version downloaded from the website of Procuring Agency. However, Procuring Agency shall place both the pdf and same editable version to facilitate the bidder for filling the forms.
	7.5	The Bidder is expected to examine all instructions, forms, terms and specifications in the Bidding Documents. Failure to furnish all the information required in the Bidding Documents will be at the Bidder's risk and may result in the rejection of his Bid.
8. Clarification of Bidding Documents	8.1	A prospective Bidder requiring any clarification of the Bidding Documents may notify the Procuring Agency in writing or in electronic form that provides record of the content of communication at the Procuring Agency's address indicated in the BDS .

	8.2	The Procuring Agency will within three (3) working days after receiving the request for clarification, respond in writing or in electronic form to any request for clarification provided that such request is received not later than three (03) days prior to the deadline for the submission of Bids as prescribed in ITB 23.1 . However, this clause shall not apply in case of alternate methods of Procurement.
	8.3	Copies of the Procuring Agency's response will be forwarded to all identified Prospective Bidders through an identified source of communication, including a description of the inquiry, but without identifying its source. In case of downloading of the Bidding Documents from the website of Procuring Agency, the response of all such queries will also be available on the same link available at the website.
	8.4	Should the Procuring Agency deem it necessary to amend the Bidding Documents as a result of a clarification, it shall do so following the procedure under ITB 9 .
	8.5	If indicated in the BDS , the Bidder's designated representative is invited at the Bidder's cost to attend a pre-Bid meeting at the place, date and time mentioned in the BDS . During this pre-Bid meeting, prospective Bidders may request clarification of the schedule of requirement, the Evaluation Criteria or any other aspects of the Bidding Documents.
	8.6	Minutes of the pre-Bid meeting, if applicable, including the text of the questions asked by Bidders, including those during the meeting (without identifying the source) and the responses given, together with any responses prepared after the meeting will be transmitted promptly to all prospective Bidders who have obtained the Bidding Documents. Any modification to the Bidding Documents that may become necessary as a result of the pre-Bid meeting shall be made by the Procuring Agency exclusively through the use of an Addendum pursuant to ITB 9. Non-attendance at the pre-Bid meeting will not be a cause for disqualification of a Bidder.

9. Amendment of Bidding Documents	9.1	Before the deadline for submission of Bids, the Procuring Agency for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder or pre-Bid meeting may modify the Bidding Documents by issuing addenda.
	9.2	Any addendum issued including the notice of any extension of the deadline shall be part of the Bidding Documents pursuant to ITB 7.1 and shall be communicated in writing or in any identified electronic form that provide record of the content of communication to all the bidders who have obtained the Bidding Documents from the Procuring Agency. The Procuring Agency shall promptly publish the Addendum at the Procuring Agency's web page identified in the BDS: Provided that the bidder who had either already submitted their bid or handed over the bid to the courier prior to the issuance of any such addendum shall have the right to withdraw his already filed bid and submit the revised bid prior to the original or extended bid submission deadline.
	9.3	To give prospective Bidders reasonable time in which to take an addendum/corrigendum into account in preparing their Bids, the Procuring Agency may, at its discretion, extend the deadline for the submission of Bids: Provided that the Procuring Agency shall extend the deadline for submission of Bid, if such an addendum is issued within last three (03) days of the Bid submission deadline.

C. PREPARATION OF BIDS

10. Language of Bid	10.1	The Bid prepared by the Bidder, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the Procuring Agency shall be written in the English language unless specified in the BDS . Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an accurate translation of the relevant pages in the English language unless specified in the BDS , in which case, for purposes of interpretation of the Bidder, the translation shall govern.

11. Documents and Sample(s) Constituting the Bid	11.1	The Bid prepared by the Bidder shall constitute the following components: - a) Form of Bid and Bid Prices completed in accordance with ITB 14 and 15; b) Details of the Sample(s) where applicable and requested in the BDS. c) Documentary evidence established in accordance with ITB 13 that the Bidder is eligible and/or qualified for the subject bidding process; d) Documentary evidence established in accordance with ITB 13.3(a) that the Bidder has been authorized by the manufacturer to deliver the goods into Pakistan, where required and where the supplier is not the manufacturer of those goods; e) Documentary evidence established in accordance with ITB 12 that the goods and related services to be supplied by the Bidder are eligible goods and services, and conform to the Bidding Documents; f) Bid security or Bid Securing Declaration furnished in accordance with ITB 18; g) Duly Notarized Power of Attorney authorizing the signatory of the Bidder to submit the bid; and h) Any other document required in the BDS.
	11.2	Where a sample(s) is required by a procuring agency, the sample shall be: (a) submitted as part of the bid, in the quantities, dimensions and other details requested in the BDS; (b) carriage paid; (c) received on, or before, the closing time and date for the submission of bids; and (d) evaluated to determine compliance with all characteristics listed in the BDS.

	11.3	The Procuring Agency shall retain the sample(s) of the successful Bidder. A Procuring Agency shall reject the Bid if the sample(s)- (a) do(es) not conform to all characteristics prescribed in the bidding documents; and (b) is/are not submitted within the specified time clearly mentioned in the Bid Data Sheet.
	11.4	Where it is not possible to avoid using a propriety article as a sample, a Bidder shall make it clear that the propriety article is displayed only as an example of the type or quality of the goods being Bided for, and that competition shall not thereby be limited to the extent of that article only.
	11.5	Samples made up from materials supplied by a Procuring Agency shall not be returned to a Bidder nor shall a Procuring Agency be liable for the cost of making them.
	11.6	All samples produced from materials belonging to an unsuccessful Bidder shall be kept by the Procuring Agency till thirty (30) days from the date of award of contract or exhaust of all the grievance forums (including those pending at Authority's Level or in some Court of Law).
12. Documents Establishing Eligibility of Goods and Related Services and Conformity to Bidding Documents	12.1	Pursuant to ITB 11 , the Bidder shall furnish, as part of its Bid, all those documents establishing the eligibility in conformity to the terms and conditions specified in the Bidding Documents for all goods and related services which the Bidder proposes to deliver.
	12.2	The documentary evidence of the eligibility of the goods and related services shall consist of a statement in the Price Schedule of the country of origin of the goods and related services offered <u><i>which shall be confirmed by a certificate of origin issued at the time of shipment.</i></u>
	12.3	The documentary evidence of conformity of the goods and related services to the Bidding Documents may be in the form of literature, drawings, and technical data, and shall consist of: a) a detailed description of the essential technical specifications and performance characteristics of the Goods;

		b) an item-by-item commentary on the Procuring Agency's Technical Specifications demonstrating substantial responsiveness of the Goods and Services to those specifications, or a statement of deviations and exceptions to the provisions of the Technical Specifications; c) any other procurement specific documentation requirement as stated in the BDS.
	12.4	The Bidder shall also furnish a list giving full particulars, including available sources and current prices of goods and related services, spare parts, special tools, etc., necessary for the proper and continuing functioning of the Goods during the period specified in the BDS following commencement of the use of the goods and related services by the Procuring Agency.
	12.5	For purposes of the commentary to be furnished pursuant to ITB 12.3(c) above, the Bidder shall note that standards for workmanship, material, and equipment, as well as references to brand names or catalogue numbers designated by the Procuring Agency in its Technical Specifications, are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names, and/or catalogue numbers in its Bid, provided that it demonstrates to the Procuring Agency's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.
	12.6	The required documents and other accompanying documents must be in English. In case any other language than English is used the pertinent translation into English shall be attached to the original version.
13. Documents Establishing Eligibility and Qualification of the Bidder	13.1	Pursuant to ITB 11 , the Bidder shall furnish, as part of its Bid, all those documents establishing the Bidder's eligibility to participate in the bidding process and/or its qualification to perform the contract if its Bid is accepted.
	13.2	The documentary evidence of the Bidder's eligibility to Bid shall establish to the satisfaction of the Procuring Agency that the Bidder, at the time of submission of its bid, is from an eligible country as defined in Section-4 titled as "Eligible Countries".

	13.3	The documentary evidence of the Bidder's qualifications to perform the contract if its Bid is accepted shall establish to the satisfaction of Procuring Agency that: a) in the case of a Bidder offering to deliver goods under the contract which the Bidder did not manufacture or otherwise produce, the Bidder has been duly authorized by the goods' Manufacturer or producer to deliver the goods in Pakistan; b) The Bidder has the financial, technical, and supply/production capability necessary to perform the Contract, meets the qualification criteria specified in BDS. c) in the case of a Bidder not doing business within Pakistan, the Bidder is or will be (if awarded the contract) represented by an Agent in Pakistan equipped, and able to carry out the Supplier's maintenance, repair, and spare parts-stocking obligations prescribed in the Conditions of Contract and/or Technical Specifications. d) That the Bidder meets the qualification criteria listed in the Bid Data Sheet.
14. Form of Bid	14.1	The Bidder shall fill the Form of Bid furnished in the Bidding Documents. The Bid Form must be completed without any alterations to its format and no substitute shall be accepted.
15. Bid Prices	15.1	The Bid Prices and discounts quoted by the Bidder in the Form of Bid and in the Price Schedules shall conform to the requirements specified below in ITB Clause 15 or exclusively mentioned hereafter in the bidding documents.
	15.2	All items in the Statement of Work must be listed and priced separately in the Price Schedule(s). If a Price Schedule shows items listed but not priced, their prices shall be construed to be included in the prices of other items.
	15.3	Items not listed in the Price Schedule shall be assumed not to be included in the Bid, and provided that the Bid is still substantially responsive in their absence or due to their nominal nature, the corresponding average price of the respective item(s) of the remaining substantially

		responsive bidder(s) shall be construed to be the price of those missing item(s): Provided that: a) where there is only one (substantially) responsive bidder, or b) where there is provision for alternate proposals and the respective items are not listed in the other bids, the procuring agency may fix the price of missing items in accordance with market survey, and the same shall be considered as final price or as specified in BDS.
	15.4	The Bid price to be quoted in the Form of Bid in accordance with ITB 15.1 shall be the total price of the Bid, excluding any discounts offered.
	15.5	The Bidder shall indicate on the appropriate Price Schedule, the unit prices (where applicable) and total Bid price of the goods and related services it proposes to deliver under the contract.
	15.6	Prices indicated on the Price Schedule shall be entered separately in the following manner: a) For goods manufactured from within Pakistan (or within the country where procurement is being done in case of foreign missions abroad): i) the price of the goods and services quoted FCS (ex-works, ex-factory, ex-warehouse, ex-showroom, or off-the-shelf, as applicable), including all customs duties and sales and other taxes already paid or payable: A. on the components and raw material used in the manufacturing or assembly of goods quoted ex- works or ex-factory; - or B. on the previously imported goods of foreign origin quoted ex-warehouse, ex-showroom, or off-the-shelf. ii) all applicable taxes which will be payable on the goods and related services if the contract is awarded. iii) the price for inland transportation, insurance, and other local costs incidental to delivery of the goods

		to their final destination, if specified in the BDS. iv) the price of other (incidental or allied) services, if any, listed in the BDS. b) For goods offered from abroad: i) the price of the goods shall be quoted CIF named port of destination, or CIP border point, or CIP named place of destination, in the Procuring Agency's country, 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. or ii) the price of the goods quoted FOB port of shipment (or FCA, as the case may be), if specified in the BDS. or iii) the price of goods quoted CFR port of destination (or CPT as the case may be), if specified in the BDS. iv) the price for inland transportation, insurance, and other local costs incidental to delivery of the goods from the port of entry to their final destination, if specified in the BDS. v) the price of (incidental) services, if any, listed in the BDS.
15.7		Prices proposed on the Price Schedule for goods and related services shall be disaggregated, where appropriate as indicated in this Clause. This desegregation shall be solely for the purpose of facilitating the comparison of Bids by the Procuring Agency. This, shall not in any way limit the Procuring Agency's right to contract on any of the terms and conditions offered: - a) For Goods: - i) the price of the Goods, quoted as per applicable INCOTERMS as specified in the BDS ii) all customs duties, sales tax, and other taxes applicable on goods or on the components and raw materials used in their manufacture or assembly, if the contract is awarded to the Bidder, and

		b) For Related Services i) The price of the related services, and ii) All customs duties, sales tax and other taxes applicable in Pakistan, paid or payable, on the related services, if the contract is awarded to the Bidder.
	15.8	Unless otherwise specified in BDS, the Prices quoted by the Bidder shall be fixed during the Bidder's performance of the contract and not subject to variation on any account. A Bid submitted with an adjustable price will be treated as non-responsive and shall be rejected, pursuant to ITB 28.
	15.9	Unless otherwise specified in the BDS , If so indicated in the Invitation to Bids and Instructions to Bidders, that Bids are being invited for individual contracts (Lots) or for any combination of contracts (packages), Bidders wishing to offer any price reduction for the award of more than one contract shall specify in their Bid the price reductions applicable to each package, or alternatively, to individual contracts (Lots) within a package.
16. Bid Currencies	16.1	Prices shall be quoted in the following currencies: a) For goods and related services that the Bidder will deliver from within Pakistan, the prices shall be quoted in Pakistani Rupees, unless otherwise specified in the BDS. b) For goods and related services that the Bidder will deliver from outside Pakistan, or for imported parts or components of goods and related services originating outside Pakistan, the Bid prices shall be quoted in any freely convertible currency of another country. If the Bidder wishes to be paid in a combination of amounts in different currencies, it may quote its price accordingly but use no more than three foreign currencies, unless otherwise specified in the BDS.
	16.2	For the purposes of comparison of bids quoted in different currencies, the price shall be converted into a single currency specified in the bidding documents. The rate of exchange shall be the selling rate, prevailing on the date of opening of (financial part of) bids specified in the bidding documents, as notified by the State Bank of Pakistan on that day.

	16.3	Bidders shall indicate details of their expected foreign currency requirements in the Bid.
	16.4	Bidders may be required by the Procuring Agency to clarify their foreign currency requirements and to substantiate that the amounts included in Lump Sum and in the SCC are reasonable and responsive to ITB 16.1 .
17. Bid Validity Period	17.1	Bids shall remain valid for the period specified in the BDS after the Bid submission deadline prescribed by the Procuring Agency. A Bid valid for a shorter period shall be rejected by the Procuring Agency as non-responsive. The period of Bid validity will be determined from the complementary bid securing instrument i.e. the expiry period of bid security or bid securing declaration as the case may be.
	17.2	Under exceptional circumstances, prior to the expiration of the initial Bid validity period, the Procuring Agency may request the Bidders' consent to an extension of the period of validity of their Bids only once, for the period not more than the period of initial bid validity. The request and the Bidders responses shall be made in writing or in electronic forms that provide record of the content of communication. The Bid Security provided under ITB 18 shall also be suitably extended. A Bidder may refuse the request without forfeiting its Bid security or causing to be executed its Bid Securing Declaration. A Bidder agreeing to the request will not be required nor permitted to modify its Bid, but will be required to extend the validity of its Bid Security or Bid Securing Declaration for the period of the extension, and in compliance with ITB 18 in all respects.
	17.3	If the award is delayed by a period exceeding sixty (60) days beyond the expiry of the initial Bid validity period, the contract price may be adjusted by a factor specified in the request for extension. However, the Bid evaluation shall be based on the already quoted Bid Price without taking into consideration on the above correction, unless otherwise specified in the BDS .
18. Bid Security or Bid Securing Declaration	18.1	Pursuant to ITB 11 , unless otherwise specified in the BDS , the Bidder shall furnish as part of its Bid, a Bid Security in form of fixed amount not exceeding five

		percent of the estimated value of procurement determined by the procuring agency and in the amount and currency specified in the BDS or Bid Securing Declaration as specified in the BDS in the format provided in Section VI (Standard Forms) .
	18.2	The Bid Security or Bid Securing Declaration is required to protect the Procuring Agency against the risk of Bidder's conduct which would warrant the security's forfeiture, pursuant to ITB 18.9 .
	18.3	The Bid Security shall be denominated in the local currency or in another freely convertible currency, and it shall be in the form specified in the BDS which shall be in any of the following: a) a bank guarantee, an irrevocable letter of credit issued by a Scheduled bank in the form provided in the Bidding Documents or another form acceptable to the Procuring Agency and valid for twenty-eight (28) days beyond the end of the validity of the Bid, unless otherwise specified in the BDS. This shall also apply if the period for Bid Validity is extended. In either case, the form must include the complete name of the Bidder; b) a cashier's or certified cheque; or c) another security if indicated in the BDS
	18.4	The Bid Security or Bid Securing Declaration shall be in accordance with the Form of the Bid Security or Bid Securing Declaration included in Section VI (Standard Forms) or another form approved by the Procuring Agency prior to the Bid submission.
	18.5	The Bid Security shall be payable promptly upon written demand by the Procuring Agency in case any of the conditions listed in ITB 18.9 are invoked.
	18.6	Any Bid not accompanied by a Bid Security or Bid Securing Declaration in accordance with ITB 18.1 or 18.3 shall be rejected by the Procuring Agency as non-responsive, pursuant to ITB 28 .
	18.7	Unsuccessful Bidders' Bid Security will be discharged or returned as promptly as possible, however in no case later than thirty (30) days after the expiration of the period of Bid Validity prescribed by the Procuring Agency

		pursuant to ITB 17. The Procuring Agency shall make no claim to the amount of the Bid Security, and shall promptly return the Bid Security document, after whichever of the following that occurs earliest: (a) the expiry of the Bid Security; (b) the entry into force of a procurement contract and the provision of a performance security (or guarantee), for the performance of the contract if such a security (or guarantee), is required by the Bidding documents; (c) the rejection by the Procuring Agency of all Bids; (d) the withdrawal of the Bid prior to the deadline for the submission of Bids, unless the Bidding documents stipulate that no such withdrawal is permitted.
	18.8	The successful Bidder's Bid Security will be discharged upon the Bidder signing the contract pursuant to ITB 41, or furnishing the performance security (or guarantee), pursuant to ITB 42.
	18.9	The Bid Security may be forfeited or the Bid Securing Declaration executed: a) if a Bidder: i) withdraws its Bid during the period of Bid Validity as specified by the Procuring Agency, and referred by the bidder on the Form of Bid except as provided for in ITB 17.2; or ii) does not accept the correction of errors pursuant to ITB 30.3; or b) in the case of a successful Bidder, if the Bidder fails: i) to sign the contract in accordance with ITB 41; or ii) to furnish performance security (or guarantee) in accordance with ITB 42.
19. Alternative Bids by Bidders	19.1	Bidders shall submit offers that comply with the requirements of the Bidding Documents, including the basic Bidder's technical design as indicated in the specifications and Schedule of Requirements. Alternatives will not be considered, unless specifically allowed for in the BDS. If so allowed, ITB 19.2 shall prevail.

	19.2	When alternative schedule for delivery of goods is explicitly invited, a statement of that effect will be included in the BDS as will the method for evaluating different schedule for delivery of goods.
	19.3	If so allowed in the BDS , Bidders wishing to offer technical alternatives to the requirements of the Bidding Documents must also submit a Bid that complies with the requirements of the Bidding Documents, including the basic technical design as indicated in the specifications. In addition to submitting the basic Bid, the Bidder shall provide all information necessary for a complete evaluation of the alternative by the Procuring Agency, including technical specifications, breakdown of prices, and other relevant details. Only the technical alternatives, if any, of the Most Advantageous Bidder conforming to the basic technical requirements (without altering the bid price) shall be considered by the Procuring Agency.
20. Withdrawal, Substitution, and Modification of Bids	20.1	Before bid submission deadline, any bidder may withdraw, substitute, or modify its Bid after it has been submitted by sending a written notice, duly signed by an authorized representative, and the corresponding substitution or modification must accompany the respective written notice.
	20.2	Bids requested to be withdrawn in accordance with ITB 20.1 shall be returned unopened to the Bidders.
21. Format and Signing of Bid	21.1	The Bidder shall prepare an original and the number of copies of the Bid as indicated in the BDS , clearly marking each "ORIGINAL" and "COPY," as appropriate. In the event of any discrepancy between them, the original shall prevail: Provided that except in Single Stage one Envelope Procedure, the Bid shall include only the copies of technical proposal.
	21.2	The original and the copy or copies of the Bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as specified in the BDS and shall be attached to the Bid. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Bid,

		except for un-amended printed literature, shall be initialed by the person or persons signing the Bid.
	21.3	Any interlineations, erasures, or overwriting shall be valid only if they are signed by the person or persons signing the Bidder.
	21.4	Deleted

D. SUBMISSION OF BIDS

22. Sealing and Marking of Bids	22.1	In case of Single Stage One Envelope Procedure, the Bidder shall seal the original and each copy of the Bid in separate envelopes, duly marking the envelopes as "ORIGINAL" and "COPY." The envelopes shall then be sealed in an outer envelope securely sealed in such a manner that opening and resealing cannot be achieved undetected. <i>Note: The envelopes shall be sealed and marked in accordance with the bidding procedure adopted as referred in Rule-36 of PPR-2004.</i>
	22.2	The inner and outer envelopes shall: - be addressed to the Procuring Agency at the address given in the BDS; and - bear the title of the subject procurement or Project name, as the case may be as indicated in the BDS, the Invitation to Bids (ITB) title and number indicated in the BDS, and a statement: "DO NOT OPEN BEFORE," to be completed with the time and the date specified in the BDS, pursuant to ITB 23.1.
	22.3	In case of Single Stage Two Envelope Procedure, The Bid shall comprise two envelopes submitted simultaneously, one called the Technical Proposal and the other Financial Proposal. Both envelopes to be enclosed together in an outer single envelope called the Bid. Each Bidder shall submit his bid as under: - Bidder shall submit his TECHNICAL PROPOSAL and FINANCIAL PROPOSAL in separate inner envelopes and enclosed in a single outer envelope. ORIGINAL and each copy of the Bid shall be separately sealed and put in separate envelopes and marked as such.

		c) The envelopes containing the ORIGINAL and copies will be put in one sealed envelope and addressed / identified as given in Sub- Clause 21.2.
	22.4	The inner and outer envelopes shall: a) be addressed to the Procuring Agency at the address provided in the Bidding Data; b) bear the name and identification number of the contract as defined in the Bidding Data; and provide a warning not to open before the time and date for bid opening, as specified in the Bidding Data pursuant to ITB 23.1. c) In addition to the identification required in Sub-Clause 21.2 hereof, the inner envelope shall indicate the name and address of the bidder to enable the bid to be returned unopened in case it is declared “late” pursuant to Clause ITB.24
	22.5	If all envelopes are not sealed and marked as required by ITB 22.2, ITB 22.3 and ITB 22.4 or incorrectly marked, the Procuring Agency will assume no responsibility for the misplacement or premature opening of Bid.
23. Deadline for Submission of Bids	23.1	Bids shall be received by the Procuring Agency no later than the date and time specified in the BDS .
	23.2	The Procuring Agency may, in exceptional circumstances and at its discretion, extend the deadline for the submission of Bids by amending the Bidding Documents in accordance with ITB 9 , in which case all rights and obligations of the Procuring Agency and Bidders previously subject to the deadline will thereafter be subject to the new deadline.
24. Late Bids	24.1	The Procuring Agency shall not consider for evaluation any Bid that arrives after the deadline for submission of Bids, in accordance with ITB 23 .
	24.2	Any Bid received by the Procuring Agency after the deadline for submission of Bids shall be declared late, recorded, rejected and returned unopened to the Bidder.
25. Withdrawal of Bids	25.1	A Bidder may withdraw its Bid after it has been submitted, provided that written notice of the withdrawal of the Bid, is received by the Procuring Agency prior to the deadline for submission of Bids.
	25.2	Revised bid may be submitted after the withdrawal of the original bid in accordance with the provisions referred in ITB 22 .

E. OPENING AND EVALUATION OF BIDS

26. <i>Opening of Bids</i>	26.1	The Procuring Agency will open all Bids, in public, in the presence of Bidders' or their representatives who choose to attend, and other parties with a legitimate interest in the Bid proceedings at the place, on the date and at the time, specified in the BDS . The Bidders' representatives present shall sign a register as proof of their attendance.
	26.2	First, envelopes marked "WITHDRAWAL" shall be opened and read out and the envelope with the corresponding bid shall not be opened, but returned to the Bidder. No bid withdrawal shall be permitted unless the corresponding Withdrawal Notice contains a valid authorization to request the withdrawal and is read out at bid opening.
	26.3	Second, outer envelopes marked "SUBSTITUTION" shall be opened. The inner envelopes containing the Substitution Bid shall be exchanged for the corresponding Original Bid being substituted, which is to be returned to the Bidder unopened. No envelope shall be substituted unless the corresponding Substitution Notice contains a valid authorization to request the substitution and is read out and recorded at bid opening.
	26.4	Next, outer envelopes marked "MODIFICATION" shall be opened. No Technical Proposal and/or Financial Proposal shall be modified unless the corresponding Modification Notice contains a valid authorization to request the modification and is read out and recorded at the opening of the Bids. Any Modification shall be read out along with the Original Bid except in case of Single Stage Two Envelope Procedure where only the Technical Proposal, both Original as well as Modification, are to be opened, read out, and recorded at the opening. Financial Proposal, both Original and Modification, will remain unopened till the prescribed financial bid opening date.
	26.5	Other envelopes holding the Bids shall be opened one at a time, <i>in case of Single Stage One Envelope Procedure</i> , the Bidders names, the Bid prices, the total amount of each Bid and of any alternative Bid (if alternatives have

		been requested or permitted), any discounts, the presence or absence of Bid Security, Bid Securing Declaration and such other details as the Procuring Agency may consider appropriate, will be announced by the Procurement Evaluation Committee.
	26.6	<u>Unless otherwise as specified in BDS,</u> in case of <u>Single Stage Two Envelope Procedure, the Procuring Agency</u> will open the Technical Proposals in public at the address, date and time specified in the BDS in the presence of Bidders` designated representatives who choose to attend and other parties with a legitimate interest in the Bid proceedings. The Financial Proposals will remain unopened and will be held in custody of the Procuring Agency until the specified time of their opening.
	26.7	The envelopes holding the Technical Proposals shall be opened one at a time, and the following read out and recorded: (a) the name of the Bidder; (b) whether there is a modification or substitution; (c) the presence of a Bid Security, if required; and (d) Any other details as the Procuring Agency may consider appropriate.
	26.8	Bids not opened and not read out at the Bid opening shall not be considered further for evaluation, irrespective of the circumstances. In particular, any discount offered by a Bidder which is not read out at Bid opening shall not be considered further.
	26.9	Bidders are advised to send in a representative with the knowledge of the content of the Bid who shall verify the information read out from the submitted documents. Failure to send a representative or to point out any un-read information by the sent Bidder`s representative shall indemnify the Procuring Agency against any claim or failure to read out the correct information contained in the Bidder`s Bid.
	26.10	No Bid will be rejected at the time of Bid opening except for late Bids which will be returned unopened to the Bidder, pursuant to ITB 24 .
	26.11	The Procuring Agency shall prepare minutes of the Bid opening. The record of the Bid opening shall include, as a minimum: the name of the Bidder and whether or not

		there is a withdrawal, substitution or modification, the Bid price if applicable, including any discounts and alternative offers and the presence or absence of a Bid Security or Bid Securing Declaration.
	26.12	The Bidders' representatives who are present shall be requested to sign on the attendance sheet. The omission of a Bidder's signature on the record shall not invalidate the contents and affect the record. A copy of the record shall be distributed to all the Bidders.
	26.13	A copy of the minutes of the Bid opening shall be furnished to individual Bidders upon request.
	26.14	In case of Single Stage Two Envelop Bidding Procedure, after the evaluation and approval of technical proposal the procuring agency, shall at a time within the bid validity period, publicly open the financial proposals of the technically accepted bids only. The financial proposal of bids found technically non-responsive shall be returned un-opened to the respective bidder's subject to redress of the grievances from all tiers of grievances.
27. Confidentiality	27.1	Information relating to the examination, clarification, evaluation and comparison of Bids and recommendation of contract award shall not be disclosed to Bidders or any other persons not officially concerned with such process until the time of the announcement of the respective evaluation report.
	27.2	Any effort by a Bidder to influence the Procuring Agency processing of Bids or award decisions may result in the rejection of its Bid.
	27.3	Notwithstanding ITB 27.2 from the time of Bid opening to the time of contract award, if any Bidder wishes to contact the Procuring Agency on any matter related to the Bidding process, it should do so in writing that provides record of the content of communication.
28. Clarification of Bids	28.1	To assist in the examination, evaluation and comparison of Bids (and post-qualification if applicable) of the Bidders, the Procuring Agency may, ask any Bidder for a clarification of its Bid including breakdown of prices. Any clarification submitted by a Bidder that is not in response to a request by the Procuring Agency shall not be considered.

	28.2	Unless otherwise as specified in BDS , the request for clarification and the response shall be in writing or in electronic forms that provide record of the content of communication. In case of Single Stage One Envelope and Single Stage Two Envelope Procedure, no change in the prices or substance of the Bid shall be sought, offered, or permitted, further in case of Single Stage One Envelope Procedure, correction of arithmetic errors discovered by the Procuring Agency in the evaluation of Bids should be sought in accordance with ITB 31 .
	28.3	The alteration or modification in the BID which in any way affect the following parameters will be considered as a change in the substance of a bid: a) Evaluation & qualification criteria; except document has submitted but document of qualification is not clear and not readable. b) required scope of work or specifications; c) all securities requirements; d) tax requirements; e) terms and conditions of bidding documents. f) change in the ranking of the bidder
	28.4	From the time of Bid opening to the time of Contract award if any Bidder wishes to contact the Procuring Agency on any matter related to the Bid it should do so in writing or in electronic forms that provide record of the content of communication.
29. Preliminary Examination of Bids	29.1	Prior to the detailed evaluation of Bids, the Procuring Agency will determine whether each Bid: a) meets the eligibility criteria defined in ITB 3 and ITB 4; b) has been prepared as per the format and contents defined by the Procuring Agency in the Bidding Documents; c) has been properly signed; d) is accompanied by the required securities; and e) is substantially responsive to the requirements of the Bidding Documents. The Procuring Agency's determination of a Bid's responsiveness will be based on the contents of the Bid itself.
	29.2	A substantially responsive Bid is one which conforms to

		all the terms, conditions, and specifications of the Bidding Documents, without material deviation or reservation. A material deviation or reservation is one that: - a) affects in any substantial way the scope, quality, or performance of the Services; b) limits in any substantial way, inconsistent with the Bidding Documents, the Procuring Agency's rights or the Bidders obligations under the Contract; or c) if rectified, would affect unfairly the competitive position of other Bidders presenting substantially responsive Bids.
	29.3	The Procuring Agency will confirm that the documents and information specified under ITB 11, 12 and 13 have been provided in the Bid. If any of these documents or information is missing, or is not provided in accordance with the Instructions to Bidders, the Bid shall be rejected.
	29.4	The Procuring Agency may waive off any minor informality, nonconformity, or irregularity in a Bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder. <i>Explanation: A minor informality, non-conformity or irregularity is one that is merely a matter of form and not of substance. It also pertains to some immaterial defect in a Bid or variation of a bid from the exact requirements of the invitation that can be corrected or waived without being prejudicial to other bidders. The defect or variation is immaterial when the effect on quantity, quality, or delivery is negligible when contrasted with the total cost or scope of the supplies or services being acquired. The Procuring Agency either shall give the bidder an opportunity to cure any deficiency resulting from a minor informality or irregularity in a bid or waive the deficiency, whichever is advantageous to the Procuring Agency. Examples of minor informalities or irregularities include failure of a bidder to –</i> (a) <i>Submit the number of copies of signed bids required by the invitation;</i> (b) <i>Furnish required information concerning the number</i>

		<i>of its employees;</i> (c) <i>the firm submitting a bid has formally adopted or authorized, before the date set for opening of bids, the execution of documents by typewritten, printed, or stamped signature and submits evidence of such authorization and the bid carries such a signature.</i>
	29.5	Provided that a Technical Bid is substantially responsive, the Procuring Agency may request the Bidder to submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the Technical Bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any such aspect of the technical Proposal linked with the ranking of the bidders. Failure of the Bidder to comply with the request may result in the rejection of its Bid.
	29.6	Provided that a Technical Bid is substantially responsive, the Procuring Agency shall rectify quantifiable nonmaterial nonconformities or omissions related to the Financial Proposal. To this effect, the Bid Price shall be adjusted, for comparison purposes only, to reflect the price of the missing or nonconforming item or component.
	29.7	If a Bid is not substantially responsive, it will be rejected by the Procuring Agency and may not subsequently be evaluated for complete technical responsiveness.
30. Examination of Terms and Conditions; Technical Evaluation	30.1	The Procuring Agency shall examine the Bid to confirm that all terms and conditions specified in the GCC and the SCC have been accepted by the Bidder without any material deviation or reservation.
	30.2	The Procuring Agency shall evaluate the technical aspects of the Bid submitted in accordance with ITB 22 , to confirm that all requirements specified in Section V – Schedule of Requirements, Technical Specifications of the Bidding Documents have been met without material deviation or reservation.
	30.3	If after the examination of the terms and conditions and the technical evaluation, the Procuring Agency

		determines that the Bid is not substantially responsive in accordance with ITB 29 , it shall reject the Bid.
31. Correction of Errors	31.1	Bids determined to be substantially responsive will be checked for any arithmetic errors. Errors will be corrected as follows: - a) if there is a discrepancy between unit prices and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected, unless in the opinion of the Procuring Agency there is an obvious misplacement of the decimal point in the unit price, in which the total price as quoted shall govern and the unit price shall be corrected; b) if there is an error in a total corresponding to the addition or subtraction of sub-totals, the sub-totals shall prevail and the total shall be corrected; and c) Where there is a discrepancy between the amounts in figures and in words, the amount in words will govern. d) Where there is discrepancy between grand total of price schedule and amount mentioned on the Form of Bid, the amount referred in Price Schedule shall be treated as correct subject to elimination of other errors.
	31.2	The amount stated in the Bid will, be adjusted by the Procuring Agency in accordance with the above procedure for the correction of errors and, with, the concurrence of the Bidder, shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount, its Bid will then be rejected, and the Bid Security may be forfeited or the Bid Securing Declaration may be executed in accordance with ITB 18.9 .
32. Conversion to Single Currency	32.1	To facilitate evaluation and comparison, the Procuring Agency will convert all Bid prices expressed in the amounts in various currencies in which the Bid prices are payable. For the purposes of comparison of bids quoted in different currencies, the price shall be converted into a single currency specified in the bidding

		documents. The rate of exchange shall be the selling rate, prevailing on the date of opening of (financial part of) bids specified in the bidding documents, as notified by the State Bank of Pakistan on that day.
	32.2	The currency selected for converting Bid prices to a common base for the purpose of evaluation, along with the source and date of the exchange rate, are specified in the BDS .
33. Evaluation of Bids	33.1	The Procuring Agency shall evaluate and compare only the Bids determined to be substantially responsive, pursuant to ITB 29 .
	33.2	In evaluating the Technical Proposal of each Bid, the Procuring Agency shall use the criteria and methodologies listed in the BDS and in terms of Statement of Requirements and Technical Specifications. No other evaluation criteria or methodologies shall be permitted.
	33.2	The Procuring Agency's evaluation of a Bid will take into account: a) in the case of goods manufactured in Pakistan or goods of foreign origin already imported in Pakistan, Income Tax, General Sales Tax and other similar/applicable taxes, which will be payable on the goods if a contract is awarded to the Bidder; b) in the case of goods of foreign origin offered from abroad, custom duties and other similar import taxes which will be payable on the goods if the contract is awarded to the Bidder; and
	33.3	The comparison shall be between the FCS price of the goods and services offered from within Pakistan, such price to include all costs, as well as duties and taxes paid or payable on components and raw material incorporated or to be incorporated in the goods, and named port of destination, border point, or named place of destination in accordance with applicable INCOTERM in the price of the goods offered from outside Pakistan.
	33.4	In evaluating the Bidders, the evaluation committee will, in addition to the Bid price quoted in accordance with ITB 15.1, take account of one or more of the following factors as specified in the BDS , and quantified in ITB 32.5:

		a) Cost of inland transportation, insurance, and other costs within the Pakistan incidental to delivery of the goods to their final destination. b) delivery schedule offered in the Bid; c) deviations in payment schedule from that specified in the Special Conditions of Contract; d) the cost of components, mandatory spare parts, and service; e) the availability (in Pakistan) of spare parts and after-sales services for the equipment offered in the Bid; f) the projected operating and maintenance costs during the life of the equipment; g) the performance and productivity of the equipment offered; and/or h) other specific criteria indicated in the TBS and/or in the Technical Specifications.
	33.5	For factors retained in BDS, pursuant to ITB 33.4 one or more of the following quantification methods will be applied, as detailed in the BDS: <i>(a) Inland transportation from FCS/port of entry/border point, Insurance and incidentals.</i> Inland transportation, insurance, and other incidental costs for delivery of the goods from FCS/port of entry/border point to Project Site named in the BDS will be computed for each Bid by the PA on the basis of published tariffs by the rail or road transport agencies, insurance companies, and/or other appropriate sources. To facilitate such computation, Bidder shall furnish in its Bid the estimated dimensions and shipping weight and the approximate FCS or as per applicable INCOTERM value of each package. The above cost will be added by the Procuring Agency to FCS or as per applicable INCOTERM price. <i>(b) Delivery schedule.</i> i) The Procuring Agency requires that the goods and related services under the Invitation for Bids shall be delivered (shipped) at the time specified in the Schedule of Requirements. The estimated time of arrival of the goods at the Project Site will be calculated for each Bid after allowing for reasonable

		international and inland transportation time. Treating the Bid resulting in such time of arrival as the base, a delivery “adjustment” will be calculated for other Bids by applying a percentage, specified in the BDS, of the FCS or as per applicable INCOTERM price for each week of delay beyond the base, and this will be added to the Bid price for evaluation. No credit shall be given to early delivery OR ii) The goods and related services covered under this invitation are required to be delivered (shipped) within an acceptable range of weeks specified in the Schedule of Requirement. No credit will be given to earlier deliveries, and Bids offering delivery beyond this range will be treated as non-responsive. Within this acceptable range, an adjustment per week, as specified in the BDS, will be added for evaluation to the Bid price of Bids offering deliveries later than the earliest delivery period specified in the Schedule of Requirements. OR iii) The goods and related services covered under this invitation are required to be delivered (shipped) in partial shipments, as specified in the Schedule of Requirements. Bids offering deliveries earlier or later than the specified deliveries will be adjusted in the evaluation by adding to the Bid price a factor equal to a percentage, specified in the BDS, of FCS or as per applicable INCOTERM price per week of variation from the specified delivery schedule (c) Deviation in payment schedule. i) Bidder shall state their Bid price for the payment schedule outlined in the SCC. Bids will be evaluated on the basis of this base price. Bidders are, however, permitted to state an alternative payment schedule and indicate the reduction in Bid price they wish to offer for such alternative payment schedule. The Procuring Agency may consider the alternative payment schedule offered

		by the selected Bidder OR ii) The SCC stipulates the payment schedule offered by the Procuring Agency. If a Bid deviates from the schedule and if such deviation is considered acceptable to the Procuring Agency, the Bid will be evaluated by calculating interest earned for any earlier payments involved in the terms outlined in the Bid as compared with those stipulated in this invitation, at the rate per annum specified in the BDS. <i>(d) Cost of spare parts</i> i) The list of items and quantities of major assemblies, components, and selected spare parts, likely to be required during the initial period of operation specified in the BDS, is annexed to the Technical Specifications. The total cost of these items, at the unit prices quoted in each Bid, will be added to the Bid price. Or ii) The Procuring Agency will draw up a list of high-usage and high-value items of components and spare parts, along with estimated quantities of usage in the initial period of operation specified in the BDS. The total cost of these items and quantities will be computed from spare parts unit prices submitted by the Bidder and added to the Bid price. Or iii) The Procuring Agency will estimate the cost of spare parts usage in the initial period of operation specified in the BDS, based on information furnished by each Bidder, as well as on past experience of the Procuring Agency or other Procuring Agency's in similar situations. Such costs shall be added to the Bid price for evaluation. <i>(e) Spare parts and after sales service facilities in</i>

	Pakistan The cost to the Procuring Agency of establishing the minimum service facilities and parts inventories, as outlined in the BDS or elsewhere in the Bidding Documents, if quoted separately, shall be added to the Bid price. (f) Operating and maintenance costs Since the operating and maintenance costs of the goods and related services under procurement form a major part of the life cycle cost of the equipment, these costs will be evaluated in accordance with the criteria specified in the BDS or in the Technical Specifications. (g) Performance and productivity of the equipment. i) Bidders shall state the guaranteed performance or efficiency in response to the Technical Specification. For each drop in the performance or efficiency below the norm of 100, an adjustment for an amount specified in the BDS will be added to the Bid Price, representing the capitalized cost of additional operating costs over the life of the plant, using the methodology specified in the BDS or in the Technical Specifications. Or (ii) Goods offered shall have a minimum productivity specified under the relevant provision in the Technical Specifications to be considered responsive. Evaluation shall be based on the cost per unit of the actual productivity of goods and related services offered in the Bid, and adjustment will be added to the Bid price using the methodology specified in the BDS or in the Technical Specifications. (h) Specific additional criteria. Other specific additional criteria to be considered in the evaluation and the evaluation method shall be

		detailed in the BDS and/or the Technical Specifications.
	33.6	If these Bidding Documents allow Bidders to quote separate prices for different Lots, and the award to a single Bidder of multiple Lots, the methodology of evaluation to determine the lowest evaluated Lot combinations, including any discounts offered in the Form of Bid, is specified in the BDS .
34. Domestic Preference	34.1	If the BDS so specifies, the Procuring Agency will grant a margin of preference to certain goods in line with the rules, regulations, regulatory guides or instructions issued by the Authority from time to time.
35. Determination of Most Advantageous Bid	35.1	In case where the Procuring Agency adopts the Cost Based Evaluation Technique and, the Bid with the lowest evaluated price from amongst those which are eligible, compliant and substantially responsive shall be the Most Advantageous Bid.
	35.2	The Procuring Agency may adopt the Quality & Cost Based Selection Technique due to the following two reasons: - Where the Procuring Agency knows about the main features, usage and output of the products; however not clear about the complete features, technical specifications and functionalities of the goods to be procured and requires the bidders to submit their proposals defining those features, specifications and functionalities; or - Where the Procuring Agency, in addition to the mandatory requirements and mandatory technical specifications, requires parameters specified in Evaluation Criteria to be evaluated while determining the quality of the goods: In such cases, the Procuring Agency may allocate certain weightage to these factors as a part of Evaluation Criteria, and may determine the ranking of the bidders on the basis of combined evaluation in accordance with provisions of Rule 2(1)(h) of PPRA Rules - 2004.
36. Post-qualification of Bidder and/or Abnormally Low	36.1	After determining the Most Advantageous Bid, if neither the pre-qualification was undertaken separately nor any qualification parameters were undertaken as part of

<i>Financial Proposal</i>		determining the Most Advantageous Bid, the Procuring Agency shall carry out the post-qualification of the Bidder using only the requirements specified in the BDS. In case of International Tendering, the parameters for incorporation or licensing within Pakistan may be fulfilled as part of post qualification.
	36.2	Where the Bid price is considered to be abnormally low, the Procuring Agency shall perform price analysis either during determination of Most Advantageous Bid or as a part of the post-qualification process. The following process shall apply: (a) The Procuring Agency may reject a Bid if the Procuring Agency has determined that the price in combination with other constituent elements of the Bid is abnormally low in relation to the subject matter of the procurement (i.e. scope of the procurement or ancillary services) and raises concerns as to the capability and capacity of the respective Bidder to perform that contract; (b) Before rejecting an abnormally low Bid the Procuring Agency shall request the Bidder an explanation of the Bid or of those parts which it considers contribute to the Bid being abnormally low; take account of the evidence provided in response to a request in writing; and subsequently verify the Bid or parts of the Bid being abnormally low; (c) The decision of the Procuring Agency to reject a Bid and reasons for the decision shall be recorded in the procurement proceedings and promptly communicated to the Bidder concerned; (d) The Procuring Agency shall not incur any liability solely by rejecting abnormally low Bid; and (e) An abnormally low Bid means, in the light of the Procuring Agency's estimate and of all the Bids submitted, the Bid appears to be abnormally low by not providing a margin for normal levels of profit. Guidance for Procuring Agency: In order to identify the Abnormally Low Bid (ALB)

		following approaches can be considered to minimize the scope of subjectivity: (i) Comparing the bid price with the cost estimate; (ii) Comparing the bid price with the bids offered by other bidders submitting substantially responsive bids; and (iii) Comparing the bid price with prices paid in similar contracts in the recent past either government- or development partner-funded.
	36.3	The Procuring Agency will determine to its satisfaction whether the Bidder that is selected as having submitted the most advantageous Bid is qualified to perform the contract satisfactorily, in accordance with the criteria listed in ITB 13.3.
	36.4	The determination will take into account the Bidder's financial, technical, and production capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 13.3, as well as such other information as the Procuring Agency deems necessary and appropriate. Factors not included in these Bidding Documents shall not be used in the evaluation of the Bidders' qualifications.
	36.5	Procuring Agency may seek "Certificate for Independent Price Determination" from the Bidder and the results of reference checks may be used in determining award of contract. Explanation: The Certificate shall be furnished by the bidder. The bidder shall certify that the price is determined keeping in view of all the essential aspects such as raw material, its processing, value addition, optimization of resources due to economy of scale, transportation, insurance and margin of profit etc.
	36.6	An affirmative determination will be a prerequisite for award of the contract to the Bidder. A negative determination will result in rejection of the Bidder's Bid, in which event the Procuring Agency will proceed to the next ranked bidder to make a similar determination of that Bidder's capabilities to perform satisfactorily.

F. AWARD OF CONTRACT

37. Criteria of Award	37.1	Subject to ITB 36 and 38, the Procuring Agency will award the Contract to the Bidder whose Bid has been determined to be substantially responsive to the Bidding Documents and who has been declared as Most Advantageous Bidder, provided that such Bidder has been determined to be: a) eligible in accordance with the provisions of ITB 3; b) is determined to be qualified to perform the Contract satisfactorily; and c) Successful negotiations have been concluded, if any.
38. Negotiations	38.1	Negotiations may be undertaken with the Most Advantageous Bid relating to the following areas: (a) a minor alteration to the technical details of the statement of requirements; (b) reduction of quantities for budgetary reasons, where the reduction is in excess of any provided for in the Bidding documents; (c) a minor amendment to the Special Conditions of Contract; (d) finalizing payment arrangements; (e) delivery arrangements; (f) the methodology for provision of related services; or (g) clarifying details that were not apparent or could not be finalized at the time of Bidding;
	38.2	Where negotiation fails to result into an agreement, the Procuring Agency may invite the next ranked Bidder for negotiations. Where negotiations are commenced with the next ranked Bidder, the Procuring Agency shall not reopen earlier negotiations.
39. Procuring Agency's Right to reject All Bids	39.1	Notwithstanding ITB 37, the Procuring Agency reserves the right to reject all the bids, and to annul the Bidding process at any time prior to award of contract, without thereby incurring any liability to the affected Bidder or Bidders. However, the Authority (i.e. PPRA) may call from the Procuring Agency the justification of those

		grounds.
	39.2	Notice of the rejection of all Bids shall be given promptly to all Bidders that have submitted Bids.
	39.3	The Procuring Agency shall upon request communicate to any Bidder the grounds for its rejection of its Bids, but is not required to justify those grounds.
40. Procuring Agency's Right to Vary Quantities at the Time of Award	40.1	The Procuring Agency reserves the right at the time of contract award to increase or decrease the quantity of goods or related services originally specified in these Bidding Documents (schedule of requirements) provided this does not exceed by the percentage indicated in the BDS, without any change in unit price or other terms and conditions of the Bid and Bidding Documents.
41. Notification of Award	41.1	Prior to the award of contract, the Procuring Agency shall issue a Final Evaluation Report giving justification for acceptance or rejection of the bids.
	41.2	Where no complaints have been lodged, the Bidder whose Bid has been accepted will be notified of the award by the Procuring Agency prior to expiration of the Bid Validity period in writing or electronic forms that provide record of the content of communication. The Letter of Acceptance will state the sum that the Procuring Agency will pay the successful Bidder in consideration for the execution of the scope of works as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price).
	41.3	The notification of award will constitute the formation of the Contract, subject to the Bidder furnishing the Performance Security (or guarantee) in accordance with ITB 43 and signing of the contract in accordance with ITB 42.2 .
	41.4	Upon the successful Bidder's furnishing of the performance security (or guarantee) pursuant to ITB 43 , the Procuring Agency will promptly notify each unsuccessful Bidder, the name of the successful Bidder and the Contract amount and will discharge the Bid Security or Bid Securing Declaration of the Bidders pursuant to ITB 18.7 .
42. Signing of Contract	42.1	Promptly after notification of award, Procuring Agency shall send the successful Bidder the draft agreement,

		incorporating all terms and conditions as agreed by the parties to the contract.
	42.2	Immediately after the Redressal of grievance by the GRC, and after fulfillment of all condition's precedent of the Contract Form, the successful Bidder and the Procuring Agency shall sign the contract.
	42.3	Where no formal signing of a contract is required, purchase order issued to the bidder shall be construed to be the contract.
43. Performance Security (or Guarantee)	43.1	After the receipt of the Letter of Acceptance, the successful Bidder, within the specified time, shall deliver to the Procuring Agency a Performance Security (or Guarantee) in the amount and in the form stipulated in the BDS and SCC , denominated in the type and proportions of currencies in the Letter of Acceptance and in accordance with the Conditions of Contract.
	43.2	If the Performance Security (or Guarantee) is provided by the successful Bidder and it shall be in the form specified in the BDS which shall be in any of the following: (a) certified Cheque, cashier's or manager's Cheque, or bank draft; (b) irrevocable letter of credit issued by a Scheduled bank or in the case of an irrevocable letter of credit issued by a foreign bank, the letter shall be confirmed or authenticated by a Scheduled bank; (c) bank guarantee confirmed by a reputable local bank or, in the case of a successful foreign Bidder, bonded by a foreign bank; or (d) surety bond callable upon demand issued by any reputable surety or insurance company. Any Performance Security (or guarantee) submitted shall be enforceable in Pakistan.
	43.3	Failure of the successful Bidder to comply with the requirement of ITB 43.1 shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security, in which event the Procuring Agency may make the award to the next ranked Bidder or call for new Bids.

44. Advance Payment	44.1	Unless otherwise as specified in BDS, the advance payment will not be provided in normal circumstances. However, in case where international incoterms are involved, the same will be dealt with standard international practices and in the manner as prescribed in ITB 44.2.
	44.2	The Procuring Agency will provide an Advance Payment as stipulated in the Conditions of Contract, subject to a maximum amount, as stated in the BDS . The Advance Payment request shall be accompanied by an Advance Payment Security (Guarantee) in the form provided in Section IX. For the purpose of receiving the Advance Payment, the Bidder shall make and estimate of, and include in its Bid, the expenses that will be incurred in order to commence Delivery of Goods. These expenses will relate to the purchase of equipment, machinery, materials, and on the engagement of labor during the first month beginning with the date of the Procuring Agency's "Notice to Commence" as specified in the SCC .
45. Arbitrator	45.1	The Arbitrator shall be appointed by mutual consent of the both parties as per the provisions specified in the SCC .
46. Corrupt & Fraudulent Practices	46.1	Procuring Agencies (including beneficiaries of Government funded projects and procurement) as well as Bidders/Suppliers/Contractors under Government financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts, and will avoid to engage in any corrupt and fraudulent practices.
	46.2	Deleted
	46.3	Deleted

G. GRIEVANCE REDRESSAL & COMPLAINT REVIEW MECHANISM

47. Constitution of Grievance Redressal	47.1	Procuring agency shall constitute a Grievance Redressal Committee (GRC) comprising of odd number of person with proper power and authorization to address the complaint. The GRC shall not have any of the members

		of Procurement Evaluation Committee. The committee must have one subject specialist depending the nature of the procurement.
48. GRC Procedure	48.1	Any party can file its written complaint against the eligibility parameters or any other terms and conditions prescribed in the prequalification or bidding documents found contrary to provision of Procurement Regulatory Framework, and the same shall be addressed by the GRC well before the bid submission deadline.
	48.2	Any Bidder feeling aggrieved by any act of the procuring agency after the submission of his bid may lodge a written complaint concerning his grievances not later than seven days of the announcement of technical evaluation report and five days after issuance of final evaluation report.
	48.3	In case, the complaint is filed against the technical evaluation report, the GRC shall suspend the procurement proceedings.
	48.4	In case, the complaint is filed after the issuance of the final evaluation report, the complainant cannot raise any objection on technical evaluation of the report: Provided that the complainant may raise the objection on any part of the final evaluation report in case where single stage one envelope bidding procedure is adopted.
	48.5	The GRC, in both the cases shall investigate and decide upon the complaint within ten days of its receipt.
	48.6	Any bidder or the procuring agency not satisfied with the decision of the GRC may file Appeal before the Appellate Committee of the Authority on prescribed format after depositing the Prescribed fee.
	48.7	The Committee, upon receipt of the Appeal against the decision of the GRC complete in all respect shall serve notices in writing upon all the parties to appeal.

	48.8	The committee shall call the record from the concerned procuring agency or the GRC as the case may be, and the same shall be provided within prescribed time.
	48.9	The committee may after examination of the relevant record and hearing all the concerned parties, shall decide the complaint within fifteen (15) days of receipt of the Appeal.
	48.10	The decision of the Committee shall be in writing and shall be signed by the Head and each Member of the Committee. The decision of the committee shall be final.

H. MECHANISM OF BLACKLISTING

49. Mechanism of Blacklisting	49.1	The Procuring Agency shall bar for not more than the time prescribed in Rule-19 of the Public Procurement Rules, 2004, from participating in their respective procurement proceedings, bidder or contractor who either: i. Involved in corrupt and fraudulent practices as defined in Rule-2 of Public Procurement Rules; ii. Fails to perform his contractual obligations; and iii. Fails to abide by the id securing declaration; iv. Procuring Agency's Mechanism as per BDS
	49.2	The show cause notice shall contain: (a) precise allegation, against the bidder or contractor; (b) the maximum period for which the Procuring Agency proposes to debar the bidder or contractor from participating in any public procurement of the Procuring Agency; and (c) the statement, if needed, about the intention of the Procuring Agency to make a request to the Authority for debarring the bidder or contractor from participating in public procurements of all the procuring agencies.
	49.3	The procuring agency shall give minimum of seven days to the bidder or contractor for submission of written reply of the show cause notice
	49.4	In case, the bidder or contractor fails to submit written reply within the requisite time, the Procuring Agency may issue notice for personal hearing to the bidder or contractor/ authorize representative of the bidder or contractor and the procuring agency shall decide the matter on the basis of available record and personal hearing, if availed.

	49.5	In case the bidder or contractor submits written reply of the show cause notice, the Procuring Agency may decide to file the matter or direct issuance of a notice to the bidder or contractor for personal hearing.
	49.6	The Procuring Agency shall give minimum of seven days to the bidder or contractor for appearance before the specified officer of the Procuring Agency for personal hearing. The specified officer shall decide the matter on the basis of the available record and personal hearing of the bidder or contractor, if availed
	49.7	The procuring Agency shall decide the matter within fifteen days from the date of personal hearing unless the personal hearing is adjourned to a next date and in such an eventuality, the period of personal hearing shall be reckoned from the last date of personal hearing.
	49.8	The Procuring Agency shall communicate to the bidder or contractor the order of debarring the bidder or contractor from participating in any public procurement with a statement that the bidder or contractor may, within thirty days, prefer a representation against the order before the Authority.
	49.9	Such blacklisting or barring action shall be communicated by the procuring agency to the Authority and respective bidder or bidders in the form of decision containing the grounds for such action. The same shall be publicized by the Authority after examining the record whether the procedure defined in blacklisting and debarment mechanism has been adhered to by the procuring agency.
	49.10	The bidder may file the review petition before the Review Petition Committee Authority within thirty days of communication of such blacklisting or barring action after depositing the prescribed fee and in accordance with "Procedure of filing and disposal of review petition under Rule-19(3) Regulations, 2021". The Committee shall evaluate the case and decide within ninety days of filing of review petition
	49.11	The committee shall serve a notice in writing upon all respondent of the review petition. The notices shall be accompanied by the copies of review petition and all attached documents of the review petition including the decision of the procuring agency. The parties may file written statements along with essential documents in

		support of their contentions. The Committee may pass such order on the representation may deem fit.
	49.12	The Authority on the basis of decision made by the committee either may debar a bidder or contractor from participating in any public procurement process of all or some of the procuring agencies for such period as it deemed appropriate or acquit the bidder from the allegations. The decision of the Authority shall be final.

SECTION-III BID DATA SHEET

Bid Data Sheet (BDS)

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

BDS Clause Number	ITB Number	Amendments of, and Supplements to, Clauses in the Instruction to Bidders
A. Introduction		
1.	1.1	Name of Procuring Agency: <i>Chief Engineer (Development) IESCO Islamabad</i> The subject of procurement is: <i>Procurement of Goods & Services for Supply and Installation of AMI Interoperability Lab</i>
2	2.1	Financial year for the operations of the Procuring Agency: <i>2025-26</i> Name of Engineering goods/Equipment/Material: <i>As mentioned above</i> Name of financing institution: <i>IESCO Own Resources against the Budget allocated for FY 2025-26 under ADB-IESCO AMI Project Counterpart Funding</i> Name and identification number NCB-272 /2025-26 of the Contract: <i>As mentioned thereon in the ITB-1.1</i>
4.	3.1	Maximum number of members in the joint venture, consortium or association shall be: <i>It is discretion of bidder (s).</i> <i>1. Joint venture agreement or Letter of Intent for JV will be for this particular tender.</i> <i>2. In case of JV or letter of intent of JV, bidder shall submit bid security & Performance security in name of JV irrespective of lead partner /in-charge of JV. Single partner security will lead to rejection of bid.</i>
5.	4.1	Ineligible country(s) is or are <i>any country under trade Embargo by the Government of Pakistan or the United Nations.</i>
6.	4.6	Demonstration of authorization by manufacturer: <i>Required (where bidder is not manufacturer).</i>

B. Bidding Documents

7.	7.2	<i>The original bid will be uploaded on e-pads website www.eprocure.gov.pk</i>
8.	8.1	The address for clarification of Bidding Documents is: online at www.eprocure.gov.pk
	8.5	Pre-bid meeting: 22.12.2025

C. Preparation of Bids

9.	10.1	The Language of all correspondences and documents related to the Bid is: English
10.	11.1(b)	Detail of sample(s) to be submitted with the Bid are: Samples are not required except <i>Samples of equipment required for those item(s) whose specification(s) are not available or where brand Name or equivalent is not mentioned or requirement of Bid Evaluation Committee as and when required to establish the characteristic of offered product. In that case Bidder will provide the sample (s) within three (03) days from the date of letter in which requirement of sample is pointed out.</i>
11.	11.1 (h)	In addition to the documents stated in ITB 11, the following documents must be uploaded with the bid on www.eprocure.gov.pk and included with the copy of Bid: i. Integrity Pact (No contract amount should be mentioned) ii. Joint venture Agreement if any on non-judicial stamp paper for particular tender iii. No Deviation certificates from Commercial terms and technical specification iv. Firms Engineers and professionals Information v. Quality Control & Assurance list and status vi. Income tax returns for last three years vii. Audited Financial Reports of last three years viii. Confirm and valid Bank Credit line (latest) (if any) required to establish cash flow or financial resources.

		ix. Declaration for no blacklisting/debarment from any organization (locally or internationally) for both manufacturer and bidder.
12.	11.2 (d)	Characteristics: <i>Specifications as mentioned in Section-V Schedule of Requirement.</i>
13.	12.3 (c)	Other procurement specific documentation requirement are: <i>As per Section V of Bidding Document.</i>
14.	12.4	Spare parts required for: <i>As per respective Specification (s) mentioned in Section-V of Bidding Document or Employer's requirement.</i>
15.	13.3 (a)	The Bidder is required to include with its Bid, Manufacturer Authorization & Credentials The Bidder must submit evidence from the Original Manufacturer authorizing supply of quoted goods in Pakistan, along with a valid business license, ownership details, registered office, factory address (with proof of premises), and confirmation of authenticity of addresses published on the Manufacturer's official webpage. Production Facility Verification The Bidder shall provide Manufacturer's registration certificate, coordinates of production facilities, factory photographs/videos (or web links), and confirmation that the factory will be accessible for Factory Acceptance Tests (FAT) in case Procuring Agency opts to conduct inspection at the premises of manufacturer. Compliance & Certification Required documents include notarized/apostilled English translations (where applicable) and valid ISO certifications (ISO 9001 - Quality, ISO 14001 - Environment, ISO 45001 - Health & Safety). Financial & Manufacturing Declaration The Bidder must disclose the Manufacturer's paid-up capital (in RMB and USD equivalent) and provide a formal declaration that all goods quoted for IESCO are produced under the Manufacturer's supervision at its certified production site.

	13.3 (b)	The qualification criteria required from Bidders in ITB 13.3(b) is modified as follows: (list criteria) The qualification criteria required from Bidders in ITB 13.3(b) is modified as follows: <u><i>Appendix-A is mandatory for bidder (s) to establish experience, qualification and evaluation criteria. In case bidder/manufacturer fails to fulfill the criteria, its bid will be considered non-responsive.</i></u>
16.	15.6 (a) (iii), (iv)	For goods manufactured from within Pakistan the price quoted shall be: <i>FCS including all taxes and duties (excluding GST),</i> <i>Inland Transportation, insurance or other incidental services, loading and unloading etc. from Factory to Designated Store of IESCO as per price schedule.</i>
17.	15.6 (b) (i) (ii), (iii) (iv), (v)	For goods offered from abroad the price quoted shall be: <i>Duty Delivery Paid (DDP) including all taxes & duties.</i> <i>Inland Transportation, insurance or incidental services from port or border or place of entry to IESCO Designated Store including Loading and Unloading etc. as per price schedule.</i>
18.	15.7 (a) (i)	As defined in BDS Sr. No 16 and 17.
19.	15.8	The Prices shall be fixed and firm without escalation during currency of contract. Bidder will assess all risk during bidding as well as after contract agreement before participation in bidding.

20.	15.9	In Addition to ITB, bidders shall quote for the entire goods and services on a “single responsibility” basis such that the total Bid price covers all the Contractor’s obligations mentioned in or to be reasonably inferred from the Bidding Document in respect of the design, manufacture, including procurement and subcontracting (if any). This includes all requirements under the Contractor’s responsibilities for testing, pre-commissioning and commissioning of the plant and, where so required by the Bidding Document, the acquisition of all permits, approvals, and licenses, etc.; the operation, maintenance, and training services and such other items and services as may be specified in the Bidding Document, all in accordance with the requirements of the General Conditions
21.	16.1 (a)	a) For goods and related services originating in Pakistan the currency of the Bid shall be <i>Pakistani Rupees (PKR)</i> ; b) For goods and related services originating outside Pakistan, the Bidder shall express its Bid in <i>Pakistani Rupees (PKR)</i> .
22.	16.2	For the purposes of comparison of bids quoted in different currencies, the price shall be converted into a single currency specified in the bidding documents. The rate of exchange shall be the selling rate, prevailing on the date of opening of bids specified in the bidding documents, as notified by the State Bank of Pakistan on that day.
23.	17.1	The Bid Validity period shall be: 90 days.
24	17.3	Not Applicable. Fixed price shall prevail during currency of contract.
25..	18.1	The amount of Bid Security amounting to Rs. 2,500,000/- • If there is a difference between the bid security value mentioned in the bidding document and EPADS, then the value given in EPADS will be considered as final. • The currency of Bid Security shall be denominated in PAK Rupees only. 1. The copy of Bid security must be submitted in an acceptable form in favor of Chief Engineer (Development), IESCO, Islamabad online and

		Original Bid security shall be accompanied with technical proposal envelope at the time of bid. Lesser bid security amount or validity of bid security will lead to rejection of bid. 2. Bid Securing Declaration "Not Applicable" 3. Bid security of JV should be in name of JV, failure to provide Bid security will lead to rejection of bid.
26.	18.3	The Bid Security shall be in the form of: <i>Cashier's Cheque, Bank Guarantee, DD, CDR.</i>
27.	18.3 (c)	Other forms of security are: <i>As per 18.3 of BDS</i>
28.	19.1	Alternative Bids to the requirements of the Bidding Documents: <i>Not allowed</i>
29.	21.1	<i>The original bid will be uploaded on e-pads website www.eprocure.gov.pk</i>
30.	21.2	Written confirmation of authorization are: <i>Power of attorney in the name of authorized person who is responsible for signing of bid, post bid clarification and subsequent contract agreement.</i> <i>In case of JV, all partners of JV will authorize the person who is responsible for signing of bid, post bid clarification and subsequent contract agreement.</i> <i>Power of attorney will be on non-judicial paper and format of Power of attorney should be acceptable to the employer or as described in the section-VI (Bid Form).</i>

D. Submission of Bids

31.	22.2 (a)	Bid shall be submitted online at www.eprocure.gov.pk and original bid Security shall be submitted/ delivered in the form of <i>Cashier's Cheque, Bank Guarantee, DD, CDR.</i> before bid closing time in the o/o: <i>Chief Engineer (Development)</i> Address: <i>IESCO Head Office Sector G-7/4 Street No. 40</i> City/Town: <i>Islamabad</i>
32.	22.2 (b)	Title of the subject Procurement or Project name: Procurement of Goods & Services for Supply and Installation of AMI Interoperability Lab under IESCO own resources ADB-IESCO AMI Counterpart funding IFB title and No: <i>IESCO/PMU/Goods & Services/NCB-272</i> Time and date for submission: <i>As per mentioned in IFB</i>
33.	23.1	The deadline for Bid submission is <i>As per IFB</i>

E. Opening and Evaluation of Bids		
34.	26.1	The Bid opening shall take place at: <u>Address:</u> <i>IESCO Headquarters, Street No.40, Sector G-7/4.</i> <u>City/Town:</u> <i>Islamabad</i> As per IFB
35.	32.2	The currency that shall be used for Bid evaluation and comparison purposes to convert all Bid prices expressed in various currencies is: <i>Pak Rupee</i> The source of exchange rate shall be: <i>State Bank of Pakistan</i> The date of exchange rate shall be: <i>Date of Bid Opening</i>
36.	35	Evaluation Techniques Least Cost Based Selection (LCBS) After meeting the requirements of eligibility, qualification and substantial responsiveness, the bid in compliance with all the mandatory (technical) specifications/requirements and/or requisite quality threshold (if any), and having lowest evaluated cost (or financial proposal) shall be considered highest ranked bid. Quality and Cost Based Selection (QCBS) In such combination, there shall be some specific weightage of both the technical features (such as prescribed in ITB 35.2) and financial aspects of the proposal. The financial marks shall be awarded on the basis of inverse proportion calculations. The highest ranked bid shall be declared, on the basis of combined evaluation. Explanation: No weightage shall be given to the qualification parameters such as capacity and capability of the bidder (i.e. Manufacture or Authorized supplier), for the purpose of rating. Any such weightage shall only be attributed to the quality parameter of the product to be procured. In case of QCBS technique, the weightage to determine the ranking of the bidders shall: a) Not be more than 40 percent for the technical parameters of the product; and

		b) not less than 60 percent for the financial aspect. Aspects for Ranking the Quality of the Product <i>(Editable based on the professional expertise of that particular trade)</i> The Procuring Agency, in addition to the mandatory requirements and mandatory technical specifications, may requires the following parameters to be evaluated while determining the quality of the goods: (a) Additional Functionalities (or priority requirements); (b) Factors of sustainable procurement (e.g. environmentally friendly products); (c) Efficiency of the machinery having minimum losses; (d) Additional Safety Features; (e) GPS Facility in case of portable equipment; (f) Closeness of upper/lower ceiling for such specification's having certain ranges; (g) Lower Value of Least Count Error; (h) Earthquake related OBE (Operation Basis Earthquake) and SSD (Safe Shut Down) Earthquake features; (i) Incidental services such as installation and/or commissioning facilities offered by the manufacturer/authorized dealer; (j) Longer Warranty period, after sale service, and/or post installation/commissioning support; and/or (k) Testing facilities at site etc. Cost of components, mandatory spare parts, and service; (m) the availability in Pakistan of spare parts and after-sales services for the equipment offered in the bid; (n) the projected operating and maintenance costs during the life of the equipment; (o) the performance and productivity of the equipment offered; and/or
33.	33.4 (h)	Other specific criteria are: Nil

34.	33.5 (a)	Inland transportation from FCS from Factory /DDP from Karachi Port to AMI Interoperability Lab at 132kV Pirwadhai Grid Station and insurance and incidentals. Bidder shall furnish: • Estimated dimensions and shipping weight of each package. • Approximate FCS/Applicable INCOTERM value of each package.
35.	33.5 (b) Option (i) Option (ii) Option (iii)	Completion schedule: <i>Maximum 120 Days from Commencement date.</i> Adjustment expressed as a percentage: <i>of 0.05% /day of quoted price, where completion schedule is deviated 30 days. In case, deviation of completion schedule is more than 30 days, bid shall be considered non responsive.</i>
36.	33.5 (c) (ii)	Deviation in payment schedule: <i>Not allowed and bid will be considered non-responsive.</i> Annual interest rate: <i>Interest Rate prevailing at time of Bid Opening date.</i>
37.	33.5 (d)	Cost of spare parts: <i>As per tender specification or Scope of work or upon the enquiry of bidder.</i>
38.	33.5(e)	Spare parts and after sales service facilities in Pakistan. <i>Not Applicable</i>
39.	33.5 (f)	Operating and maintenance costs. Not Applicable
40.	33.5 (g)	Performance and productivity of equipment. <i>As mentioned in Appendix-A</i>
41.	33.5 (h)	Specific additional criteria to be used in the evaluation and their evaluation method or reference to the Technical Specifications. <i>As per Appendix-A</i>
42.	33.6	In case of award to a single Bidder of multiple lots methodology of evaluation to determine the lowest Evaluated LOT combinations, including any discounts offered in the Form of Bid is; <i><u>"Most Advantageous Bid"</u></i> shall be considered for each Lot/Tender/Package.
43.	34.1	Domestic preference to apply. Preference to domestic or national suppliers or contractors shall be provided in accordance with policies

		of the Federal Government and/or in accordance with the regulations issued by the Authority. The Magnitude and procedure is described thereon in Appendix-A .
F. Award of Contract		
44.	40.1	Percentage for quantity increase or decrease is: 15% of amount of contract at the time of issuance of NOA/during the currency of contract as repeat order. In case tender possess more than one item (s); Procuring agency may increase/decrease quantity for any item of tender or for entire tender, however percentage shall remain 15% of amount of contract.
45.	43.1	The Performance Bank guarantee shall be: Amount up to 10% percent of the Contract Price to be provided within 28 days of the issuance of Letter of Acceptance (LOA) / Notification of Award (NOA).
46.	43.2	The Performance Security (or guarantee) shall be in the form of: <i>Bank Guarantee from Scheduled Bank having rating A+</i> . Insurance Performance security is not admissible.
47.	44.1(b)	The Advance Payment is allowed to Most Advantageous Bidder subject to following condition: Procuring Agency will release 10% advance payment to contractor against bank guarantee from Scheduled Bank having rating A+.
48.	44.2	Maximum amount of Advance payment shall be: <i>As mentioned in ITB-44.1(b)</i>
49.	45.1	Arbitrator shall be appointed by mutual consent of the both parties. Bidder shall nominate the arbitrator at time of Bidding stage; however, nomination of arbitrator shall be decided by mutual understanding.

G. Review of Procurement Decisions

50.	47.1	Grievance can be raised online at www.eprocure.gov.pk as well as in hard form at <i>Chief Engineer Development) IESCO, IESCO Headquarters Street No. 40, Sector G-7/4 Islamabad</i> <i>Timeline of grievance is in accordance with PPRA Rules-35 & 48</i> <i><u>No fee will be applicable for first grievance.</u></i> <i><u>Please avoid unnecessary grievance to save the time of procuring agency.</u></i>

58.	48.6	The Address of PPRA to submit a copy of grievance: <i>Grievance Redressal Appellate Committee, Public Procurement Regulatory Authority (PPRA) 1stFloor, G-5/2, Islamabad, Pakistan Tel: +92-51-9202254</i> i) Fee of PPRA Appellate for Grievance is Rs. 200,000/- having bid value Upto 250 Million ii) Above 250 Million = 0.1% of bid value but not exceeding 2.5 Million <i>The Plaintiff will bear the cost / fees for PPRA Greivance.</i>
59.	49.1	IESCO Mechanism for Blacklisting of contractor/supplier/manufacturer/consultant/firm as attached in the section VIII. <u><i>It will be presumed that bidder has gone through the contents and is agreed with IESCO mechanism.</i></u>

Note:

1. *Please go through the contents of bidding documents carefully, in case of any query (ies), do not hesitate for clarification as per ITB clause -8.1.*
2. *It is also advised to submit binded bids.*

Evaluation and Qualification Criteria

TABLE OF CRITERIA

1. Evaluation Criteria	
1.1 Technical Criteria	
1.2 Domestic Preference	
1.3 Economic Criteria	
1.3.1 Adjustment for Scope	
1.3.1.1 Local Handling and Inland Transportation.....	
1.3.1.2 Minor Omissions or Missing Items.....	
1.3.2 Adjustment for Deviations from the Terms of Payment.....	
1.3.3 Adjustment for Deviations in the Delivery and Completion Schedule	
1.3.4 Operating and Maintenance Costs	
1.3.5 Spare Parts.....	
1.3.6 Performance and Productivity of the Goods	
1.4 Multiple Lots (Contracts)	
2. Qualification Criteria	
Contract Type A. Off-the-Shelf Items	
2.1 Eligibility	
2.1.1 Nationality	
2.1.2 Conflict of Interest.....	
2.1.3 ADB Eligibility	
2.1.4 Government-Owned Enterprise	
2.1.5 United Nations Eligibility	
2.2 Experience and Technical Capacity	
2.2.1 Contractual Experience	
2.3 Financial Situation	
2.3.1 Historical Financial Performance	
2.3.2 Size of Operation (Average Annual Turnover) (Optional).....	

Contract Type B. Custom-Designed, High-Value, and Technically Complex

Items .....	.....
2.1 Eligibility .....	.....
2.1.1 Nationality .....	.....
2.1.2 Conflict of Interest.....	.....
2.1.3 ADB Eligibility.....	.....
2.1.4 Government-Owned Enterprise .....	.....
2.1.5 United Nations Eligibility .....	.....
2.2 Historical Contract Nonperformance .....	.....
2.2.1 History of Nonperforming Contracts .....	.....
2.2.2 Suspension Based on Execution of Bid-Securing Declaration.....	.....
2.2.3 Pending Litigation .....	.....
2.3 Experience and Technical Capacity .....	.....
2.3.1 Contractual Experience .....	.....
2.3.2 Technical Experience .....	.....
2.3.3 Production Capacity .....	.....
2.4 Financial Situation.....	.....
2.4.1 Historical Financial Performance .....	.....
2.4.2 Size of Operation (Average Annual Turnover) .....	.....
2.4.3 Cash Flow Capacity .....	.....

1. Evaluation Criteria

1.1 Technical Criteria

“The cost of all quantifiable deviations or deficiencies from the technical requirements as specified in Section IV (Schedule of Requirement) shall be evaluated. The Purchaser will make its own assessment of the cost of these deviations or deficiencies for the purpose of ensuring fair comparison of Bids.”

1.2 Domestic Preference

- 1) Bidders' tendering for engineering goods produced in Pakistan shall be accorded a price preference in rupees up to a specific percentage (in proportion to the value addition) of the lowest quoted landed cost of an item of foreign origin with similar specifications as mentioned in the tender(s):
- 2) Domestic preference shall be applicable in accordance with SRO. 827 (I)/2001 dated 03.12.2001 issued by Ministry of Commerce, Govt. of Pakistan. *
- 3) In comparison of evaluated Bids, the Goods manufactured in Pakistan, will be granted a margin of preference in accordance with the following procedures, provided that:
- 4) The bidder shall have established to the satisfaction of Employer that the
 - a) Manufacturing cost of such Goods includes a domestic value addition equal to at least 20% of the Ex-factory Bid price of such Goods.
 - b) The saving in foreign exchange is not less than the amount of price preference.
 - c) It is ensured that in each case of such preference, the total import requirement for producing the supplies tendered for locally manufactured items has been duly indicated by the bidders.
 - d) Price preference shall be allowed as under:
 - i) Having minimum of twenty per cent value addition through indigenous manufacturing price preference shall be fifteen percent.
 - ii) Having over twenty percent and upto thirty percent value addition through indigenous manufacturing, price preference shall be twenty percent.

- iii) Having over thirty percent value addition through indigenous manufacturing, price preference shall be twenty-five percent.

Notes:

1. In order to avail the domestic preference, local manufacturer shall provide the certificate of value addition on FCS price from Engineering Development Board (EDB) Islamabad. Without this certificate of EDB Islamabad, minimum 15% value addition for domestic preference shall be assessed.
2. For the purpose no post bid clarification shall be asked from any bidder to avoid the change of substance of bid except in case of extreme emergency.

1.3 Economic Criteria

1.3.1 Adjustment for Scope

1.3.1.1 Local Handling and Inland Transportation

Cost for local handling and inland transportation shall be quoted in price schedule of FCS/DDP Price.

1.3.1.2 Minor Omissions or Missing Items

As per ITB, "the cost of all quantifiable nonmaterial nonconformities or omissions from the contractual and commercial conditions shall be evaluated. The Purchaser will make its own assessment of the cost of any nonmaterial nonconformities and omissions for the purpose of ensuring fair comparison of Bids."

1.3.2 Adjustment for Deviations from the Terms of Payment

"Deviations from the Terms of Payment are not permitted."

1.3.3 Adjustment for Deviations in the Delivery and Completion Schedule

"The Goods & Services covered by this bidding process are required to be delivered in accordance with, and completed within, the Delivery and Completion Schedule specified in Section V & VI. No credit will be given for earlier completion. Bids offering late contract performance schedules will be accepted but the Bids shall be adjusted in the evaluation by adding to the Bid Price at the rate of 0.05%/per day of the Bid Price for each day of delay. Bids offering delivery schedules beyond 30 days of the date specified in Section V&VI shall be rejected."

1.3.4 Operation and Maintenance (O&M) Costs

Not Applicable

1.3.5 Spare Parts

"As per Specification or otherwise as required in tender inquiry"

1.3.6 Performance and Productivity of the Goods

The Performance and Productivity of Goods (if required) shall be assessed as per the relevant Tender Specifications or the Comparison of Technical Characteristics of the items or through Samples (whichever is applicable). Such as:

1.4 Multiple Lots (Contracts)

If Goods and Related Services are grouped in multiple lots, the following provision must be used:

“Tender shall be awarded to the Most Advantageous Bidder for entire tender or lot.”

2. Qualification Criteria

2.1 Eligibility

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	

2.1.1 Nationality

Nationality in accordance with section -IV.	Must meet requirement	Must meet requirement	Must meet requirement	Not applicable	Bid Submission Sheet;

2.1.2 Conflict of Interest

No conflicts of interest in accordance with ITB - 3.7	Must meet requirement	Must meet requirement	Must meet requirement	Not applicable	Bid Submission Sheet& an affidavit

2.1.3 Blacklisting/Debarment

Not having been declared debarred by ADB, WB or cross debarment/ any procuring agency of Pakistan as described in ITB- 3.8 & ITB-49	Must meet requirement	Must meet requirement	Must meet requirement	Not applicable	Bid Submission Sheet& an affidavit

2.1.4 Government-Owned Enterprise

Bidder required to meet conditions of Section-I	Must meet requirement	Must meet requirement	Must meet requirement	Not applicable	Bid Submission

2.2 Historical Contract Non-performance

2.2.1 History of Non-performing Contracts

Criteria	Compliance Requirements			Documents
Requirement	Single Entity	Joint Venture		Submission Requirements
		All Partners Combined	Each Partner	
Non-performance of a contract ^a did not occur as a result of contractor default since 1 st January 2025	Must meet requirement	Must meet requirement	Must meet requirement ^b	Not Applicable

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

^b This requirement also applies to contracts executed by the Bidder as Joint Venture partner.

Note: Blacklisted firm only be considerable which is in active list of PPRA (Website)

2.2.2 Suspension Based on Execution of Bid-Securing Declaration

Not Applicable

2.2.3 Pending Litigation

- Bidder/ tenderer will submit a certificate that the firm is neither blacklisted/ debarred by WAPDA/ DISCOs/ GENCOs/ NTDC at present.
- Bidders are required to submit details of all litigation, arbitration and other claims whether pending , threatened or resolved in the last five years, the employer / purchaser may disqualify bidder in the event that the total amount of pending or threatened litigation, arbitration or other claims represents fifty percent (50%) of the bidder`s net worth. Details in this regard should be
- Submitted in the bid.
- The above stated requirements are a minimum and the Purchaser reserves the right to request for any additional information. The Purchaser also reserves the right to reject the proposal of any Bidder, if in the opinion of the Purchaser the qualification details are incomplete, ambiguous or the Bidder is found not qualified to satisfactorily perform the Contract.
- The above stated Appendices should be completed as per prescribed format and submitted along with required attachments. The missing or incomplete
- information/documents may render the bid substantially non-responsive. In this regard, the Purchaser does not have an obligation to request any
- document/certificates.
- The bidder is required to include with its Bid, documentation from the manufacturer of the goods that it has been duly authorized to deliver, in Pakistan, the goods indicated in its Bid.

FORM OF PENDING LITIGATION

Each Bidder or member of a JV must fill in this form.

Sr.no	Name of DISCOs/ organization	Case title/No.	Court/forum	Nature of dispute	Amount involved (PKR/USD)	Current status	remarks

Signature and Seal of Bidder:

2.3 Experience and Technical Capacity

2.3.1 Contractual Experience

Criteria	Compliance Requirements			Documents	
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
a) Bidder or its manufacturer or JV (any partner) shall have successfully completed at least One (01) number of contracts of same nature/type. "Same nature/type" means supply & installation of electrical equipment & gauges, building material, wiring etc at any lab having comparable characteristics/ features such as moisture controlled and quantum . In this context, complete set of copies of the contract agreements/Purchase Orders along-with copy of GRN/ completion certificate (must be issued by the end user client) for the equipment indicated in the supply record pertaining to the specified and comparable equipment during the bid evaluation. Non-submission of said/above documents shall render the bid non-responsive. In this context the bidder is	Must meet requirement				The Bidder shall provide the Signed Contract Agreement and Completion certificates or GRN
			One Partner Must Meet the corresponding criteria		

required to fill only in the relevant forms given in tender document and submit the same with the bid. The documents submitted in format other than given in the bidding document, shall make the bid as non-responsive. Schedule of qualifications duly filled in should be submitted with the bid and extra sheets may be used to furnish qualifications, experience and supply record (year wise) of the addresses/contract numbers of the purchasers/clients. b) The bidders/JV, who are not manufacturers themselves, shall furnish a valid and fresh authorization from the concerned manufacturer to submit a bid from supply of their goods to Pakistan against the tender. Value of contract should not be less than 5% of the Rs. 20 Million.			

2.3.2 Manufacturing Experience

Criteria	Compliance Requirements			Documents
Requirement	Single Entity	Joint Venture		
		All Partners Combined	Each Partner	One Partner
The manufacturer shall demonstrate designing and manufacturing experience of similar or higher rated equipment /material for at least five year and The sea satisfactory operation performance of offered equipment.	Must meet requirement	Not applicable	Not applicable	Manufacturer must meet
NOT APPLICABLE				
				Manufacturer will provide the detailed supply record of similar or higher rated equipment. Satisfactory performance of similar equipment for three years.

2.3.3 Production Capacity

Criteria	Compliance Requirements			Documents
Requirement	Single Entity	Joint Venture		
		All Partners Combined	Each Partner	One Partner
In order to ensure the smooth and timely execution of order, the manufacturer will indicate its manufacturing / production capacity which shall be double the total sum of orders already in hand, expected orders in pipe line and this order (if placed on the bidder). The manufacturer shall provide the information with the bid to establish its capacity / capability to execute the order for which necessary documentary evidence may be attached related for the above mentioned requirements. In this context the manufacturer is required to fill in the relevant forms given in Forms of this tender document and submit the same with the bid. The purchaser may visit the site of supplier at any time during evaluation.	Must meet requirement	Not applicable	Not applicable	Manufacturer must meet
				Forms

2.4 Financial Situation

2.4.1 Historical Financial Performance

Criteria		Compliance Requirements			Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
Submission of audited financial statements for the last three years to demonstrate the current soundness of the Bidder's financial position. No Negative net worth of last three years. The Bidder's Net Worth as mentioned in last year's audited financial statement as the difference between total assets and total liabilities should be positive.	Must meet requirement	Not applicable	Must meet requirement	Not Applicable	Form FIN - 1 and audited financial reports

2.4.2 Size of Operation (Average Annual Turnover)

Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	(lead Partner)	Each Partner	
Minimum average annual turnover of PKR calculated as total payments received by the Bidder for contracts completed or under execution over the last three years.	Must meet requirement	Not Applicable	Must meet 60% of the requirement	Must meet 40% of the requirement	Form FIN-2 and audited financial reports
NCB-272=Rs.70 Million					

2.4.3 Cash Flow Capacity

Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Lead Partner	One Partner	
Specify proposed sources of financing, working capital, un availed credit line based upon renewed facility letter or fresh firm commitment having validity period exceeding the project period being bid, and other financial means after deduction of current commitments, available to meet the cash flow demands as indicated in below	Must meet requirement	Must meet requirement	Must meet 60% of the requirement	Must meet 40% of the requirement	Form FIN-3 Current commitment and credit line
NCB-272=Rs.70 Million					

Conditions

- Bidder/ JV shall demonstrate above financial resources after deduction of current commitment
Cash Flow = Working Capital + Credit Line Facility - Deduction of Current Commitment
- Bidder will provide confirm credit line facility from schedule banks of Pakistan to meet above financial criteria. No other letter of credit is acceptable.

Section-IV Eligible Countries

All the bidders are allowed to participate in the subject procurement without regard to nationality, except bidders of some nationality, prohibited in accordance with policy of the Federal Government.

Following countries are eligible to participate in the procurement process:

“All countries of world with whom Islamic Republic of Pakistan has commercial relations and for which no Trade Embargo has been imposed by the Government of Pakistan”

Ministry of Interior, Government of Pakistan has notified List of Business-Friendly Countries (BVL), information can be accessed through following link:

<http://www.dgip.gov.pk/Files/Visa%20Categories.aspx>
<https://visa.nadra.gov.pk/business-visa-list-bvl/>

SECTION-V
SCHEDULE OF REQUIREMENTS, TECHNICAL SPECIFICATIONS

Schedule of Requirements

Part-A Delivery/Completion Period

The delivery schedule expressed as weeks/months stipulates hereafter a delivery date which is the date of delivery and delivery period will commence from the date of signing of contract agreement.

- (i) In case of *Within Purchaser's Country* "at FCS up to **AMI Interoperability Lab at 132kV Pirwadhai Grid Station.**
- (ii) In case of *Outside Purchaser's Country* "at DDP up to **AMI Interoperability Lab at 132kV Pirwadhai Grid Station**

Technical Specifications

Part-B Technical Specifications

1. GENERAL

- 1.1 All designs, equipment, materials and workmanship shall comply with and be tested in accordance with requirements of the specifications. Equipment or parts, which are not covered by the specifications, shall comply with rules,
- 1.2 The general inlet of these specifications is to require the supply of equipment and materials equal or superior to those actually described herein. Unless otherwise stated, reference to the brand or manufacture, if made is only for the sake of comparison as to type, design, character or quality of the equipment and materials desired and shall not be interpreted as eliminating other equipment and materials of equal performance, quality and durability.

2. SPECIFICATIONS AND DRAWING

- 2.1 The contract shall be executed in strict conformity with the specifications and/or Drawings given or mentioned in this section and the supplier shall do no 'Work' without proper specifications, instructions and/or Drawings.
- 2.2 Specifications and/or drawings are intended to complement each other so that if anything is shown on the drawings as required but not mentioned in the specifications or vice versa. It shall be of like effect as if shown or mentioned in both. If any error, omission or discrepancy is found in the figures, specifications and/or drawings or, if any feature shall appear to the supplier to be indefinite or unclear, the same shall be referred to the Purchaser whose written explanation and/or clarification shall be obtained before proceeding with the work.
- 2.3 The Manufacturer / supplier shall submit to Purchaser under intimation to the Purchaser, within **30 days** of the issuance of the Notification of Award, for approval of the Purchaser, **four (4) copies** of all drawings technical literature, data, operation and maintenance instruction books and/or manuals required under the specifications and such other documents as per required in the Technical

Specifications or other provisions of the bidding documents or, if Purchaser deems necessary, require changes or modifications to be made therein, Purchaser shall return two copies to the Manufacturer/Supplier marked. "Approved", "Approved as Noted" or "Returned for Correction". Each drawing, which is noted "Returned for Correction".

- 2.4 The Manufacturer/Supplier after incorporating the desired changes in the drawing shall resubmit four (4) sets of the same to the Purchaser for approval. Two prints of which shall be stamped "APPROVED" by the Purchaser and returned to the Manufacturer/Supplier for his record.
- 2.5 On completion of the Contract, the Manufacturer / Supplier shall deliver to the Purchaser four (4) prints of all approved drawings, technical literature, data which show the work in the final or "as built" condition. The said drawings and documents shall be permanent and non-fadable. In addition to above, two soft copies of above-mentioned final drawings made on Auto CAD (latest version) on two separate CDs shall also be provided to the Purchaser.
- 2.6 The Manufacturer/Supplier shall allow 15 days for the Purchaser's approval of drawings in his schedule of work and in the time allowed for completion of the Contract. Extra time required for approval of drawings due to deficiencies in design or errors in submitted drawings shall be the responsibility of the Manufacturer/Supplier and no extension in time will be allowed on this account. Delays in obtained approval caused by the Purchaser beyond 15 days will entitle the Supplier to an extension of time.
- 2.7 Approval by the Purchaser does not relieve the Manufacturer/Supplier of his responsibility to do the work in accordance with the Contract.
- 2.8 The Manufacturer/Supplier shall be responsible for any discrepancies, errors and omissions in any drawings or other particulars supplied by him whether the Purchaser has approved such drawings or particulars or not.
- 2.9 All drawings and documents furnished by the Manufacturer/Supplier in accordance with the Contract shall become the property of the Purchaser.
- 2.10 Wherever reference is made in the Technical Specifications to specific standards and codes to be met by the goods and materials to be furnished or tested, the provisions of the latest current edition or revision of the relevant standards or codes in effect shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are national or relates to a particular country or regions, other authoritative standards that ensure substantial equivalence to the standards and codes specified will be acceptable.

3. LANGUAGE

3.1 All correspondence, literature, drawings, name plates, diagrams, applicable data, equipment details, instructions and maintenance books and manuals, spare parts, books and descriptive data shall be in the English language.

4. TESTS

4.1 The ordered material shall be subject to tests as per relevant provisions of the specifications.

5. TYPE TEST Requirements

5.1 The contractor shall supply valid type test reports according to WAPDA/ NTDC specification along with the bid for the material offered. In case the type test reports furnished by the bidder are not from one of the laboratories mentioned below or any other reputed independent testing laboratories accredited by STL (Short-Circuit Testing Liaison) or are not relevant to the material offered or do not meet or comply with the ratings and other requirements of the Purchaser's Specifications included in this bidding document or are otherwise not to the satisfaction of the Purchaser in any respect, the bidder has to arrange Type testing at any one of the below mentioned laboratories at his cost without disturbing the stipulated delivery period given above duly witnessed by IESCO Engineers.

1. HV & SC Lab, Rawat, Pakistan
2. KEMA Lab, Holland
3. CESI, Italy
4. CRIEPI Lab, Japan
5. KERI Lab, Korea
6. Any other lab approved by STL
7. ILAC Lab

6. TECHNICAL SPECIFICATIONS

The following technical specifications (amended to date) are appended hereto:

6.1 SERVICE CONDITIONS

The Equipment and all accessories shall be suitable for satisfactory operation under the following service conditions.

b) Ambient Temperature

Maximum	50°C
Maximum mean over any 24 hours	45°C
Mean in any year	30°C
Minimum	-10°C

c) Relative Humidity

The relative humidity may range up to 100%. The maximum values of the ambient temperature and humidity, however, do not occur simultaneously.

During the monsoons, high humidity may persist for many days at a time, with temperature ranging from 30°C to 40°C.

d) Installations will be up to 1000 m above sea level.

e) Atmospheric Conditions

- It may be assumed that the air is not normally heavily polluted by dust, smoke, aggressive, gases, vapours or salt spray. However, at certain time of the year severe dust storms may be experienced.
- Provision shall be made in the design of all the equipment to ensure that proper operation is not impaired by vermin, insects, small animals and birds.

7. SCHEDULE OF TECHNICAL DATA

The bidder is required to fill the requisite schedule of technical data as per attached Specifications and submit the same with the bid for each equipment / material etc. A bid without schedule of technical data (filled in) will be considered as non-responsive.

8. PURCHASER'S SPECIFICATION FOR EQUIPMENT

The specifications can be downloaded from following link:

<https://drive.google.com/file/d/1t2Fu1bFQ5cRGLFGN69yKDcRUzwnRJm6u/view?usp=sharing>

The following technical specifications are appended hereto:

BoQ--Interior Decoration						
No.	Material	Specification	Unit	Qty	Required Services	Remark
#1	GROUND FLOOR partition wall					
1.1	Gypsum wall panel	Gypsum Board of partition thickness 97mm (filled with 75mm thermopore) along with 72mm track channel, 70mm metal stud, 25mm dry wall screws, jointing compounds, paper taps etc.	mm ²	60	Supply	60m2, 1F IS/power distribution room
1.2	Aluminum alloy glass single door for ground floor	W1200*H2300 with windows, metal panel T=50mm, including door and window materials, hinges, etc.	set	1	Supply	1F IS/power distribution room
1.3	Hardware and other materials	Aluminum channel and L-angle aluminum, etc.	set	1	Supply	

BoQ--Interior Decoration						
No.	Material	Specification	Unit	Qty	Required Services	Remark
1.4	Scaffolding erection		set	1	Supply	
1.5	Garbage cleaning and removal	Construction waste	set	1	Supply	
#2	FIRST FLOOR Renovation					
2.1	Open Door hole	According to the size of the door frame, punch a hole in the wall, 1200*2100mm	pcs	2	Supply	
2.2	Concrete structural columns	Door frame columns and lintels, C25 steel bars, consistent with wall thickness, 2 doors	m	12	Supply	
2.3	Wall repair	Restore wall putty and latex paint after opening the door hole	set	1	Supply	
2.4	Aluminum alloy glass door	Single door W1200mm*2100mm, consistent with existing door	set	2	Supply	
2.5	Double open, glass door	10mm tempered glass, stainless steel edging (fingerprint-free), including door lock and door handle	set	1	Supply	
2.6	Floor spring	Matching with glass door	set	2	Supply	
2.7	Door lintel/door pile	Tempered glass + stainless steel	mm ²	4	Supply	4m2
2.8	Garbage cleaning and removal	Construction waste	set	1	Service	
#3	Equipment and material transportation and Installation costs					
	Equipment and material transportation costs	Transport equipment and materials to designated locations for unloading and transport to designated locations and installation where required	set	1	Service	

PMU IESCO

Furniture & General

S No.	Material	Specifications	Unit	Qty	Required Services	Remarks
1	PC Desk	L1400mm*W700mmH760mm burly wood colour material is laminated board storage drawer level: 3(left)+1(right), one keyboard drawer Patex sheet or better. Note: Should be delivered installed	No	7	Supply	
2	10-draw storage cabinet	10-draw storage cabinet (L500mm*W450mm*H1400mm) Material: Cold-rolled steel plate, painted; 10 layers, layer height 130mm bearing: 20kg/layer Patex sheet or better. Note: Should be delivered installed	No	9	Supply	
3	4-draw Storage cabinet	4-draw storage cabinet (L480mm*W600mm*H1400mm) Material: Cold-rolled steel plate, painted; 4layers, layer height 420mm bearing: 40kg/layer Patex sheet or better. Note: Should be delivered installed	No	11	Supply	
4	4-layer shelf	Stainless Steels, 4-layer sample shelf (L2000mm*W600mm*H2000mm) Material is galvanized iron plate painted, 4layers, layer height 400mm, bearing 200kg/layer Patex sheet or better. Note: Should be delivered installed	No	16	Supply	
5	5-layer sample shelf	Stainless Steels, 5-layer sample shelf (L1500mm*W600mm*H1600mm) Material is SUS304, 5 layers, layer height 300mm, bearing 100kg/layer, with moving rollers. Patex sheet or better. Note: Should be delivered installed	No	13	Supply	
6	Removable PC desk	L550mm*W550mm*H760 mm (More detailed parameters, materials and other information will be provided later) Patex sheet or better. Note: Should be delivered installed	No	2	Supply	
7	ESP protection trailer	L900mm*W600mm*H200mm (Fold able handrail height: 850~950mm) , bearing 300kg, wheel material PVC, wheel dimension 4 inches, vehicle board material is PP Note: Should be delivered installed	No	2	Supply	

S No.	Material	Specifications	Unit	Qty	Required Services	Remarks
8	Anti-electrostatic clothes	Size: XXXL	No	30	Supply	
9	Anti-electrostatic clothes Closet	L900mm*W450mm*1800mm Note: Should be delivered installed	No	3	Supply	
10	Auto- shoe cover machine	Xilaike/BT-EGT-11 or Equivalent	No	2	Supply	
11	Atmospheric pressure gauge	NanJing Xiang RuiDe/DYM3 or Equivalent Note: Should be delivered installed	No	1	Supply	
12	Color printer	HP/4302fdw-A4 Laser Type or Equivalent	No	2	Supply	
13	Officer chair	Korean revolving chair with steel base, no plastic and with imported docs	No	15	Supply	
14	Visiting Chair	Korean non-revolving chair with steel base, no plastic and with imported docs	No	25	Supply	
15	Meeting Table	L5000mm*W1800*H700mm Patex sheet or better. Sample can be seen at IESCO G10 office Note: Should be delivered installed	No	1	Supply	
16	Monitors	TCL 75inch or equivalent	No	1	Supply	
17	Enterprise conference system	VC520 or equivalent	No	1	Supply	
18	Bench	L1200mm*W400mm*H450mm, material:SUS304	No	2	Supply	
19	Reception desk	AMI Lab reception Patex sheet or better. desk(L2000mm*W500mm*H1500mm) Note: Should be delivered installed	No	1	Supply	
21	Blinds	L2200mm*W2500mm Sample can be seen at IESCO G10 office	No	19	Supply	
23	Vacuum Cleaner	AS30KIMBO/30L or Equivalent input:220VAC,power:1000W	No	3	Supply	
24	Portable tool box (including: plier, hammer, cutter etc.)	As per general standards	No	2	Supply	

S No.	Material	Specifications	Unit	Qty	Required Services	Remarks
25	Background board	Background board, on the wall of the reception room, including IESCO logo, AMI Lab laboratory information, etc., to decorate the reception room L1524mm*W920mm Paetx Lasaani with Acrylic Cut-outs Note: Installation is mandatory	No	1	Supply	
26	Emergency numbers board	There should be a board containing emergency numbers displayed in case of fire or any other emergency. L610mm*W305mm Metallic Note: Installation is mandatory	No	1	Supply	
27	First aid kit	As per general standards	No	2	Supply	
28	Plan guide map	Final layout plan of lab should be pasted near entrance for guidance of people coming to visit lab. L1220mm*W915mm Patex Lasaani Box Board with vinyl pasting Note: Installation is mandatory	No	2	Supply	
29	Name board	A metallic or fiber board of size (8ft*5ft) will be required to be installed in front of building mentioning "AMI LAB IESCO" and other details Note: Installation is mandatory	No	1	Supply	
30	Room Recognition boards	Recognition boards of moderate size on each room for identification purpose L305mm*W153mm Acrylic/metallic with studs Note: Installation is mandatory	No	12	Supply	
31	Water-absorbing pads for the Entrance	As per general standards	No	1	Supply	
32	Soldering Iron	QUICK/TS2300C or Equivalent power:120W temperature range:200-450°C	No	1	Supply	
33	Heat gun	QUICK/862DW or Equivalent power:1000W temperature range:100-500°C	No	2	Supply	
34	Silicon gun (Hot melting glue gun)	As per general standards	No	1	Supply	
35	Silicon rod box (Glue sticks)	As per general standards	No	1	Supply	

S No.	Material	Specifications	Unit	Qty	Required Services	Remarks
36	Angle Grinder Cutter	Kemaisi or Equivalent input:220VAC speed:15000-22000rpm	No	2	Supply	
37	Portable tool box (including: plier, hammer, cutter etc.)	As per general standards	No	3	Supply	
38	4-layer shelf	Stainless Steels, 4-layer sample shelf (L2000mm*W600mm*H2000mm) Material is galvanized iron plate painted, 4layers, layer height 400mm, bearing 200kg/layer Note: Should be delivered installed	No	2	Supply	
39	Anti-static chair	Nylon pulleys, Lifting gas rods, PU seat High-quality sponge, wide backrest, no armrests	No	12	Supply	
40	Anti-static test table	L1200*W800*H850mm Stainless Steels + Melamine high pressure plate Note: Should be delivered installed	No	4	Supply	
Equipment and material transportation and Installation costs						
41	Equipment and material transportation costs and installation	Transport equipment and materials to designated locations for unloading and transport to designated locations and installation where required	set	1	Service	

Air Conditioning

BoQ--Air Conditioning						
Item	Material	Specification	Unit	Qty	Required Services	Remark
1	Machinery and Equipment					
1.1	1, 2, 3, 4# Constant temperature and humidity floor-standing air conditioner	Air volume 3100CMH, cooling capacity 12.5KW, heating capacity 14KW, humidification capacity (infrared): 3KG/h, unit residual pressure: 20~50Pa (variable frequency adjustable) CITEC: (ESD/ESU 12 A/W) or Equivalent	Unit	4	Supply	(Air Heat Pump)
	Refrigerant copper tube (refer to drawing)		set	1	Supply	
	Outdoor C25 concrete foundation	1300*500*200mm	set	4	Supply	
	Auxiliary materials (wires and cables, thermal insulation materials, wrapping materials, etc.)		set	1	Supply	
1.2	Multi-split cooling and heating inverter air conditioner (KB-1#)	Cooling capacity 55KW, heating capacity 60KW Midea: MV8X-615WV2GN1(PRO) or Equivalent	unit	1	Supply	
	7100w suction type indoor unit	Midea: MIH71Q4HN18 or Equivalent	unit	5	Supply	
	5000w suction type indoor unit	Midea: MIH56Q4HN18 or Equivalent	unit	2	Supply	
	3600w suction type indoor unit	Midea: MIH36Q4HN18 or Equivalent	unit	1	Supply	
	Refrigerant copper tube (refer to drawing)		set	1	Supply	
	Outdoor C25 concrete foundation	1400*800*200mm	set	1	Supply	
	Auxiliary materials (wires and cables, insulation materials, wrapping materials, bolts, boom brackets, drainage hoses, etc.)		set	1	Supply	

BoQ--Air Conditioning						
Item	Material	Specification	Unit	Qty	Required Services	Remark
1.3	Multi-split cooling and heating inverter air conditioner (KB-2#)	Cooling capacity 35KW, heating capacity 40KW Midea: MV8X-450WV2GN1(PRO) or Equivalent	unit	1	Supply	
	7100w suction type indoor unit	Midea: MIH71Q4HN18 or Equivalent	unit	1	Supply	
	5000w suction type indoor unit	Midea: MIH56Q4HN18 or Equivalent	unit	5	Supply	
	Refrigerant copper tube (refer to drawing)		set	1	Supply	
	Outdoor unit C25 concrete foundation	1400*800*200mm	set	1	Supply	
	Auxiliary materials (wires and cables, insulation materials, wrapping materials, bolts, boom brackets, drainage hoses, etc.)		set	1	Supply	
1.4	Axial flow ventilation fan				Supply	
	Axial flow ventilation fan	Air exchange volume 300~360 cubic meters/hour	unit	2	Supply	
	Wall hole opening and repair	Restoration of wall putty and latex paint after opening	set	1	Service	
1.5	Thermohygrometer (can be placed on the wall or on the desktop)				Supply	
	Thermohygrometer (can be placed on the wall or on the desktop)	Meet GSP standards, USB automatically reads and generates data curves, one-click data export, data can be read, temperature accuracy $\pm 0.1^{\circ}\text{C}$, humidity $\pm 0.5\%$, update interval frequency 5 minutes, storage data is not less than 260,000 groups (stored for 2.5 years), with over-standard sound and light alarm.	unit	10	Supply	
1.6	PPR humidification water supply pipe for constant temperature and humidity machine	According to local brands			Supply	
	PPR humidification	DN20	m	80	Supply	80m

BoQ--Air Conditioning						
Item	Material	Specification	Unit	Qty	Required Services	Remark
	tube					
	Auxiliary materials (including elbows, straight pipes, valves, glue, etc.)		set	1	Supply	
1.7	Air conditioning condensate PVC plastic drain pipe	According to local brands			Supply	
	De50 PVC Drain Pipe	De50	m	120	Supply	120m
	Insulation Materials	Rubber and plastic fireproof materials	set	1	Supply	
	Auxiliary materials (including elbows, straight pipes, glue, etc.)		set	1	Supply	
1.8	Air conditioning condensate PVC plastic drain pipe	According to local brands			Supply	
	De25 PVC Drain Pipe	De25	m	21	Supply	21m
	Insulation Materials	Rubber and plastic fireproof materials	set	1	Supply	
	Auxiliary materials (including elbows, straight pipes, glue, etc.)		set	1	Supply	
2	Power distribution system					
2.1	Wire and Cable	ZC-YJV-0.6/1kV 5*10mm2	m	90	Supply	90m, KB-#1, KB-2#
2.2	Wire and Cable	ZC-YJV-0.6/1kV 5*4mm2	m	128	Supply	128m, 1#~4# Constant temperature and humidity machine
2.3	Wire and Cable	ZC-RVV 3*4mm2	m	200	Supply	200m, Indoor unit, three circuits
2.4	Cable head making	Contains copper wire nose, heat shrink tube, insulating tape, etc.	set	1	Supply	

BoQ--Air Conditioning						
Item	Material	Specification	Unit	Qty	Required Services	Remark
2.5	Stainless steel bridge	GB SUS304, 100*100*1.5mm (including cover)	m	20	Supply	20m, 1#~4# Constant temperature and humidity machine for outdoor use
2.6	Support bracket	GB, L40*40 angle steel welding	set	1	Supply	
2.7	Excipients	Copper wire ears, welding rods, spray paint, lock buckles, etc.	sm	1	Supply	1m
3	Other supporting projects					
3.1	Equipment and material transportation, lifting fees and intallation	Transport equipment and materials to designated locations for unloading and transport to designated locations and installation where required	set	1	Service	
3.2	Water supply and drainage pipe hanger		set	1	Service	
3.3	Wall and floor openings (including waterproof and leak-proof sealing)		set	1	Service	
3.4	Refrigerant copper pipe cable outdoor protection stainless steel cover		set	1	Service	
3.5	Scaffolding erection and dismantling fees		set	1	Service	
3.6	Hanger anti-corrosion paint		set	1	Service	
3.7	Protection Engineering		set	1	Service	
3.8	Ceiling removal and restoration		set	1	Service	
3.9	Garbage Removal		set	1	Service	

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark
#1	Power distribution equipment					
1.1	ATS power distribution cabinet	1. Dual Source ATS MCCB Breaker 400A FP for Wapda 01, Wapda 02 and Generator Incoming Make Schneider or Equivalent 03 Nos. 2. Motorized MCCB 400A FP for M.O.R 04 Nos. 3. ATS Module Make Deepsea/Datakom or Equivalent 01 Nos. 4. UVT Make ZARA or Equivalent 01 Nos. 5. Control Relays With Base Make Schneider or Equivalent 02 Nos, 6. ATS Timer 220VAC Make Fuji or Equivalent 04 Nos. 7. Battery Charger 05A,12V/24VDC Make Harsan or Equivalent 01 Nos. 8. Emergency Switch Make Schneider or Equivalent 01 Nos. 9. Control TB Make OMIKA/Fuji or Equivalent 04 Nos. 10. Control Breaker MCB 06A SP Make Schneider or Equivalent 05 Nos. 11. Indication Lights Load, Wapda & Genset Make Schneider or Equivalent 09 Nos. Cubical Details Cubical Made up of MS 16SWG Paint Type: Galvanized Powder Coated Paint Ambiant Temperature 45C Mounting Type: Floor Mounted Designed and Manufactured by Advanced Engineering & Contractors or Equivalent	set	1	Supply	

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark
1.2	Power distribution cabinet P-1-1	Incoming 1. MCCB 400A TP Model NSX400N Make Schneider or Equivalent 01 Nos. 2. Energy Analyzer Equipped with CT Make Tense/Entes Turkey or Equivalent 01 Nos. 3. CT's 400/5A Make ITL or Equivalent 03Nos. Outgoing 4. MCCB 250A TP Adj Model NSX250 Make Schneider or Equivalent 03 Nos. 5. MCCB 100A TP Adj Model NSX250 Make Schneider or Equivalent 01 Nos. 6. MCB 40A 3P Make Schneider or Equivalent 05 Nos. 7. MCB 20A 3P Make Schneider or Equivalent 02 Nos. Cabinet Details. Cubical Size: 1300MM X 1000MM X 450MM Gauge: 16SWG Paint: Electrostatic Powder Coated Paint Earthing Copper Bar Neutral Bar 10 Wire Bar 01 Nos. Completely Wired DB Ready To Use.	set	1	Supply	

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark
1.3	Uninterruptible Power Supply (UPS)	Modular machine 400V/50kVA 1 hour backup 12V100AH Yuasa maintenance-free battery pack Make APC/GTEC or Equivalent including all accessories.	set	1	Supply	
1.4	UPS power distribution cabinet U-1-1	Incoming 1. MCCB 250A TP Model NSX250N Make Schneider or Equivalent 01 Nos 2. Energy Analyzer Equiped with CT Make Tense/Entes Turkey or Equivalent 01 Nos. 3. Indication Lights R,Y,B Make Schneider or Equivalent 03 Nos. Outgoing 4. MCB 20A DP Make Schneider or Equivalent 02 Nos. 5. MCB 32A DP Make Schneider or Equivalent 03 Nos. 6. MCB 40A 3P Make Schneider or Equivalent 01 Nos. 7. MCB 63A 3P Make Schneider or Equivalent 01 Nos. 8. MCCB 60A TP Make Schneider or Equivalent 03 Nos. 9. MCCB 100A TP Make Schneider or Equivalent 01 Nos. Cabinet Details cubical Size: 1000MM X 800MM X 200MM Gauge : 16SWG Paint: Electrostatic Powder Coated Paint Earthing Copper Bar Neutral Bar 10 Wire Bar 01 Nos. Completely Wired DB Ready To Use.	set	1	Supply	

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark
1.5	Air conditioning distribution cabinet	Incoming 1. MCCB 250A TP Model NSX250N Make Schneider or Equivalent 01 Nos. 2. Energy Analyzer Equipped with CT Make Tense/Entes Turkey or Equivalent 01 Nos. 3. Indication Lights R,Y,B Make Schneieder or Equivalent 03 Nos. Outgoing 4. MCB 20A DP Model IC60N Make Schneider or Equivalent 07 Nos. 5. MCB 32A 3P Make Schneider or Equivalent 05 Nos. 6. MCCB 60A TP Make Schneider or Equivalent 03 Nos. Cabinet Details Cubical Size: 1000MM X 800MM X 200MM Gauge : 16SWG Paint: Electrostatic Powder Coated Paint Earthing Copper Bar Neutral Bar 10 Wire Bar 01 Nos. Completely Wired DB Ready To Use.	set	1	Supply	
#2	Bridge and power distribution					
2.1	Wire and Cable	National standard, ZC-YJV-0.6/1kV-4*185+1*120mm2	m	10	Supply	
2.2	Wire and Cable	National standard, ZC-YJV-0.6/1kV-4*120+1*70mm2	m	46	Supply	
2.3	Cable head making	Contains copper wire nose, heat shrink tube, insulating tape, etc.	set	1	Supply	
2.4	Stainless steel bridge (including cover)	National standard SUS304 (matte), 300*100*1.5mm Galvanized Iron	m	6	Supply	6m, Outdoor cable entry bridge

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark
2.5	Galvanized bridge (including cover)	National standard, 300*100*1.5mm Galvanized Iron	m	10	Supply	10m
2.6	Galvanized bridge (including cover)	National standard, 200*100*1.5mm Galvanized Iron	m	24	Supply	24m
2.7	Galvanized bridge (including cover)	National standard, 150*75*1.5mm Galvanized Iron	m	180	Supply	180m, high-voltage bridge
2.8	Bridge (fire-resistant) (including cover)	National standard, 150*75*1.5mm Galvanized Iron	m	164	Supply	164m, low-voltage bridge
2.9	Galvanized Cross	National standard, 150*75*1.5mm Galvanized Iron	pcs	10	Supply	
2.1	Galvanized Tee	National standard, 150*75*1.5mm Galvanized Iron	pcs	3	Supply	
2.11	Galvanized elbow	National standard, 150*75*1.5mm Galvanized Iron	pcs	5	Supply	
2.12	Four-way (fire-resistant)	National standard, 150*75*1.5mm Galvanized Iron	pcs	3	Supply	
2.13	Tee (fire-resistant)	National standard, 150*75*1.5mm Galvanized Iron	pcs	7	Supply	
2.14	Elbow (fire-resistant)	National standard, 150*75*1.5mm Galvanized Iron	pcs	7	Supply Service	
2.15	Support bracket	National standard, L40*40*3mm angle steel welding	set	1	Supply	
2.16	Hardware and other materials	Screws, welding rods, spray paint, etc.	set	1	Supply	
2.17	Scaffolding erection		set	1	Supply	
2.18	Opening a hole in the wall	Bridge through the wall or floor position opening	set	1	Service	

BoQ--Power Distribution						
No.	Material	Specification	Unit	Quantity	Required Services	Remark
2.19	Material transportation fee		set	1	Service	
2.20	Garbage cleaning and removal		set	1	Service	
	Subtotal				Service	
#3	Equipment and material transportation, lifting and installation fees					
	Equipment and material transportation, lifting and installation fees	Equipment loading and unloading and transportation, unloading and transport to the designated location and installation where required	set	1	Service	

BoQ – Grounding						
Project name: Grounding						
No.	Material	Specification	Unit	Qty	Required Services	Remark
#1	Well construction					
1.1	Ground well construction	800*800*800mm red brick masonry, painted. See the construction drawing for details	set	2	Supply	1 active and 1 passive ground well
1.2	Manhole cover	Refer to sample picture for details	set	2	Supply	
1.3	Copper Rod	Pure copper $\phi 25\text{mm}$, L=3000mm (copper purity 99.99%)	pcs	6	Supply	Three copper rods in each well
1.4	Copper Strip	GB(Chinese National standard)40*3mm	m	60	Supply	
1.5	Equipotential box	GB, SUS304 outdoor surface-mounted type 300*200*80mm, including copper bar	set	2	Supply	
1.6	Stainless steel cable duct	GB, SUS304, 200*100*2mm	m	16	Supply	16m
1.7	Concrete floor grooving	The ground is restored after the copper strip is embedded in the ground	set	1	Supply	
#2	Indoor grounding					
2.1	Copper Strip	GB, 40*3mm	m	135	Supply	190m
2.2	PVC Square Wire Duct	GB, 50*5mm	m	135	Supply	130m
2.3	Wire and Cable	GB BVR-10mm ² pure green	m	10	Supply	10m, connect the equipotential terminal box
2.4	Wire and Cable	GB BVR-10mm ² yellow and green	m	80	Supply	80m, connect the equipotential terminal box
2.5	Cable head making	Contains copper wire nose, heat shrink tube, insulating tape, etc.	set	1	Supply	

BoQ – Grounding						
Project name: Grounding						
No.	Material	Specification	Unit	Qty	Required Services	Remark
2.6	PVC wire tube	GBφ32	m	60	Supply	60m
2.7	PVC cable tray support and hanger	Including lead screw, screw, hanging card	set	1	Supply	
2.8	Equipotential terminal box	GB, TD28 type, 160*75*52mm, iron sheet thickness 1.5mm, white paint. Indoor surface-mounted type, containing copper bar 50*3mm, 5 holes	set	13	Supply	
2.9	Excipients	Tube clamps, cup combs, expansion and heat shrink tubing, etc.	set	1	Supply	
2.10	Floor opening and sealing		set	1	Supply	
2.11	Scaffolding erection		set	1	Supply	
2.12	Material transportation and garbage removal		set	1	Supply	
#3	Material transportation, installation and garbage removal					
	Material transportation, installation and garbage removal	Transport and move materials to designated locations and installation where required	set	1	Service	

BoQ--Network wiring						
No.	Material	Specification	Unit	Quantity	Required Services	Remark
#1	Equipment and Materials					
1.1	Server cabinet	TOTEN G26042 or equivalent 600*1000*2055mm TOTEN G26042 or equivalent 600*1000*2045mm	unit	1	Supply	
1.2	Network cabinet	TOTEN G26842 42U cabinet or equivalent 600*800*2045mm TOTEN G26842 600*800*2045mm	unit	1	Supply	
1.3	Switch	H3C S5130S-52S-PWR-EI or equivalent	unit	3	Supply	
1.4	Firewall	Sang for NSF-1050A-I or equivalent	unit	1	Supply	
1.5	Wireless controller	H3C WX3510H or equivalent	unit	2	Supply	
1.6	Wireless controller authorization Wireless controller authorization	LIS-WX-16-BE or equivalent	/	2	Supply	Manage 16 APs
1.7	Wireless AP Wireless Access Point	H3C WA6330 or equivalent	unit	10	Supply	
1.8	Voice Gateway	Yeastar S100 or equivalent	unit	1	Supply	
1.9	IP Phone	ATCOM A20WAC supports 2.4G+5G dual-band WiFi wireless desktop SIP phone or equivalent	unit	10	Supply	
1.10	Category 5e network cable	R809797 or equivalent	box	13	Supply	
1.11	Single-port network panel	R&M_R795068 or equivalent	unit	50	Supply	
1.12	Dual-port network panel	R&M_R795068 or equivalent	unit	50	Supply	8-bit master control, total length 3 meters
1.13	Category 5e network module	R302373 or equivalent	unit	300	Supply	
1.14	Cabinet PDU	(DEMU) PDU round hole 8-bit + lightning protection British standard 1.5 square 2 meter line or equivalent	unit	2	Supply	

BoQ--Network wiring						
No.	Material	Specification	Unit	Quantity	Required Services	Remark
1.15	24-port modular patch panel	R&M R302373 or equivalent	unit	6	Supply	
1.16	1U cable management rack	R&M_R306179 or equivalent	unit	6	Supply	
1.17	Category 5e crystal plug	Panduit MP588 or equivalent	pcs	200	Supply	
1.18	Category 6 unshielded patch cord 0.2m	Cat.6 Patch Cords R&M thin Line or equivalent	pcs	100	Supply	Set of nuts and screws
1.19	Category 6 unshielded patch cord 2.5m	Cat.6 Patch Cords R&M thin Line or equivalent	pcs	100	Supply	
1.20	AMPCOM cabinet screws M6*16mm AMPCOM cabinet screws M6*16mm	AMPCOM AMM6100 or equivalent	pcs	50	Supply	
1.21	Network cable pliers	SMT HT-568 or equivalent	set	1	Supply	
1.22	NAS	(Synology) RS422+ 16TB HAT3300 or equivalent	unit	1	Supply	
1.23	Line finder	Smart Mouse NF-8209S Line Finder NF-8209S or equivalent	unit	1	Supply	
1.24	Label machine	Suofang LP5125BT Bluetooth Label Machine Label Printer LP5125BT or equivalent	unit	1	Supply	
1.25	Label ribbon	Shuofang label tape LP5125B label printer ribbon lamination yellow background black text 9mm LP5125B or equivalent	unit	2	Supply	
#2	Wiring installation					
2.1	Network cable wiring	68 points (59 network ports, 9 APs)	m	3400	Supply	3400m
2.2	PVC pipe	GB, DN20	m	200	Supply	200m
2.3	Bottom Box	GB, 86*86*50 concealed thickening type	unit	35	Supply	
2.4	AP Installation		item	1	Supply	

BoQ--Network wiring						
No.	Material	Specification	Unit	Quantity	Required Services	Remark
2.5	Telescopic rod	Surveillance camera telescopic extension bracket indoor and outdoor aluminum alloy pole universal lifting bracket 75-150cm variable length	unit	9	Supply	
2.6	Pipe fittings		item	1	Supply	
2.7	Stainless steel bridge (including cover)	GB SUS304 (matte), 100*50*1.2mm	m	6	Supply	
2.8	Wall grooving and restoration	After grooving the wall and pre-buried pipes, restore the wall putty and latex paint	item	1	Service	
2.9	Line alignment, marking, crystal head, module installation, computer room arrangement		item	1	Service	
#3	Equipment and material transportation garbage cleaning and removal and installation					
	Material transportation, installation and garbage removal	Transport and move equipment and materials to designated locations and installation where required	item	1	Service	

BoQ – Security						
No.	Project and material list	Models and specifications	Unit	Qty	Required Services	Remark
#1	Monitoring system					
1.1	Front-end image capture device (all series support POE power supply)				Supply	
1.1.1	Digital infrared dome camera(including base)	Hikvision POE power supply, 4 million HD, 30m infrared distance, with motion detection and out-of-bounds function Hikvision DS-2CD1343G2-LIU(F) or Equivalent	unit	5	Supply	
1.1.2	Panoramic camera(including base)	Hikvision POE power supply, fisheye panoramic HD 5 million Hikvision/DS-2CD2955G0-IS(U) or Equivalent	unit	10	Supply	
1.2	Terminal control and display unit equipment					
1.2.1	Monitor, keyboard and mouse	Hikvision/DS-D5043UC or Equivalent	set	1	Supply	
1.2.2	Hard disk recorder	64-channel 8-slot, including 4 10T hard disks, with English interface Hikvision/DS-8664NI-I8 skyhawk Hd or Equivalent	unit	1	Supply	
1.3	Transmission network equipment					
1.3.1	24-port POE switch	24 Gigabit POE ports, high-level lightning protection, large cache, no lag, built-in power supply AC220V H3C S5130S-28P or Equivalent	unit	1	Supply	
1.3.2	Category 5 network cable	Blue, Category 5e unshielded	m	300	Supply	300m
1.3.3	Category 6 network cable	Blue, Category 6 unshielded	m	50	Supply	50m
1.3.4	Supplementary materials		set	1	Supply	
#2	Access Control System					
2.1	Front-end image capture device (all series support POE power supply)					
2.1.1	Electric lock	ZK-ML280K or Equivalent	set	6	Supply	
2.1.2	Door opening button	TLEB101 or Equivalent	set	6	Supply	
2.1.3	Face recognition machine	V5L Series or Equivalent	set	6	Supply	

BoQ – Security						
No.	Project and material list	Models and specifications	Unit	Qty	Required Services	Remark
2.2	Terminal control and display unit equipment					
2.2.1	4-Door Access Controller	Dashi or Equivalent	set	2	Supply	
2.2.2	Software System	With English interface Dashi or Equivalent	set	1	Supply	
2.2.3	Client Computer		set	1	Supply	
2.3	Transmission network equipment					
2.3.1	16-port POE switch	16 Gigabit POE ports, high-level lightning protection, large cache, no lag, built-in power supply AC220V H3C S5130S-28P or Equivalent	unit	1	Supply	
2.3.2	Category 6 network cable	Blue, Category 6 unshielded	m	200	Supply	200m
2.3.3	Supplementary materials		set	1	Supply	
2.4	Access control power distribution project					
2.4.1	Wire and Cable	GB, BVR-4mm2	m	300	Supply	300m
2.4.2	socket	International 10-hole socket 220V, 13A	unit	2	Supply	
2.4.3	Bottom Box	86*86*50 Concealed Thickening Type	unit	18	Supply	12 for door opening buttons and face recognition installation
2.4.4	PVC wire tube	GB, DN25	m	60	Supply	60m
2.4.5	Excipients		set	1	Service	
#3	Equipment and material transportation costs and installation					
	Equipment and material transportation costs and installation	Transport equipment and materials to designated locations for unloading and transport to designated locations and installation where required	set	1	Service	

BoQ – Firefighting						
Project name: Firefighting						
No	Material	Specification	Unit	Qty	Required Services	Remark
#1	Fire Alarm Systems					
1.1	Host device				Service	
1.1.1	Wall-mounted fire zone alarm host	Intelligent Addressable Fire Alarm Control Panel 2 Loops with communication card. With Batteries 2 x 12Vdc - 7Ah LPCB Approved, Brand : TNA UK, Model: TX7004-2 or Equivalent	Set	1	Supply	
1.1.2	Loop Card	-	Unit	2	Supply	
1.2	Front-end equipment				Supply	
1.2.1	Sound and light alarm	Sounder & Strobe LPCB Approved, Brand : TNA UK, Model: TX7300 or Equivalent	Unit	7	Supply	
1.2.2	Coded manual alarm button	Intelligent Manual Call Point with back box.LPCB Approved, Brand : TNA UK, Model: TX7140 or Equivalent	Unit	7	Supply	
1.2.3	Encoded intelligent photoelectric smoke detector	Intelligent Smoke Detector with addressable Base.LPCB Approved, Brand : TNA UK, Model: TX7100 or Equivalent	Unit	33	Supply	
1.2.34	Manual call point (System Programming)		Unit	1	Supply	
1.3	Consumables				Supply	
1.3.1	Fire alarm bus	Fire Alarm Cable 2 Core, 1.5mm2 Shielded UL Listed, Make : LLT Cable or Equivalent	m	250	Supply	250m
1.3.2	Fire alarm power cord	Fire Alarm Cable 2 Core, 1.5mm2 Shielded UL Listed, Make : LLT Cable or	m	50	Supply	50m

BoQ – Firefighting						
Project name: Firefighting						
No	Material	Specification	Unit	Qty	Required Services	Remark
		Equivalent				
1.3.3	Galvanized Metal Wire Pipe	3/4" (DN20) Metal Conduit Extra Light Grade with fixing accessories.	m	300	Supply	300m
1.3.4	Hardware and other materials	Galvanized pipe fittings, pipe clamps, locks, etc.	Set	1	Supply	
#2	Emergency evacuation system					
2.1	Evacuate left sign	The duration of emergency work should not be less than 90 minutes	Unit	8	Supply	
2.2	Evacuate right sign	The duration of emergency work should not be less than 90 minutes	Unit	8	Supply	
2.3	Two-way evacuation sign	The duration of emergency work should not be less than 90 minutes	Unit	3	Supply	
2.4	Escape safety exit sign	The duration of emergency work should not be less than 90 minutes	Unit	16	Supply	
2.5	Wire and Cable	GB, NH-RVS-2*1.5	m	300	Supply	300m
2.6	socket	International universal five-hole 2+3, with switch	Unit	35	Supply	
2.7	Bottom Box	GB, 86*86*50mm metal bottom box	Unit	35	Supply	
2.8	Galvanized Metal Wire Pipe	3/4" (DN20) Metal Conduit Extra Light Grade with fixing accessories.	m	210	Supply	210m
2.9	Supplementary materials	Elbows, locks, etc.			Supply	
#3	Fire extinguisher					
3.1	Dry powder fire extinguisher	MF ABC/4 or Equivalent	Unit	16	Supply	
3.2	Carbon dioxide fire extinguisher	MT 4 or Equivalent	Unit	24	Supply	Contains 4 for M&T Lab
3.3	Fire extinguisher box	As per general specs	Unit	20	Supply	Contains 2 for M&T Lab

BoQ – Firefighting						
Project name: Firefighting						
No	Material	Specification	Unit	Qty	Required Services	Remark
#4	Emergency lighting system					
4.1	Emergency lighting centralized power supply host	Built-in battery backup time 90min Voltage level: input 220V, output DC36V Output circuit with fuse short circuit protection function	Set	1	Supply	
4.2	Lighting Fixtures	LED energy saving DC36V 10w	Unit	17	Supply	
4.3	Wire and Cable	GB, NH-RVS-2*1.5	m	200	Supply	200m
4.4	Bellows	Kaizhuang corrugated pipe, DN20	m	25	Supply	25m
4.5	Excipients	Insulation tape, lock, etc.	Unit	16	Supply	
#5	Equipment and material transportation costs and installation					
	Equipment and material transportation costs and installation	Transport equipment and materials to designated locations for unloading and transport to designated locations and installation where required	Item	1	Service	

BoQ--Secondary Distribution						
Project name: Secondary distribution						
No.	Material	Specification	Unit	Quantity	Required Services	Remark
	Secondary distribution					
#1	Power distribution					
1.1	Wire and Cable	GB, YJV-0.6/1KV-4*16+1*10mm ²	m	54	Supply	54m, 1F-U-1 Main Cable
1.2	Wire and Cable	GB, YJV-0.6/1KV-5*10mm ²	m	68	Supply	68m, 1F-U-2/GF-U-1 main cable
1.3	Wire and Cable	GB, BVR-4mm ²	m	1353	Supply	1353m
1.4	Cable head making	Contains copper wire nose, heat shrink tube, insulating tape, etc.	set	1	Supply	
1.5	Hot dip galvanized steel cable trunking	GB, 150*75*1.5mm including cover	m	12	Supply	12m
1.6	Switch box (double layer)	Switch: Schneider or Equivalent, Box: Spelsberg Germany PVC Boxes or Equivalent Main switch: C120H D80A/4P 1pcs Sub-switch: IC65N D40A/3P 2pcs IC65N D32A/4P 0.03A 1pcs IC65N D32A/2P 0.03A 6pcs IC65N D20A/2P 0.03A 3pcs	set	1	Supply	1F-U-1
1.7	Switch box (single layer)	Switch: Schneider or Equivalent, Box: Spelsberg Germany PVC Boxes or Equivalent Main switch: IC65N D63A/4P 1pcs Sub-switch: IC65N D40A/3P 2pcs IC65N D32/3P 1pcs IC65N D20/2P 0.03A 5pcs	set	1	Supply	1F-U-2

BoQ--Secondary Distribution						
Project name: Secondary distribution						
No.	Material	Specification	Unit	Quantity	Required Services	Remark
1.8	Switch box (double layer)	Switch: Schneider or Equivalent, Box: Spelsberg Germany PVC Boxes or Equivalent Main switch: IC65N D63A/4P 1pcs Sub-switch: IC65N D32A/4P 0.03A 4pcs IC65N D20A/2P 0.03A 6pcs	Set	1	Supply	GF-U-1
1.9	Air switch	Schneider or Equivalent IC65N D32/4P 0.03A	Unit	5	Supply	
1.10	Switch Box	10 switch positions, including one ground terminal	Unit	5	Supply	On-site confirmation of installation height
1.11	socket	Three-phase four-hole 25A	Unit	6	Supply	On-site confirmation of installation height
1.12	socket	86 type international universal multifunctional 10-hole socket, 13A	Unit	30	Supply	
1.13	Bottom Box	86*86*50 Concealed Thickening Type	Unit	50	Supply	
1.14	PVC wire tube	GB, DN25	m	130	Supply	130m
1.15	Wall grooving and restoration	After grooving and burying pipes in the wall, restore the wall putty and latex paint	Item	1	Supply	
1.16	Support bracket	Including lead screw, screw, hanging card	Item	1	Supply	
1.17	Excipients	Pipe clamps, cup combs, expansion, insulating tape, etc.	Item	1	Supply	
#2	Compressed air engineering					
2.1	Air compressor (portable)	Gas output 5m ³ /H, double-head stepless compression, noise ≤65db	set	1	Supply	
2.2	PU hose	GB, φ10mm	m	10	Supply	10m

BoQ--Secondary Distribution						
Project name: Secondary distribution						
No.	Material	Specification	Unit	Quantity	Required Services	Remark
2.3	Stainless steel valves	GB, SUS304 DN15	Unit	1	Supply	
2.4	Quick plug connector	GB, φ10mm	Unit	2	Supply	
#3	Exhaust Engineering					
3.1	Solder fume purifier	Voltage 220V, flow rate 360m ³ /H, negative pressure 2000Pa	Unit	2	Supply	
3.2	Bell mouth	GB, φ75, with bracket and PVC hose L=1000mm, matching with the exhaust port of smoke evolution device	Unit	4	Supply	
#4	Equipment and material transportation costs and installation					
	Equipment and material transportation costs and installation	Transport equipment and materials to designated locations for unloading and transport to designated locations and installation where required	Item	1	Service	

Bidder shall confirm delivery on form-8 as provided in BD

Note:

1. FCS Delivery Period Include (120 Days)
The Days mentioned above include the approval of Technical Data and Drawings, Manufacturing and Inspection (Type test (If any) & FAT) and delivery of material.
2. DDP Delivery Period Include (120 Days)
The Days mentioned above include approval of Technical Data and Drawings, Manufacturing and Inspection (Type test (If any) & FAT) and delivery of material.

DRAWINGS

Reference Drawings are part of Tender Specification

SECTION-VI
STANDARD FORMS
A. STANDARD FORMS FOR
(Single Stage Two Envelope Procedure)

List of Forms

Single Stage Two Envelope Procedure:

Form-1	:	Letter of Bid – Technical Proposal
Form-2	:	Letter of Bid - Financial Proposal
Form-3	:	Bidder Information Form
Form-4	:	Bidder's JV Members Information Form
Form-5	:	Price Schedule: Goods Manufactured Outside Pakistan, to be Imported
Form-6	:	Price Schedule: Goods Manufactured Outside Pakistan, already imported*
Form-7	:	Price Schedule: Goods Manufactured in Pakistan
Form-8	:	List of Related Services and Completion Schedule
Form-9	:	Form of Bid Security
Form-10	:	Form of Bid-Securing Declaration
Form-11	:	Manufacturer's Authorization
Form-12	:	Form of Qualification Information
Form-13	:	Letter of Acceptance
Form-14	:	Production Capacity of Manufacturer
Form-15	:	Deviation from Technical Provision Form DEV-1
Form-16	:	Deviation from Contractual/ Commercial Provision Form DEV-2
Form-17	:	Current Litigation Information Form LIT-1
Form-18	:	Power of Attorney (For signatory of Application)
Form-19	:	Financial Situation (Form FIN-1)
Form-20	:	Average Annual Turnover Form FIN-2
Form-21	:	Financial Resources Form FIN-3
Form-22	:	Current Contract Commitments in Progress Form FIN-4
Form-23	:	For Contractual experience
Form-24	:	Form for Supply record

Letter of Bid – Technical Proposal

No. _____

Dated _____

Date of Bid submission: _____

Request for Bid No.: (NCB) _____

Description of Bid: _____

To:

We, the undersigned Bidder, hereby submit our Bid, in two parts, namely:

(a) the Technical Proposal, and

(b) the Financial Proposal.

In submitting our Bid we make the following declarations:

(a) **No reservations:** We have examined and have no reservations to the bidding document, including addenda as well as blacklisting mechanism issued in accordance with Instructions to Bidders (ITB 9);

(b) **Eligibility:** We meet the eligibility requirements and have no conflict of interest in accordance with ITB 3;

(c) **Bid/Proposal-Securing Declaration:** We have not been suspended nor declared ineligible by the Procuring Agency based on execution of a Bid Securing Declaration or Proposal Securing Declaration in the Procuring Agency's country in accordance with ITB 4;

(d) **Conformity:** We offer to supply in conformity with the bidding document and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods: *[insert a brief description of the Goods and Related Services]*-----

-----];

(e) **Bid Validity Period:** Our Bid shall be valid for the period ----- specified in BDS 17.1 (as amended, if applicable) from the date fixed for the Bid submission deadline specified in BDS 23.1 (as amended, if applicable), and it shall remain binding upon us, and may be accepted at any time before the expiration of that period;

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

(g) **One Bid per Bidder:** We are not submitting any other Bid(s) as an individual Bidder, and we are not participating in any other bid(s) as a Joint Venture member or as a subcontractor, and meet the requirements, other than Alternative Bids submitted in accordance with ITB 19;

(h) **Suspension and Debarment:** We, along with any of our subcontractors, suppliers, consultants, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject

to, a temporary suspension or a debarment imposed by the Procuring Agency. Further, we are not ineligible under Pakistan laws;

(j) **State-owned enterprise or institution:** (check appropriate box)

i. We are not a state-owned enterprise or institution ☐

ii. We are a state-owned enterprise or institution but meet the requirements of this tender. ☐

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

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

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

Complete Name of the Bidder: * _____

Name of the person duly authorized as per PoA to sign the Bid on behalf of the Bidder: ** _____

Title of the person signing the Bid: _____

Signature of the person named above: _____

Date signed _____ **day of** _____ **Month** _____ **Year** _____

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

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

Note:-

1. Place this Letter of Bid in the First Envelope **"TECHNICAL PROPOSAL"**.
2. No clarification during evaluation or any other shall be seeks therefore bidder fill the form carefully without alteration, modification or any typo error.
3. The Bidder must prepare the Letter of Bid on stationery with its letterhead clearly showing the Bidder's complete name and business address.

Letter of Bid - Financial Proposal

No. _____

Dated _____

Date of Bid submission: _____

Request for Bid No.: (NCB) _____

Description of Bid: _____

To: _____

We, the undersigned Bidder, hereby submit the second part of our Bid, the Financial Proposal

In submitting our Financial Proposal, we make the following additional declarations:

- (a) **Bid Validity Period:** Our Bid shall be valid for the period specified in BDS 17.1 (as amended, if applicable) from the date fixed for the bid submission deadline specified in BDS 23.1 (as amended, if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (b) **Total Price:** The total price of our Bid, excluding any discounts offered in item (c) below is:

PKR _____
 (In words) _____

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

(i) The discounts offered are: _____

(ii) The exact method of calculations to determine the net price after application of discounts is shown below:

- (d) **Commissions, gratuities and fees:** We have paid, or will pay the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract:

Name of Recipient	Address	Reason	Amount

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

Name of the Bidder:* _____

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

****** _____

Title of the person signing the Bid: _____

Signature of the person named above:

Date signed _____ **day of** _____ **Month,** _____ **Year**

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

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

Note:

- i. Place this Letter of Bid - Financial Proposal in the Second Envelope marked **"FINANCIAL PROPOSAL"**.
- ii. No clarification during evaluation or any other time shall be sought therefore bidder fill the form carefully without alteration, modification or any typo error.
- iii. The Bidder must prepare the Letter of Bid - Financial Proposal on stationery with its letterhead clearly showing the Bidder's complete name and business address.

Bidder Information Form

Date of Bid Submission: _____

Request for Bid No.: NCB _____

Page _____ of _____
pages

1. Bidder's Name: _____
2. In case of JV, legal name of each member: _____
3. Bidder's actual or intended country of registration: _____
4. Bidder's year of registration: _____ _____
5. Bidder's Address in country of registration: _____ _____
6. Bidder's Authorized Representative Information Name: _____ CNIC No. _____ Address: _____ _____ Telephone/Fax numbers: _____ Email Address: _____
7. Attached are copies of original documents of [please check the box(es) of the attached original documents] ☐ Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above. ☐ In case of JV, letter of intent to form JV or JV agreement, in accordance with ITB 3.4. ☐ Establishing that the Bidder is not under the supervision of the Procuring Agency
8. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

Note:-

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

Bidder's JV Members Information Form

Date of Bid Submission: _____

Request for Bid No.: NCB _____

Page _____ of _____ pages

1. Bidder's Name: _____
2. Bidder's JV Member's name: _____
3. Bidder's JV Member's country of registration: _____
4. Bidder's JV Member's year of registration: _____
5. Bidder's JV Member's legal address in country of registration: _____ _____
6. Bidder's JV Member's authorized representative information Name: _____ Address: _____ _____ Telephone/Fax numbers: _____ Email Address: _____
7. Attached are copies of original documents of [please check the box(es) of the attached original documents] ☐ Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITB 4.4.
8. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

Note:

1. The Bidder shall fill in this Form in accordance with the instructions
2. The above table shall be filled in for the Bidder and for each member of a Joint Venture.

Manufacturer's Information Form

Date of Bid Submission: _____

Request for Bid No.: NCB _____

Page ____ of ____ pages

1. Manufacturer's Name:
3. Manufacturer Country of Registration: _____
4. Manufacturer year of Registration: _____
5. Manufacturer's legal address of Head Office and Production sites in Country of Registration: _____
6. Manufacturer's Authorized Representative Information Name: _____ Address: _____ Telephone/Mob/Fax numbers: _____ Email Address: _____
1 Attached are copies of original documents of [please check the box(es) of the attached original documents] from concern chamber of commerce manufacturing country or Pakistani Embassy in manufacturing country ☐ Articles of Incorporation (or equivalent documents of Constitution or Association), and/or registration documents of the legal entity named above, in accordance with ITB 4.4. 2. Included are the organizational chart, a list of Board of Directors, and the Beneficial Ownership.

Note:

The manufacturer shall fill in this Form in accordance with the instructions

Price Schedule Forms

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

Price Schedule: Plant and Mandatory Spare Parts Supplied from Outside Pakistan, to be Imported

BoQ--Interior Decoration								
No.	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
#1	GROUND FLOOR partition wall							
1.1	Gypsum wall panel	Gypsum Board of partition thickness 97mm (filled with 75mm thermopore) along with 72mm track channel, 70mm metal stud, 25mm dry wall screws, jointing compounds, paper taps etc.	mm ²	60	Supply	60m2, 1F IS/power distribution room		
1.2	Aluminum alloy glass single door for ground floor	W1200*H2300 with windows, metal panel T=50mm, including door and window materials, hinges, etc.	set	1	Supply	1F IS/power distribution room		

BoQ--Interior Decoration								
No.	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
1.3	Hardware and other materials	Aluminum channel and L-angle aluminum, etc.	set	1	Supply			
1.4	Scaffolding erection		set	1	Supply			
1.5	Garbage cleaning and removal	Construction waste	set	1	Supply			
#2	FIRST FLOOR Renovation							
2.1	Open Door hole	According to the size of the door frame, punch a hole in the wall, 1200*2100mm	pcs	2	Supply			
2.2	Concrete structural columns	Door frame columns and lintels, C25 steel bars, consistent with wall thickness, 2 doors	m	12	Supply			
2.3	Wall repair	Restore wall putty and latex paint after opening the door hole	set	1	Supply			

BoQ--Interior Decoration								
No.	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
2.4	Aluminum alloy glass door	Single door W1200mm*2100mm, consistent with existing door	set	2	Supply			
2.5	Double open, glass door	10mm tempered glass, stainless steel edging (fingerprint-free), including door lock and door handle	set	1	Supply			
2.6	Floor spring	Matching with glass door	set	2	Supply			
2.7	Door lintel/door pile	Tempered glass + stainless steel	mm ²	4	Supply	4m2		

Furniture & General

S No.	Material	Specifications	Unit	Qty	Required Services	Remarks	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
1	PC Desk	L1400mm*W700mmH760mm burly wood colour material is laminated board storage drawer level: 3(left)+1(right), one keyboard drawer Patex sheet or better. Note: Should be delivered installed	No	7	Supply			
2	10-draw storage cabinet	10-draw storage cabinet (L500mm*W450mm*H1400mm) Material: Cold-rolled steel plate, painted; 10 layers, layer height 130mm bearing: 20kg/layer Patex sheet or better. Note: Should be delivered installed	No	9	Supply			

S No.	Material	Specifications	Unit	Qty	Required Services	Remarks	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
3	4-draw Storage cabinet	4-draw storage cabinet (L480mm*W600mm*H1400mm) Material: Cold-rolled steel plate, painted; 4layers, layer height 420mm bearing: 40kg/layer Patex sheet or better. Note: Should be delivered installed	No	11	Supply			
4	4-layer shelf	Stainless Steels, 4-layer sample shelf (L2000mm*W600mm*H2000mm) Material is galvanized iron plate painted, 4layers, layer height 400mm, bearing 200kg/layer Patex sheet or better. Note: Should be delivered installed	No	16	Supply			
5	5-layer sample shelf	Stainless Steels, 5-layer sample shelf (L1500mm*W600mm*H1600mm) Material is SUS304, 5 layers, layer height 300mm, bearing 100kg/layer, with moving rollers. Patex sheet or better. Note: Should be delivered installed	No	13	Supply			

S No.	Material	Specifications	Unit	Qty	Required Services	Remarks	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
6	Removable PC desk	L550mm*W550mm*H760 mm (More detailed parameters, materials and other information will be provided later) Patex sheet or better. Note: Should be delivered installed	No	2	Supply			
7	ESP protection trailer	L900mm*W600mm*H200mm (Foldable handrail height: 850~950mm) , bearing 300kg, wheel material PVC, wheel dimension 4 inches, vehicle board material is PP Note: Should be delivered installed	No	2	Supply			
8	Anti-electrostatic clothes	Size: XXXL	No	30	Supply			
9	Anti-electrostatic clothes Closet	L900mm*W450mm*1800mm Note: Should be delivered installed	No	3	Supply			

S No.	Material	Specifications	Unit	Qty	Required Services	Remarks	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
10	Auto- shoe cover machine	Xilaike/BT-EGT-11 or Equivalent	No	2	Supply			
11	Atmospheric pressure gauge	NanJing Xiang RuiDe/DYM3 or Equivalent Note: Should be delivered installed	No	1	Supply			
12	Color printer	HP/4302fdw-A4 Laser Type or Equivalent	No	2	Supply			
13	Officer chair	Korean revolving chair with steel base, no plastic and with imported docs	No	15	Supply			
14	Visiting Chair	Korean non-revolving chair with steel base, no plastic and with imported docs	No	25	Supply			
15	Meeting Table	L5000mm*W1800*H700mm Patex sheet or better. Sample can be seen at IESCO G10 office Note: Should be delivered installed	No	1	Supply			
16	Monitors	TCL 75inch or equivalent	No	1	Supply			
17	Enterprise conference system	VC520 or equivalent	No	1	Supply			

S No.	Material	Specifications	Unit	Qty	Required Services	Remarks	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
18	Enterprise conference system Installation	-	Job	1	Installation			
19	Bench	L1200mm*W400mm*H450mm, material:SUS304	No	2	Supply			
20	Reception desk	AMI Lab reception Patex sheet or better. desk(L2000mm*W500mm*H1500mm) Note: Should be delivered installed	No	1	Supply			
21	Blinds	L2200mm*W2500mm Sample can be seen at IESCO G10 office	No	19	Supply			
23	Vacuum Cleaner	AS30KIMBO/30L or Equivalent input:220VAC,power:1000W	No	3	Supply			
24	Portable tool box (including: plier, hammer, cutter etc.)	As per general standards	No	2	Supply			

S No.	Material	Specifications	Unit	Qty	Required Services	Remarks	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
25	Background board	Background board, on the wall of the reception room, including IESCO logo, AMI Lab laboratory information, etc., to decorate the reception room L1524mm*W920mm Paetx Lasaani with Acrylic Cut-outs Note: Installation is mandatory	No	1	Supply			
26	Emergency numbers board	There should be a board containing emergency numbers displayed in case of fire or any other emergency. L610mm*W305mm Metallic Note: Installation is mandatory	No	1	Supply			
27	First aid kit	As per general standards	No	2	Supply			
28	Plan guide map	Final layout plan of lab should be pasted near entrance for guidance of people coming to visit lab. L1220mm*W915mm Patex Lasaani Box Board with vinyl pasting Note: Installation is mandatory	No	2	Supply			

S No.	Material	Specifications	Unit	Qty	Required Services	Remarks	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
29	Name board	A metallic or fiber board of size (8ft*5ft) will be required to be installed in front of building mentioning "AMI LAB IESCO" and other details Note: Installation is mandatory	No	1	Supply			
30	Room Recognition boards	Recognition boards of moderate size on each room for identification purpose L305mm*W153mm Acrylic/metalic with studs Note: Installation is mandatory	No	12	Supply			
31	Water-absorbing pads for the Entrance	As per general standards	No	1	Supply			
32	Soldering Iron	QUICK/TS2300C or Equivalent power:120W temperature range:200-450°C	No	1	Supply			

S No.	Material	Specifications	Unit	Qty	Required Services	Remarks	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
33	Heat gun	QUICK/862DW or Equivalent power:1000W temperature range:100-500°C	No	2	Supply			
34	Silicon gun (Hot melting glue gun)	As per general standards	No	1	Supply			
35	Silicon rod box (Glue sticks)	As per general standards	No	1	Supply			
36	Angle Grinder Cutter	Kemaisi or Equivalent input:220VAC speed:15000-22000rpm	No	2	Supply			
37	Portable tool box (including: plier, hammer, cutter etc.)	As per general standards	No	3	Supply			

S No.	Material	Specifications	Unit	Qty	Required Services	Remarks	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
38	4-layer shelf	Stainless Steels, 4-layer sample shelf (L2000mm*W600mm*H2000mm) Material is galvanized iron plate painted, 4layers, layer height 400mm, bearing 200kg/layer Note: Should be delivered installed	No	2	Supply			
39	Anti-static chair	Nylon pulleys, Lifting gas rods, PU seat High-quality sponge, wide backrest, no armrests	No	12	Supply			
40	Anti-static test table	L1200*W800*H850mm Stainless Steels + Melamine high pressure plate Note: Should be delivered installed	No	4	Supply			

Air Conditioning

BoQ--Air Conditioning								
Item	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
1	Machinery and Equipment							
1.1	1, 2, 3, 4# Constant temperature and humidity floor-standing air conditioner	Air volume 3100CMH, cooling capacity 12.5KW, heating capacity 14KW, humidification capacity (infrared): 3KG/h, unit residual pressure: 20~50Pa (variable frequency adjustable) CITEC: (ESD/ESU 12 A/W) or Equivalent	Unit	4	Supply	(Air Heat Pump)		
	Refrigerant copper tube (refer to drawing)		set	1	Supply			
	Outdoor C25 concrete foundation	1300*500*200mm	set	4	Supply			

BoQ--Air Conditioning								
Item	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
	Auxiliary materials (wires and cables, thermal insulation materials, wrapping materials, etc.)		set	1	Supply			
1.2	Multi-split cooling and heating inverter air conditioner (KB-1#)	Cooling capacity 55KW, heating capacity 60KW Midea: MV8X-615WV2GN1(PRO) or Equivalent	unit	1	Supply			
	7100w suction type indoor unit	Midea: MIH71Q4HN18 or Equivalent	unit	5	Supply			
	5000w suction type indoor unit	Midea: MIH56Q4HN18 or Equivalent	unit	2	Supply			
	3600w suction type indoor unit	Midea: MIH36Q4HN18 or Equivalent	unit	1	Supply			

BoQ--Air Conditioning

Item	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
	Refrigerant copper tube (refer to drawing)		set	1	Supply			
	Outdoor C25 concrete foundation	1400*800*200mm	set	1	Supply			
	Auxiliary materials (wires and cables, insulation materials, wrapping materials, bolts, boom brackets, drainage hoses, etc.)		set	1	Supply			
1.3	Multi-split cooling and heating inverter air conditioner (KB-2#)	Cooling capacity 35KW, heating capacity 40KW Midea: MV8X-450WV2GN1(PRO) or Equivalent	unit	1	Supply			
	7100w suction type indoor unit	Midea: MIH71Q4HN18 or Equivalent	unit	1	Supply			

BoQ--Air Conditioning								
Item	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
	5000w suction type indoor unit	Midea: MIH56Q4HN18 or Equivalent	unit	5	Supply			
	Refrigerant copper tube (refer to drawing)		set	1	Supply			
	Outdoor unit C25 concrete foundation	1400*800*200mm	set	1	Supply			
	Auxiliary materials (wires and cables, insulation materials, wrapping materials, bolts, boom brackets, drainage hoses, etc.)		set	1	Supply			
1.4	Axial flow ventilation fan				Supply			
	Axial flow ventilation fan	Air exchange volume 300~360 cubic meters/hour	unit	2	Supply			

BoQ--Air Conditioning

Item	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
	Wall hole opening and repair	Restoration of wall putty and latex paint after opening	set	1	Supply			
1.5	Thermohygrometer (can be placed on the wall or on the desktop)				Supply			
	Thermohygrometer (can be placed on the wall or on the desktop)	Meet GSP standards, USB automatically reads and generates data curves, one-click data export, data can be read, temperature accuracy $\pm 0.1^{\circ}\text{C}$, humidity $\pm 0.5\%$, update interval frequency 5 minutes, storage data is not less than 260,000 groups (stored for 2.5 years), with over-standard sound and light alarm.	unit	10	Supply			

BoQ--Air Conditioning								
Item	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
1.6	PPR humidification water supply pipe for constant temperature and humidity machine	According to local brands			Supply			
	PPR humidification tube	DN20	m	80	Supply	80m		
	Auxiliary materials (including elbows, straight pipes, valves, glue, etc.)		set	1	Supply			
1.7	Air conditioning condensate PVC plastic drain pipe	According to local brands			Supply			
	De50 PVC Drain Pipe	De50	m	120	Supply	120m		
	Insulation Materials	Rubber and plastic fireproof materials	set	1	Supply			

BoQ--Air Conditioning

Item	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
	Auxiliary materials (including elbows, straight pipes, glue, etc.)		set	1	Supply			
1.8	Air conditioning condensate PVC plastic drain pipe	According to local brands			Supply			
	De25 PVC Drain Pipe	De25	m	21	Supply	21m		
	Insulation Materials	Rubber and plastic fireproof materials	set	1	Supply			
	Auxiliary materials (including elbows, straight pipes, glue, etc.)		set	1	Supply			
2	Power distribution system							
2.1	Wire and Cable	ZC-YJV-0.6/1kV 5*10mm2	m	90	Supply	90m, KB-#1, KB-2#		

BoQ--Air Conditioning

Item	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
2.2	Wire and Cable	ZC-YJV-0.6/1kV 5*4mm ²	m	128	Supply	128m, 1#~4# Constant temperature and humidity machine		
2.3	Wire and Cable	ZC-RVV 3*4mm ²	m	200	Supply	200m, Indoor unit, three circuits		
2.4	Cable head making	Contains copper wire nose, heat shrink tube, insulating tape, etc.	set	1	Supply			

BoQ--Air Conditioning

Item	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
2.5	Stainless steel bridge	GB SUS304, 100*100*1.5mm (including cover)	m	20	Supply	20m, 1#~4# Constant temperature and humidity machine for outdoor use		
2.6	Support bracket	GB, L40*40 angle steel welding	set	1	Supply			
2.7	Excipients	Copper wire ears, welding rods, spray paint, lock buckles, etc.	sm	1	Supply	1m		
3	Other supporting projects							
3.2	Water supply and drainage pipe hanger		set	1	Supply			
3.3	Wall and floor openings (including waterproof and leak-		set	1	Supply			

BoQ--Air Conditioning								
Item	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
	proof sealing)							
3.4	Refrigerant copper pipe cable outdoor protection stainless steel cover		set	1	Supply			
3.5	Scaffolding erection and dismantling fees		set	1	Supply			
3.6	Hanger anti-corrosion paint		set	1	Supply			
3.7	Protection Engineering		set	1	Supply			

BoQ--Power Distribution								
No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
#1	Power distribution equipment							
1.1	ATS power distribution cabinet	Dual Source ATS 1. MCCB Breaker 400A FP for Wapda 01, Wapda 02 and Generator Incoming Make Schneider or Equivalent 03 Nos. 2. Motorized MCCB 400A FP for M.O.R 04 Nos. 3. ATS Module Make Deepsea/Datakom or Equivalent 01 Nos. 4. UVT Make ZARA or Equivalent 01 Nos. 5. Control Relays With Base Make Schneider or	set	1	Supply			

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhahi Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhahi Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
		Equivalent 02 Nos, 6. ATS Timer 220VAC Make Fuji or Equivalent 04 Nos. 7. Battery Charger 05A,12V/24VDC Make Harsan or Equivalent 01 Nos. 8. Emergency Switch Make Schneider or Equivalent 01 Nos. 9. Control TB Make OMIKA/Fuji or Equivalent 04 Nos. 10. Control Breaker MCB 06A SP Make Schneider or Equivalent 05 Nos. 11. Indication Lights						

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhahi Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhahi Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
		Load,Wapda & Genset Make Schneider or Equivalent 09 Nos. Cubical Details Cubical Made up of MS 16SWG Paint Type: Galvanized Powder Coated Paint Ambient Temperature 45C Mounting Type: Floor Mounted Designed and Manufactured by Advanced Engineering & Contractors or Equivalent						

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhahi Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhahi Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
1.2	Power distribution cabinet P-1-1	Incoming 1. MCCB 400A TP Model NSX400N Make Schneider or Equivalent 01 Nos. 2. Energy Analyzer Equipped with CT Make Tense/Entes Turkey or Equivalent 01 Nos. 3. CT's 400/5A Make ITL or Equivalent 03Nos. Outgoing 4. MCCB 250A TP Adj Model NSX250 Make Schneider or Equivalent 03 Nos. 5. MCCB 100A TP Adj Model NSX250 Make Schneider or Equivalent 01 Nos. 6. MCB 40A 3P Make Schneider or Equivalent 05 Nos. 7. MCB 20A 3P Make Schneider or Equivalent 02 Nos. Cabinet Details. Cubical Size: 1300MM X 1000MM X 450MM Gauge : 16SWG Paint: Electrostatic Powder Coated Paint Earthing Copper Bar Neutral Bar 10 Wire Bar 01 Nos.	Set	1	Supply			

[NCB-272]

BoQ--Power Distribution								
No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhahi Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhahi Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
1.3	Uninterruptible Power Supply (UPS)	Modular machine 400V/50kVA 1 hour backup 12V100AH Yuasa maintenance-free battery pack Make APC/GTEC or Equivalent including all accessories.	set	1	Supply			
1.4	UPS power distribution cabinet U-1-1	Incoming 1. MCCB 250A TP Model NSX250N Make Schneider or Equivalent 01 Nos. 2. Energy Analyzer Equipped with CT Make Tense/Entes Turkey or Equivalent 01 Nos. 3. Indication Lights R,Y,B Make Schneider or Equivalent 03 Nos. Outgoing 4. MCB 20A DP Make Schneider or Equivalent	set	1	Supply			

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
		02 Nos. 5. MCB 32A DP Make Schneider or Equivalent 03 Nos. 6. MCB 40A 3P Make Schneider or Equivalent 01 Nos. 7. MCB 63A 3P Make Schneider or Equivalent 01 Nos. 8. MCCB 60A TP Make Schneider or Equivalent 03 Nos. 9. MCCB 100A TP Make Schneider or Equivalent 01 Nos. Cabinet Details Cubical Size: 1000MM X 800MM X 200MM Gauge : 16SWG Paint: Electrostatic Powder						

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhahi Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhahi Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
		Coated Paint Earthing Copper Bar Neutral Bar 10 Wire Bar 01 Nos. Completely Wired DB Ready To Use.						

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
1.5	Air conditioning distribution cabinet	Incoming 1. MCCB 250A TP Model NSX250N Make Schneider or Equivalent 01 Nos. 2. Energy Analyzer Equipped with CT Make Tense/Entes Turkey or Equivalent 01 Nos. 3. Indication Lights R,Y,B Make Schneider or Equivalent 03 Nos. Outgoing 4. MCB 20A DP Model IC60N Make Schneider or Equivalent 07 Nos. 5. MCB 32A 3P Make Schneider or Equivalent 05 Nos. 6. MCCB 60A TP Make Schneider or Equivalent 03 Nos. Cabinet Details Cubical Size: 1000MM X 800MM X 200MM Gauge : 16SWG Paint: Electrostatic Powder Coated Paint Earthing Copper Bar Neutral Bar 10 Wire Bar 01 Nos.	set	1	Supply			
[NCB-272]								

BoQ--Power Distribution								
No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
#2	Bridge and power distribution							
2.1	Wire and Cable	National standard, ZC-YJV-0.6/1kV-4*185+1*120mm ²	m	10	Supply			
2.2	Wire and Cable	National standard, ZC-YJV-0.6/1kV-4*120+1*70mm ²	m	46	Supply			
2.3	Cable head making	Contains copper wire nose, heat shrink tube, insulating tape, etc.	set	1	Supply			
2.4	Stainless steel bridge (including cover)	National standard SUS304 (matte), 300*100*1.5mm Galvanized Iron	m	6	Supply	6m, Outdoor cable entry bridge		
2.5	Galvanized bridge (including cover)	National standard, 300*100*1.5mm Galvanized Iron	m	10	Supply	10m		

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhahi Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhahi Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
2.6	Galvanized bridge (including cover)	National standard, 200*100*1.5mm Galvanized Iron	m	24	Supply	24m		
2.7	Galvanized bridge (including cover)	National standard, 150*75*1.5mm Galvanized Iron	m	180	Supply	180m, high-voltage bridge		
2.8	Bridge (fire-resistant) (including cover)	National standard, 150*75*1.5mm Galvanized Iron	m	164	Supply	164m, low-voltage bridge		
2.9	Galvanized Cross	National standard, 150*75*1.5mm Galvanized Iron	pcs	10	Supply			
2.1	Galvanized Tee	National standard, 150*75*1.5mm Galvanized Iron	pcs	3	Supply			
2.11	Galvanized elbow	National standard, 150*75*1.5mm Galvanized Iron	pcs	5	Supply			

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
2.12	Four-way (fire-resistant)	National standard, 150*75*1.5mm Galvanized Iron	pcs	3	Supply			
2.13	Tee (fire-resistant)	National standard, 150*75*1.5mm Galvanized Iron	pcs	7	Supply			
2.14	Elbow (fire-resistant)	National standard, 150*75*1.5mm Galvanized Iron	pcs	7	Supply			
2.15	Support bracket	National standard, L40*40*3mm angle steel welding	set	1	Supply			
2.16	Hardware and other materials	Screws, welding rods, spray paint, etc.	set	1	Supply			
2.17	Scaffolding erection		set	1	Supply			

BoQ--Grounding								
Project name: Grounding								
No.	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
#1	Well construction							
1.1	Ground well construction	800*800*800mm red brick masonry, painted. See the construction drawing for details	Set	2	Supply	1 active and 1 passive ground well		
1.2	Manhole cover	Refer to sample picture for details	Set	2	Supply			
1.3	Copper Rod	Pure copper ϕ 25mm, L=3000mm (copper purity 99.99%)	Pcs	6	Supply	Three copper rods in each well		
1.4	Copper Strip	GB(Chinese National standard)40*3mm	M	60	Supply			
1.5	Equipotential box	GB, SUS304 outdoor surface-mounted type 300*200*80mm, including copper bar	Set	2	Supply			

BoQ--Grounding

Project name: Grounding

No.	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
1.6	Stainless steel cable duct	GB, SUS304, 200*100*2mm	M	16	Supply	16m		
1.7	Concrete floor grooving	The ground is restored after the copper strip is embedded in the ground	Set	1	Supply			
#2	Indoor grounding							
2.1	Copper Strip	GB, 40*3mm	m	135	Supply	190m		
2.2	PVC Square Wire Duct	GB, 50*5mm	m	135	Supply	130m		
2.3	Wire and Cable	GB BVR-10mm ² pure green	m	10	Supply	10m, connect the equipotential terminal box		
2.4	Wire and Cable	GB BVR-10mm ² yellow and green	m	80	Supply	80m, connect the equipotential terminal box		

BoQ--Grounding

Project name: Grounding

No.	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
2.5	Cable head making	Contains copper wire nose, heat shrink tube, insulating tape, etc.	set	1	Supply			
2.6	PVC wire tube	GBφ32	m	60	Supply	60m		
2.7	PVC cable tray support and hanger	Including lead screw, screw, hanging card	set	1	Supply			
2.8	Equipotential terminal box	GB, TD28 type, 160*75*52mm, iron sheet thickness 1.5mm, white paint. Indoor surface-mounted type, containing copper bar 50*3mm, 5 holes	set	13	Supply			
2.9	Excipients	Tube clamps, cup combs, expansion and heat shrink tubing, etc.	set	1	Supply			

BoQ--Network wiring								
No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhahi Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhahi Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
#1	Equipment and Materials							
1.1	Server cabinet	TOTEN G26042 or equivalent 600*1000*2055mm TOTEN G26042 or equivalent 600*1000*2045mm	unit	1	Supply			
1.2	Network cabinet	TOTEN G26842 42U cabinet or equivalent 600*800*2045mm TOTEN G26842 600*800*2045mm	unit	1	Supply			
1.3	Switch	H3C S5130S-52S-PWR-EI or equivalent	unit	3	Supply			
1.4	Firewall	Sang for NSF-1050A-I or equivalent	unit	1	Supply			
1.5	Wireless controller	H3C WX3510H or equivalent	unit	2	Supply			

BoQ--Network wiring								
No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
1.6	Wireless controller authorization Wireless controller authorization	LIS-WX-16-BE or equivalent	/	2	Supply	Manage 16 APs		
1.7	Wireless AP Wireless Access Point	H3C WA6330 or equivalent	unit	10	Supply			
1.8	Voice Gateway	Yeastar S100 or equivalent	unit	1	Supply			
1.9	IP Phone	ATCOM A20WAC supports 2.4G+5G dual-band WiFi wireless desktop SIP phone or equivalent	unit	10	Supply			
1.10	Category 5e network cable	R809797 or equivalent	box	13	Supply			
1.11	Single-port network panel	R&M_R795068 or equivalent	unit	50	Supply			
1.12	Dual-port network panel	R&M_R795068 or equivalent	unit	50	Supply	8-bit master control, total length 3		

BoQ--Network wiring								
No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
						meters		
1.13	Category 5e network module	R302373 or equivalent	unit	300	Supply			
1.14	Cabinet PDU	(DEMU) PDU round hole 8-bit + lightning protection British standard 1.5 square 2 meter line or equivalent	unit	2	Supply			
1.15	24-port modular patch panel	R&M R302373 or equivalent	unit	6	Supply			
1.16	1U cable management rack	R&M_R306179 or equivalent	unit	6	Supply			
1.17	Category 5e crystal plug	Panduit MP588 or equivalent	pcs	200	Supply			
1.18	Category 6 unshielded patch cord 0.2m	Cat.6 Patch Cords R&M thin Line or equivalent	pcs	100	Supply	Set of nuts and screws		

BoQ--Network wiring								
No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
1.19	Category 6 unshielded patch cord 2.5m	Cat.6 Patch Cords R&M thin Line or equivalent	pcs	100	Supply			
1.20	AMPCOM cabinet screws M6*16mm AMPCOM cabinet screws M6*16mm	AMPCOM AMM6100 or equivalent	pcs	50	Supply			
1.21	Network cable pliers	SMT HT-568 or equivalent	set	1	Supply			
1.22	NAS	(Synology) RS422+ 16TB HAT3300 or equivalent	unit	1	Supply			
1.23	Line finder	Smart Mouse NF-8209S Line Finder NF-8209S or equivalent	unit	1	Supply			
1.24	Label machine	Suofang LP5125BT Bluetooth Label Machine Label Printer LP5125BT or equivalent	unit	1	Supply			

BoQ--Network wiring								
No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
1.25	Label ribbon	Shuofang label tape LP5125B label printer ribbon lamination yellow background black text 9mm LP5125B or equivalent	unit	2	Supply			
	Wiring installation							
2.1	Network cable wiring	68 points (59 network ports, 9 APs)	m	3400	Supply	3400m		
2.2	PVC pipe	GB, DN20	m	200	Supply	200m		
2.3	Bottom Box	GB, 86*86*50 concealed thickening type	unit	35	Supply			

BoQ--Network wiring								
No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
2.5	Telescopic rod	Surveillance camera telescopic extension bracket indoor and outdoor aluminum alloy pole universal lifting bracket 75-150cm variable length	unit	9	Supply			
2.6	Pipe fittings		item	1	Supply			
2.7	Stainless steel bridge (including cover)	GB SUS304 (matte), 100*50*1.2mm	m	6	Supply			
2.8	Wall grooving and restoration	After grooving the wall and pre-buried pipes, restore the wall putty and latex paint	item	1	Supply			

BoQ--Network wiring							
No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
2.9	Line alignment, marking, crystal head, module installation, computer room arrangement		item	1	Supply		

BoQ – Security								
No.	Project and material list	Models and specifications	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
#1	Monitoring system							
1.1	Front-end image capture device (all series support POE power supply)				Supply			
1.1.1	Digital infrared dome camera(including base)	Hikvision POE power supply, 4 million HD, 30m infrared distance, with motion detection and out-of-bounds function Hikvision DS-2CD1343G2-LIU(F) or Equivalent	unit	5	Supply			
1.1.2	Panoramic camera(including base)	Hikvision POE power supply, fisheye panoramic HD 5 million Hikvision/DS-2CD2955G0-IS(U) or Equivalent	unit	10	Supply			
1.2	Terminal control and display unit equipment							

BoQ – Security

No.	Project and material list	Models and specifications	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
1.2.1	Monitor, keyboard and mouse	Hikvision/DS-D5043UC or Equivalent	set	1	Supply			
1.2.2	Hard disk recorder	64-channel 8-slot, including 4 10T hard disks, with English interface Hikvision/DS-8664NI-I8 skyhawk Hd or Equivalent	unit	1	Supply			
1.3	Transmission network equipment							
1.3.1	24-port POE switch	24 Gigabit POE ports, high-level lightning protection, large cache, no lag, built-in power supply AC220V H3C S5130S-28P or Equivalent	unit	1	Supply			
1.3.2	Category 5 network cable	Blue, Category 5e unshielded	m	300	Supply	300m		
1.3.3	Category 6 network cable	Blue, Category 6 unshielded	m	50	Supply	50m		
1.3.4	Supplementary materials		set	1	Supply			

BoQ – Security								
No.	Project and material list	Models and specifications	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
#2	Access Control System							
2.1	Front-end image capture device (all series support POE power supply)							
2.1.1	Electric lock	ZK-ML280K or Equivalent	set	6	Supply			
2.1.2	Door opening button	TLEB101 or Equivalent	set	6	Supply			
2.1.3	Face recognition machine	V5L Series or Equivalent	set	6	Supply			
2.2	Terminal control and display unit equipment							
2.2.1	4-Door Access Controller	Dashi or Equivalent	set	2	Supply			
2.2.2	Software System	With English interface Dashi or Equivalent	set	1	Supply			
2.2.3	Client Computer		set	1	Supply			
2.3	Transmission network equipment							

BoQ – Security

No.	Project and material list	Models and specifications	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
2.3.1	16-port POE switch	16 Gigabit POE ports, high-level lightning protection, large cache, no lag, built-in power supply AC220V H3C S5130S-28P or Equivalent	unit	1	Supply			
2.3.2	Category 6 network cable	Blue, Category 6 unshielded	m	200	Supply	200m		
2.3.3	Supplementary materials		set	1	Supply			
2.4	Access control power distribution project							
2.4.1	Wire and Cable	GB, BVR-4mm2	m	300	Supply	300m		
2.4.2	socket	International 10-hole socket 220V, 13A	unit	2	Supply			

BoQ – Security

No.	Project and material list	Models and specifications	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
2.4.3	Bottom Box	86*86*50 Concealed Thickening Type	unit	18	Supply	12 for door opening buttons and face recognition installation		
2.4.4	PVC wire tube	GB, DN25	m	60	Supply	60m		
2.4.5	Excipients		set	1	Supply			

BoQ – Firefighting

Project name: Firefighting

No	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
#1	Fire Alarm Systems							
1.1	Host device				Supply			
1.1.1	Wall-mounted fire zone alarm host	Intelligent Addressable Fire Alarm Control Panel 2 Loops with communication card. With Batteries 2 x 12Vdc - 7Ah LPCB Approved, Brand : TNA UK, Model: TX7004-2 or Equivalent	Set	1	Supply			
1.1.2	Loop Card	-	Unit	2	Supply			
1.2	Front-end equipment				Supply			

BoQ – Firefighting

Project name: Firefighting

No	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
1.2.1	Sound and light alarm	Sounder & Strobe LPCB Approved, Brand : TNA UK, Model: TX7300 or Equivalent	Unit	7	Supply			
1.2.2	Coded manual alarm button	Intelligent Manual Call Point with back box.LPCB Approved, Brand : TNA UK, Model: TX7140 or Equivalent	Unit	7	Supply			
1.2.3	Encoded intelligent photoelectric smoke detector	Intelligent Smoke Detector with addressable Base.LPCB Approved, Brand : TNA UK, Model: TX7100 or Equivalent	Unit	33	Supply			
1.2.34	Manual call point (System Programming)		Unit	1	Supply			

BoQ – Firefighting

Project name: Firefighting

No	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
1.3	Consumables				Supply			
1.3.1	Fire alarm bus	Fire Alarm Cable 2 Core, 1.5mm ² Shielded UL Listed, Make : LLT Cable or Equivalent	m	250	Supply	250m		
1.3.2	Fire alarm power cord	Fire Alarm Cable 2 Core, 1.5mm ² Shielded UL Listed, Make : LLT Cable or Equivalent	m	50	Supply	50m		
1.3.3	Galvanized Metal Wire Pipe	3/4" (DN20) Metal Conduit Extra Light Grade with fixing accessories.	m	300	Supply	300m		
1.3.4	Hardware and other materials	Galvanized pipe fittings, pipe clamps, locks, etc.	Set	1	Supply			

BoQ – Firefighting

Project name: Firefighting

No	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
#2	Emergency evacuation system							
2.1	Evacuate left sign	The duration of emergency work should not be less than 90 minutes	Unit	8	Supply			
2.2	Evacuate right sign	The duration of emergency work should not be less than 90 minutes	Unit	8	Supply			
2.3	Two-way evacuation sign	The duration of emergency work should not be less than 90 minutes	Unit	3	Supply			
2.4	Escape safety exit sign	The duration of emergency work should not be less than 90 minutes	Unit	16	Supply			
2.5	Wire and Cable	GB, NH-RVS-2*1.5	m	300	Supply	300m		
2.6	socket	International universal five-hole 2+3, with switch	Unit	35	Supply			

BoQ – Firefighting

Project name: Firefighting

No	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
2.7	Bottom Box	GB, 86*86*50mm metal bottom box	Unit	35	Supply			
2.8	Galvanized Metal Wire Pipe	3/4" (DN20) Metal Conduit Extra Light Grade with fixing accessories.	m	210	Supply	210m		
2.9	Supplementary materials	Elbows, locks, etc.			Supply			
#3	Fire extinguisher							
3.1	Dry powder fire extinguisher	MF ABC/4 or Equivalent	Unit	16	Supply			
3.2	Carbon dioxide fire extinguisher	MT 4 or Equivalent	Unit	24	Supply	Contains 4 for M&T Lab		
3.3	Fire extinguisher	As per general specs	Unit	20	Supply	Contains 2 for		

BoQ – Firefighting

Project name: Firefighting

No	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
	box					M&T Lab		
#4	Emergency lighting system							
4.1	Emergency lighting centralized power supply host	Built-in battery backup time 90min Voltage level: input 220V, output DC36V Output circuit with fuse short circuit protection function	Set	1	Supply			
4.2	Lighting Fixtures	LED energy saving DC36V 10w	Unit	17	Supply			
4.3	Wire and Cable	GB, NH-RVS-2*1.5	m	200	Supply	200m		
4.4	Bellows	Kaizhuang corrugated pipe, DN20	m	25	Supply	25m		

BoQ – Firefighting

Project name: Firefighting

No	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
4.5	Excipients	Insulation tape, lock, etc.	Unit	16	Supply			

BoQ--Secondary Distribution

Project name: Secondary distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
Secondary distribution								
#1	Power distribution							
1.1	Wire and Cable	GB, YJV-0.6/1KV-4*16+1*10mm ²	m	54	Supply	54m, 1F-U-1 Main Cable		
1.2	Wire and Cable	GB, YJV-0.6/1KV-5*10mm ²	m	68	Supply	68m, 1F-U-2/GF-U-1 main cable		
1.3	Wire and Cable	GB, BVR-4mm ²	m	1353	Supply	1353m		
1.4	Cable head making	Contains copper wire nose, heat shrink tube, insulating tape, etc.	Set	1	Supply			
1.5	Hot dip galvanized steel cable trunking	GB, 150*75*1.5mm including cover	m	12	Supply	12m		

BoQ--Secondary Distribution

No.	Material	Specification	Unit	Qty	Required Services	Remarks	Unit rate on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
		IC65N D32A/2P 0.03A 6pcs IC65N D20A/2P 0.03A 3pcs						
1.7	Switch box (single layer)	Switch: Schneider or Equivalent, Box: Spelsberg Germany PVC Boxes or Equivalent Main switch: IC65N D63A/4P 1pcs Sub-switch: IC65N D40A/3P 2pcs IC65N D32/3P 1pcs IC65N D20/2P 0.03A 5pcs	Set	1	Supply	1F-U-2		
1.8	Switch box (double layer)	Switch: Schneider or Equivalent, Box: Spelsberg Germany PVC Boxes or Equivalent Main switch: IC65N D63A/4P 1pcs Sub-switch: IC65N D32A/4P 0.03A 4pcs IC65N D20A/2P 0.03A 6pcs	Set	1	Supply	GF-U-1		
1.9	Air switch	Schneider or Equivalent IC65N D32/4P 0.03A	Unit	5	Supply			
1.10	Switch Box	10 switch positions, including one ground terminal	Unit	5	Supply	On-site confirmation of installation height		

BoQ--Secondary Distribution

No.	Material	Specification	Unit	Qty	Required Services	Remarks	Unit rate on DDP (at 132kV Pirwadhahi Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhahi Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
1.11	socket	Three-phase four-hole 25A	Unit	6	Supply	On-site confirmation of installation height		
1.12	socket	86 type international universal multifunctional 10-hole socket, 13A	Unit	30	Supply			
1.13	Bottom Box	86*86*50 Concealed Thickening Type	Unit	50	Supply			
1.14	PVC wire tube	GB, DN25	m	130	Supply	130m		
1.15	Wall grooving and restoration	After grooving and burying pipes in the wall, restore the wall putty and latex paint	Item	1	Supply			
1.16	Support bracket	Including lead screw, screw, hanging card	Item	1	Supply			
1.17	Excipients	Pipe clamps, cup combs, expansion, insulating tape, etc.	Item	1	Supply			
#2	Compressed air engineering							
2.1	Air compressor (portable)	Gas output 5m ³ /H, double-head stepless compression, noise ≤65db	set	1	Supply			
2.2	PU hose	GB, φ10mm	m	10	Supply	10m		
2.3	Stainless steel valves	GB, SUS304 DN15	Unit	1	Supply			

BoQ--Secondary Distribution								
No.	Material	Specification	Unit	Qty	Required Services	Remarks	Unit rate on DDP (at 132kV Pirwadhahi Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST	Total Price on DDP (at 132kV Pirwadhahi Grid Station) including transportation charges, all taxes, insurance and duties within and outside the country without GST
2.4	Quick plug connector	GB, φ10mm	Unit	2	Supply			
#3	Exhaust Engineering							
3.1	Solder fume purifier	Voltage 220V, flow rate 360m ³ /H, negative pressure 2000Pa	Unit	2	Supply			
3.2	Bell mouth	GB, φ75, with bracket and PVC hose L=1000mm, matching with the exhaust port of smoke evolution device	Unit	4	Supply			

Name of Bidder

Page of

Note:

1. The Bidder must fill the price in this Form in accordance with the instructions otherwise bid will be rejected
2. In case of discrepancy between unit price and total, the unit price shall prevail.
3. The Currencies should be in accordance with ITB-16

*DDP Price is included all taxes and duties except of GST (which is reimbursable on submission of original Invoices as per FBR Procedure).

AMI Interoperability Lab at 132kV Pirwadhahi Grid Station

Name in the capacity of

Signature of Bidder: _____Duly authorized to sign the Bid for and on behalf of

Dated on day of 20

Price Schedule: Goods Manufactured Outside Pakistan, already imported*

Name of Bidder

Page of

1		2	3	4	5	6	7	8	9	10	11	12
NCB	Sr. No	Description of Goods	Country of Origin	Delivery Date as defined by Incoterms	Quantity and physical unit	Unit price including Custom Duties and Import Taxes paid, in accordance with ITB 15.7(a)(ii)	Custom Duties and Import Taxes paid per unit in accordance with ITB 15.7(a)(ii) , [to be supported by documents]	Unit Price net of custom duties and import taxes, in accordance with ITB 15.7	Price per line item net of Custom Duties and Import Taxes paid	Price per line item for inland transportation and other services required in the Purchaser's Country to convey the goods to their final destination, as specified in BDS in accordance with ITB 15.7	Sales and other taxes paid or payable per item if Contract is awarded (in accordance with ITB 15.7	Total Price per line item (Col. 9+10)

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

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

Price Schedule: Goods Manufactured in Pakistan

BoQ--Interior Decoration								
No.	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
#1	GROUND FLOOR partition wall							
1.1	Gypsum wall panel	Gypsum Board of partition thickness 97mm (filled with 75mm thermopore) along with 72mm track channel, 70mm metal stud, 25mm dry wall screws, jointing compounds, paper taps etc.	mm ²	60	Supply	60m ² , 1F IS/power distribution room		
1.2	Aluminum alloy glass single door for ground floor	W1200*H2300 with windows, metal panel T=50mm, including door and window materials, hinges, etc.	set	1	Supply	1F IS/power distribution room		
1.3	Hardware and other materials	Aluminum channel and L-angle aluminum, etc.	set	1	Supply			
1.4	Scaffolding erection		set	1	Supply			
#2	FIRST FLOOR Renovation							

BoQ--Interior Decoration								
No.	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
2.1	Open Door hole	According to the size of the door frame, punch a hole in the wall, 1200*2100mm	pcs	2	Supply			
2.2	Concrete structural columns	Door frame columns and lintels, C25 steel bars, consistent with wall thickness, 2 doors	m	12	Supply			
2.3	Wall repair	Restore wall putty and latex paint after opening the door hole	Set	1	Supply			
2.4	Aluminum alloy glass door	Single door W1200mm*2100mm, consistent with existing door	Set	2	Supply			
2.5	Double open, glass door	10mm tempered glass, stainless steel edging (fingerprint-free), including door lock and door handle	Set	1	Supply			
2.6	Floor spring	Matching with glass door	Set	2	Supply			
2.7	Door lintel/door pile	Tempered glass + stainless steel	mm ²	4	Supply	4m2		

Furniture & General

S No.	Material	Specifications	Unit	Qty	Required Services	Remarks	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
1	PC Desk	L1400mm*W700mmH760mm burly wood colour material is laminated board storage drawer level: 3(left)+1(right), one keyboard drawer Patex sheet or better. Note: Should be delivered installed	No	7	Supply			
2	10-draw storage cabinet	10-draw storage cabinet (L500mm*W450mm*H1400mm) Material: Cold-rolled steel plate, painted; 10 layers, layer height 130mm bearing: 20kg/layer Patex sheet or better. Note: Should be delivered installed	No	9	Supply			
3	4-draw Storage cabinet	4-draw storage cabinet (L480mm*W600mm*H1400mm) Material: Cold-rolled steel plate, painted; 4layers, layer height 420mm bearing: 40kg/layer Patex sheet or better. Note: Should be delivered installed	No	11	Supply			

S No.	Material	Specifications	Unit	Qty	Required Services	Remarks	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
4	4-layer shelf	Stainless Steels, 4-layer sample shelf (L2000mm*W600mm*H2000mm) Material is galvanized iron plate painted, 4layers, layer height 400mm, bearing 200kg/layer Patex sheet or better. Note: Should be delivered installed	No	16	Supply			
5	5-layer sample shelf	Stainless Steels, 5-layer sample shelf (L1500mm*W600mm*H1600mm) Material is SUS304, 5 layers, layer height 300mm, bearing 100kg/layer, with moving rollers. Patex sheet or better. Note: Should be delivered installed	No	13	Supply			
6	Removable PC desk	L550mm*W550mm*H760 mm (More detailed parameters, materials and other information will be provided later) Patex sheet or better. Note: Should be delivered installed	No	2	Supply			
7	ESP protection trailer	L900mm*W600mm*H200mm (Fold able handrail height: 850~950mm) , bearing 300kg, wheel material PVC, wheel dimension 4 inches, vehicle board material is PP Note: Should be delivered installed	No	2	Supply			
8	Anti-electrostatic clothes	Size: XXXL	No	30	Supply			

S No.	Material	Specifications	Unit	Qty	Required Services	Remarks	Unit rate on FCS (at 132kV Pirwadhahi Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhahi Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
9	Anti-electrostatic clothes Closet	L900mm*W450mm*1800mm Note: Should be delivered installed	No	3	Supply			
10	Auto- shoe cover machine	Xilaike/BT-EGT-11 or Equivalent	No	2	Supply			
11	Atmospheric pressure gauge	NanJing Xiang RuiDe/DYM3 or Equivalent Note: Should be delivered installed	No	1	Supply			
12	Color printer	HP/4302fdw-A4 Laser Type or Equivalent	No	2	Supply			
13	Officer chair	Korean revolving chair with steel base, no plastic and with imported docs	No	15	Supply			
14	Visiting Chair	Korean non-revolving chair with steel base, no plastic and with imported docs	No	25	Supply			
15	Meeting Table	L5000mm*W1800*H700mm Patex sheet or better. Sample can be seen at IESCO G10 office Note: Should be delivered installed	No	1	Supply			
16	Monitors	TCL 75inch or equivalent	No	1	Supply			
17	Enterprise conference system	VC520 or equivalent	No	1	Supply			
19	Bench	L1200mm*W400mm*H450mm, material:SUS304	No	2	Supply			

S No.	Material	Specifications	Unit	Qty	Required Services	Remarks	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
20	Reception desk	AMI Lab reception Patex sheet or better. desk(L2000mm*W500mm*H1500mm) Note: Should be delivered installed	No	1	Supply			
21	Blinds	L2200mm*W2500mm Sample can be seen at IESCO G10 office	No	19	Supply			
~~22~~	~~Blinds Installation~~	-	~~Job~~	~~4~~	~~Installation~~	-		
23	Vacuum Cleaner	AS30KIMBO/30L or Equivalent input:220VAC,power:1000W	No	3	Supply			
24	Portable tool box (including: plier, hammer, cutter etc.)	As per general standards	No	2	Supply			
25	Background board	Background board, on the wall of the reception room, including IESCO logo, AMI Lab laboratory information, etc., to decorate the reception room L1524mm*W920mm Paetx Lasaani with Acrylic Cut-outs Note: Installation is mandatory	No	1	Supply			

S No.	Material	Specifications	Unit	Qty	Required Services	Remarks	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
26	Emergency numbers board	There should be a board containing emergency numbers displayed in case of fire or any other emergency. L610mm*W305mm Metallic Note: Installation is mandatory	No	1	Supply			
27	First aid kit	As per general standards	No	2	Supply			
28	Plan guide map	Final layout plan of lab should be pasted near entrance for guidance of people coming to visit lab. L1220mm*W915mm Patex Lasaani Box Board with vinyl pasting Note: Installation is mandatory	No	2	Supply			
29	Name board	A metallic or fiber board of size (8ft*5ft) will be required to be installed in front of building mentioning "AMI LAB IESCO" and other details Note: Installation is mandatory	No	1	Supply			
30	Room Recognition boards	Recognition boards of moderate size on each room for identification purpose L305mm*W153mm Acrylic/metalic with studs Note: Installation is mandatory	No	12	Supply			
31	Water-absorbing pads for the Entrance	As per general standards	No	1	Supply			

S No.	Material	Specifications	Unit	Qty	Required Services	Remarks	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
32	Soldering Iron	QUICK/TS2300C or Equivalent power:120W temperature range:200-450°C	No	1	Supply			
33	Heat gun	QUICK/862DW or Equivalent power:1000W temperature range:100-500°C	No	2	Supply			
34	Silicon gun (Hot melting glue gun)	As per general standards	No	1	Supply			
35	Silicon rod box (Glue sticks)	As per general standards	No	1	Supply			
36	Angle Grinder Cutter	Kemaisi or Equivalent input:220VAC speed:15000-22000rpm	No	2	Supply			
37	Portable tool box (including: plier, hammer, cutter etc.)	As per general standards	No	3	Supply			

S No.	Material	Specifications	Unit	Qty	Required Services	Remarks	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
38	4-layer shelf	Stainless Steels, 4-layer sample shelf (L2000mm*W600mm*H2000mm) Material is galvanized iron plate painted, 4layers, layer height 400mm, bearing 200kg/layer Note: Should be delivered installed	No	2	Supply			
39	Anti-static chair	Nylon pulleys, Lifting gas rods, PU seat High-quality sponge, wide backrest, no armrests	No	12	Supply			
40	Anti-static test table	L1200*W800*H850mm Stainless Steels + Melamine high pressure plate Note: Should be delivered installed	No	4	Supply			

Air Conditioning

BoQ--Air Conditioning								
Item	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
1	Machinery and Equipment							
1.1	1, 2, 3, 4# Constant temperature and humidity floor-standing air conditioner	Air volume 3100CMH, cooling capacity 12.5KW, heating capacity 14KW, humidification capacity (infrared): 3KG/h, unit residual pressure: 20~50Pa (variable frequency adjustable) CITEC: (ESD/ESU 12 A/W) or Equivalent	Unit	4	Supply	(Air Heat Pump)		
	Refrigerant copper tube (refer to drawing)		set	1	Supply			
	Outdoor C25 concrete foundation	1300*500*200mm	set	4	Supply			
	Auxiliary materials (wires and cables, thermal insulation materials, wrapping materials, etc.)		set	1	Supply			

BoQ--Air Conditioning

Item	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
1.2	Multi-split cooling and heating inverter air conditioner (KB-1#)	Cooling capacity 55KW, heating capacity 60KW Midea: MV8X-615WV2GN1(PRO) or Equivalent	unit	1	Supply			
	7100w suction type indoor unit	Midea: MIH71Q4HN18 or Equivalent	unit	5	Supply			
	5000w suction type indoor unit	Midea: MIH56Q4HN18 or Equivalent	unit	2	Supply			
	3600w suction type indoor unit	Midea: MIH36Q4HN18 or Equivalent	unit	1	Supply			
	Refrigerant copper tube (refer to drawing)		set	1	Supply			
	Outdoor C25 concrete foundation	1400*800*200mm	set	1	Supply			
	Auxiliary materials (wires and cables, insulation materials, wrapping materials, bolts, boom brackets, drainage hoses, etc.)		set	1	Supply			
1.3	Multi-split cooling and heating inverter air conditioner (KB-2#)	Cooling capacity 35KW, heating capacity 40KW Midea: MV8X-450WV2GN1(PRO) or Equivalent	unit	1	Supply			

BoQ--Air Conditioning

Item	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
	7100w suction type indoor unit	Midea: MIH71Q4HN18 or Equivalent	unit	1	Supply			
	5000w suction type indoor unit	Midea: MIH56Q4HN18 or Equivalent	unit	5	Supply			
	Refrigerant copper tube (refer to drawing)		set	1	Supply			
	Outdoor unit C25 concrete foundation	1400*800*200mm	set	1	Supply			
	Auxiliary materials (wires and cables, insulation materials, wrapping materials, bolts, boom brackets, drainage hoses, etc.)		set	1	Supply			
1.4	Axial flow ventilation fan				Supply			
	Axial flow ventilation fan	Air exchange volume 300~360 cubic meters/hour	unit	2	Supply			
	Wall hole opening and repair	Restoration of wall putty and latex paint after opening	set	1	Supply			
1.5	Thermohygrometer (can be placed on the wall or on the desktop)				Supply			

BoQ--Air Conditioning

Item	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
	Thermohygrometer (can be placed on the wall or on the desktop)	Meet GSP standards, USB automatically reads and generates data curves, one-click data export, data can be read, temperature accuracy $\pm 0.1^{\circ}\text{C}$, humidity $\pm 0.5\%$, update interval frequency 5 minutes, storage data is not less than 260,000 groups (stored for 2.5 years), with over-standard sound and light alarm.	unit	10	Supply			
1.6	PPR humidification water supply pipe for constant temperature and humidity machine	According to local brands			Supply			
	PPR humidification tube	DN20	m	80	Supply	80m		
	Auxiliary materials (including elbows, straight pipes, valves, glue, etc.)		Set	1	Supply			
1.7	Air conditioning condensate PVC plastic drain pipe	According to local brands			Supply			
	De50 PVC Drain Pipe	De50	m	120	Supply	120m		

BoQ--Air Conditioning

Item	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
	Insulation Materials	Rubber and plastic fireproof materials	Set	1	Supply			
	Auxiliary materials (including elbows, straight pipes, glue, etc.)		Set	1	Supply			
1.8	Air conditioning condensate PVC plastic drain pipe	According to local brands			Supply			
	De25 PVC Drain Pipe	De25	m	21	Supply	21m		
	Insulation Materials	Rubber and plastic fireproof materials	Set	1	Supply			
	Auxiliary materials (including elbows, straight pipes, glue, etc.)		Set	1	Supply			
2	Power distribution system							
2.1	Wire and Cable	ZC-YJV-0.6/1kV 5*10mm ²	M	90	Supply	90m, KB-#1, KB-2#		

BoQ--Air Conditioning

Item	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
2.2	Wire and Cable	ZC-YJV-0.6/1kV 5*4mm ²	M	128	Supply	128m, 1#~4# Constant temperature and humidity machine		
2.3	Wire and Cable	ZC-RVV 3*4mm ²	M	200	Supply	200m, Indoor unit, three circuits		
2.4	Cable head making	Contains copper wire nose, heat shrink tube, insulating tape, etc.	Set	1	Supply			
2.5	Stainless steel bridge	GB SUS304, 100*100*1.5mm (including cover)	m	20	Supply	20m, 1#~4# Constant temperature and humidity machine for outdoor use		
2.6	Support bracket	GB, L40*40 angle steel welding	Set	1	Supply			
2.7	Excipients	Copper wire ears, welding rods, spray paint, lock buckles, etc.	sm	1	Supply	1m		

BoQ--Air Conditioning								
Item	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
3	Other supporting projects							
3.2	Water supply and drainage pipe hanger		Set	1	Supply			
3.3	Wall and floor openings (including waterproof and leak-proof sealing)		Set	1	Supply			
3.4	Refrigerant copper pipe cable outdoor protection stainless steel cover		Set	1	Supply			
3.5	Scaffolding erection and dismantling fees		Set	1	Supply			
3.6	Hanger anti-corrosion paint		Set	1	Supply			
3.7	Protection Engineering		Set	1	Supply			

BoQ--Power Distribution								
No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
#1	Power distribution equipment							
1.1	ATS power distribution cabinet	Dual Source ATS 1. MCCB Breaker 400A FP for Wapda 01, Wapda 02 and Generator Incoming Make Schneider or Equivalent 03 Nos. 2. Motorized MCCB 400A FP for M.O.R 04 Nos. 3. ATS Module Make Deepsea/Datakom or Equivalent 01 Nos. 4. UVT Make ZARA or Equivalent 01 Nos. 5. Control Relays With Base Make Schneider or Equivalent 02 Nos, 6. ATS Timer 220VAC Make Fuji or Equivalent 04 Nos. 7. Battery Charger 05A,12V/24VDC Make Harsan or Equivalent 01 Nos. 8. Emergency Switch Make	set	1	Supply			

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
		Schneider or Equivalent 01 Nos. 9. Control TB Make OMIKA/Fuji or Equivalent 04 Nos. 10. Control Breaker MCB 06A SP Make Schneider or Equivalent 05 Nos. 11. Indication Lights Load, Wapda & Genset Make Schneider or Equivalent 09 Nos. Cubical Details Cubical Made up of MS 16SWG Paint Type: Galvanized Powder Coated Paint Ambiant Temperature 45C Mounting Type: Floor Mounted Designed and Manufactured by Advanced Engineering & Contractors or Equivalent						

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
1.2	Power distribution cabinet P-1-1	Incoming 1. MCCB 400A TP Model NSX400N Make Schneider or Equivalent 01 Nos. 2. Energy Analyzer Equipped with CT Make Tense/Entes Turkey or Equivalent 01 Nos. 3. CT's 400/5A Make ITL or Equivalent 03Nos. Outgoing 4. MCCB 250A TP Adj Model NSX250 Make Schneider or Equivalent 03 Nos. 5. MCCB 100A TP Adj Model NSX250 Make Schneider or Equivalent 01 Nos. 6. MCB 40A 3P Make Schneider or Equivalent 05 Nos. 7. MCB 20A 3P Make Schneider or Equivalent 02 Nos. Cabinet Details. Cubical Size: 1300MM X 1000MM X 450MM Gauge : 16SWG Paint: Electrostatic Powder Coated Paint Earthing Copper Bar Neutral Bar 10 Wire Bar 01 Nos. Completely Wired DB Ready To Use.	set	1	Supply			

BoQ--Power Distribution								
No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
1.3	Uninterruptible Power Supply (UPS)	Modular machine 400V/50kVA 1 hour backup 12V100AH Yuasa maintenance-free battery pack Make APC/GTEC or Equivalent including all accessories.	set	1	Supply			
1.4	UPS power distribution cabinet U-1-1	Incoming 1. MCCB 250A TP Model NSX250N Make Schneider or Equivalent 01 Nos. 2. Energy Analyzer Equipped with CT Make Tense/Entes Turkey or Equivalent 01 Nos. 3. Indication Lights R,Y,B Make Schneider or Equivalent 03 Nos. Outgoing 4. MCB 20A DP Make Schneider or Equivalent 02 Nos. 5. MCB 32A DP Make Schneider or Equivalent 03 Nos. 6. MCB 40A 3P Make Schneider or Equivalent 01 Nos. 7. MCB 63A 3P Make Schneider or Equivalent	set	1	Supply			

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
		01 Nos. 8. MCCB 60A TP Make Schneider or Equivalent 03 Nos. 9. MCCB 100A TP Make Schneider or Equivalent 01 Nos. Cabinet Details Cubical Size: 1000MM X 800MM X 200MM Gauge : 16SWG Paint: Electrostatic Powder Coated Paint Earthing Copper Bar Neutral Bar 10 Wire Bar 01 Nos. Completely Wired DB Ready To Use.						

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
1.5	Air conditioning distribution cabinet	Incoming 1. MCCB 250A TP Model NSX250N Make Schneider or Equivalent 01 Nos. 2. Energy Analyzer Equipped with CT Make Tense/Entes Turkey or Equivalent 01 Nos. 3. Indication Lights R,Y,B Make Schneieder or Equivalent 03 Nos. Outgoing 4. MCB 20A DP Model IC60N Make Schneider or Equivalent 07 Nos. 5. MCB 32A 3P Make Schneider or Equivalent 05 Nos. 6. MCCB 60A TP Make Schneider or Equivalent 03 Nos. Cabinet Details Cubical Size: 1000MM X 800MM X 200MM Gauge : 16SWG Paint: Electrostatic Powder Coated Paint Earthing Copper Bar Neutral Bar 10 Wire Bar 01 Nos. Completely Wired DB Ready To Use.	set	1	Supply			

BoQ--Power Distribution								
No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
#2	Bridge and power distribution							
2.1	Wire and Cable	National standard, ZC-YJV-0.6/1kV-4*185+1*120mm ²	m	10	Supply			
2.2	Wire and Cable	National standard, ZC-YJV-0.6/1kV-4*120+1*70mm ²	m	46	Supply			
2.3	Cable head making	Contains copper wire nose, heat shrink tube, insulating tape, etc.	set	1	Supply			
2.4	Stainless steel bridge (including cover)	National standard SUS304 (matte), 300*100*1.5mm Galvanized Iron	m	6	Supply	6m, Outdoor cable entry bridge		
2.5	Galvanized bridge (including cover)	National standard, 300*100*1.5mm Galvanized Iron	m	10	Supply	10m		
2.6	Galvanized bridge (including cover)	National standard, 200*100*1.5mm Galvanized Iron	m	24	Supply	24m		
2.7	Galvanized bridge (including cover)	National standard, 150*75*1.5mm Galvanized Iron	m	180	Supply	180m, high-voltage bridge		

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
2.8	Bridge (fire-resistant) (including cover)	National standard, 150*75*1.5mm Galvanized Iron	m	164	Supply	164m, low-voltage bridge		
2.9	Galvanized Cross	National standard, 150*75*1.5mm Galvanized Iron	pcs	10	Supply			
2.1	Galvanized Tee	National standard, 150*75*1.5mm Galvanized Iron	pcs	3	Supply			
2.11	Galvanized elbow	National standard, 150*75*1.5mm Galvanized Iron	pcs	5	Supply			
2.12	Four-way (fire-resistant)	National standard, 150*75*1.5mm Galvanized Iron	pcs	3	Supply			
2.13	Tee (fire-resistant)	National standard, 150*75*1.5mm Galvanized Iron	pcs	7	Supply			
2.14	Elbow (fire-resistant)	National standard, 150*75*1.5mm Galvanized Iron	pcs	7	Supply			
2.15	Support bracket	National standard, L40*40*3mm angle steel welding	set	1	Supply			
2.16	Hardware and other materials	Screws, welding rods, spray paint, etc.	set	1	Supply			

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
2.17	Scaffolding erection		set	1	Supply			

BoQ – Grounding

Project name: Grounding

No.	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
#1	Well construction							
1.1	Ground well construction	800*800*800mm red brick masonry, painted. See the construction drawing for details	set	2	Supply	1 active and 1 passive ground well		
1.2	Manhole cover	Refer to sample picture for details	set	2	Supply			
1.3	Copper Rod	Pure copper φ25mm, L=3000mm (copper purity 99.99%)	pcs	6	Supply	Three copper rods in each well		
1.4	Copper Strip	GB(Chinese National standard)40*3mm	m	60	Supply			
1.5	Equipotential box	GB, SUS304 outdoor surface-mounted type 300*200*80mm, including copper bar	set	2	Supply			
1.6	Stainless steel cable duct	GB, SUS304, 200*100*2mm	m	16	Supply	16m		

BoQ – Grounding

Project name: Grounding

No.	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhahi Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhahi Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
1.7	Concrete floor grooving	The ground is restored after the copper strip is embedded in the ground	set	1	Supply			
#2	Indoor grounding							
2.1	Copper Strip	GB, 40*3mm	m	135	Supply	190m		
2.2	PVC Square Wire Duct	GB, 50*5mm	m	135	Supply	130m		
2.3	Wire and Cable	GB BVR-10mm ² pure green	m	10	Supply	10m, connect the equipotential terminal box		
2.4	Wire and Cable	GB BVR-10mm ² yellow and green	m	80	Supply	80m, connect the equipotential terminal box		
2.5	Cable head making	Contains copper wire nose, heat shrink tube, insulating tape, etc.	set	1	Supply			
2.6	PVC wire tube	GBφ32	m	60	Supply	60m		

BoQ – Grounding

Project name: Grounding

No.	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhahi Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhahi Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
2.7	PVC cable tray support and hanger	Including lead screw, screw, hanging card	set	1	Supply			
2.8	Equipotential terminal box	GB, TD28 type, 160*75*52mm, iron sheet thickness 1.5mm, white paint. Indoor surface-mounted type, containing copper bar 50*3mm, 5 holes	set	13	Supply			
2.9	Excipients	Tube clamps, cup combs, expansion and heat shrink tubing, etc.	set	1	Supply			
2.10	Floor opening and sealing		set	1	Supply			

BoQ--Network wiring								
No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
#1	Equipment and Materials							
1.1	Server cabinet	TOTEN G26042 or equivalent 600*1000*2055mm TOTEN G26042 or equivalent 600*1000*2045mm	unit	1	Supply			
1.2	Network cabinet	TOTEN G26842 42U cabinet or equivalent 600*800*2045mm TOTEN G26842 600*800*2045mm	unit	1	Supply			
1.3	Switch	H3C S5130S-52S-PWR-EI or equivalent	unit	3	Supply			
1.4	Firewall	Sang for NSF-1050A-I or equivalent	unit	1	Supply			
1.5	Wireless controller	H3C WX3510H or equivalent	unit	2	Supply			
1.6	Wireless controller authorization Wireless controller authorization	LIS-WX-16-BE or equivalent	/	2	Supply	Manage 16 APs		
1.7	Wireless AP Wireless Access Point	H3C WA6330 or equivalent	unit	10	Supply			
1.8	Voice Gateway	Yeastar S100 or equivalent	unit	1	Supply			

BoQ--Network wiring								
No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
1.9	IP Phone	ATCOM A20WAC supports 2.4G+5G dual-band WiFi wireless desktop SIP phone or equivalent	unit	10	Supply			
1.10	Category 5e network cable	R809797 or equivalent	box	13	Supply			
1.11	Single-port network panel	R&M_R795068 or equivalent	unit	50	Supply			
1.12	Dual-port network panel	R&M_R795068 or equivalent	unit	50	Supply	8-bit master control, total length 3 meters		
1.13	Category 5e network module	R302373 or equivalent	unit	300	Supply			
1.14	Cabinet PDU	(DEMU) PDU round hole 8-bit + lightning protection British standard 1.5 square 2 meter line or equivalent	unit	2	Supply			
1.15	24-port modular patch panel	R&M R302373 or equivalent	unit	6	Supply			
1.16	1U cable management rack	R&M_R306179 or equivalent	unit	6	Supply			
1.17	Category 5e crystal plug	Panduit MP588 or equivalent	pcs	200	Supply			

BoQ--Network wiring								
No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
1.18	Category 6 unshielded patch cord 0.2m	Cat.6 Patch Cords R&M thin Line or equivalent	pcs	100	Supply	Set of nuts and screws		
1.19	Category 6 unshielded patch cord 2.5m	Cat.6 Patch Cords R&M thin Line or equivalent	pcs	100	Supply			
1.20	AMPCOM cabinet screws M6*16mm AMPCOM cabinet screws M6*16mm	AMPCOM AMM6100 or equivalent	pcs	50	Supply			
1.21	Network cable pliers	SMT HT-568 or equivalent	set	1	Supply			
1.22	NAS	(Synology) RS422+ 16TB HAT3300 or equivalent	unit	1	Supply			
1.23	Line finder	Smart Mouse NF-8209S Line Finder NF-8209S or equivalent	unit	1	Supply			
1.24	Label machine	Suofang LP5125BT Bluetooth Label Machine Label Printer LP5125BT or equivalent	unit	1	Supply			
1.25	Label ribbon	Shuofang label tape LP5125B label printer ribbon lamination yellow background black text 9mm LP5125B or equivalent	unit	2	Supply			
	Wiring installation							

BoQ--Network wiring								
No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
2.1	Network cable wiring	68 points (59 network ports, 9 APs)	m	3400	Supply	3400m		
2.2	PVC pipe	GB, DN20	m	200	Supply	200m		
2.3	Bottom Box	GB, 86*86*50 concealed thickening type	unit	35	Supply			
2.4	AP Installation		item	1	Supply			
2.5	Telescopic rod	Surveillance camera telescopic extension bracket indoor and outdoor aluminum alloy pole universal lifting bracket 75-150cm variable length	unit	9	Supply			
2.6	Pipe fittings		item	1	Supply			
2.7	Stainless steel bridge (including cover)	GB SUS304 (matte), 100*50*1.2mm	m	6	Supply			
2.8	Wall grooving and restoration	After grooving the wall and pre-buried pipes, restore the wall putty and latex paint	item	1	Supply			

BoQ--Network wiring								
No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
2.9	Line alignment, marking, crystal head, module installation, computer room arrangement		item	1	Supply			

BoQ--Security								
No.	Project and material list	Models and specifications	Unit	Qty	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
#1	Monitoring system							
1.1	Front-end image capture device (all series support POE power supply)				Supply			
1.1.1	Digital infrared dome camera(including base)	Hikvision POE power supply, 4 million HD, 30m infrared distance, with motion detection and out-of-bounds function Hikvision DS-2CD1343G2-LIU(F) or Equivalent	unit	5	Supply			
1.1.2	Panoramic camera(including base)	Hikvision POE power supply, fisheye panoramic HD 5 million Hikvision/DS-2CD2955G0-IS(U) or Equivalent	unit	10	Supply			
1.2	Terminal control and display unit equipment							
1.2.1	Monitor, keyboard and mouse	Hikvision/DS-D5043UC or Equivalent	set	1	Supply			

BoQ--Security

No.	Project and material list	Models and specifications	Unit	Qty	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
1.2.2	Hard disk recorder	64-channel 8-slot, including 4 10T hard disks, with English interface Hikvision/DS-8664NI-I8 skyhawk Hd or Equivalent	unit	1	Supply			
1.3	Transmission network equipment							
1.3.1	24-port POE switch	24 Gigabit POE ports, high-level lightning protection, large cache, no lag, built-in power supply AC220V H3C S5130S-28P or Equivalent	unit	1	Supply			
1.3.2	Category 5 network cable	Blue, Category 5e unshielded	m	300	Supply	300m		
1.3.3	Category 6 network cable	Blue, Category 6 unshielded	m	50	Supply	50m		
1.3.4	Supplementary materials		set	1	Supply			
#2	Access Control System							
2.1	Front-end image capture device (all series support POE power supply)							
2.1.1	Electric lock	ZK-ML280K or Equivalent	set	6	Supply			
2.1.2	Door opening button	TLEB101 or Equivalent	set	6	Supply			
2.1.3	Face recognition machine	V5L Series or Equivalent	set	6	Supply			

BoQ--Security								
No.	Project and material list	Models and specifications	Unit	Qty	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
2.2	Terminal control and display unit equipment							
2.2.1	4-Door Access Controller	Dashi or Equivalent	set	2	Supply			
2.2.2	Software System	With English interface Dashi or Equivalent	set	1	Supply			
2.2.3	Client Computer		set	1	Supply			
2.3	Transmission network equipment							
2.3.1	16-port POE switch	16 Gigabit POE ports, high-level lightning protection, large cache, no lag, built-in power supply AC220V H3C S5130S-28P or Equivalent	unit	1	Supply			
2.3.2	Category 6 network cable	Blue, Category 6 unshielded	m	200	Supply	200m		
2.3.3	Supplementary materials		set	1	Supply			
2.4	Access control power distribution project							
2.4.1	Wire and Cable	GB, BVR-4mm2	m	300	Supply	300m		

BoQ--Security

No.	Project and material list	Models and specifications	Unit	Qty	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
2.4.2	socket	International 10-hole socket 220V, 13A	unit	2	Supply			
2.4.3	Bottom Box	86*86*50 Concealed Thickening Type	unit	18	Supply	12 for door opening buttons and face recognition installation		
2.4.4	PVC wire tube	GB, DN25	m	60	Supply	60m		
2.4.5	Excipients		set	1	Supply			

BoQ – Firefighting								
Project name: Firefighting								
No	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
#1	Fire Alarm Systems							
1.1	Host device				Supply			
1.1.1	Wall-mounted fire zone alarm host	Intelligent Addressable Fire Alarm Control Panel 2 Loops with communication card. With Batteries 2 x 12Vdc - 7Ah LPCB Approved, Brand : TNA UK, Model: TX7004-2 or Equivalent	Set	1	Supply			
1.1.2	Loop Card	-	Unit	2	Supply			
1.2	Front-end equipment				Supply			
1.2.1	Sound and light alarm	Sounder & Strobe LPCB Approved, Brand : TNA UK, Model: TX7300 or Equivalent	Unit	7	Supply			

BoQ – Firefighting

Project name: Firefighting

No	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
1.2.2	Coded manual alarm button	Intelligent Manual Call Point with back box.LPCB Approved, Brand : TNA UK, Model: TX7140 or Equivalent	Unit	7	Supply			
1.2.3	Encoded intelligent photoelectric smoke detector	Intelligent Smoke Detector with addressable Base.LPCB Approved, Brand : TNA UK, Model: TX7100 or Equivalent	Unit	33	Supply			
1.2.34	Manual call point (System Programming)		Unit	1	Supply			
1.3	Consumables				Supply			
1.3.1	Fire alarm bus	Fire Alarm Cable 2 Core, 1.5mm2 Shielded UL Listed, Make : LLT Cable or Equivalent	m	250	Supply	250m		

BoQ – Firefighting

Project name: Firefighting

No	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
1.3.2	Fire alarm power cord	Fire Alarm Cable 2 Core, 1.5mm ² Shielded UL Listed, Make : LLT Cable or Equivalent	m	50	Supply	50m		
1.3.3	Galvanized Metal Wire Pipe	3/4" (DN20) Metal Conduit Extra Light Grade with fixing accessories.	m	300	Supply	300m		
1.3.4	Hardware and other materials	Galvanized pipe fittings, pipe clamps, locks, etc.	Set	1	Supply			
#2	Emergency evacuation system							
2.1	Evacuate left sign	The duration of emergency work should not be less than 90 minutes	Unit	8	Supply			
2.2	Evacuate right sign	The duration of emergency work should not be less than 90 minutes	Unit	8	Supply			
2.3	Two-way evacuation sign	The duration of emergency work should not be less than 90 minutes	Unit	3	Supply			
2.4	Escape safety exit sign	The duration of emergency work should not be less	Unit	16	Supply			

BoQ – Firefighting								
Project name: Firefighting								
No	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
		than 90 minutes						
2.5	Wire and Cable	GB, NH-RVS-2*1.5	m	300	Supply	300m		
2.6	socket	International universal five-hole 2+3, with switch	Unit	35	Supply			
2.7	Bottom Box	GB, 86*86*50mm metal bottom box	Unit	35	Supply			
2.8	Galvanized Metal Wire Pipe	3/4" (DN20) Metal Conduit Extra Light Grade with fixing accessories.	m	210	Supply	210m		
2.9	Supplementary materials	Elbows, locks, etc.			Supply			
#3	Fire extinguisher							
3.1	Dry powder fire extinguisher	MF ABC/4 or Equivalent	Unit	16	Supply			
3.2	Carbon dioxide fire extinguisher	MT 4 or Equivalent	Unit	24	Supply	Contains 4 for M&T Lab		

BoQ – Firefighting								
Project name: Firefighting								
No	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
3.3	Fire extinguisher box	As per general specs	Unit	20	Supply	Contains 2 for M&T Lab		
#4	Emergency lighting system							
4.1	Emergency lighting centralized power supply host	Built-in battery backup time 90min Voltage level: input 220V, output DC36V Output circuit with fuse short circuit protection function	Set	1	Supply			
4.2	Lighting Fixtures	LED energy saving DC36V 10w	Unit	17	Supply			
4.3	Wire and Cable	GB, NH-RVS-2*1.5	m	200	Supply	200m		
4.4	Bellows	Kaizhuang corrugated pipe, DN20	m	25	Supply	25m		
4.5	Excipients	Insulation tape, lock, etc.	Unit	16	Supply			

BoQ--Secondary Distribution

Project name: Secondary distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
Secondary distribution								
#1	Power distribution							
1.1	Wire and Cable	GB, YJV-0.6/1KV-4*16+1*10mm ²	m	54	Supply	54m, 1F-U-1 Main Cable		
1.2	Wire and Cable	GB, YJV-0.6/1KV-5*10mm ²	m	68	Supply	68m, 1F-U-2/GF-U-1 main cable		
1.3	Wire and Cable	GB, BVR-4mm ²	m	1353	Supply	1353m		
1.4	Cable head making	Contains copper wire nose, heat shrink tube, insulating tape, etc.	set	1	Supply			
1.5	Hot dip galvanized steel cable trunking	GB, 150*75*1.5mm including cover	m	12	Supply	12m		

BoQ--Secondary Distribution

Project name: Secondary distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
1.6	Switch box (double layer)	Switch: Schneider or Equivalent, Box: Spelsberg Germany PVC Boxes or Equivalent Main switch: C120H D80A/4P 1pcs Sub-switch: IC65N D40A/3P 2pcs IC65N D32A/4P 0.03A 1pcs IC65N D32A/2P 0.03A 6pcs IC65N D20A/2P 0.03A 3pcs	set	1	Supply	1F-U-1		
1.7	Switch box (single layer)	Switch: Schneider or Equivalent, Box: Spelsberg Germany PVC Boxes or Equivalent Main switch: IC65N D63A/4P 1pcs Sub-switch: IC65N D40A/3P 2pcs IC65N D32/3P 1pcs IC65N D20/2P 0.03A 5pcs	set	1	Supply	1F-U-2		

BoQ--Secondary Distribution

Project name: Secondary distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
1.8	Switch box (double layer)	Switch: Schneider or Equivalent, Box: Spelsberg Germany PVC Boxes or Equivalent Main switch: IC65N D63A/4P 1pcs Sub-switch: IC65N D32A/4P 0.03A 4pcs IC65N D20A/2P 0.03A 6pcs	Set	1	Service	GF-U-1		
1.9	Air switch	Schneider or Equivalent IC65N D32/4P 0.03A	Unit	5	Supply			
1.10	Switch Box	10 switch positions, including one ground terminal	Unit	5	Supply	On-site confirmation of installation height		
1.11	socket	Three-phase four-hole 25A	Unit	6	Supply	On-site confirmation of installation height		
1.12	socket	86 type international universal multifunctional 10-hole socket, 13A	Unit	30	Supply			

BoQ--Secondary Distribution

Project name: Secondary distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
1.13	Bottom Box	86*86*50 Concealed Thickening Type	Unit	50	Supply			
1.14	PVC wire tube	GB, DN25	m	130	Supply	130m		
1.15	Wall grooving and restoration	After grooving and burying pipes in the wall, restore the wall putty and latex paint	Item	1	Supply			
1.16	Support bracket	Including lead screw, screw, hanging card	Item	1	Supply			
1.17	Excipients	Pipe clamps, cup combs, expansion, insulating tape, etc.	Item	1	Supply			
#2	Compressed air engineering							
2.1	Air compressor (portable)	Gas output 5m ³ /H, double-head stepless compression, noise ≤65db	set	1	Supply			
2.2	PU hose	GB, φ10mm	m	10	Supply	10m		
2.3	Stainless steel valves	GB, SUS304 DN15	Unit	1	Supply			
2.4	Quick plug connector	GB, φ10mm	Unit	2	Supply			

BoQ--Secondary Distribution

Project name: Secondary distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate on FCS (at 132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST	Total Price on FCS at (132kV Pirwadhai Grid Station) including transportation charges, all taxes, insurance, incidental charges and duties without GST
#3	Exhaust Engineering							
3.1	Solder fume purifier	Voltage 220V, flow rate 360m ³ /H, negative pressure 2000Pa	Unit	2	Supply			
3.2	Bell mouth	GB, φ75, with bracket and PVC hose L=1000mm, matching with the exhaust port of smoke evolution device	Unit	4	Supply			

Name of Bidder Page of

Note:

1. The Bidder must fill the price in this Form in accordance with the instructions otherwise bid will be rejected
2. In case of discrepancy between unit price and total, the unit price shall prevail.
3. The Currencies should be in accordance with ITB-15

*FCS price included all taxes and duties excluding GST
AMI Interoperability Lab at 132kV Pirwadhai Grid Station

Name in the capacity of

Signature of Bidder:

Duly authorized to sign the Bid for and on behalf of

Dated on day of 20

Price Schedule: Transportation, Installation and Other Services

BoQ--Interior Decoration								
No.	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
#1	GROUND FLOOR partition wall							
1.1	Gypsum wall panel	Gypsum Board of partition thickness 97mm (filled with 75mm thermopore) along with 72mm track channel, 70mm metal stud, 25mm dry wall screws, jointing compounds, paper taps etc.	mm ²	60	Service	60m2, 1F IS/power distribution room		
1.2	Aluminum alloy glass single door for ground floor	W1200*H2300 with windows, metal panel T=50mm, including door and window materials, hinges, etc.	set	1	Service	1F IS/power distribution room		
1.3	Hardware and other materials	Aluminum channel and L-angle aluminum, etc.	set	1	Service			
1.4	Scaffolding erection		set	1	Service			
1.5	Garbage cleaning and removal	Construction waste	set	1	Service			
#2	FIRST FLOOR Renovation							

BoQ--Interior Decoration								
No.	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
2.1	Open Door hole	According to the size of the door frame, punch a hole in the wall, 1200*2100mm	pcs	2	Service			
2.2	Concrete structural columns	Door frame columns and lintels, C25 steel bars, consistent with wall thickness, 2 doors	m	12	Service			
2.3	Wall repair	Restore wall putty and latex paint after opening the door hole	set	1	Service			
2.4	Aluminum alloy glass door	Single door W1200mm*2100mm, consistent with existing door	set	2	Service			
2.5	Double open, glass door	10mm tempered glass, stainless steel edging (fingerprint-free), including door lock and door handle	set	1	Service			
2.6	Floor spring	Matching with glass door	set	2	Service			
2.7	Door lintel/door pile	Tempered glass + stainless steel	mm ²	4	Service	4m2		

BoQ--Interior Decoration								
No.	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
2.8	Garbage cleaning and removal	Construction waste	set	1	Service			

Air Conditioning

BoQ--Air Conditioning								
Item	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
1	Machinery and Equipment							
1.1	1, 2, 3, 4# Constant temperature and humidity floor-standing air conditioner	Air volume 3100CMH, cooling capacity 12.5KW, heating capacity 14KW, humidification capacity (infrared): 3KG/h, unit residual pressure: 20~50Pa (variable frequency adjustable) CITEC: (ESD/ESU 12 A/W) or Equivalent	Unit	4	Service	(Air Heat Pump)		
	Refrigerant copper tube (refer to drawing)		Set	1	Service			
	Outdoor C25 concrete foundation	1300*500*200mm	Set	4	Service			
	Auxiliary materials (wires and cables, thermal insulation materials, wrapping materials, etc.)		Set	1	Service			
1.2	Multi-split cooling and heating inverter air conditioner (KB-1#)	Cooling capacity 55KW, heating capacity 60KW Midea: MV8X-615WV2GN1(PRO) or Equivalent	Unit	1	Service			

BoQ--Air Conditioning

Item	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
	7100w suction type indoor unit	Midea: MIH71Q4HN18 or Equivalent	Unit	5	Service			
	5000w suction type indoor unit	Midea: MIH56Q4HN18 or Equivalent	Unit	2	Service			
	3600w suction type indoor unit	Midea: MIH36Q4HN18 or Equivalent	Unit	1	Service			
	Refrigerant copper tube (refer to drawing)		Set	1	Service			
	Outdoor C25 concrete foundation	1400*800*200mm	Set	1	Service			
	Auxiliary materials (wires and cables, insulation materials, wrapping materials, bolts, boom brackets, drainage hoses, etc.)		Set	1	Service			
1.3	Multi-split cooling and heating inverter air conditioner (KB-2#)	Cooling capacity 35KW, heating capacity 40KW Midea: MV8X-450WV2GN1(PRO) or Equivalent	Unit	1	Service			
	7100w suction type indoor unit	Midea: MIH71Q4HN18 or Equivalent	Unit	1	Service			
	5000w suction type indoor unit	Midea: MIH56Q4HN18 or Equivalent	Unit	5	Service			

BoQ--Air Conditioning

Item	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
	Refrigerant copper tube (refer to drawing)		Set	1	Service			
	Outdoor unit C25 concrete foundation	1400*800*200mm	Set	1	Service			
	Auxiliary materials (wires and cables, insulation materials, wrapping materials, bolts, boom brackets, drainage hoses, etc.)		Set	1	Service			
1.4	Axial flow ventilation fan				Service			
	Axial flow ventilation fan	Air exchange volume 300~360 cubic meters/hour	Unit	2	Service			
	Wall hole opening and repair	Restoration of wall putty and latex paint after opening	Set	1	Service			
1.5	Thermohygrometer (can be placed on the wall or on the desktop)				Service			

BoQ--Air Conditioning

Item	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
	Thermohygrometer (can be placed on the wall or on the desktop)	Meet GSP standards, USB automatically reads and generates data curves, one-click data export, data can be read, temperature accuracy $\pm 0.1^{\circ}\text{C}$, humidity $\pm 0.5\%$, update interval frequency 5 minutes, storage data is not less than 260,000 groups (stored for 2.5 years), with over-standard sound and light alarm.	Unit	10	Service			
1.6	PPR humidification water supply pipe for constant temperature and humidity machine	According to local brands			Service			
	PPR humidification tube	DN20	m	80	Service	80m		
	Auxiliary materials (including elbows, straight pipes, valves, glue, etc.)		Set	1	Service			
1.7	Air conditioning condensate PVC plastic drain pipe	According to local brands			Service			
	De50 PVC Drain Pipe	De50	m	120	Service	120m		

BoQ--Air Conditioning

Item	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
	Insulation Materials	Rubber and plastic fireproof materials	Set	1	Service			
	Auxiliary materials (including elbows, straight pipes, glue, etc.)		Set	1	Service			
1.8	Air conditioning condensate PVC plastic drain pipe	According to local brands			Service			
	De25 PVC Drain Pipe	De25	m	21	Service	21m		
	Insulation Materials	Rubber and plastic fireproof materials	Set	1	Service			
	Auxiliary materials (including elbows, straight pipes, glue, etc.)		set	1	Service			
2	Power distribution system							
2.1	Wire and Cable	ZC-YJV-0.6/1kV 5*10mm ²	m	90	Service	90m, KB-#1, KB-2#		

BoQ--Air Conditioning

Item	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
2.2	Wire and Cable	ZC-YJV-0.6/1kV 5*4mm2	m	128	Service	128m, 1#~4# Constant temperature and humidity machine		
2.3	Wire and Cable	ZC-RVV 3*4mm2	m	200	Service	200m, Indoor unit, three circuits		
2.4	Cable head making	Contains copper wire nose, heat shrink tube, insulating tape, etc.	set	1	Service			
2.5	Stainless steel bridge	GB SUS304, 100*100*1.5mm (including cover)	m	20	Service	20m, 1#~4# Constant temperature and humidity machine for outdoor use		
2.6	Support bracket	GB, L40*40 angle steel welding	Set	1	Service			
2.7	Excipients	Copper wire ears, welding rods, spray paint, lock buckles, etc.	sm	1	Service	1m		
3	Other supporting projects							

BoQ--Air Conditioning

Item	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
3.1	Water supply and drainage pipe hanger		Set	1	Service			
3.2	Wall and floor openings (including waterproof and leak-proof sealing)		Set	1	Service			
3.3	Refrigerant copper pipe cable outdoor protection stainless steel cover		Set	1	Service			
3.4	Scaffolding erection and dismantling fees		Set	1	Service			
3.5	Hanger anti-corrosion paint		Set	1	Service			
3.6	Protection Engineering		Set	1	Service			
3.7	Ceiling removal and restoration		Set	1	Service			
3.8	Garbage Removal		Set	1	Service			

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
#1	Power distribution equipment							
1.1	ATS power distribution cabinet	Dual Source ATS 1. MCCB Breaker 400A FP for Wapda 01, Wapda 02 and Generator Incoming Make Schneider or Equivalent 03 Nos. 2. Motorized MCCB 400A FP for M.O.R 04 Nos. 3. ATS Module Make Deepsea/Datakom or Equivalent 01 Nos. 4. UVT Make ZARA or Equivalent 01 Nos. 5. Control Relays With Base Make Schneider or Equivalent 02 Nos, 6. ATS Timer 220VAC Make Fuji or Equivalent 04 Nos. 7. Battery Charger 05A,12V/24VDC Make Harsan or Equivalent 01 Nos. 8. Emergency Switch Make Schneider or Equivalent 01	set	1	Service			

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
		Nos. 9. Control TB Make OMIKA/Fuji or Equivalent 04 Nos. 10. Control Breaker MCB 06A SP Make Schneider or Equivalent 05 Nos. 11. Indication Lights Load, Wapda & Genset Make Schneider or Equivalent 09 Nos. Cubical Details Cubical Made up of MS 16SWG Paint Type: Galvanized Powder Coated Paint Ambiant Temperature 45C Mounting Type: Floor Mounted Designed and Manufactured by Advanced Engineering & Contractors or Equivalent						
1.2	Power distribution cabinet P-1-1	Incoming 1. MCCB 400A TP Model NSX400N Make Schneider or Equivalent 01 Nos. 2. Energy Analyzer Equipped with CT Make Tense/Entes Turkey or Equivalent 01 Nos. 3. CT's 400/5A Make ITL or	set	1	Service			

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
		Equivalent 03Nos. Outgoing 4. MCCB 250A TP Adj Model NSX250 Make Schneider or Equivalent 03 Nos. 5. MCCB 100A TP Adj Model NSX250 Make Schneider or Equivalent 01 Nos. 6. MCB 40A 3P Make Schneider or Equivalent 05 Nos. 7. MCB 20A 3P Make Schneider or Equivalent 02 Nos. Cabinet Details. Cubical Size: 1300MM X 1000MM X 450MM Gauge : 16SWG Paint: Electrostatic Powder Coated Paint Earthing Copper Bar Neutral Bar 10 Wire Bar 01 Nos. Completely Wired DB Ready To Use.						
1.3	Uninterruptible Power Supply (UPS)	Modular machine 400V/50kVA 1 hour backup 12V100AH Yuasa maintenance-free battery pack Make APC/GTEC or Equivalent including all accessories.	set	1	Service			

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
1.4	UPS power distribution cabinet U-1-1	Incoming: 1. MCCB 250A TP Model NSX250N Make Schneider or Equivalent 01 Nos. 2. Energy Analyzer Equiped with CT Make Tense/Entes Turkey or Equivalent 01 Nos. 3. Indication Lights R,Y,B Make Schneider or Equivalent 03 Nos. Outgoing 4. MCB 20A DP Make Schneider or Equivalent 02 Nos. 5. MCB 32A DP Make Schneider or Equivalent 03 Nos. 6. MCB 40A 3P Make Schneider or Equivalent 01 Nos. 7. MCB 63A 3P Make Schneider or Equivalent 01 Nos. 8. MCCB 60A TP Make Schneider or Equivalent 03 Nos. 9. MCCB 100A TP Make Schneider or Equivalent 01 Nos.	set	1	Service			

BoQ--Power Distribution								
No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
		Cabinet Details Cubical Size: 1000MM X 800MM X 200MM Gauge : 16SWG Paint: Electrostatic Powder Coated Paint Earthing Copper Bar Neutral Bar 10 Wire Bar 01 Nos. Completely Wired DB Ready To Use.						
1.5	Air conditioning distribution cabinet	Incoming 1. MCCB 250A TP Model NSX250N Make Schneider or Equivalent 01 Nos. 2. Energy Analyzer Equipped with CT Make Tense/Entes Turkey or Equivalent 01 Nos. 3. Indication Lights R,Y,B Make Schneider or Equivalent 03 Nos. Outgoing 4. MCB 20A DP Model IC60N Make Schneider or Equivalent 07 Nos. 5. MCB 32A 3P Make	set	1	Service			

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
		Schneider or Equivalent 05 Nos. 6. MCCB 60A TP Make Schneider or Equivalent 03 Nos. Cabinet Details Cubical Size: 1000MM X 800MM X 200MM Gauge : 16SWG Paint: Electrostatic Powder Coated Paint Earthing Copper Bar Neutral Bar 10 Wire Bar 01 Nos. Completely Wired DB Ready To Use.						
#2	Bridge and power distribution							
2.1	Wire and Cable	National standard, ZC-YJV-0.6/1kV-4*185+1*120mm ²	m	10	Service			
2.2	Wire and Cable	National standard, ZC-YJV-0.6/1kV-4*120+1*70mm ²	m	46	Service			

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
2.3	Cable head making	Contains copper wire nose, heat shrink tube, insulating tape, etc.	set	1	Service			
2.4	Stainless steel bridge (including cover)	National standard SUS304 (matte), 300*100*1.5mm Galvanized Iron	m	6	Service	6m, Outdoor cable entry bridge		
2.5	Galvanized bridge (including cover)	National standard, 300*100*1.5mm Galvanized Iron	m	10	Service	10m		
2.6	Galvanized bridge (including cover)	National standard, 200*100*1.5mm Galvanized Iron	m	24	Service	24m		
2.7	Galvanized bridge (including cover)	National standard, 150*75*1.5mm Galvanized Iron	m	180	Service	180m, high-voltage bridge		
2.8	Bridge (fire-resistant) (including cover)	National standard, 150*75*1.5mm Galvanized Iron	m	164	Service	164m, low-voltage bridge		
2.9	Galvanized Cross	National standard, 150*75*1.5mm Galvanized Iron	pcs	10	Service			
2.10	Galvanized Tee	National standard, 150*75*1.5mm Galvanized Iron	pcs	3	Service			

BoQ--Power Distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
2.11	Galvanized elbow	National standard, 150*75*1.5mm Galvanized Iron	pcs	5	Service			
2.12	Four-way (fire-resistant)	National standard, 150*75*1.5mm Galvanized Iron	pcs	3	Service			
2.13	Tee (fire-resistant)	National standard, 150*75*1.5mm Galvanized Iron	pcs	7	Service			
2.14	Elbow (fire-resistant)	National standard, 150*75*1.5mm Galvanized Iron	pcs	7	Service			
2.15	Support bracket	National standard, L40*40*3mm angle steel welding	set	1	Service			
2.16	Hardware and other materials	Screws, welding rods, spray paint, etc.	set	1	Service			
2.17	Scaffolding erection		set	1	Service			
2.18	Opening a hole in the wall	Bridge through the wall or floor position opening	set	1	Service			
2.19	~~Material transportation fee~~	-	~~set~~	~~1~~	~~Service~~			
2.20	Garbage cleaning and removal		set	1	Service			
	Subtotal				Service			

BoQ – Grounding

Project name: Grounding

No.	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
#1	Well construction							
1.1	Ground well construction	800*800*800mm red brick masonry, painted. See the construction drawing for details	set	2	Service	1 active and 1 passive ground well		
1.2	Manhole cover	Refer to sample picture for details	set	2	Service			
1.3	Copper Rod	Pure copper ϕ 25mm, L=3000mm (copper purity 99.99%)	pcs	6	Service	Three copper rods in each well		
1.4	Copper Strip	GB(Chinese National standard)40*3mm	m	60	Service			
1.5	Equipotential box	GB, SUS304 outdoor surface-mounted type 300*200*80mm, including copper bar	set	2	Service			
1.6	Stainless steel cable duct	GB, SUS304, 200*100*2mm	m	16	Service	16m		

BoQ – Grounding

Project name: Grounding

No.	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate of services (at 132kV Pirwadhahi Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhahi Grid Station) including, all taxes, and duties without GST
1.7	Concrete floor grooving	The ground is restored after the copper strip is embedded in the ground	set	1	Service			
#2	Indoor grounding							
2.1	Copper Strip	GB, 40*3mm	m	135	Service	190m		
2.2	PVC Square Wire Duct	GB, 50*5mm	m	135	Service	130m		
2.3	Wire and Cable	GB BVR-10mm ² pure green	m	10	Service	10m, connect the equipotential terminal box		
2.4	Wire and Cable	GB BVR-10mm ² yellow and green	m	80	Service	80m, connect the equipotential terminal box		
2.5	Cable head making	Contains copper wire nose, heat shrink tube, insulating tape, etc.	set	1	Service			
2.6	PVC wire tube	GBφ32	m	60	Service	60m		
2.7	PVC cable tray support and hanger	Including lead screw, screw, hanging card	set	1	Service			

BoQ – Grounding

Project name: Grounding

No.	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
2.8	Equipotential terminal box	GB, TD28 type, 160*75*52mm, iron sheet thickness 1.5mm, white paint. Indoor surface-mounted type, containing copper bar 50*3mm, 5 holes	set	13	Service			
2.9	Excipients	Tube clamps, cup combs, expansion and heat shrink tubing, etc.	set	1	Service			
2.10	Floor opening and sealing		set	1	Service			
2.11	Scaffolding erection		set	1	Service			

BoQ--Network wiring								
No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
#1	Equipment and Materials							
1.1	Server cabinet	TOTEN G26042 or equivalent 600*1000*2055mm TOTEN G26042 or equivalent 600*1000*2045mm	unit	1	Service			
1.2	Network cabinet	TOTEN G26842 42U cabinet or equivalent 600*800*2045mm TOTEN G26842 600*800*2045mm	unit	1	Service			
1.3	Switch	H3C S5130S-52S-PWR-EI or equivalent	unit	3	Service			
1.4	Firewall	Sang for NSF-1050A-I or equivalent	unit	1	Service			
1.5	Wireless controller	H3C WX3510H or equivalent	unit	2	Service			
1.6	Wireless controller authorization Wireless controller authorization	LIS-WX-16-BE or equivalent	/	2	Service	Manage 16 APs		
1.7	Wireless AP Wireless Access Point	H3C WA6330 or equivalent	unit	10	Service			
1.8	Voice Gateway	Yeastar S100 or equivalent	unit	1	Service			

BoQ--Network wiring								
No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
1.9	IP Phone	ATCOM A20WAC supports 2.4G+5G dual-band WiFi wireless desktop SIP phone or equivalent	unit	10	Service			
1.10	Category 5e network cable	R809797 or equivalent	box	13	Service			
1.11	Single-port network panel	R&M_R795068 or equivalent	unit	50	Service			
1.12	Dual-port network panel	R&M_R795068 or equivalent	unit	50	Service	8-bit master control, total length 3 meters		
1.13	Category 5e network module	R302373 or equivalent	unit	300	Service			
1.14	Cabinet PDU	(DEMU) PDU round hole 8-bit + lightning protection British standard 1.5 square 2 meter line or equivalent	unit	2	Service			
1.15	24-port modular patch panel	R&M R302373 or equivalent	unit	6	Service			
1.16	1U cable management rack	R&M_R306179 or equivalent	unit	6	Service			
1.17	Category 5e crystal plug	Panduit MP588 or equivalent	pcs	200	Service			
1.18	Category 6 unshielded patch cord 0.2m	Cat.6 Patch Cords R&M thin Line or	pcs	100	Service	Set of nuts		

BoQ--Network wiring								
No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
		equivalent				and screws		
1.19	Category 6 unshielded patch cord 2.5m	Cat.6 Patch Cords R&M thin Line or equivalent	pcs	100	Service			
1.20	AMPCOM cabinet screws M6*16mm AMPCOM cabinet screws M6*16mm	AMPCOM AMM6100 or equivalent	pcs	50	Service			
1.21	Network cable pliers	SMT HT-568 or equivalent	set	1	Service			
1.22	NAS	(Synology) RS422+ 16TB HAT3300 or equivalent	unit	1	Service			
1.23	Line finder	Smart Mouse NF- 8209S Line Finder NF-8209S or equivalent	unit	1	Service			
1.24	Label machine	Suofang LP5125BT Bluetooth Label Machine Label Printer LP5125BT or equivalent	unit	1	Service			

BoQ--Network wiring								
No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
1.25	Label ribbon	Shuofang label tape LP5125B label printer ribbon lamination yellow background black text 9mm LP5125B or equivalent	unit	2	Service			
	Wiring installation							
2.1	Network cable wiring	68 points (59 network ports, 9 APs)	m	3400	Service	3400m		
2.2	PVC pipe	GB, DN20	m	200	Service	200m		
2.3	Bottom Box	GB, 86*86*50 concealed thickening type	unit	35	Service			
2.4	AP Installation		item	1	Service			
2.5	Telescopic rod	Surveillance camera telescopic extension bracket indoor and outdoor aluminum alloy pole universal lifting bracket 75-150cm variable length	unit	9	Service			
2.6	Pipe fittings		item	1	Service			
2.7	Stainless steel bridge (including cover)	GB SUS304 (matte), 100*50*1.2mm	m	6	Service			

BoQ--Network wiring							
No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
2.8	Wall grooving and restoration	After grooving the wall and pre-buried pipes, restore the wall putty and latex paint	item	1	Service		Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
2.9	Line alignment, marking, crystal head, module installation, computer room arrangement		item	1	Service		

BoQ--Security								
No.	Project and material list	Models and specifications	Unit	Qty	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
#1	Monitoring system							
1.1	Front-end image capture device (all series support POE power supply)				Service			
1.1.1	Digital infrared dome camera(including base)	Hikvision POE power supply, 4 million HD, 30m infrared distance, with motion detection and out-of-bounds function Hikvision DS-2CD1343G2-LIU(F) or Equivalent	unit	5	Service			
1.1.2	Panoramic camera(including base)	Hikvision POE power supply, fisheye panoramic HD 5 million Hikvision/DS-2CD2955G0-IS(U) or Equivalent	unit	10	Service			
1.2	Terminal control and display unit equipment							
1.2.1	Monitor, keyboard and mouse	Hikvision/DS-D5043UC or Equivalent	set	1	Service			
1.2.2	Hard disk recorder	64-channel 8-slot, including 4 10T hard disks, with English interface Hikvision/DS-8664NI-I8 skyhawk	unit	1	Service			

BoQ--Security								
No.	Project and material list	Models and specifications	Unit	Qty	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
		Hd or Equivalent						
1.3	Transmission network equipment							
1.3.1	24-port POE switch	24 Gigabit POE ports, high-level lightning protection, large cache, no lag, built-in power supply AC220V H3C S5130S-28P or Equivalent	unit	1	Service			
1.3.2	Category 5 network cable	Blue, Category 5e unshielded	m	300	Service	300m		
1.3.3	Category 6 network cable	Blue, Category 6 unshielded	m	50	Service	50m		
1.3.4	Supplementary materials		set	1	Service			
#2	Access Control System							
2.1	Front-end image capture device (all series support POE power supply)							
2.1.1	Electric lock	ZK-ML280K or Equivalent	set	6	Service			
2.1.2	Door opening button	TLEB101 or Equivalent	set	6	Service			
2.1.3	Face recognition machine	V5L Series or Equivalent	set	6	Service			
2.2	Terminal control and display unit equipment							
2.2.1	4-Door Access Controller	Dashi or Equivalent	set	2	Service			

BoQ--Security								
No.	Project and material list	Models and specifications	Unit	Qty	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
2.2.2	Software System	With English interface Dashi or Equivalent	set	1	Service			
2.2.3	Client Computer		set	1	Service			
2.3	Transmission network equipment							
2.3.1	16-port POE switch	16 Gigabit POE ports, high-level lightning protection, large cache, no lag, built-in power supply AC220V H3C S5130S-28P or Equivalent	unit	1	Service			
2.3.2	Category 6 network cable	Blue, Category 6 unshielded	m	200	Service	200m		
2.3.3	Supplementary materials		set	1	Service			
2.4	Access control power distribution project							
2.4.1	Wire and Cable	GB, BVR-4mm2	m	300	Service	300m		
2.4.2	socket	International 10-hole socket 220V, 13A	unit	2	Service			

BoQ--Security

No.	Project and material list	Models and specifications	Unit	Qty	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
2.4.3	Bottom Box	86*86*50 Concealed Thickening Type	unit	18	Service	12 for door opening buttons and face recognition installation		
2.4.4	PVC wire tube	GB, DN25	m	60	Service	60m		
2.4.5	Excipients		set	1	Service			

BoQ – Firefighting								
Project name: Firefighting								
No	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
#1	Fire Alarm Systems							
1.1	Host device				Service			
1.1.1	Wall-mounted fire zone alarm host	Intelligent Addressable Fire Alarm Control Panel 2 Loops with communication card. With Batteries 2 x 12Vdc - 7Ah LPCB Approved, Brand : TNA UK, Model: TX7004-2 or Equivalent	Set	1	Service			
1.1.2	Loop Card	-	Unit	2	Service			
1.2	Front-end equipment				Service			
1.2.1	Sound and light alarm	Sounder & Strobe LPCB Approved, Brand : TNA UK, Model: TX7300 or Equivalent	Unit	7	Service			
1.2.2	Coded manual alarm button	Intelligent Manual Call Point with back box.LPCB Approved, Brand : TNA UK, Model: TX7140 or	Unit	7	Service			

BoQ – Firefighting

Project name: Firefighting

No	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
		Equivalent						
1.2.3	Encoded intelligent photoelectric smoke detector	Intelligent Smoke Detector with addressable Base.LPCB Approved, Brand : TNA UK, Model: TX7100 or Equivalent	Unit	33	Service			
1.2.34	Manual call point (System Programming)		Unit	1	Service			
1.3	Consumables				Service			
1.3.1	Fire alarm bus	Fire Alarm Cable 2 Core, 1.5mm2 Shielded UL Listed, Make : LLT Cable or Equivalent	m	250	Service	250m		
1.3.2	Fire alarm power cord	Fire Alarm Cable 2 Core, 1.5mm2 Shielded UL Listed, Make : LLT Cable or Equivalent	m	50	Service	50m		
1.3.3	Galvanized Metal Wire Pipe	3/4" (DN20) Metal Conduit Extra Light Grade with fixing accessories.	m	300	Service	300m		

BoQ – Firefighting								
Project name: Firefighting								
No	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
1.3.4	Hardware and other materials	Galvanized pipe fittings, pipe clamps, locks, etc.	Set	1	Service			
#2	Emergency evacuation system							
2.1	Evacuate left sign	The duration of emergency work should not be less than 90 minutes	Unit	8	Service			
2.2	Evacuate right sign	The duration of emergency work should not be less than 90 minutes	Unit	8	Service			
2.3	Two-way evacuation sign	The duration of emergency work should not be less than 90 minutes	Unit	3	Service			
2.4	Escape safety exit sign	The duration of emergency work should not be less than 90 minutes	Unit	16	Service			
2.5	Wire and Cable	GB, NH-RVS-2*1.5	m	300	Service	300m		
2.6	socket	International universal five-hole 2+3, with switch	Unit	35	Service			
2.7	Bottom Box	GB, 86*86*50mm metal bottom box	Unit	35	Service			
2.8	Galvanized Metal Wire Pipe	3/4" (DN20) Metal Conduit Extra Light Grade with fixing accessories.	m	210	Service	210m		

BoQ – Firefighting								
Project name: Firefighting								
No	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
2.9	Supplementary materials	Elbows, locks, etc.			Service			
#3	Fire extinguisher							
3.1	Dry powder fire extinguisher	MF ABC/4 or Equivalent	Unit	16	Service			
3.2	Carbon dioxide fire extinguisher	MT 4 or Equivalent	Unit	24	Service	Contains 4 for M&T Lab		
3.3	Fire extinguisher box	As per general specs	Unit	20	Service	Contains 2 for M&T Lab		
#4	Emergency lighting system							
4.1	Emergency lighting centralized power supply host	Built-in battery backup time 90min Voltage level: input 220V, output DC36V Output circuit with fuse short circuit protection function	Set	1	Service			
4.2	Lighting Fixtures	LED energy saving DC36V 10w	Unit	17	Service			
4.3	Wire and Cable	GB, NH-RVS-2*1.5	m	200	Service	200m		

BoQ – Firefighting								
Project name: Firefighting								
No	Material	Specification	Unit	Qty	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
4.4	Bellows	Kaizhuang corrugated pipe, DN20	m	25	Service	25m		
4.5	Excipients	Insulation tape, lock, etc.	Unit	16	Service			

BoQ--Secondary Distribution

Project name: Secondary distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
	Secondary distribution							
#1	Power distribution							
1.1	Wire and Cable	GB, YJV-0.6/1KV-4*16+1*10mm ²	m	54	Service	54m, 1F-U-1 Main Cable		
1.2	Wire and Cable	GB, YJV-0.6/1KV-5*10mm ²	m	68	Service	68m, 1F-U-2/GF-U-1 main cable		
1.3	Wire and Cable	GB, BVR-4mm ²	m	1353	Service	1353m		
1.4	Cable head making	Contains copper wire nose, heat shrink tube, insulating tape, etc.	set	1	Service			
1.5	Hot dip galvanized steel cable trunking	GB, 150*75*1.5mm including cover	m	12	Service	12m		

BoQ--Secondary Distribution

Project name: Secondary distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
1.6	Switch box (double layer)	Switch: Schneider or Equivalent, Box: Spelsberg Germany PVC Boxes or Equivalent Main switch: C120H D80A/4P 1pcs Sub-switch: IC65N D40A/3P 2pcs IC65N D32A/4P 0.03A 1pcs IC65N D32A/2P 0.03A 6pcs IC65N D20A/2P 0.03A 3pcs	set	1	Service	1F-U-1		
1.7	Switch box (single layer)	Switch: Schneider or Equivalent, Box: Spelsberg Germany PVC Boxes or Equivalent Main switch: IC65N D63A/4P 1pcs Sub-switch: IC65N D40A/3P 2pcs IC65N D32/3P 1pcs IC65N D20/2P 0.03A 5pcs	set	1	Service	1F-U-2		

BoQ--Secondary Distribution

Project name: Secondary distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
1.8	Switch box (double layer)	Switch: Schneider or Equivalent, Box: Spelsberg Germany PVC Boxes or Equivalent Main switch: IC65N D63A/4P 1pcs Sub-switch: IC65N D32A/4P 0.03A 4pcs IC65N D20A/2P 0.03A 6pcs	Set	1	Service	GF-U-1		
1.9	Air switch	Schneider or Equivalent IC65N D32/4P 0.03A	Unit	5	Service			
1.10	Switch Box	10 switch positions, including one ground terminal	Unit	5	Service	On-site confirmation of installation height		
1.11	socket	Three-phase four-hole 25A	Unit	6	Service	On-site confirmation of installation height		
1.12	socket	86 type international universal multifunctional 10-hole socket, 13A	Unit	30	Service			
1.13	Bottom Box	86*86*50 Concealed Thickening Type	Unit	50	Service			
1.14	PVC wire tube	GB, DN25	m	130	Service	130m		

BoQ--Secondary Distribution

Project name: Secondary distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
1.15	Wall grooving and restoration	After grooving and burying pipes in the wall, restore the wall putty and latex paint	Item	1	Service			
1.16	Support bracket	Including lead screw, screw, hanging card	Item	1	Service			
1.17	Excipients	Pipe clamps, cup combs, expansion, insulating tape, etc.	Item	1	Service			
#2	Compressed air engineering							
2.1	Air compressor (portable)	Gas output 5m ³ /H, double-head stepless compression, noise ≤65db	set	1	Service			
2.2	PU hose	GB, φ10mm	m	10	Service	10m		
2.3	Stainless steel valves	GB, SUS304 DN15	Unit	1	Service			
2.4	Quick plug connector	GB, φ10mm	Unit	2	Service			
#3	Exhaust Engineering							
3.1	Solder fume purifier	Voltage 220V, flow rate 360m ³ /H, negative pressure	Unit	2	Service			

BoQ--Secondary Distribution

Project name: Secondary distribution

No.	Material	Specification	Unit	Quantity	Required Services	Remark	Unit rate of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST	Total Price of services (at 132kV Pirwadhai Grid Station) including, all taxes, and duties without GST
		2000Pa						
3.2	Bell mouth	GB, φ75, with bracket and PVC hose L=1000mm, matching with the exhaust port of smoke evolution device	Unit	4	Service			

Note:

1. The Bidder must fill the price in this Form in accordance with the instructions otherwise bid will be rejected
2. In case of discrepancy between unit price and total, the unit price shall prevail.
3. The Currencies should be in accordance with ITB-15

*FCS price included all taxes and duties excluding GST

AMI Interoperability Lab at 132kV Pirwadhai Grid Station.

Name in the capacity of

Signature of Bidder:

Duly authorized to sign the Bid for and on behalf of

Dated on day of 20

Note: Form-8 must be accompanied with technical proposal

**Form of Bid Security
(Bank Guarantee)**

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

[Guarantor letterhead or SWIFT identifier code]

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

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

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

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

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

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

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

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

- (a) has withdrawn its Bid during the period of Bid validity set forth in the Applicant's Letter of Bid ("the Bid Validity Period"), or any extension thereto provided by the Applicant; or
- (b) having been notified of the acceptance of its Bid by the Beneficiary during the Bid Validity Period or any extension thereto provided by the Applicant, (i) has failed to sign the contract agreement, or (ii) has failed to furnish the performance security, in accordance with the Instructions to Bidders ("ITB") of the Beneficiary's bidding document.

This guarantee will expire: (a) if the Applicant is the successful Bidder, upon our receipt of copies of the Contract agreement signed by the Applicant and the performance security issued to the Beneficiary in relation to such Contract agreement; or (b) if the Applicant is not the successful Bidder, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results

of the Bidding process; or (ii) twenty-eight days after the end of the Bid Validity Period.

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

[Signature(s)]

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

Form of Bid-Securing Declaration

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

No. _____

Dated _____

Date of Bid Submission: _____

____/____/2025

Request for Bid No.: _____

NCB _____

To:

We, the undersigned, declare that:

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

We accept that we will be blacklisted and henceforth cross debarred for participating in respective category of public procurement proceedings for a period of (not more than) six months, if fail to abide with a bid securing declaration, however without indulging in corrupt and fraudulent practices, if we are in breach of our obligation(s) under the Bid conditions, because we:

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

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

Name of the Bidder* _____

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

Title of the person signing the Bid _____

Signature of the person named above _____

Date signed _____ day of _____, _____

*: In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder

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

[Note: In case of a Joint Venture, the Bid-Securing Declaration must be in the name of all members to the Joint Venture that submits the Bid.]

Manufacturer's Authorization

No. _____

Dated _____

Date of Bid Submission:

____/____/2025

Request for Bid No.:

NCB _____

To:

WHEREAS

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

We hereby extend our full guarantee and warranty in accordance clause-18 of General Conditions of Contract, with respect to the Goods offered by the above firm.

Signed: _____

Name: _____

Title: _____

Date signed _____ day of _____ Month, _____ Year

Note:

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

Form of Qualification Information

1. Individual Bidders or Individual Members of Joint Ventures

1.1 Constitution or legal status of Bidder:

(Attach copy)

Place of registration: _____

Principal place of business: _____

Power of attorney of signatory of Bid: _____

1.2 Total annual volume of Services performed in _____ years, in the internationally traded currency specified in the Bid Data Sheet: _____

1.3 Services performed as prime Supplier on the provision of Services of a similar nature and volume over the last _____ years. The values should be indicated in the same currency used for Item 1.2 above. Also list details of work under way or committed, including expected completion date.

Project name and country	Name of Procuring Agency (PA) and contact person	Type of Services provided and year of completion

1.4 Major items of Supplier's Equipment proposed for carrying out the Services. List all information requested below. Refer also to ITB 13.3(c).

Item of equipment	Description, make, and age (years)	Condition (new, good, poor) and number available	Owned, leased (from whom?), or to be purchased (from whom?)
(a)			
(b)			

1.5 Qualifications and experience of key personnel proposed for administration and execution of the Contract. Attach biographical data. Refer also to ITB 13.4(d).

Position	Name	Years of experience (general)	Years of experience in proposed position
(a)			
(b)			

1.6 Proposed sub-contracts and firms involved. Refer to GCC 24.

Sections of the Services	Value of Sub-contract	Sub-contractor (Name and address)	Experience in providing similar Services
(a)			
(b)			

1.7 Financial reports for the last (*insert period*) years: balance sheets, profit and loss statements, auditors' reports, etc. List below and attach copies.

1.8 Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit, etc. List below and attach copies of support documents mentioning that We certify/confirm that we comply with eligibility requirements as per ITB 3 of the bidding documents.

1.9 Name, address, and telephone, telex, and facsimile numbers of banks that may provide references if contacted by the Procuring Agency.

1.10 Information regarding any litigation, current or within the last (*insert period*) years, in which the Bidder is or has been involved.

Other party(ies)	Cause of dispute	Details of litigation award	Amount involved
(a)			
(b)			

1.11 Information regarding Occupation Health and Safety Policy and Safety

Records of the Bidder.

1.12 Statement of compliance with the requirements of ITB 3.4.

1.13 Proposed Program (service work method and schedule). Descriptions, drawings, and charts, as necessary, to comply with the requirements of the bidding documents.

2. Joint Ventures

2.1 The information listed in 1.11 - 1.12 above shall be provided for each member of the joint venture.

2.2 The information in 1.13 above shall be provided for the joint venture.

2.3 Attach the power of attorney of the signatory (ies) of the Bid authorizing signature of the Bid on behalf of the joint venture.

2.4 Attach the Contract among all members of the joint venture (and which is legally binding on all members), which shows that

- (a) all members shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms;
- (b) one of the members will be nominated as being in-charge, authorized to incur liabilities, and receive instructions for and on behalf of any and all members of the joint venture; and
- (c) the execution of the entire Contract, including payment, shall be done exclusively with the member in charge.

3. Additional Requirements

3.1 Bidders should provide any additional information required in the Bid Data Sheet and to fulfill the requirements of ITB 12.1, if applicable.

We, the undersigned declare that

- (a) The information contained in and attached to this form is true and accurate as of the date of bid submission

Or [delete] statement which does not apply]

- (b) The originally submitted pre-qualification information remains essentially correct as of date of submission

Authorized Signature: _____

Name and Title of Signatory: _____

Name of Bidder: _____

Address: _____

Letter of Acceptance

[Letter head paper of the Procuring Agency]

No. _____

Date _____

To:

This is to notify you that your Bid dated _____ for execution of the _____ for the Contract Price of the equivalent of _____, as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by us.

We hereby confirm _____, to be the Appointing Authority, to appoint the Arbitrator in case of any arisen disputes in accordance with **ITB 45.1**.

You are hereby informed that after you have read and return the attached draft Contract the parties to the contract shall sign the vetted contract within fourteen (14) working days.

You are hereby required to furnish the Performance Guarantee/Security in the form and the amount stipulated in the Special Conditions of the Contract within a period of twenty-eight (28) days after the receipt of Letter of Acceptance.

Authorized Signature:

Name and Title of Signatory:

Name of Agency:

Attachment: Contract

Copy: Appointing Authority and Supplier

Production Capacity of Manufacturer

Sr #		Factory Capacity in unit as mentioned in Price schedule
A	Total Factory Production Capacity (No. or Sets or other unit)/Year	
B	Order in Hand (No. or Sets or other unit)	
C	Expected order during execution of this contract if awarded (No. or Sets or other unit)	
D	Quantity of this order	
E	Remaining Capacity of Factory (No. or Sets or other unit) E= (A-B-C-D)	
$A \geq 2 \times E$		

Signed & Stamped by Manufacture

**Deviation from Technical Provision
Form DEV-1**

It is presumed that bidder shall not take any deviation. However, if he intends to take deviation to specified terms, those must be listed in the space provided below:

Sr #	Section No.	Clause No	Deviation	Clarifications

Sign & Stamped by bidders

Deviation from Contractual/Commercial Provision**Form DEV-2**

It is presumed that bidder shall not take any deviation. However, if he intends to take deviation to specified contractual/commercial conditions, those must be listed in the space provided below.

Sr #	Section No	Clause No	Deviation	Clarifications

Sign & Stamped by bidders

Current Litigation Information
Form LIT-1

Each Bidder or member of a JV must fill in this form

Pending Litigation					
➤ No pending litigation in accordance with of Section 3 (Evaluation and Qualification Criteria) ➤ Pending litigation in accordance with of Section 3 (Evaluation and Qualification Criteria)					
Year	Name of procuring agency or dispute person	Matter in Dispute in detail	Value of Pending Claim in Pak Rupees	Value of Pending Claim as a Percentage of Net Worth	Status of dispute

Power of Attorney (For signatory of Application)

[To be printed on a PKR 100 stamp paper]

KNOW ALL MEN BY THESE PRESENTS THAT by this Power of Attorney (**"Power of Attorney"**), _____ [*Insert name firm/Company/JV*] having its registered office at [-----], does hereby nominate, appoint and authorize Mr. _____, having CNIC No. _____ hereinafter referred to as the **"Signatory of Application"**, to do in our name and on our behalf the following:

1. Sign and submit to _____ or its authorized nominee, the Prequalification Application / Bid for "-----", in response to the tender No. ----- Advertisement dated [---] issued by The Procuring Agency and all other documents and instruments required to submit the Bidding Documents.
2. execute all such contracts, deeds, documents and instruments as may be considered necessary and expedient in relation to the foregoing; and
3. do and carry out all other actions as may be required by the Procuring Agency in connection with the bidding process as a whole;
4. To immediately notify The Procuring Agency in writing of any impending or actual revocation as well as any change in the terms of this Power of Attorney.
5. To do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our Bid in response to the above referred bidding document including signing and submission of all documents, instruments and deeds (including correcting any deficiencies or mistakes therein), attending any meetings organized by the Procuring Agency (including pre-bid conference meetings and bid opening meetings) and providing information/responses to the Procuring Agency in all matters in connection with our Bid.

We, [*Insert name of Firm/Company*], do hereby ratify and confirm whatsoever the Signatory of Application shall do by virtue of these presents and further agree that whatever the Signatory of Application shall do or cause to be done pursuant to this Power of Attorney shall be binding on us.

Furthermore, each provision of this Power of Attorney is severable and distinct from the others. The invalidity, illegality or unenforceability of any one or more provisions of this Power of Attorney at any time shall not in any way affect or impair the validity, legality and enforceability of the remaining provisions hereof.

IN WITNESS WHEREOF, we have executed this **POWER OF ATTORNEY** as of
[Date].

FOR: [INSERT NAME OF APPLICANT FIRM/ COMPANY]

Signature: _____

Name: _____

Title: _____ CNIC/Passport No. : _____

Specimen Signature of Appointing /Nominated
/ Authorized

i-_____

ii-_____

iii-_____

Financial Situation (Form FIN-1)

Bidder/Supplier/JV

Financial Data for Previous 3 Years

Information from Balance Sheet

Financial Data for Last 3 Financial Years [Pak Rupee]			
Description			
Total Assets			
Total Liabilities			
Net Worth			
Current Assets			
Current Liabilities			

Information from income statement

Total Revenues/ Sales			
Profit Before Taxes			
Profit After Taxes			
Interest Charges Paid			
Net Profit			

- ☐ Attached are copies of financial statements (balance sheets including all related notes, and income statements) for the last three years, as indicated above, complying with the following conditions;
- All such documents reflect the financial situation of the Applicant or partner to a JV, and not sister or parent companies.
 - Historic financial statements must be audited by a certified accountant.
 - Historic financial statements must be complete, including all notes to the financial statements.
 - Historic financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).

Signed & Stamped

Average Annual Turnover Form FIN-2

Each Bidder or member of a JV must fill in this form

The information supplied should be the Annual Turnover of the Bidder or each member of a JV in terms of the amounts billed to clients for each year for Contracts/Orders in progress or completed, converted to Pak Rupee at the rate of exchange at the end of the period reported.

Annual Turnover Data for the Last 3 Years				
Sr. No	Year	Amount Currency	Exchange Rate if applicable	Pak Rupee Equivalent
1				
2				
3				
Average Annual Turnover				

Signed & Stamped

Financial Resources Form FIN-3

Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, after deduction of current commitments, available to meet the total orders cash flow demands of the subject contract or contracts as indicated in Appendix-A (Evaluation and Qualification Criteria)

Financial Resources		
No.	Source of financing along with supporting documents (must be attached)	Amount (Pak Rupee equivalent)
1	Working Capital	
2	Un-availed Credit Line	
3	Any other financial means on bid opening date (Amount invoiced & receivables)	
4	Total outstanding Current commitment	
5	Net Financial Resource (1+2+3-4)	

1. Latest and valid credit line facility shall be provided otherwise the same will not be considered during evaluation.
2. Detail of current commitment shall be provided separately as per FIN-4
3. In case of any other financial mean, bidder is bound to provide the detail of any other financial mean otherwise the same will not be considered during evaluation.

Signed & Stamped

Current Contract Commitments in Progress
Form FIN-4

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

Current Contract Commitments					
Sr. No.	Name of Contract/ Order	Employer's Contact Address, Tel, Fax	Value of Outstanding orders [Pak Rupee Equivalent]	Amount in Pak Rs. of Partial Deliveries completed of outstanding order (provide GRN of Employer)/ Value of Inspection material completed	Balance amount of outstanding order/ Value of material yet to be offered for inspection (Pak Rupee)
1					
2					
3					
4					
5					

Signed & Stamped

Form for Contractual Experience Form EXP-1

Bidders/JV/Manufacturer shall demonstrate contractual experience as per following format and documentary evidence:

Contract Agreement /PO No.	
Year of contract agreement /PO	
Name of Procuring agency Contact No. Address Email	
Name of bidder	
Name of Manufacturer and legal business address and factory address as mention in business license	
Amount of contract/PO and currency	
Delivery date	
Delivery Challan No or GRN No.	

Signed & Stamped

**Form for Supply Record for at least five year
Form EXP-2**

Manufacturer shall demonstrate designing and manufacturing of similar or higher rated material as per following format and documentary evidence:

Sr.	Name of Procuring agency	Contract agreement No.	Type of material	Rating	Year	Supply period	Contact No of PA

Signed & Stamped

SECTION-VII
GENERAL CONDITIONS OF THE CONTRACT

GENERAL CONDITIONS OF THE CONTRACT (GCC)

These General Conditions of Contract (GCC) are based on the Model Form of International Contract for Process Plant Construction published by the Engineering Advancement Association of Japan (ENAA). The Multilateral Development Banks (MDBs) participating in the procurement harmonization process gratefully acknowledge the contribution of ENAA to the advancement of good contracting practices by its borrowers. The GCC contain general clauses to be applied on all contracts. The GCC in this section, read in conjunction with the Special Conditions of Contract in Section 8 and other documents listed therein, should be a complete document expressing all the rights and obligations of the contracting parties. The General Conditions herein shall not be altered.

A. Contract and Interpretation

1. Definitions

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

- (a) "Contract" means the Contract Agreement entered into between the Employer and the Contractor, together with the Contract Documents referred to therein; they shall constitute the Contract, and the term "the Contract" shall in all such documents be construed accordingly.
- (b) "Contract Documents" means the documents listed in Article 1.1 (Contract Documents) of the Contract Agreement (including any amendments thereto).
- (c) "GCC" means the General Conditions of Contract.
- (d) "SCC" means the Special Conditions of Contract.
- (e) "day" means calendar day.
- (f) "year" means 365 days.
- (g) "month" means calendar month.
- (h) "Party" means the Employer or the Contractor, as the context requires.
- (i) "Employer" means the person named as such in the SCC and includes the legal successors or permitted assigns of the Employer.
- (j) "Project Manager" means the person appointed by the Employer in the manner provided in GCC Subclause 17.1 (Project Manager) hereof and named as such in the SCC to perform the duties delegated by the Employer.
- (k) "Contractor" means the person(s) named as Contractor in the Contract Agreement, and includes the legal successors or permitted assigns of the Contractor.
- (l) "Contractor's Representative" means any person nominated by the Contractor and approved by the Employer in the manner provided in GCC Subclause 17.2 (Contractor's Representative and Construction Manager) hereof to perform the duties delegated by the Contractor.
- (m) "Construction Manager" means the person appointed by the Contractor's Representative in the manner provided in GCC

Subclause 17.2.4.

- (n) "Subcontractor," including manufacturers, means any person to whom execution of any part of the Facilities, including preparation of any design or supply of any Plant, is sub-contracted directly or indirectly by the Contractor, and includes its legal successors or permitted assigns.
- (o) "Dispute Board" means the person or persons named as such in the SCC appointed by agreement between the Employer and the Contractor to make a decision on or to settle any dispute or difference between the Employer and the Contractor referred to him or her by the parties pursuant to GCC Subclause 45.1 (Dispute Board) hereof.
- (p) "Contract Price" means the sum specified in Article 2.1 (Contract Price) of the Contract Agreement, subject to such additions and adjustments thereto or deductions therefrom, as may be made pursuant to the Contract.
- (q) "Facilities" means the Plant to be supplied and installed, as well as all the Installation Services to be carried out by the Contractor under the Contract.
- (r) "Plant" means permanent plant, equipment, machinery, apparatus, articles and things of all kinds to be provided and incorporated in the Facilities by the Contractor under the Contract (including the spare parts to be supplied by the Contractor under GCC Subclause 7.3 hereof), but does not include Contractor's Equipment.
- (s) "Installation Services" means all those services ancillary to the supply of the Plant for the Facilities, to be provided by the Contractor under the Contract, such as transportation and provision of marine or other similar insurance, inspection, expediting, site preparation works (including the provision and use of Contractor's Equipment and the supply of all construction materials required), installation, testing, precommissioning, commissioning, operations, maintenance, the provision of operations and maintenance manuals, training, etc. as the case may require.
- (t) "Contractor's Equipment" means all facilities, equipment, machinery, tools, apparatus, appliances, or things of every kind required in or for installation, completion and maintenance of Facilities that are to be provided by the Contractor, but does not include Plant, or other things intended to form or forming part of the Facilities.
- (u) "Country of Origin" means the countries and territories eligible under the rules of the Bank as further elaborated in the SCC.
- (v) "Site" means the land and other places upon which the Facilities are to be installed, and such other land or places as may be specified in the Contract as forming part of the Site.
- (w) "Time for Completion" means the time within which Completion of the Facilities as a whole (or of a part of the Facilities where a separate Time for Completion of such part has been prescribed) is to be attained, as referred to in GCC Clause 8 and in accordance with the relevant provisions of the Contract.
- (x) "Completion" means that the Facilities (or a specific part thereof where specific parts are specified in the Contract) have been

completed operationally and structurally and put in a tight and clean condition, that all work in respect of Precommissioning of the Facilities or such specific part thereof has been completed, and that the Facilities or specific part thereof are ready for Commissioning as provided in GCC Clause 24 (Completion) hereof.

- (y) "Precommissioning" means the testing, checking and other requirements specified in the Employer's Requirements that are to be carried out by the Contractor in preparation for Commissioning as provided in GCC Clause 24 (Completion) hereof.
- (z) "Commissioning" means operation of the Facilities or any part thereof by the Contractor following Completion, which operation is to be carried out by the Contractor as provided in GCC Subclause 25.1 (Commissioning) hereof, for the purpose of carrying out Guarantee Test(s).
- (aa) "Guarantee Test(s)" means the test(s) specified in the Employer's Requirements to be carried out to ascertain whether the Facilities or a specified part thereof is able to attain the Functional Guarantees specified in the Appendix (Functional Guarantees) to the Contract Agreement in accordance with the provisions of GCC Subclause 25.2 (Guarantee Test) hereof.
- (bb) "Operational Acceptance" means the acceptance by the Employer of the Facilities (or any part of the Facilities where the Contract provides for acceptance of the Facilities in parts), which certifies the Contractor's fulfillment of the Contract in respect of Functional Guarantees of the Facilities (or the relevant part thereof) in accordance with the provisions of GCC Clause 28 (Functional Guarantees) hereof and shall include deemed acceptance in accordance with GCC Clause 25 (Commissioning and Operational Acceptance) hereof.
- (cc) "Defect Liability Period" means the period of validity of the warranties given by the Contractor commencing at Completion of the Facilities or a part thereof, during which the Contractor is responsible for defects with respect to the Facilities (or the relevant part thereof) as provided in GCC Clause 27 (Defect Liability) hereof.

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 thereof) are intended to be correlative, complementary and mutually explanatory. The Contract shall be read as a whole.

3. Interpretation

- 3.1 In the Contract, except where the context requires otherwise,
- (a) words indicating one gender include all genders;
 - (b) words indicating the singular also include the plural and words indicating the plural also include the singular;
 - (c) provisions including the word "agree," "agreed," or "agreement" require the agreement to be record in writing;
 - (d) the word "tender" is synonymous with "bid," "tenderer" with "Bidder," and "tender documents" with "Bidding Documents;" and
 - (e) "written" or "in writing" means handwritten, typewritten, printed

or electronically made, and resulting in a permanent record.

The marginal words and other headings shall not be taken into consideration in the interpretation of these Conditions.

3.2 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 Incoterms.

“Incoterms” means international rules for interpreting trade terms published by the International Chamber of Commerce (latest edition), 38 Cours Albert 1^{er}, 75008 Paris, France.

3.3 Entire Agreement

Subject to GCC Subclause 16.4 hereof, the Contract constitutes the entire agreement between the Employer and Contractor with respect to the subject matter of Contract and supersedes all communications, negotiations, and agreements (whether written or oral) of parties with respect thereto made prior to the date of Contract.

3.4 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 hereto.

3.5 Independent Contractor

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

3.6 Non-Waiver

3.6.1 Subject to GCC Subclause 3.6.2 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.

3.6.2 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.

3.7 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.

3.8 Country of Origin

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

- 4. Communications** 4.1 Wherever these Conditions provide for the giving or issuing of approvals, certificates, consents, determinations, notices, requests, and discharges, these communications shall be

- (a) in writing and delivered against receipt; and
- (b) delivered, sent, or transmitted to the address for the recipient's communications as stated in the Contract Agreement.

When a certificate is issued to a Party, the certifier shall send a copy to the other Party. When a notice is issued to a Party, by the other Party or the Project Manager, a copy shall be sent to the Project Manager or the other Party, as the case may be.

- 5. Law and Language** 5.1 The Contract shall be governed by and interpreted in accordance with laws of the country specified in the SCC.
- 5.2 The ruling language of the Contract shall be that stated in the SCC.
- 5.3 The language for communications shall be the ruling language unless otherwise stated in the SCC.

- 6. Fraud and Corruption** 6.1 IESCO requires Bidders, Suppliers, and Contractors, agents, subcontractors, sub consultants, service providers, sub suppliers, manufacturers (including their respective officers, directors, employees and personnel) to observe the highest standard of ethics during the procurement and execution of contracts in accordance with Blacklisting Policy. In pursuance of this policy,
- (a) The Procuring Agency shall bar for not more than the time prescribed in Rule-19 of the Public Procurement Rules, 2004, from participating in their respective procurement proceedings, bidder or contractor who either:
 - i. Involved in corrupt and fraudulent practices as defined in Rule-2 of Public Procurement Rules;
 - ii. Fails to perform his contractual obligations; and
 - iii. Fails to abide by the id securing declaration;
 - iv. Procuring Agency's Mechanism as per BDS
 - (b) The show cause notice shall contain: (a) precise allegation, against the bidder or contractor; (b) the

maximum period for which the Procuring Agency proposes to debar the bidder or contractor from participating in any public procurement of the Procuring Agency; and (c) the statement, if needed, about the intention of the Procuring Agency to make a request to the Authority for debarring the bidder or contractor from participating in public procurements of all the procuring agencies.

- (c) The procuring agency shall give minimum of seven days to the bidder or contractor for submission of written reply of the show cause notice
- (d) In case, the bidder or contractor fails to submit written reply within the requisite time, the Procuring Agency may issue notice for personal hearing to the bidder or contractor/ authorize representative of the bidder or contractor and the procuring agency shall decide the matter on the basis of available record and personal hearing, if availed.
- (e) In case the bidder or contractor submits written reply of the show cause notice, the Procuring Agency may decide to file the matter or direct issuance of a notice to the bidder or contractor for personal hearing.
- (f) The Procuring Agency shall communicate to the bidder or contractor the order of debarring the bidder or contractor from participating in any public procurement with a statement that the bidder or contractor may, within thirty days, prefer a representation against the order before the Authority.
- (g) Such blacklisting or barring action shall be communicated by the procuring agency to the Authority and respective bidder or bidders in the form of decision containing the grounds for such action. The same shall be publicized by the Authority after examining the record whether the procedure defined in blacklisting and debarment mechanism has been adhered to by the procuring agency
- (h) The bidder may file the review petition before the Review Petition Committee Authority within thirty days of communication of such blacklisting or barring action after depositing the prescribed fee and in accordance with "Procedure of filing and disposal of review petition under Rule-19(3) Regulations, 2021". The Committee shall evaluate the case and decide within ninety days of filing of review

petition

- (i) The committee shall serve a notice in writing upon all respondent of the review petition. The notices shall be accompanied by the copies of review petition and all attached documents of the review petition including the decision of the procuring agency. The parties may file written statements along with essential documents in support of their contentions. The Committee may pass such order on the representation may deem fit.
- (j) The Authority on the basis of decision made by the committee either may debar a bidder or contractor from participating in any public procurement process of all or some of the procuring agencies for such period as it deemed appropriate or acquit the bidder from the allegations. The decision of the Authority shall be final

B. Subject Matter of Contract

7. Scope of Facilities

- 7.1 Unless otherwise expressly limited in the Employer's Requirements, the Contractor's obligations cover the provision of all Plant and the performance of all Installation Services required for the design, the manufacture (including procurement, quality assurance, construction, installation, associated civil works, pre-commissioning and delivery) of the Plant and the installation, completion, and commissioning of the Facilities in accordance with the plans, procedures, specifications, drawings, codes, and any other documents as specified in the section Employer's Requirements. Such specifications include, but are not limited to, the provision of supervision and engineering services; the supply of labor, materials, equipment, spare parts (as specified in GCC Subclause 7.3 below) and accessories; Contractor's Equipment; construction utilities and supplies; temporary materials, structures, and facilities; transportation (including, without limitation, unloading and hauling to, from and at the Site); and storage, except for those supplies, works, and services that will be provided or performed by the Employer, as set forth in the Appendix (Scope of Works and Supply by the Employer) to the Contract Agreement.
- 7.2 The Contractor 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 Completion of the Facilities as if such work and/or items and materials were expressly mentioned in the Contract.
- 7.3 In addition to the supply of Mandatory Spare Parts included in the Contract, the Contractor agrees to supply spare parts required for the operation and maintenance of the Facilities for the period specified in the SCC and the provisions, if any, specified in the SCC. However, the identity, specifications, and quantities of such spare parts and the terms and conditions relating to the supply thereof are to be agreed

between the Employer and the Contractor, and the price of such spare parts shall be that given in Price Schedule No. 6, which shall be added to the Contract Price. The price of such spare parts shall include the purchase price therefore and other costs and expenses (including the Contractor's fees) relating to the supply of spare parts.

8. Time for Commencement and Completion

8.1 The Contractor shall commence work on the Facilities within the period specified in the SCC and without prejudice to GCC Subclause 26.2 hereof, the Contractor shall thereafter proceed with the Facilities in accordance with the time schedule specified in the Appendix 4 (Time Schedule) to the Contract Agreement.

8.2 The Contractor shall attain Completion of the Facilities or of a part where a separate time for Completion of such part is specified in the Contract, within the time stated in the SCC or within such extended time to which the Contractor shall be entitled under GCC Clause 40 hereof.

9. Contractor's Responsibilities

9.1 The Contractor shall design, manufacture, including associated purchases and/or subcontracting, install, and complete the Facilities in accordance with the Contract. When completed, the Facilities should be fit for the purposes for which they are intended as defined in the Contract.

9.2 The Contractor confirms that it has entered into this Contract on the basis of a proper examination of the data relating to the Facilities, including any data as to boring tests provided by the Employer, and on the basis of information that the Contractor could have obtained from a visual inspection of the Site if access thereto was available and of other data readily available to it relating to the Facilities as of the date 28 days prior to bid submission. The Contractor 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 Facilities.

9.3 The Contractor shall acquire and pay for all permits, approvals, and/or licenses from all local, state, or national government authorities or public service undertakings in the country where the Site is located, which such authorities or undertakings require the Contractor to obtain in its name and which are necessary for the performance of the Contract, including, without limitation, visas for the Contractor's and Subcontractor's personnel and entry permits for all imported Contractor's Equipment. The Contractor shall acquire all other permits, approvals, and/or licenses that are not the responsibility of the Employer under GCC Subclause 10.3 hereof and that are necessary for the performance of the Contract.

9.4 The Contractor shall comply with all laws in force in the country where the Facilities are to be implemented. The laws will include all local, state, national, or other laws that affect the performance of the Contract and bind upon the Contractor. The Contractor shall indemnify and hold harmless the Employer 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 Contractor or its personnel, including the Subcontractors and their personnel, but without prejudice to GCC Subclause 10.1 hereof.

9.5 Any plant and services that will be incorporated in or be required for the Facilities and other supplies shall have their origin as specified under GCC Clause 1 (Country of Origin). Any Subcontractors retained by the Contractor shall be from a country as specified in GCC Clause 1

(Country of Origin).

9.6 The Contractor shall permit ADB or its representatives to inspect the Contractor's site, assets, accounts and records, and other documents relating to the bid submission and contract performance of the Contractor and to have them audited by auditors appointed by ADB, if so required by ADB.

9.7 If the Contractor is a joint venture or consortium of two or more persons, all such persons shall be jointly and severally bound to the Employer for the fulfillment of the provisions of the Contract and shall designate one of such persons to act as a leader with authority to bind the joint venture or consortium. The composition or the constitution of the joint venture or consortium shall not be altered without the prior consent of the Employer.

9.8 Protection of the Environment

(a) The Contractor shall take all reasonable steps to protect the environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise, and other results of his operations.

(b) The Contractor shall ensure that emissions, surface discharges, and effluent from the Contractor's activities shall not exceed the values stated in the Specification or prescribed by applicable Laws.

10. Employer's Responsibilities

10.1 All information and/or data to be supplied by the Employer as described in the Appendix (Scope of Works and Supply by the Employer) to the Contract Agreement shall be deemed to be accurate, except when the Employer expressly states otherwise.

10.2 The Employer shall be responsible for acquiring and providing legal and physical possession of the Site and access thereto, and for providing possession of and access to all other areas reasonably required for the proper execution of the Contract, including all requisite rights of way, as specified in the Appendix (Scope of Works and Supply by the Employer) to the Contract Agreement. The Employer shall give full possession of and accord all rights of access thereto on or before the date(s) specified in that Appendix.

10.3 The Employer shall acquire and pay for all permits, approvals, and/or licenses from all local, state, or national government authorities, or public service undertakings in the country where the Site is located which (a) such authorities or undertakings require the Employer to obtain in the Employer's name, (b) are necessary for the execution of the Contract, including those required for the performance by both the Contractor and the Employer of their respective obligations under the Contract, and (c) are specified in the Appendix (Scope of Works and Supply by the Employer) to the Contract Agreement.

10.4 If requested by the Contractor, the Employer shall use its best endeavors to assist the Contractor 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 Contractor or Subcontractors or the personnel of the Contractor or Subcontractors, as the case may be,

to obtain.

- 10.5 Unless otherwise specified in the Contract or agreed upon by the Employer and the Contractor, the Employer shall provide sufficient, properly qualified operating and maintenance personnel; shall supply and make available all raw materials, utilities, lubricants, chemicals, catalysts, other materials and facilities; and shall perform all work and services of whatsoever nature, including those required by the Contractor to properly carry out Pre-commissioning, Commissioning, and Guarantee Tests, all in accordance with the provisions of the Appendix (Scope of Works and Supply by the Employer) to the Contract Agreement at or before the time specified in the program furnished by the Contractor under GCC Subclause 18.2 hereof and in the manner thereupon specified or as otherwise agreed upon by the Employer and the Contractor.
- 10.6 The Employer shall be responsible for the continued operation of the Facilities after Completion, in accordance with GCC Subclause 24.8, and shall be responsible for facilitating the Guarantee Test(s) for the Facilities, in accordance with GCC Subclause 25.2.
- 10.7 All costs and expenses involved in the performance of the obligations under this GCC Clause 10 shall be the responsibility of the Employer, except those incurred by the Contractor with respect to the performance of Guarantee Tests, in accordance with GCC Subclause 25.2.
- 10.8 In the event that the Employer shall be in breach of any of his obligations imposed by the Contract, then the additional cost reasonably incurred by the Contractor in consequence thereof shall be added to the Contract Price.

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 Unless an adjustment clause is provided for in the SCC, the Contract Price shall be a firm lump sum not subject to any alteration, except in the event of a Change in the Facilities or as otherwise provided in the Contract.
- 11.3 Subject to GCC Subclauses 9.2, 10.1, and 35 hereof, the Contractor 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 Contract Price shall be paid as specified in Article 2 (Contract Price and Terms of Payment) of the Contract Agreement and in the Appendix (Terms and Procedures of Payment) to the Contract Agreement, which also outlines the procedures to be followed in making application for and processing payments.
- 12.2 No payment made by the Employer herein shall be deemed to constitute acceptance by the Employer of the Facilities or any part(s) thereof.

- 12.3 In the event that the Employer fails to make any payment by its respective due date or within the period set forth in the Contract, the Employer shall pay to the Contractor interest on the amount of such delayed payment at the rate(s) shown in the Appendix (Terms and Procedures of Payment) to the Contract Agreement for the period of delay until payment has been made in full, whether before or after judgment or arbitration award.
- 12.4 The currency or currencies in which payments are made to the Contractor under this Contract shall be specified in the Appendix (Terms and Procedures of Payment) to the Contract Agreement, subject to the general principle that payments will be made in the currency or currencies in which the Contract Price has been stated in the Contractor's bid.

13. Securities

13.1 Issuance of Securities

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

13.2 Advance Payment Security

13.2.1 The Contractor shall, within 28 days of the notification of contract award, provide a security in an amount equal to the advance payment calculated in accordance with the Appendix (Terms and Procedures of Payment) to the Contract Agreement, and in the same currency or currencies.

13.2.2 The security shall be in the form provided in the Bidding Documents or in another form acceptable to the Employer. The amount of the security shall be reduced in proportion to the value of the Facilities executed by and paid to the Contractor from time to time, and shall automatically become null and void when the full amount of the advance payment has been recovered by the Employer. The security shall be returned to the Contractor immediately after its expiration.

13.3 Performance Security

13.3.1 The Contractor shall, within 28 days of the notification of contract award, provide a security for the due performance of the Contract in the amount specified in the SCC.

13.3.2 The security shall be denominated in the currency or currencies of the Contract, or in a freely convertible currency acceptable to the Employer, and shall be in one of the forms of bank guarantees provided in the Bidding Documents, as stipulated by the Employer in the SCC, or in another form acceptable to the Employer.

13.3.3 Unless otherwise specified in the SCC, the security shall be reduced by half on the date of the Operational Acceptance. The Security shall become null and void, or shall be reduced pro rata to the Contract Price of a part of the Facilities for which a separate Time for Completion is provided, 540 days after Completion of the Facilities or 365 days after Operational Acceptance of the Facilities, whichever occurs first; provided, however, that if the Defects Liability Period has been extended on any part of the Facilities pursuant to GCC Subclause 27.8 hereof, the Contractor shall issue an additional security in an

amount proportionate to the Contract Price of that part. The security shall be returned to the Contractor immediately after its expiration, provided, however, that if the Contractor, pursuant to GCC Subclause 27.10, is liable for an extended defect liability obligation, the performance security shall be extended for the period and up to the amount specified in the SCC.

14. Taxes and Duties

- 14.1 Except as otherwise specifically provided in the Contract, the Contractor shall bear and pay all taxes, duties, levies, and charges assessed on the Contractor, its Subcontractors, or their employees by all municipal, state, or national government authorities in connection with the Facilities in and outside of the country where the Site is located.
- 14.2 Notwithstanding GCC Subclause 14.1 above, the Employer shall bear and promptly pay all customs and import duties as well as other local taxes like, e.g., a value-added tax (VAT), imposed by the law of the country where the Site is located on the Plant specified in Price Schedule No. 1 and that are to be incorporated into the Facilities.
- 14.3 If any tax exemptions, reductions, allowances, or privileges may be available to the Contractor in the country where the Site is located, the Employer shall use its best endeavors to enable the Contractor 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 28 days prior to the date of bid submission in the country where the Site is located (hereinafter called "Tax" in this GCC Subclause 14.4). If any rates of Tax 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 Contract, which was or will be assessed on the Contractor, Subcontractors, or their employees in connection with performance of the Contract, an equitable adjustment of the Contract Price shall be made to fully take into account any such change by addition to the Contract Price or deduction therefrom, as the case may be, in accordance with GCC Clause 36 hereof.

D. Intellectual Property

15. License/Use of Technical Information

- 15.1 For the operation and maintenance of the Plant, the Contractor hereby grants a non-exclusive and nontransferable license (without the right to sublicense) to the Employer under the patents, utility models, or other industrial property rights owned by the Contractor or by a third party from whom the Contractor has received the right to grant licenses thereunder, and shall also grant to the Employer a nonexclusive and nontransferable right (without the right to sublicense) to use the know-how and other technical information disclosed to the Employer under the Contract. Nothing contained herein shall be construed as transferring ownership of any patent, utility model, trademark, design, copyright, know-how, or other intellectual property right from the Contractor or any third party to the Employer.

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

16. Confidential Information

16.1 The Employer and the Contractor shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during, or following termination of the Contract. Notwithstanding the above, the Contractor may furnish to its Subcontractor(s) such documents, data, and other information it receives from the Employer to the extent required for the Subcontractor(s) to perform its work under the Contract, in which event the Contractor shall obtain from such Subcontractor(s) an undertaking of confidentiality similar to that imposed on the Contractor under this GCC Clause 16.

16.2 The Employer shall not use such documents, data, and other information received from the Contractor for any purpose other than the operation and maintenance of the Facilities. Similarly, the Contractor shall not use such documents, data, and other information received from the Employer for any purpose other than the design, procurement of Plant, construction, or such other work and services as are required for the performance of the Contract.

16.3 The obligation of a party under GCC Subclauses 16.1 and 16.2 above, however, shall not apply to that information, which

- (a) now or hereafter enters the public domain through no fault of that party;
- (b) can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party hereto; and
- (c) otherwise lawfully becomes available to that party from a third party that has no obligation of confidentiality.

16.4 The above provisions of this GCC Clause 16 shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the Facilities or any part thereof.

16.5 The provisions of this GCC Clause 16 shall survive termination, for whatever reason, of the Contract.

E. Execution of the Facilities

17. Representatives 17.1 Project Manager

If the Project Manager is not named in the Contract, then within 14 days of the Effective Date, the Employer shall appoint and notify the Contractor in writing of the name of the Project Manager. The Employer may from time to time appoint some other person as the Project Manager in place of the person previously so appointed, and

shall give notice of the name of such other person to the Contractor 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 Facilities. Such appointment shall only take effect upon receipt of such notice by the Contractor. The Project Manager shall represent and act for the Employer at all times during the performance of the Contract. All notices, instructions, orders, certificates, approvals, and all other communications under the Contract shall be given by the Project Manager, except as herein otherwise provided.

All notices, instructions, information, and other communications given by the Contractor to the Employer under the Contract shall be given to the Project Manager, except as herein otherwise provided.

17.2 Contractor's Representative and Construction Manager

17.2.1 If the Contractor's Representative is not named in the Contract, then within 14 days of the Effective Date, the Contractor shall appoint the Contractor's Representative and shall request the Employer in writing to approve the person so appointed. If the Employer makes no objection to the appointment within 14 days, the Contractor's Representative shall be deemed to have been approved. If the Employer objects to the appointment within 14 days giving the reason therefor, then the Contractor shall appoint a replacement within 14 days of such objection, and the foregoing provisions of this GCC Subclause 17.2.1 shall apply thereto.

17.2.2 The Contractor's Representative shall represent and act for the Contractor at all times during the performance of the Contract and shall give to the Project Manager all the Contractor's notices, instructions, information, and all other communications under the Contract.

All notices, instructions, information, and all other communications given by the Employer or the Project Manager to the Contractor under the Contract shall be given to the Contractor's Representative or, in its absence, its deputy, except as herein otherwise provided.

The Contractor shall not revoke the appointment of the Contractor's Representative without the Employer's prior written consent, which shall not be unreasonably withheld. If the Employer consents thereto, the Contractor shall appoint some other person as the Contractor's Representative, pursuant to the procedure set out in GCC Subclause 17.2.1.

17.2.3 The Contractor's Representative may, subject to the approval of the Employer 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 Contractor'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 a copy thereof has been delivered to the Employer and the Project Manager.

Any act or exercise by any person of powers, functions and authorities so delegated to him or her in accordance with this GCC Subclause 17.2.3 shall be deemed to be an act or exercise by the Contractor's Representative.

17.2.4 From the commencement of installation of the Facilities at the Site until Completion, the Contractor's Representative shall appoint a suitable person as the Construction Manager. The Construction Manager shall supervise all work done at the Site by the Contractor and shall be present at the Site throughout normal working hours except when on leave, sick, or absent for reasons connected with the proper performance of the Contract. Whenever the Construction Manager is absent from the Site, the Contractor's Representative or the Construction Manager shall appoint a suitable person to act as the Construction Manager's deputy.

17.2.5 The Employer may by notice to the Contractor object to any representative or person employed by the Contractor in the execution of the Contract who, in the reasonable opinion of the Employer, may behave inappropriately, may be incompetent or negligent, or may commit a serious breach of the Site regulations provided under GCC Subclause 22.4. The Employer shall provide evidence of the same, whereupon the Contractor shall remove such person from the Facilities.

17.2.6 If any representative or person employed by the Contractor is removed in accordance with GCC Subclause 17.2.5, the Contractor shall, where required, promptly appoint a replacement.

18. Work Program

18.1 Contractor's Organization

The Contractor shall supply to the Employer and the Project Manager a chart showing the proposed organization to be established by the Contractor for carrying out work on the Facilities within 21 days of the Effective Date. The chart shall include the identities of the key personnel, and the curricula vitae of such key personnel to be employed shall be supplied together with the chart. The Contractor shall promptly inform the Employer and the Project Manager in writing of any revision or alteration of such an organization chart.

18.2 Program of Performance

Within 28 days after the Effective Date, the Contractor shall submit to the Project Manager a detailed program of performance of the Contract, made in a form acceptable to the Project Manager and showing the sequence in which it proposes to design, manufacture, transport, assemble, install, and pre-commission the Facilities, as well as the date by which the Contractor reasonably requires that the Employer shall have fulfilled its obligations under the Contract so as to enable the Contractor to execute the Contract in accordance with the program and to achieve Completion, Commissioning, and Acceptance of the Facilities in accordance with the Contract. The program so submitted by the Contractor shall accord with the Time Schedule included in the Appendix (Time Schedule) to the Contract Agreement and any other dates and periods specified in the Contract. The Contractor shall update and revise the program as and when appropriate or when required by the Project Manager, but without modification in the Times for Completion given in the SCC and any extension granted in accordance with GCC Clause 40, and shall submit all such revisions to the Project Manager.

18.3 Progress Report

The Contractor shall monitor progress of all the activities specified in

the program referred to in GCC Subclause 18.2 above, and supply a progress report to the Project Manager every month.

The progress report shall be in a form acceptable to the Project Manager and shall indicate: (a) percentage completion achieved compared with the planned percentage completion for each activity; and (b) where any activity is behind the program, giving comments and likely consequences and stating the corrective action being taken.

18.4 Progress of Performance

If at any time the Contractor's actual progress falls behind the program referred to in GCC Subclause 18.2, or it becomes apparent that it will so fall behind, the Contractor shall, at the request of the Employer or the Project Manager, prepare and submit to the Project Manager a revised program, taking into account the prevailing circumstances, and shall notify the Project Manager of the steps being taken to expedite progress so as to attain Completion of the Facilities within the Time for Completion under GCC Subclause 8.2, any extension thereof entitled under GCC Subclause 40.1, or any extended period as may otherwise be agreed upon between the Employer and the Contractor.

18.5 Procedures

The Contract shall be executed in accordance with the Contract Documents including the procedures given in the Forms and Procedures of the Employer's Requirements.

The Contractor may execute the Contract in accordance with its own standard project execution plans and procedures to the extent that they do not conflict with the provisions contained in the Contract.

19.Subcontracting

19.1 The Appendix 5 (List of Major Items of Plant and Services and List of Approved Subcontractors) to the Contract Agreement specifies major items of plant and services and a list of approved Subcontractors against each item, including manufacturers. Insofar as no Subcontractors are listed against any such item, the Contractor shall prepare a list of Subcontractors for such item for inclusion in such list. The Contractor may from time to time propose any addition to or deletion from any such list. The Contractor shall submit any such list or any modification thereto to the Employer for its approval in sufficient time so as not to impede the progress of work on the Facilities. Such approval by the Employer for any of the Subcontractors shall not relieve the Contractor from any of its obligations, duties, or responsibilities under the Contract.

19.2 The Contractor shall select and employ its Subcontractors for such major items from those listed in the lists referred to in GCC Subclause 19.1.

19.3 For items or parts of the Facilities not specified in the Appendix (List of Major Items of Plant and Services and List of Approved Subcontractors for Major Items) to the Contract Agreement, the Contractor may employ such Subcontractors as it may select, at its discretion.

19.4 Each subcontract shall include provisions which would entitle the Employer to require the sub-contract to be assigned to the Employer under GCC 19.5 (if and when applicable), or in event of termination by the Employer under GCC 42.2.

19.5 If a Sub-contractor's obligations extend beyond the expiry date of the relevant Defects Liability Period and the Project Manager, prior to that

date, instructs the Contractor to assign the benefits of such obligations to the Employer, then the Contractor shall do so.

20. Design and Engineering

20.1 Specifications and Drawings

20.1.1 The Contractor shall execute the basic and detailed design and the engineering work in compliance with the provisions of the Contract, or where not so specified, in accordance with good engineering practice.

The Contractor 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 Contractor by or on behalf of the Employer.

20.1.2 The Contractor shall be entitled to disclaim responsibility for any design, data, drawing, specification, or other document, or any modification thereof provided or designated by or on behalf of the Employer, by giving a notice of such disclaimer to the Project Manager.

20.2 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 28 days prior to date of bid submission shall apply unless otherwise specified. During Contract execution, any changes in such codes and standards shall be applied subject to approval by the Employer and shall be treated in accordance with GCC Clause 39.

20.3 Approval/Review of Technical Documents by Project Manager

20.3.1 The Contractor shall prepare or cause its Subcontractors to prepare, and furnish to the Project Manager the documents listed in the Appendix (List of Documents for Approval or Review) to the Contract Agreement for its approval or review as specified and in accordance with the requirements of GCC Subclause 18.2 (Program of Performance).

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

GCC Subclauses 20.3.2 through 20.3.7 shall apply to those documents requiring the Project Manager's approval, but not to those furnished to the Project Manager for its review only.

20.3.2 Within 14 days after receipt by the Project Manager of any document requiring the Project Manager's approval in accordance with GCC Subclause 20.3.1, the Project Manager shall either return one copy thereof to the Contractor with its approval endorsed thereon or shall notify the Contractor in writing of its disapproval thereof and the reasons therefor and the modifications that the Project Manager proposes.

If the Project Manager fails to take such action within the said 14 days, then the said document shall be deemed to have been approved by the Project Manager.

20.3.3 The Project Manager shall not disapprove any document, except on the grounds that the document does not comply with the Contract or that it is contrary to good engineering practice. If the Project Manager disapproves a document, he shall specify the reasons for his decision.

20.3.4 If the Project Manager disapproves the document, the Contractor shall modify the document and resubmit it for the Project Manager's approval in accordance with GCC Subclause 20.3.2. If the Project Manager approves the document subject to modification(s), the Contractor shall make the required modification(s), whereupon the document shall be deemed to have been approved.

20.3.5 If any dispute or difference occurs between the Employer and the Contractor in connection with or arising out of the disapproval by the Project Manager of any document and/or any modification(s) thereto that cannot be settled between the parties within a reasonable period, then such dispute or difference may be referred to a Dispute Board for determination in accordance with GCC Subclause 45.3 hereof. If such dispute or difference is referred to a Dispute Board, the Project Manager shall give instructions as to whether and, if so, how, performance of the Contract is to proceed. The Contractor shall proceed with the Contract in accordance with the Project Manager's instructions, provided that if the Dispute Board upholds the Contractor's view on the dispute and if the Employer has not given notice under Subclause 45.3 hereof, then the Contractor shall be reimbursed by the Employer 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 Dispute Board shall decide, and the Time for Completion shall be extended accordingly.

20.3.6 The Project Manager's approval, with or without modification of the document furnished by the Contractor, shall not relieve the Contractor 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.

20.3.7 The Contractor shall not depart from any approved document unless the Contractor has first submitted to the Project Manager an amended document and obtained the Project Manager's approval thereof, pursuant to the provisions of this GCC Subclause 20.3.

If the Project Manager requests any change in any already approved document and/or in any document based thereon, the provisions of GCC Clause 39 shall apply to such request.

21. Procurement

21.1 Materials

Subject to GCC Subclause 14.2, the Contractor shall procure and transport all materials in an expeditious and orderly manner to the Site.

21.2 Employer-Supplied Materials

If the Appendix (Scope of Works and Supply by the Employer) to the Contract Agreement provides that the Employer shall furnish any specific items to the Contractor, the following provisions shall apply:

21.2.1 The Employer shall, at its own risk and expense, transport each item to the place on or near the Site as agreed upon by the parties and make such item available to the Contractor at the time specified in the program furnished by the Contractor, pursuant to GCC Subclause 18.2, unless otherwise mutually agreed.

21.2.2 Upon receipt of such item, the Contractor shall inspect the same visually and notify the Project Manager of any detected shortage, defect, or default. The Employer shall immediately remedy any shortage, defect, or default, or the Contractor shall, if practicable and possible, at the request of the Employer, remedy such shortage, defect, or default at the Employer's cost and expense. After inspection, such item shall fall under the care, custody, and control of the Contractor. The provision of this GCC Subclause 21.2.2 shall apply to any item supplied to remedy any such shortage or default or to substitute for any defective item, or shall apply to defective items that have been repaired.

21.2.3 The foregoing responsibilities of the Contractor and its obligations of care, custody, and control shall not relieve the Employer of liability for any undetected shortage, defect, or default, nor place the Contractor under any liability for any such shortage, defect or default whether under GCC Clause 27 or under any other provision of Contract.

21.3 Transportation

21.3.1 The Contractor shall at its own risk and expense transport all the materials and the Contractor's Equipment to the Site by the mode of transport that the Contractor judges most suitable under all the circumstances.

21.3.2 Unless otherwise provided in the Contract, the Contractor shall be entitled to select any safe mode of transport operated by any person to carry the materials and the Contractor's Equipment.

21.3.3 Upon dispatch of each shipment of materials and the Contractor's Equipment, the Contractor shall notify the Employer by telex, cable, facsimile, or electronic means, of the description of the materials and of the Contractor's Equipment, the point and means of dispatch, and the estimated time and point of arrival in the country where the Site is located, if applicable, and at the Site. The Contractor shall furnish the Employer with relevant shipping documents to be agreed upon between the parties.

21.3.4 The Contractor shall be responsible for obtaining, if necessary, approvals from the authorities for transportation of the materials and the Contractor's Equipment to the Site. The Employer shall use its best endeavors in a timely and expeditious manner to assist the Contractor in obtaining such approvals, if requested by the Contractor. The Contractor shall indemnify and hold harmless the Employer from and against any claim for damage to roads, bridges, or any other traffic facilities that may be caused by the transport of the materials and the Contractor's Equipment to the Site.

21.4 Customs Clearance

The Contractor shall, at its own expense, handle all imported materials and Contractor's Equipment at the point(s) of import and shall handle any formalities for customs clearance, subject to the Employer's obligations under GCC Subclause 14.2, provided that if applicable laws or regulations require any application or act to be made by or in the name of the Employer, the Employer shall take all necessary steps to comply with such laws or regulations. In the event of delays in customs clearance that are not the fault of the Contractor, the Contractor shall be entitled to an extension in the Time for Completion, pursuant to GCC Clause 40.

22. Installation

22.1 Setting Out/Supervision

22.1.1 Benchmark

- (a) The Contractor shall be responsible for the true and proper setting-out of the Facilities in relation to bench marks, reference marks, and lines provided to it in writing by or on behalf of the Employer.
- (b) If, at any time during the progress of installation of the Facilities, any error shall appear in the position, level, or alignment of the Facilities, the Contractor shall forthwith notify the Project Manager of such error and, at its own expense, immediately rectify such error to the reasonable satisfaction of the Project Manager. If such error is based on incorrect data provided in writing by or on behalf of the Employer, the expense of rectifying the same shall be borne by the Employer.

22.1.2 Contractor's Supervision

The Contractor shall give or provide all necessary superintendence during the installation of the Facilities, and the Construction Manager or its deputy shall be constantly on the Site to provide full-time superintendence of the installation. The Contractor 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.

22.2 Labor

22.2.1 Engagement of Staff and Labor

- (a) Except as otherwise stated in the Specification, the Contractor shall make arrangements for the engagement of all staff and labor, local or otherwise, and for their payment, housing, feeding, and transport.
- (b) The Contractor shall provide and employ on the Site in the installation of the Facilities such skilled, semi-skilled, and unskilled labor as is necessary for the proper and timely execution of the Contract. The Contractor is encouraged to use local labor that has the necessary skills.
- (c) The Contractor shall be responsible for obtaining all necessary permit(s) and/or visa(s) from the appropriate authorities for the entry of all labor and personnel to be employed on the Site into the country where the Site is located. The Employer will, if requested by the Contractor,

use his best endeavors in a timely and expeditious manner to assist the Contractor in obtaining any local, state, national, or government permission required for bringing in the Contractor's personnel.

- (d) The Contractor shall at its own expense provide the means of repatriation to all of its and its Subcontractor's personnel employed on the Contract at the Site to the place where they were recruited or to their domicile. It shall also provide suitable temporary maintenance of all such persons from the cessation of their employment on the Contract to the date programmed for their departure. In the event that the Contractor defaults in providing such means of transportation and temporary maintenance, the Employer may provide the same to such personnel and recover the cost of doing so from the Contractor.

22.2.2 Persons in the Service of Employer

The Contractor shall not recruit, or attempt to recruit, staff and labor from amongst the Employer's Personnel.

22.2.3 Labor Laws

- (a) The Contractor shall comply with all the relevant labor Laws applicable to the Contractor's Personnel, including Laws relating to their employment, health, safety, welfare, immigration, and emigration, and shall allow them all their legal rights.
- (b) The Contractor shall at all times during the progress of the Contract use its best endeavors to prevent any unlawful, riotous, or disorderly conduct or behavior by or amongst its employees and the labor of its Subcontractors.
- (c) The Contractor 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.

22.2.4 Rates of Wages and Conditions of Labor

- (a) The Contractor shall pay rates of wages, and observe conditions of labor, which are not lower than those established for the trade or industry where the work is carried out. If no established rates or conditions are applicable, the Contractor shall pay rates of wages and observe conditions which are not lower than the general level of wages and conditions observed locally by employers whose trade or industry is similar to that of the Contractor.
- (b) The Contractor shall inform the Contractor's Personnel about their liability to pay personal income taxes in the Country in respect of such of their salaries, wages, and allowances as are chargeable under the Laws for the time being in force, and the Contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such Laws.

22.2.5 Working Hours

- (a) No work shall be carried out on the Site on locally recognized days of rest, or outside the normal working hours stated in the SCC, unless
 - (i) otherwise stated in the Contract;
 - (ii) the Project Manager gives consent; or
 - (iii) the work is unavoidable, or necessary for the protection of life or property or for the safety of the Works, in which case the Contractor shall immediately advise the Project Manager.
- (b) If and when the Contractor considers it necessary to carry out work at night or on public holidays so as to meet the Time for Completion and requests the Project Manager's consent thereto, the Project Manager shall not unreasonably withhold such consent.
- (c) This Subclause shall not apply to any work which is customarily carried out by rotary or double shifts.

22.2.6 Facilities for Staff and Labor

- (a) Except as otherwise stated in the Specification, the Contractor shall provide and maintain all necessary accommodation and welfare facilities for the Contractor's Personnel. The Contractor shall also provide facilities for the Employer's Personnel as stated in the Specification.
- (b) The Contractor shall not permit any of the Contractor's Personnel to maintain any temporary or permanent living quarters within the structures forming part of the Permanent Works.

22.2.7 Health and Safety

- (a) The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor's Personnel. In collaboration with local health authorities, the Contractor shall ensure that medical staff, first aid facilities, sick bay, and ambulance service are available at all times at the Site and at any accommodation for Contractor's and Employer's Personnel, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.
- (b) The Contractor shall appoint an accident prevention officer at the Site, responsible for maintaining safety and protection against accidents. This person shall be qualified for this responsibility, and shall have the authority to issue instructions and take protective measures to prevent accidents. Throughout the performance of the Contract, the Contractor shall provide whatever is required by this person to exercise this responsibility and authority.
- (c) The Contractor shall send to the Project Manager, details of any accident as soon as practicable after its occurrence. The Contractor shall maintain records and make reports concerning health, safety, and welfare of persons, and damage to property, as the Project Manager

may reasonably require.

22.2.8 Funeral Arrangements

In the event of the death of any of the Contractor's personnel or accompanying members of their families, the Contractor shall be responsible for making the appropriate arrangements for their return or burial, unless otherwise specified in the SCC.

22.2.9 Records of Contractor's Personnel

The Contractor shall keep accurate records of the Contractor's personnel, including the number of each class of Contractor's Personnel on the Site and the names, ages, gender, hours worked, and wages paid to all workers. These records shall be summarized on a monthly basis in a form approved by the Project Manager and shall be available for inspection by the Project Manager until the Contractor has completed all work.

22.2.10 Supply of Foodstuff

The Contractor shall arrange for the provision of a sufficient supply of suitable food as may be stated in the Specification at reasonable prices for the Contractor's Personnel for the purposes of or in connection with the Contract.

22.2.11 Supply of Water

The Contractor shall, having regard to local conditions, provide on the Site an adequate supply of drinking and other water for the use of the Contractor's Personnel.

22.2.12 Measures against Insect and Pest Nuisance

The Contractor shall at all times take the necessary precautions to protect the Contractor's Personnel employed on the Site from insect and pest nuisance, and to reduce their danger to health. The Contractor shall comply with all the regulations of the local health authorities, including use of appropriate insecticide.

22.2.13 Alcoholic Liquor or Drugs

The Contractor shall not, otherwise than in accordance with the Laws of the Country, import, sell, give barter, or otherwise dispose of any alcoholic liquor or drugs, or permit or allow importation, sale, gift barter, or disposal by Contractor's Personnel.

22.2.14 Arms and Ammunition

The Contractor shall not give, barter, or otherwise dispose of, to any person, any arms or ammunition of any kind, or allow Contractor's Personnel to do so.

22.2.15 Prohibition of All Forms of Forced or Compulsory Labor

The contractor shall not employ "forced or compulsory labor" in any form. "Forced or compulsory labor" consists of all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.

22.2.16 Prohibition of Harmful Child Labor

The Contractor shall not employ any child to perform any work that is economically exploitative, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social

development.

22.3 Contractor's Equipment

22.3.1 All Contractor's Equipment brought by the Contractor onto the Site shall be deemed to be intended to be used exclusively for the execution of the Contract. The Contractor shall not remove the same from the Site without the Project Manager's consent that such Contractor's Equipment is no longer required for the execution of the Contract.

22.3.2 Unless otherwise specified in the Contract, upon completion of the Facilities, the Contractor shall remove from the Site all Equipment brought by the Contractor onto the Site and any surplus materials remaining thereon.

22.3.3 The Employer will, if requested, use its best endeavors to assist the Contractor in obtaining any local, state or national government permission required by the Contractor for the export of the Contractor's Equipment imported by the Contractor for use in the execution of the Contract that is no longer required for the execution of the Contract.

22.4 Site Regulations and Safety

The Employer and the Contractor shall establish Site regulations setting out the rules to be observed in the execution of the Contract at the Site and shall comply therewith. The Contractor shall prepare and submit to the Employer, with a copy to the Project Manager, proposed Site regulations for the Employer's approval, which approval shall not be unreasonably withheld.

Such Site regulations shall include, but shall not be limited to, rules in respect of security, safety of the Facilities, gate control, sanitation, medical care, and fire prevention.

22.5 Opportunities for Other Contractors

22.5.1 The Contractor shall, upon written request from the Employer or the Project Manager, give all reasonable opportunities for carrying out the work to any other contractors employed by the Employer on or near the Site.

22.5.2 If the Contractor, upon written request from the Employer or the Project Manager, makes available to other contractors any roads or ways the maintenance for which the Contractor is responsible, permits the use by such other contractors of the Contractor's Equipment, or provides any other service of whatsoever nature for such other contractors, the Employer shall fully compensate the Contractor for any loss or damage caused or occasioned by such other contractors in respect of any such use or service, and shall pay to the Contractor reasonable remuneration for the use of such equipment or the provision of such services.

22.5.3 The Contractor shall also so arrange to perform its work as to minimize, to the extent possible, interference with the work of other contractors. The Project Manager shall determine the resolution of any difference or conflict that may arise between the Contractor and other contractors and the workers of the

Employer in regard to their work.

- 22.5.4 The Contractor shall notify the Project Manager promptly of any defects in the other Contractors' work that come to its notice, and that could affect the Contractor's work. The Project Manager shall determine the corrective measures, if any, required to rectify the situation after inspection of the Facilities. Decisions made by the Project Manager shall be binding on the Contractor.

22.6 Emergency Work

If, by reason of an emergency arising in connection with and during the execution of the Contract, any protective or remedial work is necessary as a matter of urgency to prevent damage to the Facilities, the Contractor shall immediately carry out such work.

If the Contractor is unable or unwilling to do such work immediately, the Employer may do or cause such work to be done as the Employer may determine is necessary in order to prevent damage to the Facilities. In such event the Employer shall, as soon as practicable after the occurrence of any such emergency, notify the Contractor in writing of such emergency, the work done and the reasons therefor. If the work done or caused to be done by the Employer is work that the Contractor was liable to do at its own expense under the Contract, the reasonable costs incurred by the Employer in connection therewith shall be paid by the Contractor to the Employer. Otherwise, the cost of such remedial work shall be borne by the Employer.

22.7 Site Clearance

22.7.1 Site Clearance in Course of Performance

In the course of carrying out the Contract, the Contractor shall keep the Site reasonably free from all unnecessary obstruction, store, or remove any surplus materials, clear away any wreckage, rubbish, or temporary works from the Site, and remove any Contractor's Equipment no longer required for execution of the Contract.

22.7.2 Clearance of Site after Completion

After Completion of all parts of the Facilities, the Contractor shall clear away and remove all wreckage, rubbish, and debris of any kind from the Site, and shall leave the Site and Facilities in a clean and safe condition.

22.8 Watching and Lighting

The Contractor shall provide and maintain at its own expense all lighting, fencing, and watching when and where necessary for the proper execution and the protection of the Facilities, or for the safety of the owners and occupiers of adjacent property and for the safety of the public.

23. Test and Inspection

- 23.1 The Contractor shall at its own expense carry out at the place of manufacture and/or on the Site all such tests and/or inspections of the Plant and any part of the Facilities as are specified in the Contract.
- 23.2 The Employer and the Project Manager or their designated representatives shall be entitled to attend the aforesaid test and/or inspection, provided that the Employer shall bear all costs and

expenses incurred in connection with such attendance including, but not limited to, all traveling and board and lodging expenses.

23.3 Whenever the Contractor is ready to carry out any such test and/or inspection, the Contractor shall give a reasonable advance notice of such test and/or inspection and of the place and time thereof to the Project Manager. The Contractor shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Employer and the Project Manager or their designated representatives to attend the test and/or inspection.

23.4 The Contractor shall provide the Project Manager with a certified report of the results of any such test and/or inspection.

If the Employer or Project Manager or their designated representatives fails to attend the test and/or inspection, or if it is agreed between the parties that such persons shall not do so, then the Contractor may proceed with the test and/or inspection in the absence of such persons, and may provide the Project Manager with a certified report of the results thereof.

23.5 The Project Manager may require the Contractor to carry out any test and/or inspection not required by the Contract, provided that the Contractor's reasonable costs and expenses incurred in the carrying out of such test and/or inspection shall be added to the Contract Price. Further, if such test and/or inspection impedes the progress of work on the Facilities and/or the Contractor's performance of its other obligations under the Contract, due allowance will be made in respect of the Time for Completion and the other obligations so affected.

23.6 If any Plant or any part of the Facilities fails to pass any test and/or inspection, the Contractor shall either rectify or replace such Plant or part of the Facilities and shall repeat the test and/or inspection upon giving a notice under GCC Subclause 23.3.

23.7 If any dispute or difference of opinion shall arise between the parties in connection with or arising out of the test and/or inspection of the Plant or part of the Facilities that cannot be settled between the parties within a reasonable period of time, it may be referred to an Dispute Board for determination in accordance with GCC Subclause 45.3.

23.8 The Contractor shall afford the Employer and the Project Manager, at the Employer's expense, access at any reasonable time to any place where the Plant are being manufactured or the Facilities are being installed, in order to inspect the progress and the manner of manufacture or installation, provided that the Project Manager shall give the Contractor a reasonable prior notice.

23.9 The Contractor agrees that neither the execution of a test and/or inspection of Plant or any part of the Facilities, nor the attendance by the Employer or the Project Manager, nor the issue of any test certificate pursuant to GCC Subclause 23.4, shall release the Contractor from any other responsibilities under the Contract.

23.10 No part of the Facilities or foundations shall be covered up on the Site without the Contractor carrying out any test and/or inspection required under the Contract. The Contractor shall give a reasonable notice to the Project Manager whenever any such parts of the Facilities or foundations are ready or about to be ready for test and/or inspection;

such test and/or inspection and notice thereof shall be subject to the requirements of the Contract.

- 23.11 The Contractor shall uncover any part of the Facilities or foundations, or shall make openings in or through the same as the Project Manager may from time to time require at the Site, and shall reinstate and make good such part or parts.

If any parts of the Facilities or foundations have been covered up at the Site after compliance with the requirement of GCC Subclause 23.10 and are found to be executed in accordance with the Contract, the expenses of uncovering, making openings in or through, reinstating, and making good the same shall be borne by the Employer, and the Time for Completion shall be reasonably adjusted to the extent that the Contractor has thereby been delayed or impeded in the performance of any of its obligations under the Contract.

24. Completion of the Facilities

- 24.1 As soon as the Facilities or any part thereof has, in the opinion of the Contractor, been completed operationally and structurally and put in a tight and clean condition as specified in the Employer's Requirements, excluding minor items not materially affecting the operation or safety of the Facilities, the Contractor shall so notify the Employer in writing.

- 24.2 Within 7 days after receipt of the notice from the Contractor under GCC Subclause 24.1, the Employer shall supply the operating and maintenance personnel specified in the Appendix (Scope of Works and Supply by the Employer) to the Contract Agreement for Pre-commissioning of the Facilities or any part thereof.

Pursuant to the Appendix (Scope of Works and Supply by the Employer) to the Contract Agreement, the Employer shall also provide, within the said 7-day period, the raw materials, utilities, lubricants, chemicals, catalysts, facilities, services, and other matters required for Pre-commissioning of the Facilities or any part thereof.

- 24.3 As soon as reasonably practicable after the operating and maintenance personnel have been supplied by the Employer and the raw materials, utilities, lubricants, chemicals, catalysts, facilities, services, and other matters have been provided by the Employer in accordance with GCC Subclause 24.2, the Contractor shall commence Pre-commissioning of the Facilities or the relevant part thereof in preparation for Commissioning, subject to GCC Subclause 25.5.

- 24.4 As soon as all works in respect of Pre-commissioning are completed and, in the opinion of the Contractor, the Facilities or any part thereof is ready for Commissioning, the Contractor shall so notify the Project Manager in writing.

- 24.5 The Project Manager shall, within 14 days after receipt of the Contractor's notice under GCC Subclause 24.4, either issue a Completion Certificate in the form specified in the Employer's Requirements (Forms and Procedures), stating that the Facilities or that part thereof have reached Completion as of the date of the Contractor's notice under GCC Subclause 24.4, or notify the Contractor in writing of any defects and/or deficiencies.

If the Project Manager notifies the Contractor of any defects and/or deficiencies, the Contractor shall then correct such defects and/or deficiencies, and shall repeat the procedure described in GCC Subclause 24.4.

If the Project Manager is satisfied that the Facilities or that part thereof have reached Completion, the Project Manager shall, within 7 days after receipt of the Contractor's repeated notice, issue a Completion Certificate stating that the Facilities or that part thereof have reached Completion as of the date of the Contractor's repeated notice.

If the Project Manager is not so satisfied, then it shall notify the Contractor in writing of any defects and/or deficiencies within 7 days after receipt of the Contractor's repeated notice, and the above procedure shall be repeated.

24.6 If the Project Manager fails to issue the Completion Certificate and fails to inform the Contractor of any defects and/or deficiencies within 14 days after receipt of the Contractor's notice under GCC Subclause 24.4 or within 7 days after receipt of the Contractor's repeated notice under GCC Subclause 24.5, or if the Employer makes use of the Facilities or part thereof, then the Facilities or that part thereof shall be deemed to have reached Completion as of the date of the Contractor's notice or repeated notice, or as of the Employer's use of the Facilities, as the case may be.

24.7 As soon as possible after Completion, the Contractor shall complete all outstanding minor items so that the Facilities are fully in accordance with the requirements of the Contract, failing which the Employer will undertake such completion and deduct the costs thereof from any monies owing to the Contractor.

24.8 Upon Completion, the Employer shall be responsible for the care and custody of the Facilities or the relevant part thereof, together with the risk of loss or damage thereto, and shall thereafter take over the Facilities or the relevant part thereof.

25. Commissioning and Operational Acceptance

25.1 Commissioning

25.1.1 Commissioning of the Facilities or any part thereof shall be commenced by the Contractor immediately after issue of the Completion Certificate by the Project Manager, pursuant to GCC Subclause 24.5, or immediately after the date of the deemed Completion, under GCC Subclause 24.6.

25.1.2 The Employer shall supply the operating and maintenance personnel and all raw materials, utilities, lubricants, chemicals, catalysts, facilities, services, and other matters required for Commissioning.

25.1.3 In accordance with the requirements of the Contract, the Contractor's and Project Manager's advisory personnel shall attend the Commissioning, including the Guarantee Test, and shall advise and assist the Employer.

25.2 Guarantee Test

25.2.1 Subject to GCC Subclause 25.5, the Guarantee Test and repeats thereof shall be conducted by the Contractor during Commissioning of the Facilities or the relevant part thereof to ascertain whether the Facilities or the relevant part can attain the Functional Guarantees specified in the Appendix (Functional Guarantees) to the Contract Agreement. The Employer shall promptly provide the Contractor with such information as the Contractor may reasonably require in relation to the conduct and

results of the Guarantee Test and any repeats thereof.

25.2.2 If for reasons not attributable to the Contractor, the Guarantee Test of the Facilities or the relevant part thereof cannot be successfully completed within the period from the date of Completion specified in the SCC or any other period agreed upon by the Employer and the Contractor, the Contractor shall be deemed to have fulfilled its obligations with respect to the Functional Guarantees, and GCC Subclauses 28.2 and 28.3 shall not apply.

25.3 Operational Acceptance

25.3.1 Subject to GCC Subclause 25.4 below, Operational Acceptance shall occur in respect of the Facilities or any part thereof when

- (a) the Guarantee Test has been successfully completed and the Functional Guarantees are met; or
- (b) the Guarantee Test has not been successfully completed or has not been carried out for reasons not attributable to the Contractor within the period from the date of Completion specified in the SCC, or any other agreed upon period as specified in GCC Subclause 25.2.2 above; or
- (c) the Contractor has paid the liquidated damages specified in GCC Subclause 28.3 hereof; and
- (d) any minor items mentioned in GCC Subclause 24.7 hereof relevant to the Facilities or that part thereof have been completed.

25.3.2 At any time after any of the events set out in GCC Subclause 25.3.1 have occurred, the Contractor may give a notice to the Project Manager requesting the issue of an Operational Acceptance Certificate in the form provided in the Employer's Requirements (Forms and Procedures) in respect of the Facilities or the part thereof specified in such notice as of the date of such notice.

25.3.3 The Project Manager shall, after consultation with the Employer, and within 7 days after receipt of the Contractor's notice, issue an Operational Acceptance Certificate.

25.3.4 If within 7 days after receipt of the Contractor's notice, the Project Manager fails to issue the Operational Acceptance Certificate or fails to inform the Contractor in writing of the justifiable reasons why the Project Manager has not issued the Operational Acceptance Certificate, the Facilities or the relevant part thereof shall be deemed to have been accepted as of the date of the Contractor's said notice.

25.4 Partial Acceptance

25.4.1 If the Contract specifies that Completion and Commissioning shall be carried out in respect of parts of the Facilities, the provisions relating to Completion and Commissioning including the Guarantee Test shall apply to each such part of the Facilities individually, and the Operational Acceptance Certificate shall be

issued accordingly for each such part of the Facilities.

25.4.2 If a part of the Facilities comprises facilities such as buildings, for which no Commissioning or Guarantee Test is required, then the Project Manager shall issue the Operational Acceptance Certificate for such facility when it attains Completion, provided that the Contractor shall thereafter complete any outstanding minor items that are listed in the Operational Acceptance Certificate.

25.5 Delayed Pre-Commissioning and/or Guarantee Test

25.5.1 In the event that the Contractor is unable to proceed with the Pre-commissioning of the Facilities pursuant to Subclause 24.3, or with the Guarantee Test pursuant to Subclause 25.2, for reasons attributable to the Employer either on account of non availability of other facilities under the responsibilities of other contractor(s), or for reasons beyond the Employer's control, the provisions leading to "deemed" completion of activities such as Completion, pursuant to GCC Subclause 24.6, and Operational Acceptance, pursuant to GCC Subclause 25.3.4, and Contractor's obligations regarding Defect Liability Period, pursuant to GCC Subclause 27.2, Functional Guarantee, pursuant to GCC Clause 28, and Care of Facilities, pursuant to GCC Clause 32, and GCC Clause 41.1, Suspension, shall not apply. In this case, the following provisions shall apply.

25.5.2 When the Contractor is notified by the Project Manager that he will be unable to proceed with the activities and obligations pursuant to above Subclause 25.5.1, the Contractor shall be entitled to the following:

- (a) the Time of Completion shall be extended for the period of suspension without imposition of liquidated damages pursuant to GCC Subclause 26.2;
- (b) payments due to the Contractor in accordance with the provision specified in the Appendix (Terms and Procedures of Payment) to the Contract Agreement, which would not have been payable in normal circumstances due to noncompletion of the subject activities, shall be released to the Contractor against submission of a security in the form of a bank guarantee of equivalent amount acceptable to the Employer, and which shall become null and void when the Contractor will have complied with its obligations regarding those payments, subject to the provision of Subclause 25.5.3 below;
- (c) the expenses towards the above security and extension of other securities under the contract, of which validity needs to be extended, shall be reimbursed to the Contractor by the Employer;
- (d) the additional charges towards the care of the Facilities pursuant to GCC Subclause 32.1 shall be reimbursed to the Contractor by the Employer for the period between the notification mentioned above and the notification mentioned in Subclause 25.5.4 below. The provision of

GCC Subclause 33.2 shall apply to the Facilities during the same period.

25.5.3 In the event that the period of suspension under above Subclause 25.5.1 actually exceeds 180 days, the Employer and Contractor shall mutually agree to any additional compensation payable to the Contractor.

25.5.4 When the Contractor is notified by the Project Manager that the plant is ready for Pre-commissioning, the Contractor shall proceed without delay in performing all the specified activities and obligations under the contract.

F. Guarantees and Liabilities

26. Completion Time Guarantee

26.1 The Contractor guarantees that it shall attain Completion of the Facilities (or a part for which a separate time for completion is specified) within the Time for Completion specified in the SCC pursuant to GCC Subclause 8.2, or within such extended time to which the Contractor shall be entitled under GCC Clause 40 hereof.

26.2 If the Contractor fails to attain Completion of the Facilities or any part thereof within the Time for Completion or any extension thereof under GCC Clause 40, the Contractor shall pay to the Employer liquidated damages in the amount specified in the SCC as a percentage rate of the Contract Price or the relevant part thereof. The aggregate amount of such liquidated damages shall in no event exceed the amount specified as "Maximum" in the SCC as a percentage rate of the Contract Price. Once the "Maximum" is reached, the Employer may consider termination of the Contract, pursuant to GCC Subclause 42.2.2.

Such payment shall completely satisfy the Contractor's obligation to attain Completion of the Facilities or the relevant part thereof within the Time for Completion or any extension thereof under GCC Clause 40. The Contractor shall have no further liability whatsoever to the Employer in respect thereof.

However, the payment of liquidated damages shall not in any way relieve the Contractor from any of its obligations to complete the Facilities or from any other obligations and liabilities of the Contractor under the Contract.

Save for liquidated damages payable under this GCC Subclause 26.2, the failure by the Contractor to attain any milestone or other act, matter or thing by any date specified in the Appendix (Time Schedule) to the Contract Agreement and/or other program of work prepared pursuant to GCC Subclause 18.2 shall not render the Contractor liable for any loss or damage thereby suffered by the Employer.

26.3 If the Contractor attains Completion of the Facilities or any part thereof before the Time for Completion or any extension thereof under GCC Clause 40, the Employer shall pay to the Contractor a bonus in the amount specified in the SCC. The aggregate amount of such bonus shall in no event exceed the amount specified as "Maximum" in the

SCC.

27. Defect Liability

- 27.1 The Contractor warrants that the Facilities or any part thereof shall be free from defects in the design, engineering, materials, and workmanship of the Plant supplied and of the work executed.
- 27.2 The Defect Liability Period shall be 540 days from the date of Completion of the Facilities (or any part thereof) or 1 year from the date of Operational Acceptance of the Facilities (or any part thereof), whichever first occurs, unless specified otherwise in the SCC pursuant to GCC Subclause 27.10.

If during the Defect Liability Period any defect should be found in the design, engineering, materials, and workmanship of the Plant supplied or of the work executed by the Contractor, the Contractor shall promptly, in consultation and agreement with the Employer regarding appropriate remedying of the defects, and at its cost, repair, replace, or otherwise make good as the Contractor shall determine at its discretion, such defect as well as any damage to the Facilities caused by such defect. The Contractor shall not be responsible for the repair, replacement, or making good of any defect or of any damage to the Facilities arising out of or resulting from any of the following causes:

- (a) improper operation or maintenance of the Facilities by the Employer,
 - (b) operation of the Facilities outside specifications provided in the Contract, or
 - (c) normal wear and tear.
- 27.3 The Contractor's obligations under this GCC Clause 27 shall not apply to:
- (a) any materials that are supplied by the Employer under GCC Subclause 21.2, are normally consumed in operation, or have a normal life shorter than the Defect Liability Period stated herein;
 - (b) any designs, specifications or other data designed, supplied, or specified by or on behalf of the Employer or any matters for which the Contractor has disclaimed responsibility herein; or
 - (c) any other materials supplied or any other work executed by or on behalf of the Employer, except for the work executed by the Employer under GCC Subclause 27.7.
- 27.4 The Employer shall give the Contractor a notice stating the nature of any such defect together with all available evidence thereof, promptly following the discovery thereof. The Employer shall afford all reasonable opportunity for the Contractor to inspect any such defect.
- 27.5 The Employer shall afford the Contractor all necessary access to the Facilities and the Site to enable the Contractor to perform its obligations under this GCC Clause 27.

The Contractor may, with the consent of the Employer, remove from the Site any Plant or any part of the Facilities that are defective if the nature of the defect, and/or any damage to the Facilities caused by the defect, is such that repairs cannot be expeditiously carried out at the Site.

- 27.6 If the repair, replacement or making good is of such a character that it

may affect the efficiency of the Facilities or any part thereof, the Employer may give to the Contractor a notice requiring that tests of the defective part of the Facilities shall be made by the Contractor immediately upon completion of such remedial work, whereupon the Contractor shall carry out such tests.

If such part fails the tests, the Contractor shall carry out further repair, replacement or making good, as the case may be, until that part of the Facilities passes such tests. The tests shall be agreed upon by the Employer and the Contractor.

- 27.7 If the Contractor fails to commence the work necessary to remedy such defect or any damage to the Facilities caused by such defect within a reasonable time (which shall in no event be considered to be less than 15 days), the Employer may, following notice to the Contractor, proceed to do such work, and the reasonable costs incurred by the Employer in connection therewith shall be paid to the Employer by the Contractor or may be deducted by the Employer from any monies due the Contractor or claimed under the Performance Security.
- 27.8 If the Facilities or any part thereof cannot be used by reason of such defect and/or making good of such defect, the Defect Liability Period of the Facilities or such part, as the case may be, shall be extended by a period equal to the period during which the Facilities or such part cannot be used by the Employer because of any of the aforesaid reasons.
- 27.9 Except as provided in GCC Clauses 27 and 33, the Contractor shall be under no liability whatsoever and howsoever arising, and whether under the Contract or at law, in respect of defects in the Facilities or any part thereof, the Plant, design, or engineering, or work executed that appear after Completion of the Facilities or any part thereof, except where such defects are the result of the gross negligence, fraud, criminal, or willful action of the Contractor.
- 27.10 In addition, any such component of the Facilities and during the period of time as may be specified in the SCC shall be subject to an extended Defect Liability Period. Such obligation of the Contractor shall be in addition to the Defect Liability Period specified under GCC Subclause 27.2.

28. Functional Guarantees

- 28.1 The Contractor guarantees that during the Guarantee Test, the Facilities and all parts thereof shall attain the Functional Guarantees specified in the Appendix (Functional Guarantees) to the Contract Agreement, subject to, and upon the conditions therein specified.
- 28.2 If, for reasons attributable to the Contractor, the minimum level of the Functional Guarantees specified in the Appendix (Functional Guarantees) to the Contract Agreement are not met either in whole or in part, the Contractor shall at its cost and expense make such changes, modifications, and/or additions to the Plant or any part thereof as may be necessary to meet at least the minimum level of such Guarantees. The Contractor shall notify the Employer upon completion of the necessary changes, modifications, and/or additions, and shall request the Employer to repeat the Guarantee Test until the minimum level of the Guarantees has been met. If the Contractor eventually fails to meet the minimum level of Functional Guarantees, the Employer may consider termination of the Contract, pursuant to GCC Subclause 42.2.2.

- 28.3 If, for reasons attributable to the Contractor, the Functional Guarantees specified in the Appendix (Functional Guarantees) to the Contract Agreement are not attained either in whole or in part, but the minimum level of the Functional Guarantees specified in the said Appendix to the Contract Agreement is met, the Contractor shall, at the Contractor's option, either
- (a) make such changes, modifications, and/or additions to the Facilities or any part thereof that are necessary to attain the Functional Guarantees at its cost and expense, and shall request the Employer to repeat the Guarantee Test or
 - (b) pay liquidated damages to the Employer in respect of the failure to meet the Functional Guarantees in accordance with the provisions in the Appendix (Functional Guarantees) to the Contract Agreement.
- 28.4 The payment of liquidated damages under GCC Subclause 28.3, up to the limitation of liability specified in the Appendix (Functional Guarantees) to the Contract Agreement, shall completely satisfy the Contractor's guarantees under GCC Subclause 28.3, and the Contractor shall have no further liability whatsoever to the Employer in respect thereof. Upon the payment of such liquidated damages by the Contractor, the Project Manager shall issue the Operational Acceptance Certificate for the Facilities or any part thereof in respect of which the liquidated damages have been so paid.

29. Patent Indemnity

- 29.1 The Contractor shall, subject to the Employer's compliance with GCC Subclause 29.2, indemnify and hold harmless the Employer and its employees and officers from and against any and all suits, actions, or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, which the Employer may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of (a) the installation of the Facilities by the Contractor or the use of the Facilities in the country where the Site is located, and (b) the sale of the products produced by the Facilities in any country.

Such indemnity shall not cover any use of the Facilities or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Contract, any infringement resulting from the use of the Facilities or any part thereof, or any products produced thereby in association or combination with any other equipment, plant, or materials not supplied by the Contractor, pursuant to the Contract Agreement.

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

If the Contractor fails to notify the Employer within 28 days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Employer shall be free to conduct the same on its own behalf. Unless the Contractor has so failed to notify the Employer within the 28-day period, the Employer shall make no admission that may be prejudicial to the defense of any such proceedings or claim.

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

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

30. Limitation of Liability

- 30.1 Except in cases of criminal negligence or willful misconduct,
- (a) the Contractor shall not be liable to the Employer, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Contractor to pay liquidated damages to the Employer, and
 - (b) the aggregate liability of the Contractor to the Employer, whether under the Contract, in tort or otherwise, shall not exceed a multiple of the Contract Price specified in the SCC or, if a multiple is not so specified, the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the Contractor to indemnify the Employer with respect to patent infringement.

G. Risk Distribution

31. Transfer of Ownership

- 31.1 Ownership of the Plant (including spare parts) to be imported into the country where the Site is located shall be transferred to the Employer upon loading on to the mode of transport to be used to convey the Plant from the country of origin to that country.
- 31.2 Ownership of the Plant (including spare parts) procured in the country where the Site is located shall be transferred to the Employer when the Plant are brought on to the Site.
- 31.3 Ownership of the Contractor's Equipment used by the Contractor and its Subcontractors in connection with the Contract shall remain with the Contractor or its Subcontractors.
- 31.4 Ownership of any Plant in excess of the requirements for the Facilities shall revert to the Contractor upon Completion of the Facilities or at such earlier time when the Employer and the Contractor agree that the Plant in question are no longer required for the Facilities.
- 31.5 Notwithstanding the transfer of ownership of the Plant, the responsibility for care and custody thereof together with the risk of loss or damage thereto shall remain with the Contractor pursuant to GCC Clause 32 (Care of Facilities) hereof until Completion of the Facilities

or the part thereof in which such Plant are incorporated.

32. Care of Facilities

32.1 The Contractor shall be responsible for the care and custody of the Facilities or any part thereof until the date of Completion of the Facilities pursuant to GCC Clause 24 or, where the Contract provides for Completion of the Facilities in parts, until the date of Completion of the relevant part, and shall make good at its own cost any loss or damage that may occur to the Facilities or the relevant part thereof from any cause whatsoever during such period. The Contractor shall also be responsible for any loss or damage to the Facilities caused by the Contractor or its Subcontractors in the course of any work carried out, pursuant to GCC Clause 27. Notwithstanding the foregoing, the Contractor shall not be liable for any loss or damage to the Facilities or that part thereof caused by reason of any of the matters specified or referred to in paragraphs (a), (b) and (c) of GCC Subclauses 32.2 and 38.1.

32.2 If any loss or damage occurs to the Facilities or any part thereof or to the Contractor's temporary facilities by reason of

- (a) insofar as they relate to the country where the Site is located, nuclear reaction, nuclear radiation, radioactive contamination, 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, including War Risks and Political Risks, taken out under GCC Clause 34 hereof; or
- (b) any use or occupation by the Employer or any third party other than a Subcontractor, authorized by the Employer of any part of the Facilities; or
- (c) any use of or reliance upon any design, data, or specification provided or designated by or on behalf of the Employer, or any such matter for which the Contractor has disclaimed responsibility herein,

the Employer shall pay to the Contractor all sums payable in respect of the Facilities executed, notwithstanding that the same be lost, destroyed, or damaged, and will pay to the Contractor the replacement value of all temporary facilities and all parts thereof lost, destroyed, or damaged. If the Employer requests the Contractor in writing to make good any loss or damage to the Facilities thereby occasioned, the Contractor shall make good the same at the cost of the Employer in accordance with GCC Clause 39. If the Employer does not request the Contractor in writing to make good any loss or damage to the Facilities thereby occasioned, the Employer shall either request a change in accordance with GCC Clause 39, excluding the performance of that part of the Facilities thereby lost, destroyed or damaged, or, where the loss or damage affects a substantial part of the Facilities, the Employer shall terminate the Contract pursuant to GCC Subclause 42.1 hereof.

32.3 The Contractor shall be liable for any loss of or damage to any Contractor's Equipment, or any other property of the Contractor used or intended to be used for purposes of the Facilities, except (i) as mentioned in GCC Subclause 32.2 with respect to the Contractor's temporary facilities, and (ii) where such loss or damage arises by

reason of any of the matters specified in GCC Subclauses 32.2 (b) and (c) and 38.1.

- 32.4 With respect to any loss or damage caused to the Facilities or any part thereof or to the Contractor's Equipment by reason of any of the matters specified in GCC Subclause 38.1, the provisions of GCC Subclause 38.3 shall apply.

**33. Loss of or
Damage to
Property;
Accident or Injury
to Workers;
Indemnification**

- 33.1 Subject to GCC Subclause 33.3, the Contractor shall indemnify and hold harmless the Employer and its employees and officers from and against any and all suits, actions, or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, in respect of the death or injury of any person or loss of or damage to any property other than the Facilities whether accepted or not, arising in connection with the supply and installation of the Facilities and by reason of the negligence of the Contractor or its Subcontractors, or their employees, officers, or agents, except any injury, death, or property damage caused by the negligence of the Employer, its contractors, employees, officers, or agents.

- 33.2 If any proceedings are brought or any claim is made against the Employer that might subject the Contractor to liability under GCC Subclause 33.1, the Employer shall promptly give the Contractor a notice thereof and the Contractor may at its own expense and in the Employer's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.

If the Contractor fails to notify the Employer within 28 days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Employer shall be free to conduct the same on its own behalf. Unless the Contractor has so failed to notify the Employer within the 28-day period, the Employer shall make no admission that may be prejudicial to the defense of any such proceedings or claim.

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

- 33.3 The Employer shall indemnify and hold harmless the Contractor and its employees, officers, and Subcontractors from any liability for loss of or damage to property of the Employer, other than the Facilities not yet taken over, that is caused by fire, explosion, or any other perils, in excess of the amount recoverable from insurances procured under GCC Clause 34, provided that such fire, explosion, or other perils were not caused by any act or failure of the Contractor.

- 33.4 The party entitled to the benefit of an indemnity under this GCC Clause 33 shall take all reasonable measures to mitigate any loss or damage which has occurred. If the party fails to take such measures, the other party's liabilities shall be correspondingly reduced.

34. Insurance

- 34.1 To the extent specified in the Appendix (Insurance Requirements) to the Contract Agreement, the Contractor 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 insurances set forth below in the sums and with the deductibles and other conditions specified in the said Appendix. The identity of the insurers and the

form of the policies shall be subject to the approval of the Employer, who should not unreasonably withhold such approval.

(a) Cargo Insurance During Transport

Covering loss or damage occurring while in transit from the Contractor's or Subcontractor's works or stores until arrival at the Site, to the Plant (including spare parts therefor) and to the Contractor's Equipment.

(b) Installation All Risks Insurance

Covering physical loss or damage to the Facilities at the Site, occurring prior to Completion of the Facilities, with an extended maintenance coverage for the Contractor's liability in respect of any loss or damage occurring during the Defect Liability Period while the Contractor is on the Site for the purpose of performing its obligations during the Defect Liability Period.

(c) Third Party Liability Insurance

Covering bodily injury or death suffered by third parties including the Employer's personnel, and loss of or damage to property occurring in connection with the supply and installation of the Facilities.

(d) Automobile Liability Insurance

Covering use of all vehicles used by the Contractor 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 applicable in any country where the Contract or any part thereof is executed.

(f) Employer's Liability

In accordance with the statutory requirements applicable in any country where the Contract or any part thereof is executed.

(g) Other Insurances

Such other insurances as may be specifically agreed upon by the parties hereto as listed in the Appendix (Insurance Requirements) to the Contract Agreement.

34.2 The Employer shall be named as co-insured under all insurance policies taken out by the Contractor pursuant to GCC Subclause 34.1, except for the Third Party Liability, Workers' Compensation, and Employer's Liability Insurances, and the Contractor's Subcontractors shall be named as co-insureds under all insurance policies taken out by the Contractor pursuant to GCC Subclause 34.1 except for the Cargo Insurance During Transport, Workers' Compensation, and Employer's Liability Insurances. All insurer's rights of subrogation against such co-insureds for losses or claims arising out of the performance of the Contract shall be waived under such policies.

34.3 The Contractor shall, in accordance with the provisions of the Appendix (Insurance Requirements) to the Contract Agreement, deliver to the Employer certificates of insurance or copies of the insurance policies as evidence that the required policies are in full force and effect. The certificates shall provide that no less than 21

days' notice shall be given to the Employer by insurers prior to cancellation or material modification of a policy.

34.4 The Contractor 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 Contractor.

34.5 The Employer shall at its expense take out and maintain in effect during the performance of the Contract those insurances specified in the Appendix (Insurance Requirements) to the Contract Agreement, in the sums and with the deductibles and other conditions specified in the said Appendix. The Contractor and the Contractor's Subcontractors shall be named as co-insureds under all such policies. All insurers' rights of subrogation against such co-insureds for losses or claims arising out of the performance of the Contract shall be waived under such policies. The Employer shall deliver to the Contractor satisfactory evidence that the required insurances are in full force and effect. The policies shall provide that not less than 21 days' notice shall be given to the Contractor by all insurers prior to any cancellation or material modification of the policies. If so requested by the Contractor, the Employer shall provide copies of the policies taken out by the Employer under this GCC Subclause 34.5.

34.6 If the Contractor fails to take out and/or maintain in effect the insurances referred to in GCC Subclause 34.1, the Employer may take out and maintain in effect any such insurances and may from time to time deduct from any amount due the Contractor under the Contract any premium that the Employer shall have paid to the insurer, or may otherwise recover such amount as a debt due from the Contractor. If the Employer fails to take out and/or maintain in effect the insurances referred to in GCC 34.5, the Contractor may take out and maintain in effect any such insurances and may from time to time deduct from any amount due the Employer under the Contract any premium that the Contractor shall have paid to the insurer, or may otherwise recover such amount as a debt due from the Employer. If the Contractor fails to or is unable to take out and maintain in effect any such insurances, the Contractor shall nevertheless have no liability or responsibility towards the Employer, and the Contractor shall have full recourse against the Employer for any and all liabilities of the Employer herein.

34.7 Unless otherwise provided in the Contract, the Contractor shall prepare and conduct all and any claims made under the policies effected by it pursuant to this GCC Clause 34, and all monies payable by any insurers shall be paid to the Contractor. The Employer shall give to the Contractor all such reasonable assistance as may be required by the Contractor. With respect to insurance claims in which the Employer's interest is involved, the Contractor shall not give any release or make any compromise with the insurer without the prior written consent of the Employer. With respect to insurance claims in which the Contractor's interest is involved, the Employer shall not give any release or make any compromise with the insurer without the prior written consent of the Contractor.

35. Unforeseen Conditions

35.1 If, during the execution of the Contract, the Contractor shall encounter on the Site any physical conditions other than climatic conditions, or artificial obstructions that could not have been reasonably foreseen prior to the date of the Contract Agreement by an experienced

contractor on the basis of reasonable examination of the data relating to the Facilities including any data as to boring tests, provided by the Employer, and on the basis of information that it could have obtained from a visual inspection of the Site if access thereto was available, or other data readily available to it relating to the Facilities, and if the Contractor determines that it will in consequence of such conditions or obstructions incur additional cost and expense or require additional time to perform its obligations under the Contract that would not have been required if such physical conditions or artificial obstructions had not been encountered, the Contractor shall promptly, and before performing additional work or using additional Plant or Contractor's Equipment, notify the Project Manager in writing of

- (a) the physical conditions or artificial obstructions on the Site that could not have been reasonably foreseen;
- (b) the additional work and/or Plant and/or Contractor's Equipment required, including the steps which the Contractor will or proposes to take to overcome such conditions or obstructions;
- (c) the extent of the anticipated delay; and
- (d) the additional cost and expense that the Contractor is likely to incur.

On receiving any notice from the Contractor under this GCC Subclause 35.1, the Project Manager shall promptly consult with the Employer and Contractor and decide upon the actions to be taken to overcome the physical conditions or artificial obstructions encountered. Following such consultations, the Project Manager shall instruct the Contractor, with a copy to the Employer, of the actions to be taken.

35.2 Any reasonable additional cost and expense incurred by the Contractor in following the instructions from the Project Manager to overcome such physical conditions or artificial obstructions referred to in GCC Subclause 35.1 shall be paid by the Employer to the Contractor as an addition to the Contract Price.

35.3 If the Contractor is delayed or impeded in the performance of the Contract because of any such physical conditions or artificial obstructions referred to in GCC Subclause 35.1, the Time for Completion shall be extended in accordance with GCC Clause 40.

36. Change in Laws and Regulations

36.1 If, after the date 28 days prior to the date of Bid submission, in the country where the Site is located, any law, regulation, ordinance, order or by-law having the force of law is enacted, promulgated, abrogated, or changed, which shall be deemed to include any change in interpretation or application by the competent authorities, that subsequently affects the costs and expenses of the Contractor and/or the Time for Completion, the Contract Price shall be correspondingly increased or decreased, and/or the Time for Completion shall be reasonably adjusted to the extent that the Contractor has thereby been affected in the performance of any of its obligations under the Contract. Notwithstanding the foregoing, such additional or reduced costs shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable, in accordance with the SCC, pursuant to GCC Subclause 11.2.

37. Force Majeure

- 37.1 "Force Majeure" shall mean any event beyond the reasonable control of the Employer or of the Contractor, 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; and
 - (f) shortage of labor, materials, or utilities where caused by circumstances that are themselves Force Majeure.
- 37.2 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 thereof within 14 days after the occurrence of such event.
- 37.3 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 Completion shall be extended in accordance with GCC Clause 40.
- 37.4 The party or parties affected by the event of Force Majeure shall use reasonable efforts to mitigate the effect thereof 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 Subclauses 37.6 and 38.5.
- 37.5 No delay or nonperformance by either party hereto caused by the occurrence of any event of Force Majeure shall
- (a) constitute a default or breach of the Contract; or
 - (b) give rise to any claim for damages or additional cost or expense occasioned thereby, subject to GCC Subclauses 32.2, 38.3 and 38.4
- if and to the extent that such delay or nonperformance is caused by the occurrence of an event of Force Majeure.

37.6 If the performance of the Contract is substantially prevented, hindered, or delayed for a single period of more than 60 days or an aggregate period of more than 120 days on account of one or more events of Force Majeure during the currency of 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, but without prejudice to either party's right to terminate the Contract under GCC Subclause 38.5.

37.7 In the event of termination pursuant to GCC Subclause 37.6, the rights and obligations of the Employer and the Contractor shall be as specified in GCC Subclauses 42.1.2 and 42.1.3.

37.8 Notwithstanding GCC Subclause 37.5, Force Majeure shall not apply to any obligation of the Employer to make payments to the Contractor herein.

38. War Risks

38.1 "War Risks" shall mean any event specified in paragraphs (a) and (b) of GCC Subclause 37.1 and any explosion or impact of any mine, bomb, shell, grenade, or other projectile, missile, munitions or explosive of war, occurring or existing in or near the country (or countries) where the Site is located.

38.2 Notwithstanding anything contained in the Contract, the Contractor shall have no liability whatsoever for or with respect to

- (a) destruction of or damage to Facilities, Plant, or any part thereof;
- (b) destruction of or damage to property of the Employer or any third party; or
- (c) injury or loss of life

if such destruction, damage, injury or loss of life is caused by any war risks, and the Employer shall indemnify and hold the Contractor harmless from and against any and all claims, liabilities, actions, lawsuits, damages, costs, charges, or expenses arising in consequence of or in connection with the same.

38.3 If the Facilities or any Plant or Contractor's Equipment or any other property of the Contractor used or intended to be used for the purposes of the Facilities shall sustain destruction or damage by reason of any war risks, the Employer shall pay the Contractor for

- (a) any part of the Facilities or the Plant so destroyed or damaged to the extent not already paid for by the Employer and so far as may be required by the Employer, and as may be necessary for completion of the Facilities;
- (b) replacing or making good any Contractor's Equipment or other property of the Contractor so destroyed or damaged; and
- (c) replacing or making good any such destruction or damage to the Facilities or the Plant or any part thereof.

If the Employer does not require the Contractor to replace or make good any such destruction or damage to the Facilities, the Employer shall either request a change in accordance with GCC Clause 39, excluding the performance of that part of the Facilities thereby destroyed or damaged or, where the loss, destruction, or damage affects a substantial part of the Facilities, shall terminate the Contract,

pursuant to GCC Subclause 42.1.

If the Employer requires the Contractor to replace or make good on any such destruction or damage to the Facilities, the Time for Completion shall be extended in accordance with GCC 40.

- 38.4 Notwithstanding anything contained in the Contract, the Employer shall pay the Contractor for any increased costs or incidentals to the execution of the Contract that are in any way attributable to, consequent on, resulting from, or in any way connected with any war risks, provided that the Contractor shall as soon as practicable notify the Employer in writing of any such increased cost.
- 38.5 If during the performance of the Contract any war risks shall occur that financially or otherwise materially affect the execution of the Contract by the Contractor, the Contractor shall use its reasonable efforts to execute the Contract with due and proper consideration given to the safety of its and its Subcontractors' personnel engaged in the work on the Facilities, provided, however, that if the execution of the work on the Facilities becomes impossible or is substantially prevented 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 any war risks, 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.
- 38.6 In the event of termination pursuant to GCC Subclauses 38.3 or 38.5, the rights and obligations of the Employer and the Contractor shall be specified in GCC Subclauses 42.1.2 and 42.1.3.

H. Change in Contract Elements

39. Change in the Facilities

39.1 Introducing a Change

- 39.1.1 Subject to GCC Subclauses 39.2.5 and 39.2.7, the Employer shall have the right to propose, and subsequently require, that the Project Manager order the Contractor from time to time during the performance of the Contract to make any change, modification, addition, or deletion to, in or from the Facilities hereinafter called "Change," provided that such Change falls within the general scope of the Facilities and does not constitute unrelated work and that it is technically practicable, taking into account both the state of advancement of the Facilities and the technical compatibility of the Change envisaged with the nature of the Facilities as specified in the Contract.
- 39.1.2 The Contractor may from time to time during its performance of the Contract propose to the Employer with a copy to the Project Manager, any Change that the Contractor considers necessary or desirable to improve the quality, efficiency, or safety of the Facilities. The Employer may at its discretion approve or reject any Change proposed by the Contractor, provided that the Employer shall approve any Change proposed by the Contractor to ensure the safety of the Facilities.
- 39.1.3 Notwithstanding GCC Subclauses 39.1.1 and 39.1.2, no change made necessary because of any default of the Contractor 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 Completion.

39.1.4 The procedure on how to proceed with and execute Changes is specified in GCC Subclauses 39.2 and 39.3, and further details and forms are provided in the Employer's Requirements (Forms and Procedures).

39.2 Changes Originating from Employer

39.2.1 If the Employer proposes a Change pursuant to GCC Subclause 39.1.1, it shall send to the Contractor a "Request for Change Proposal," requiring the Contractor 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) effect on the Time for Completion,
- (c) estimated cost of the Change,
- (d) effect on Functional Guarantees (if any),
- (e) effect on the Facilities, and
- (f) effect on any other provisions of the Contract.

39.2.2 Prior to preparing and submitting the "Change Proposal," the Contractor shall submit to the Project Manager an "Estimate for Change Proposal," which shall be an estimate of the cost of preparing and submitting the Change Proposal.

Upon receipt of the Contractor's Estimate for Change Proposal, the Employer shall do one of the following:

- (a) accept the Contractor's estimate with instructions to the Contractor to proceed with the preparation of the Change Proposal,
- (b) advise the Contractor of any part of its Estimate for Change Proposal that is unacceptable and request the Contractor to review its estimate
- (c) advise the Contractor that the Employer does not intend to proceed with the Change.

39.2.3 Upon receipt of the Employer's instruction to proceed under GCC Subclause 39.2.2 (a), the Contractor shall, with proper expedition, proceed with the preparation of the Change Proposal, in accordance with GCC Subclause 39.2.1.

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 such rates and prices are inequitable, the parties thereto shall agree on specific rates for the valuation of the Change.

39.2.5 If before or during the preparation of the Change Proposal it becomes apparent that the aggregate effect of compliance

therewith and with all other Change Orders that have already become binding upon the Contractor 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 15%, the Contractor may give a written notice of objection thereto prior to furnishing the Change Proposal as aforesaid. If the Employer accepts the Contractor's objection, the Employer shall withdraw the proposed Change and shall notify the Contractor in writing thereof.

The Contractor's failure to so object shall neither affect its right to object to any subsequent requested Changes or Change Orders herein, 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 Contractor represents.

39.2.6 Upon receipt of the Change Proposal, the Employer and the Contractor shall mutually agree upon all matters therein contained. Within 14 days after such agreement, the Employer shall, if it intends to proceed with the Change, issue the Contractor with a Change Order.

If the Employer is unable to reach a decision within 14 days, it shall notify the Contractor with details of when the Contractor can expect a decision.

If the Employer decides not to proceed with the Change for whatever reason, it shall, within the said period of 14 days, notify the Contractor accordingly. Under such circumstances, the Contractor 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 Contractor in its Estimate for Change Proposal submitted in accordance with GCC Subclause 39.2.2.

39.2.7 If the Employer and the Contractor cannot reach agreement on the price for the Change, an equitable adjustment to the Time for Completion, or any other matters identified in the Change Proposal, the Employer may nevertheless instruct the Contractor to proceed with the Change by issue of a "Pending Agreement Change Order."

Upon receipt of a Pending Agreement Change Order, the Contractor shall immediately proceed with effecting the Changes covered by such Order. The parties shall thereafter attempt to reach agreement on the outstanding issues under the Change Proposal.

If the parties cannot reach agreement within 60 days from the date of issue of the Pending Agreement Change Order, then the matter may be referred to the Dispute Board in accordance with the provisions of GCC Subclause 45.3.

39.3 Changes Originating from Contractor

39.3.1 If the Contractor proposes a Change pursuant to GCC Subclause 39.1.2, the Contractor 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 Subclause 39.2.1.

Upon receipt of the Application for Change Proposal, the parties shall follow the procedures outlined in GCC Subclauses 39.2.6 and 39.2.7. However, should the Employer choose not to proceed, the Contractor shall not be entitled to recover the costs of preparing the Application for Change Proposal.

40. Extension of Time for Completion

40.1 The Time(s) for Completion specified in the SCC shall be extended if the Contractor 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 Facilities as provided in GCC Clause 39;
- (b) any occurrence of Force Majeure as provided in GCC Clause 37, unforeseen conditions as provided in GCC Clause 35, or other occurrence of any of the matters specified or referred to in paragraphs (a), (b) and (c) of GCC Subclause 32.2;
- (c) any suspension order given by the Employer under GCC Clause 41 hereof or reduction in the rate of progress pursuant to GCC Subclause 41.2; or
- (d) any changes in laws and regulations as provided in GCC Clause 36; or
- (e) any default or breach of the Contract by the Employer, or any activity, act or omission of the Employer, or the Project Manager, or any other contractors employed by the Employer; or
- (f) any other matter specifically mentioned in the Contract; or
- (g) any delay on the part of a sub-contractor, provided such delay is due to a cause for which the Contractor himself would have been entitled to an extension of time under this Subclause

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 Contractor.

40.2 Except where otherwise specifically provided in the Contract, the Contractor shall submit to the Project Manager a notice of a claim for an extension of the Time for Completion, 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 Employer and the Contractor shall agree upon the period of such extension. In the event that the Contractor does not accept the Employer's estimate of a fair and reasonable time extension, the Contractor shall be entitled to refer the matter to a Dispute Board, pursuant to GCC Subclause 45.3.

40.3 The Contractor shall at all times use its reasonable efforts to minimize any delay in the performance of its obligations under the Contract.

In all cases where the Contractor has given a notice of a claim for an extension of time under GCC 40.2, the Contractor shall consult with the Project Manager in order to determine the steps (if any) which can be taken to overcome or minimize the actual or anticipated delay. The

Contractor shall there after comply with all reasonable instructions, which the Project Manager shall give in order to minimize such delay. If compliance with such instructions shall cause the Contractor to incur extra costs and the Contractor is entitled to an extension of time under GCC 40.1, the amount of such extra costs shall be added to the Contract Price.

41. Suspension

41.1 The Employer may request the Project Manager, by notice to the Contractor, to order the Contractor to suspend performance of any or all of its obligations under the Contract. Such notice shall specify the obligation of which performance is to be suspended, the effective date of the suspension and the reasons therefor. The Contractor shall thereupon suspend performance of such obligation, except those obligations necessary for the care or preservation of the Facilities, until ordered in writing to resume such performance by the Project Manager.

If, by virtue of a suspension order given by the Project Manager, other than by reason of the Contractor's default or breach of the Contract, the Contractor's performance of any of its obligations is suspended for an aggregate period of more than 90 days, then at any time thereafter and provided that at that time such performance is still suspended, the Contractor may give a notice to the Project Manager requiring that the Employer shall, within 28 days of receipt of the notice, order the resumption of such performance or request and subsequently order a change in accordance with GCC Clause 39, excluding the performance of the suspended obligations from the Contract.

If the Employer fails to do so within such period, the Contractor may, by a further notice to the Project Manager, elect to treat the suspension, where it affects a part only of the Facilities, as a deletion of such part in accordance with GCC Clause 39 or, where it affects the whole of the Facilities, as termination of the Contract under GCC Subclause 42.1.

- 41.2 If
- (a) the Employer has failed to pay the Contractor 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 Appendix (Terms and Procedures of Payment) to the Contract Agreement, or commits a substantial breach of the Contract, the Contractor may give a notice to the Employer that requires payment of such sum, with interest thereon as stipulated in GCC Subclause 12.3, requires approval of such invoice or supporting documents, or specifies the breach and requires the Employer to remedy the same, as the case may be. If the Employer 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, or fails to remedy the breach or take steps to remedy the breach within 14 days after receipt of the Contractor's notice; or
 - (b) the Contractor is unable to carry out any of its obligations under the Contract for any reason attributable to the Employer, including but not limited to the Employer's failure to provide possession of or access to the Site or other areas in accordance with GCC Subclause 10.2, or failure to obtain any governmental permit necessary for the execution and/or completion of the Facilities,

then the Contractor may by 14 days' notice to the Employer suspend

performance of all or any of its obligations under the Contract, or reduce the rate of progress.

41.3 If the Contractor's performance of its obligations is suspended, or the rate of progress is reduced pursuant to this GCC Clause 41, then the Time for Completion shall be extended in accordance with GCC Subclause 40.1, and any and all additional costs or expenses incurred by the Contractor as a result of such suspension or reduction shall be paid by the Employer to the Contractor in addition to the Contract Price, except in the case of suspension order or reduction in the rate of progress by reason of the Contractor's default or breach of the Contract.

41.4 During the period of suspension, the Contractor shall not remove from the Site any Plant, any part of the Facilities or any Contractor's Equipment, without the prior written consent of the Employer.

42. Termination

42.1 Termination for Employer's Convenience

42.1.1 The Employer may at any time terminate the Contract for any reason by giving the Contractor a notice of termination that refers to this GCC Subclause 42.1.

42.1.2 Upon receipt of the notice of termination under GCC Subclause 42.1.1, the Contractor shall, either immediately or upon the date specified in the notice of termination,

- (a) cease all further work, except for such work as the Employer may specify in the notice of termination for the sole purpose of protecting that part of the Facilities 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 Employer pursuant to paragraph (d) (ii) below;
- (c) remove all Contractor's Equipment from the Site, repatriate the Contractor's and its Subcontractors' personnel from the Site, remove from the Site any wreckage, rubbish and debris of any kind, and leave the whole of the Site in a clean and safe condition; and
- (d) subject to the payment specified in GCC Subclause 42.1.3,
 - (i) deliver to the Employer the parts of the Facilities executed by the Contractor up to the date of termination;
 - (ii) to the extent legally possible, assign to the Employer all right, title and benefit of the Contractor to the Facilities and to the Plant as of the date of termination, and, as may be required by the Employer, in any subcontracts concluded between the Contractor and its Subcontractors; and
 - (iii) deliver to the Employer all non-proprietary drawings, specifications and other documents prepared by the Contractor or its Subcontractors as at the date of termination in connection with the Facilities.

42.1.3 In the event of termination of the Contract under GCC Subclause 42.1.1, the Employer shall pay to the Contractor the following

amounts:

- (a) the Contract Price, properly attributable to the parts of the Facilities executed by the Contractor as of the date of termination;
- (b) the costs reasonably incurred by the Contractor in the removal of the Contractor's Equipment from the Site and in the repatriation of the Contractor's and its Subcontractors' personnel;
- (c) any amounts to be paid by the Contractor to its Subcontractors in connection with the termination of any subcontracts, including any cancellation charges;
- (d) costs incurred by the Contractor in protecting the Facilities and leaving the Site in a clean and safe condition pursuant to paragraph (a) of GCC Subclause 42.1.2; and
- (e) the cost of satisfying all other obligations, commitments and claims that the Contractor may in good faith have undertaken with third parties in connection with the Contract and that are not covered by paragraphs (a) through (d) above.

42.2 Termination for Contractor's Default

42.2.1 The Employer, 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 therefor to the Contractor, referring to this GCC Subclause 42.2:

- (a) if the Contractor becomes bankrupt or insolvent, has a receiving order issued against it, compounds with its creditors, or, if the Contractor 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 Contractor takes or suffers any other analogous action in consequence of debt;
- (b) if the Contractor assigns or transfers the Contract or any right or interest therein in violation of the provision of GCC Clause 43; and
- (c) if the Contractor, in the judgment of the Employer has engaged in integrity violations, as defined in GCC Clause 6, in competing for or in executing the Contract.

42.2.2 If the Contractor

- (a) has abandoned or repudiated the Contract;
- (b) has without valid reason failed to commence work on the Facilities promptly or has suspended, other than pursuant to GCC Subclause 41.2, the progress of Contract performance for more than 28 days after receiving a

written instruction from the Employer to proceed;

- (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 Facilities in the manner specified in the program furnished under GCC Subclause 18.2 at rates of progress that give reasonable assurance to the Employer that the Contractor can attain Completion of the Facilities by the Time for Completion as extended;

then the Employer may, without prejudice to any other rights it may possess under the Contract, give a notice to the Contractor, stating the nature of the default and requiring the Contractor to remedy the same. If the Contractor fails to remedy or to take steps to remedy the same within 14 days of its receipt of such notice, then the Employer may terminate the Contract forthwith by giving a notice of termination to the Contractor that refers to this GCC Subclause 42.2.

42.2.3 Upon receipt of the notice of termination under GCC Subclauses 42.2.1 or 42.2.2, the Contractor 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 Employer may specify in the notice of termination for the sole purpose of protecting that part of the Facilities 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 Employer pursuant to paragraph (d) below;
- (c) deliver to the Employer the parts of the Facilities executed by the Contractor up to the date of termination;
- (d) to the extent legally possible, assign to the Employer all right, title and benefit of the Contractor to the Facilities and to the Plant as of the date of termination, and, as may be required by the Employer, in any subcontracts concluded between the Contractor and its Subcontractors; and
- (e) deliver to the Employer all drawings, specifications and other documents prepared by the Contractor or its Subcontractors as of the date of termination in connection with the Facilities.

42.2.4 The Employer may enter upon the Site, expel the Contractor, and complete the Facilities itself or by employing any third party. The Employer may, to the exclusion of any right of the Contractor over the same, take over and use with the payment of a fair rental rate to the Contractor, with all the maintenance costs to the account of the Employer and with an indemnification by the Employer for all liability including damage or injury to persons arising out of the Employer's use of such equipment, any Contractor's Equipment owned by the Contractor and on the Site in connection with the Facilities for such reasonable period as

the Employer considers expedient for the supply and installation of the Facilities.

Upon completion of the Facilities or at such earlier date as the Employer thinks appropriate, the Employer shall give notice to the Contractor that such Contractor's Equipment will be returned to the Contractor at or near the Site and shall return such Contractor's Equipment to the Contractor in accordance with such notice. The Contractor shall thereafter without delay and at its cost remove or arrange removal of the same from the Site.

42.2.5 Subject to GCC Subclause 42.2.6, the Contractor shall be entitled to be paid the Contract Price attributable to the Facilities executed as of the date of termination, the value of any unused or partially used Plant on the Site, and the costs, if any, incurred in protecting the Facilities and in leaving the Site in a clean and safe condition pursuant to paragraph (a) of GCC Subclause 42.2.3. Any sums due the Employer from the Contractor accruing prior to the date of termination shall be deducted from the amount to be paid to the Contractor under this Contract.

42.2.6 If the Employer completes the Facilities, the cost of completing the Facilities by the Employer shall be determined.

If the sum that the Contractor is entitled to be paid, pursuant to GCC Subclause 42.2.5, plus the reasonable costs incurred by the Employer in completing the Facilities, exceeds the Contract Price, the Contractor shall be liable for such excess.

If such excess is greater than the sums due the Contractor under GCC Subclause 42.2.5, the Contractor shall pay the balance to the Employer, and if such excess is less than the sums due the Contractor under GCC Subclause 42.2.5, the Employer shall pay the balance to the Contractor.

The Employer and the Contractor shall agree, in writing, on the computation described above and the manner in which any sums shall be paid.

42.3 Termination by Contractor

42.3.1 If

- (a) the Employer has failed to pay the Contractor 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 Appendix (Terms and Procedures of Payment) to the Contract Agreement, or commits a substantial breach of the Contract, the Contractor may give a notice to the Employer that requires payment of such sum, with interest thereon as stipulated in GCC Subclause 12.3, requires approval of such invoice or supporting documents, or specifies the breach and requires the Employer to remedy the same, as the case may be. If the Employer 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 14 days after receipt of the Contractor's notice; or
- (b) the Contractor is unable to carry out any of its obligations under the Contract for any reason attributable to the

Employer, including but not limited to the Employer'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 Facilities;

then the Contractor may give a notice to the Employer thereof, and if the Employer 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 28 days of such notice, or if the Contractor is still unable to carry out any of its obligations under the Contract for any reason attributable to the Employer within 28 days of the said notice, the Contractor may by a further notice to the Employer referring to this GCC Subclause 42.3.1, forthwith terminate the Contract.

42.3.2 The Contractor may terminate the Contract forthwith by giving a notice to the Employer to that effect, referring to this GCC Subclause 42.3.2, if the Employer 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 Employer takes or suffers any other analogous action in consequence of debt.

42.3.3 If the Contract is terminated under GCC Subclauses 42.3.1 or 42.3.2, then the Contractor shall immediately

- (a) cease all further work, except for such work as may be necessary for the purpose of protecting that part of the Facilities 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 Employer pursuant to paragraph (d) (ii);
- (c) remove all Contractor's Equipment from the Site and repatriate the Contractor's and its Subcontractors' personnel from the Site; and
- (d) subject to the payment specified in GCC Subclause 42.3.4,
 - (i) deliver to the Employer the parts of the Facilities executed by the Contractor up to the date of termination;
 - (ii) to the extent legally possible, assign to the Employer all right, title and benefit of the Contractor to the Facilities and to the Plant as of the date of termination, and, as may be required by the Employer, in any subcontracts concluded between the Contractor and its Subcontractors; and
 - (iii) deliver to the Employer all drawings, specifications and other documents prepared by the Contractor or its Subcontractors as of the date of termination in connection with the Facilities.

42.3.4 If the Contract is terminated under GCC Subclauses 42.3.1 or 42.3.2, the Employer shall pay to the Contractor all payments specified in GCC Subclause 42.1.3, and reasonable

compensation for all loss, except for loss of profit, or damage sustained by the Contractor arising out of, in connection with or in consequence of such termination.

42.3.5 Termination by the Contractor pursuant to this GCC Subclause 42.3 is without prejudice to any other rights or remedies of the Contractor that may be exercised in lieu of or in addition to rights conferred by GCC Subclause 42.3.

42.4 In this GCC Clause 42, the expression "Facilities executed" shall include all work executed, Installation Services provided, and all Plant acquired, or subject to a legally binding obligation to purchase, by the Contractor and used or intended to be used for the purpose of the Facilities, up to and including the date of termination.

42.5 In this GCC Clause 42, in calculating any monies due from the Employer to the Contractor, account shall be taken of any sum previously paid by the Employer to the Contractor under the Contract, including any advance payment paid pursuant to the Appendix (Terms and Procedures of Payment) to the Contract Agreement.

43. Assignment

43.1 Neither the Employer nor the Contractor shall, without the express prior written consent of the other party which consent shall not be unreasonably withheld, assign to any third party the Contract or any part thereof, or any right, benefit, obligation or interest therein or thereunder, except that the Contractor 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.

I. Claims, Disputes, and Arbitration

44. Contractor's Claims

44.1 If the Contractor considers himself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall submit a notice to the Project Manager, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 28 days after the Contractor became aware, or should have become aware, of the event or circumstance.

If the Contractor fails to give notice of a claim within such period of 28 days, the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Employer shall be discharged from all liability in connection with the claim. Otherwise, the following provisions of this Subclause shall apply.

The Contractor shall also submit any other notices, which are required by the Contract, and supporting particulars for the claim, all as relevant to such event or circumstance.

The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at another location acceptable to the Project Manager. Without admitting the Employer's liability, the Project Manager may, after receiving any notice under this Subclause, monitor the record keeping and/or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Project Manager to inspect all these records, and shall (if

instructed) submit copies to the Project Manager.

Within 42 days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Project Manager, the Contractor shall send to the Project Manager a fully detailed claim, which includes full supporting particulars of the basis of the claim and of the extension of time and/or additional payment claimed. If the event or circumstance giving rise to the claim has a continuing effect,

- (a) this fully detailed claim shall be considered as interim;
- (b) the Contractor shall send further interim claims at monthly intervals, giving the accumulated delay and/or amount claimed, and such further particulars as the Project Manager may reasonably require; and
- (c) the Contractor shall send a final claim within 28 days after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the Contractor and approved by the Project Manager.

Within 42 days after receiving a claim or any further particulars supporting a previous claim, or within such other period as may be proposed by the Project Manager and approved by the Contractor, the Project Manager shall respond with approval, or with disapproval and detailed comments. He may also request any necessary further particulars, but shall nevertheless give his response on the principles of the claim within such time.

Each payment certificate shall include such amounts for any claim as have been reasonably substantiated as due under the relevant provision of the Contract. Unless and until the particulars supplied are sufficient to substantiate the whole of the claim, the Contractor shall only be entitled to payment for such part of the claim as he has been able to substantiate.

The Project Manager shall agree with the Contractor or estimate: (i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with GCC Clause 40, and/or (ii) the additional payment (if any) to which the Contractor is entitled under the Contract.

The requirements of this Subclause are in addition to those of any other Subclause, which may apply to a claim. If the Contractor fails to comply with this or another Subclause in relation to any claim, any extension of time and/or additional payment shall take account of the extent (if any) to which the failure has prevented or prejudiced proper investigation of the claim, unless the claim is excluded under the second paragraph of this Subclause.

In the event that the Contractor and the Employer cannot agree on any matter relating to a claim, either party may refer the matter to the Dispute Board pursuant to GCC 45 hereof.

45. Disputes and Arbitration

45.1 Appointment of the Dispute Board

Disputes shall be referred to a Dispute Board for decision in

accordance with GCC Subclause 45.3. The Parties shall appoint a Dispute Board by the date stated in the SCC.

The Dispute Board shall comprise, as stated in the SCC, either one or three suitably qualified persons ("the members"), each of whom shall be fluent in the language for communication defined in the Contract and shall be a professional experienced in the type of activities involved in the performance of the Contract and with the interpretation of contractual documents. If the number is not so stated and the Parties do not agree otherwise, the Dispute Board shall comprise three persons, one of whom shall serve as chairman.

If the Parties have not jointly appointed the Dispute Board 21 days before the date stated in the SCC and the Dispute Board is to comprise three persons, each Party shall nominate one member for the approval of the other Party. The first two members shall recommend and the Parties shall agree upon the third member, who shall act as chairman.

However, if a list of potential members is included in the SCC, the members shall be selected from those on the list, other than anyone who is unable or unwilling to accept appointment to the Dispute Board.

The agreement between the Parties and either the sole member or each of the three members shall incorporate by reference the General Conditions of Dispute Board Agreement contained in the Appendix to these General Conditions, with such amendments as are agreed between them.

The terms of the remuneration of either the sole member or each of the three members, including the remuneration of any expert whom the Dispute Board consults, shall be mutually agreed upon by the Parties when agreeing the terms of appointment of the member or such expert (as the case may be). Each Party shall be responsible for paying one-half of this remuneration.

If a member declines to act or is unable to act as a result of death, disability, resignation or termination of appointment, a replacement shall be appointed in the same manner as the replaced person was required to have been nominated or agreed upon, as described in this Subclause.

The appointment of any member may be terminated by mutual agreement of both Parties, but not by the Employer or the Contractor acting alone. Unless otherwise agreed by both Parties, the appointment of the Dispute Board (including each member) shall expire when the Operational Acceptance Certificate has been issued in accordance with GCC Clause 25.3.

45.2 Failure to Agree Dispute Board

If any of the following conditions apply, namely:

- (a) the Parties fail to agree upon the appointment of the sole member of the Dispute Board by the date stated in the first paragraph of GCC Subclause 45.1;
- (b) either Party fails to nominate a member (for approval by the other

Party) of a Dispute Board of three persons by such date;

- (c) the Parties fail to agree upon the appointment of the third member (to act as chairman) of the Dispute Board by such date; or
- (d) the Parties fail to agree upon the appointment of a replacement person within 42 days after the date on which the sole member or one of the three members declines to act or is unable to act as a result of death, disability, resignation, or termination of appointment;

then the appointing entity or official named in the SCC shall, upon the request of either or both of the Parties and after due consultation with both Parties, appoint this member of the Dispute Board. This appointment shall be final and conclusive. Each Party shall be responsible for paying one-half of the remuneration of the appointing entity or official.

45.3 Obtaining Dispute Board's Decision

If a dispute (of any kind whatsoever) arises between the Parties in connection with the performance of the Contract, including any dispute as to any certificate, determination, instruction, opinion or valuation of the Project Manager, either Party may refer the dispute in writing to the Dispute Board for its decision, with copies to the other Party and the Project Manager. Such reference shall state that it is given under this Subclause.

For a Dispute Board of three persons, the Dispute Board shall be deemed to have received such reference on the date when it is received by the chairman of the Dispute Board.

Both Parties shall promptly make available to the Dispute Board all such additional information, further access to the Site, and appropriate facilities, as the Dispute Board may require for the purposes of making a decision on such dispute. The Dispute Board shall be deemed to be not acting as arbitrator(s).

Within 84 days after receiving such reference, or within such other period as may be proposed by the Dispute Board and approved by both Parties, the Dispute Board shall give its decision, which shall be reasoned and shall state that it is given under this Subclause. The decision shall be binding on both Parties, who shall promptly give effect to it unless and until it shall be revised in an amicable settlement or an arbitral award as described below. Unless the Contract has already been abandoned, repudiated or terminated, the Contractor shall continue to proceed with the performance of the Facilities in accordance with the Contract.

If either Party is dissatisfied with the Dispute Board's decision, then either Party may, within 28 days after receiving the decision, give notice to the other Party of its dissatisfaction and intention to commence arbitration. If the Dispute Board fails to give its decision within the period of 84 days (or as otherwise approved) after receiving such reference, then either Party may, within 28 days after this period has expired, give notice to the other Party of its dissatisfaction and intention to commence arbitration.

In either event, this notice of dissatisfaction shall state that it is given under this Subclause, and shall set out the matter in dispute and the reason(s) for dissatisfaction. Except as stated in GCC Subclauses 45.6 and 45.7, neither Party shall be entitled to commence arbitration of a dispute unless a notice of dissatisfaction has been given in accordance with this Subclause.

If the Dispute Board has given its decision as to a matter in dispute to both Parties, and no notice of dissatisfaction has been given by either Party within 28 days after it received the Dispute Board's decision, then the decision shall become final and binding upon both Parties.

45.4 Amicable Settlement

Where notice of dissatisfaction has been given under GCC Subclause 45.3 above, both Parties shall attempt to settle the dispute amicably before the commencement of arbitration. However, unless both Parties agree otherwise, arbitration may be commenced on or after the fifty-sixth day after the day on which notice of dissatisfaction and intention to commence arbitration was given, even if no attempt at amicable settlement has been made.

45.5 Arbitration

Unless settled amicably, any dispute in respect of which the Dispute Board's decision (if any) has not become final and binding shall be finally settled by international arbitration. Unless otherwise agreed by both Parties,

- (a) arbitration proceedings shall be conducted as stated in the Special Conditions;
- (b) if no arbitration proceedings is so stated, the dispute shall be finally settled by institutional arbitration under the Rules of Arbitration of the International Chamber of Commerce;
- (c) the dispute shall be settled by three arbitrators; and
- (d) the arbitration shall be conducted in the language for communications defined in GCC Subclause 5.3.

The arbitrator(s) shall have full power to open up, review and revise any certificate, determination, instruction, opinion or valuation of the Project Manager, and any decision of the Dispute Board, relevant to the dispute. Nothing shall disqualify the Project Manager from being called as a witness and giving evidence before the arbitrator(s) on any matter whatsoever relevant to the dispute.

Neither Party shall be limited in the proceedings before the arbitrator(s) to the evidence or arguments previously put before the Dispute Board to obtain its decision, or to the reasons for dissatisfaction given in its notice of dissatisfaction. Any decision of the Dispute Board shall be admissible in evidence in the arbitration.

Arbitration may be commenced prior to or after completion of the Works. The obligations of the Parties, the Project Manager and the Dispute Board shall not be altered by reason of any arbitration being conducted during the progress of the Works.

45.6 Failure to Comply with Dispute Board's Decision

In the event that a Party fails to comply with a Dispute Board decision which has become final and binding, then the other Party may, without prejudice to any other rights it may have, refer the failure itself to arbitration under GCC Subclause 45.5. GCC Subclauses 45.3 and 45.4 shall not apply to this reference.

45.7 Expiry of Dispute Board's Appointment

If a dispute arises between the Parties in connection with the performance of the Contract, and there is no Dispute Board in place, whether by reason of the expiry of the Dispute Board's appointment or otherwise,

- (a) GCC Subclauses 45.3 and 45.4 shall not apply, and
- (b) the dispute may be referred directly to arbitration under GCC Subclause 45.5.

APPENDIX A

General Conditions of Dispute Board Agreement

1 Definitions

Each "Dispute Board Agreement" is a tripartite agreement by and between

- (a) the "Employer";
- (b) the "Contractor"; and
- (c) the "Member" who is defined in the Dispute Board Agreement as being
 - (i) the sole member of the "Dispute Board" and, where this is the case, all references to the "Other Members" do not apply; or
 - (ii) one of the three persons who are jointly called the "Dispute Board" (or "dispute board") and, where this is the case, the other two persons are called the "Other Members".

The Employer and the Contractor have entered (or intend to enter) into a contract, which is called the "Contract" and is defined in the Dispute Board Agreement, which incorporates this Appendix. In the Dispute Board Agreement, words and expressions which are not otherwise defined shall have the meanings assigned to them in the Contract.

2 General Provisions

Unless otherwise stated in the Dispute Board Agreement, it shall take effect on the latest of the following dates:

- (a) the Commencement Date defined in the Contract;
- (b) when the Employer, the Contractor and the Member have each signed the Dispute Board Agreement; or
- (c) when the Employer, the Contractor and each of the Other Members (if any) have respectively each signed a dispute board agreement.

This employment of the Member is a personal appointment. At any time, the Member may give not less than 70 days' notice of resignation to the Employer and to the Contractor, and the Dispute Board Agreement shall terminate upon the expiry of this period.

3 Warranties

The Member warrants and agrees that he/she is and shall be impartial and independent of the Employer, the Contractor and the Project Manager. The Member shall promptly disclose, to each of them and to the Other Members (if any), any fact or circumstance which might appear inconsistent with his/her warranty and agreement of impartiality and independence.

When appointing the Member, the Employer and the Contractor relied upon the Member's representations that he/she is

- (a) experienced in the work, which the Contractor is to carry out under the Contract,

- (b) experienced in the interpretation of contract documentation, and
- (c) fluent in the language for communications defined in the Contract.

4 General Obligations of the Member

The Member shall

- (a) have no interest financial or otherwise in the Employer, the Contractor or the Project Manager, nor any financial interest in the Contract except for payment under the Dispute Board Agreement;
- (b) not previously have been employed as a consultant or otherwise by the Employer, the Contractor, or the Project Manager, except in such circumstances as were disclosed in writing to the Employer and the Contractor before they signed the Dispute Board Agreement;
- (c) have disclosed in writing to the Employer, the Contractor, and the Other Members (if any), before entering into the Dispute Board Agreement and to his/her best knowledge and recollection, any professional or personal relationships with any director, officer, or employee of the Employer, the Contractor, or the Project Manager, and any previous involvement in the overall project of which the Contract forms part;
- (d) not, for the duration of the Dispute Board Agreement, be employed as a consultant or otherwise by the Employer, the Contractor, or the Project Manager, except as may be agreed in writing by the Employer, the Contractor, and the Other Members (if any);
- (e) comply with the annexed procedural rules and with GCC Subclause 45.3;
- (f) not give advice to the Employer, the Contractor, the Employer's Personnel, or the Contractor's Personnel concerning the conduct of the Contract, other than in accordance with the annexed procedural rules;
- (g) not while a Member enter into discussions or make any agreement with the Employer, the Contractor, or the Project Manager regarding employment by any of them, whether as a consultant or otherwise, after ceasing to act under the Dispute Board Agreement;
- (h) ensure his/her availability for all site visits and hearings as are necessary;
- (i) become conversant with the Contract and with the progress of the Facilities (and of any other parts of the project of which the Contract forms part) by studying all documents received, which shall be maintained in a current working file;
- (j) treat the details of the Contract and all the Dispute Board's activities and hearings as private and confidential, and not publish or disclose them without the prior written consent of the Employer, the Contractor, and the Other Members (if any); and
- (k) be available to give advice and opinions on any matter relevant to the Contract when requested by both the Employer and the Contractor, subject to the agreement of the Other Members (if any).

5 General Obligations of the Employer and the Contractor

The Employer, the Contractor, the Employer's Personnel and the Contractor's Personnel shall not request advice from or consultation with the Member regarding the Contract, otherwise than in the normal course of the Dispute Board's activities under the Contract and the Dispute Board Agreement. The Employer and the Contractor shall be responsible for compliance with this provision, by the Employer's Personnel and the Contractor's Personnel respectively.

The Employer and the Contractor undertake to each other and to the Member that the Member shall not, except as otherwise agreed in writing by the Employer, the Contractor, the Member and the Other Members (if any)

- (a) be appointed as an arbitrator in any arbitration under the Contract;
- (b) be called as a witness to give evidence concerning any dispute before arbitrator(s) appointed for any arbitration under the Contract; or
- (c) be liable for any claims for anything done or omitted in the discharge or purported discharge of the Member's functions, unless the act or omission is shown to have been in bad faith.

The Employer and the Contractor hereby jointly and severally indemnify and hold the Member harmless against and from claims from which he is relieved from liability under the preceding paragraph.

Whenever the Employer or the Contractor refers a dispute to the Dispute Board under GCC Subclause 45.3, which will require the Member to make a site visit and attend a hearing, the Employer or the Contractor shall provide appropriate security for a sum equivalent to the reasonable expenses to be incurred by the Member. No account shall be taken of any other payments due or paid to the Member.

6 Payment

The Member shall be paid as follows, in the currency named in the Dispute Board Agreement:

- (a) a retainer fee per calendar month, which shall be considered as payment in full for
 - (i) being available on 28 days' notice for all site visits and hearings;
 - (ii) becoming and remaining conversant with all project developments and maintaining relevant files;
 - (iii) all office and overhead expenses including secretarial services, photocopying and office supplies incurred in connection with his duties; and
 - (iv) all services performed hereunder except those referred to in sub-paragraphs (b) and (c) of this Clause.

The retainer fee shall be paid with effect from the last day of the calendar month in which the Dispute Board Agreement becomes effective; until the last day of the calendar month in which the Taking-Over Certificate is issued for the whole of the Works.

With effect from the first day of the calendar month following the month in which Taking-Over Certificate is issued for the whole of the Works, the retainer fee shall be reduced by one-third. This reduced fee shall be paid until the first day of the calendar month in which the Member resigns or the Dispute Board Agreement is otherwise terminated.

- (b) a daily fee, which shall be considered as payment in full for
 - (i) each day or part of a day up to a maximum of 2 days' travel time in each direction for the journey between the Member's home and the site, or another location of a meeting with the Other Members (if any);
 - (ii) each working day on site visits, hearings, or preparing decisions; and
 - (iii) each day spent reading submissions in preparation for a hearing.
- (c) all reasonable expenses, including necessary travel expenses (air fare in less than first class, hotel and subsistence and other direct travel expenses) incurred in connection with the Member's duties, as well as the cost of telephone calls, courier charges, facsimiles, and telexes, and use of the internet: a receipt shall be required for each item in excess of 5% of the daily fee referred to in sub-paragraph (b) of this Clause;
- (d) any taxes properly levied in the Country on payments made to the Member (unless a national or permanent resident of the Country) under this Clause 6.

The retainer and daily fees shall be as specified in the Dispute Board Agreement. Unless it specifies otherwise, these fees shall remain fixed for the first 24 calendar months, and shall thereafter be adjusted by agreement between the Employer, the Contractor and the Member, at each anniversary of the date on which the Dispute Board Agreement became effective.

If the parties fail to agree on the retainer fee or the daily fee, the appointing entity or official named in the SCC shall determine the amount of the fees to be used.

The Member shall submit invoices for payment of the monthly retainer and air fares quarterly in advance. Invoices for other expenses and for daily fees shall be submitted following the conclusion of a site visit or hearing. All invoices shall be accompanied by a brief description of activities performed during the relevant period and shall be addressed to the Contractor.

The Contractor shall pay each of the Member's invoices in full within 56 calendar days after receiving each invoice and shall apply to the Employer (in the Statements under the Contract) for reimbursement of one-half of the amounts of these invoices. The Employer shall then pay the Contractor in accordance with the Contract.

If the Contractor fails to pay to the Member the amount to which he/she is entitled under the Dispute Board Agreement, the Employer shall pay the amount due to the Member and any other amount which may be required to maintain the operation of the Dispute Board; and without prejudice to the Employer's rights or remedies. In addition to all other rights arising from this default, the Employer shall be entitled to reimbursement of all sums paid in excess of one-half of these payments, plus all costs of recovering these sums and financing charges calculated at the rate specified in accordance with GCC Subclause 12.3.

If the Member does not receive payment of the amount due within 70 days after submitting a valid invoice, the Member may (i) suspend his/her services (without notice) until the payment is received, and/or (ii) resign his/her appointment by giving notice under Clause 7.

7 Termination

At any time: (i) the Employer and the Contractor may jointly terminate the Dispute Board Agreement by giving 42 days' notice to the Member, or (ii) the Member may resign as provided for in Clause 2.

If the Member fails to comply with the Dispute Board Agreement, the Employer and the Contractor may, without prejudice to their other rights, terminate it by notice to the Member. The notice shall take effect when received by the Member.

If the Employer or the Contractor fails to comply with the Dispute Board Agreement, the Member may, without prejudice to his other rights, terminate it by notice to the Employer and the Contractor. The notice shall take effect when received by them both.

Any such notice, resignation and termination shall be final and binding on the Employer, the Contractor and the Member. However, a notice by the Employer or the Contractor, but not by both, shall be of no effect.

8 Default of the Member

If the Member fails to comply with any of his obligations under Clause 4 concerning his impartiality or independence in relation to the Employer or the Contractor, he/she shall not be entitled to any fees or expenses hereunder and shall, without prejudice to their other rights, reimburse each of the Employer and the Contractor for any fees and expenses received by the Member and the Other Members (if any), for proceedings or decisions (if any) of the Dispute Board which are rendered void or ineffective by the said failure to comply.

9 Disputes

Any dispute or claim arising out of or in connection with this Dispute Board Agreement, or the breach, termination or invalidity thereof, shall be finally settled by institutional arbitration. If no other arbitration institute is agreed, the arbitration shall be conducted under the Rules of Arbitration of the International Chamber of Commerce by one arbitrator appointed in accordance with these Rules of Arbitration.

Annex - DISPUTE BOARD GUIDELINES

1. Unless otherwise agreed by the Employer and the Contractor, the Dispute Board shall visit the site at intervals of not more than 140 days, including times of critical construction events, at the request of either the Employer or the Contractor. Unless otherwise agreed by the Employer, the Contractor, and the Dispute Board, the period between consecutive visits shall not be less than 70 days, except as required to convene a hearing as described below.
2. The timing of and agenda for each site visit shall be as agreed jointly by the Dispute Board, the Employer, and the Contractor, or in the absence of agreement, shall be decided by the Dispute Board. The purpose of site visits is to enable the Dispute Board to become and remain acquainted with the progress of the Works and of any actual or potential problems or claims, and, as far as reasonable, to prevent potential problems or claims from becoming disputes.
3. Site visits shall be attended by the Employer, the Contractor, and the Project Manager and shall be coordinated by the Employer in cooperation with the Contractor. The Employer shall ensure the provision of appropriate conference facilities and secretarial and copying services. At the conclusion of each site visit and before leaving the site, the Dispute Board shall prepare a report on its activities during the visit and shall send copies to the Employer and the Contractor.
4. The Employer and the Contractor shall furnish to the Dispute Board one copy of all documents which the Dispute Board may request, including Contract documents, progress reports, variation instructions, certificates, and other documents pertinent to the performance of the Contract. All communications between the Dispute Board and the Employer or the Contractor shall be copied to the other Party. If the Dispute Board comprises three persons, the Employer and the Contractor shall send copies of these requested documents and these communications to each of these persons.
5. If any dispute is referred to the Dispute Board in accordance with GCC Subclause 45.3, the Dispute Board shall proceed in accordance with GCC Subclause 45.3 and these Guidelines. Subject to the time allowed to give notice of a decision and other relevant factors, the Dispute Board shall
 - (a) act fairly and impartially as between the Employer and the Contractor, giving each of them a reasonable opportunity of putting his case and responding to the other's case; and
 - (b) adopt procedures suitable to the dispute, avoiding unnecessary delay or expense.
6. The Dispute Board may conduct a hearing on the dispute, in which event it will decide on the date and place for the hearing and may request that written documentation and arguments from the Employer and the Contractor be presented to it prior to or at the hearing.
7. Except as otherwise agreed in writing by the Employer and the Contractor, the Dispute Board shall have power to adopt an inquisitorial procedure, to refuse admission to hearings or audience at hearings to any persons other than representatives of the Employer, the Contractor, and the Project Manager, and to proceed in the absence of any party who the Dispute Board is satisfied received notice of the hearing; but shall have discretion to decide whether and to what extent this power may be exercised.
8. The Employer and the Contractor empower the Dispute Board, among other things, to
 - (a) establish the procedure to be applied in deciding a dispute;

- (b) decide upon the Dispute Board's own jurisdiction, and as to the scope of any dispute referred to it;
 - (c) conduct any hearing as it thinks fit, not being bound by any rules or procedures other than those contained in the Contract and these Guidelines;
 - (d) take the initiative in ascertaining the facts and matters required for a decision;
 - (e) make use of its own specialist knowledge, if any;
 - (f) decide upon the payment of financing charges in accordance with the Contract;
 - (g) decide upon any provisional relief such as interim or conservatory measures;
 - (h) open up, review and revise any certificate, decision, determination, instruction, opinion or valuation of the Project Manager, relevant to the dispute; and
 - (i) appoint, should the Dispute Board so consider necessary and the Parties agree, a suitable expert at the cost of the Parties to give advice on a specific matter relevant to the dispute.
9. The Dispute Board shall not express any opinions during any hearing concerning the merits of any arguments advanced by the Parties. Thereafter, the Dispute Board shall make and give its decision in accordance with GCC Subclause 45.3, or as otherwise agreed by the Employer and the Contractor in writing. If the Dispute Board comprises three persons
- (a) it shall convene in private after a hearing, in order to have discussions and prepare its decision;
 - (b) it shall endeavour to reach a unanimous decision: if this proves impossible the applicable decision shall be made by a majority of the Members, who may require the minority Member to prepare a written report for submission to the Employer and the Contractor; and
 - (c) if a Member fails to attend a meeting or hearing, or to fulfil any required function, the other two Members may nevertheless proceed to make a decision, unless
 - (i) either the Employer or the Contractor does not agree that they do so, or
 - (ii) the absent Member is the chairman and he/she instructs the other Members to not make a decision.

SPECIAL CONDITIONS OF THE CONTRACT (SCC) SECTION-VIII

Special Conditions of Contract (SCC)

The following Special Conditions of Contract (SCC) shall supplement the GCC. Whenever there is a conflict, the provisions herein shall prevail over those in the GCC. The corresponding clause number of the GCC is indicated in parentheses.

1. Definitions

The Employer is: Islamabad Electric Supply Company

[The Employer should be the Executing Agency/Implementing Agency named in the Financing Agreement or the entity authorized to carry out the procurement activities under the Project Administration Manual]

The Project Manager is: Project Director (AMI)

Country of Origin: Pakistan

5. Law and Language

5.1 The Contract shall be interpreted in accordance with the laws of: Islamic Republic of Pakistan.

5.2 The ruling language is: English

5.3 The language for communications is: English

6. Fraud and Corruption

6.4 The Contractor has the obligation to notify the Employer of any changes in connection with the matters described in paragraphs (f), (h), (i), (j), (k), (l), (m) and (n) of the Letter of Technical Bid.

6.5 If the Contractor is debarred or temporarily suspended by ADB, it shall inform the Employer of such debarment or suspension, and that the endorsement of ADB's Office of Anticorruption and Integrity is required for any variations, extensions or modifications to the Contract.

7. Scope of Facilities

7.3 The Contractor agrees to supply spare parts for a period of years: 2 years

The Contractor shall carry sufficient inventories to ensure an ex-stock supply of consumable spares for the Plant. Other spare parts and components shall be supplied as promptly as possible, but at the most within 6 months of placing the order and opening the letter of credit. In addition, in the event of termination of the production of spare parts, advance notification will be made to the Employer of the pending termination, with sufficient time to permit the Employer to procure the needed requirement. Following such termination, the Contractor will furnish to the extent possible and at no cost to the Employer the blueprints, drawings and specifications of the spare parts, if requested.

8. Time for Commencement and Completion

- 8.1 The Contractor shall commence work on the Facilities within **07 days** from the Effective Date for determining Time for Completion as specified in the Contract Agreement provided that access to and possession of the Site or any part thereof have been given under sub clause 10.2, and shall then proceed with the work on the Facilities with due expedition and without delay.
- 8.2 The Time for Completion of the whole of the Facilities shall be **120 days** from the Effective Date as described in the Contract Agreement.

Time for Completion for parts of the Facilities: NA

9. Contractor's Responsibilities

- 9.6 To add the following paragraph at the end of GCC 9.6:

"ADB's right to inspect the Site and/or the Contractor's accounts and records relating to the performance of the Contract stated in Subclause 6.1 (e) and 9.6 shall survive termination and/ or expiration of this Contract."

- 9.8 Protection of the Environment

At the end of the sub-clause in 9.8 Protection of the Environment, add the following paragraphs:

"The Contractor shall comply with all applicable national, provincial, and local environmental laws and regulations.

The Contractor shall also comply with all reasonable requests of the national and local authorities responsible for enforcing environmental controls.

Within 28 days of the Commencement Date the Contractor shall submit a detailed Site Specific Environmental Management Plan (SSEMP), based on the Environmental Health and Safety Management Plan submitted in the technical proposal, for the Project Manager's no objection showing how the Contractor intends to comply with environmental laws and regulations and other specific requirements prescribed in the Contract, addressing all the monitoring and mitigation measures set forth in the Environmental Impact Assessment ("EIA") and the Environmental Management Plan ("EMP") of the project attached in Section 6- Employer's Requirements. Work shall not commence on the Site until the no objection of SSEMP has been obtained from the Project Manager and is being implemented.

The Contractor shall (a) establish an operational system for managing environmental impacts, (b) comply with the approved SSEMP and any corrective or preventative actions set out in safeguards monitoring reports that the Employer will prepare from time to time to monitor the implementation of the project EMP through the SSEMP, (c) allocate the budget required to ensure that such measures, requirements and actions are carried out, (d) submit semi-annual reports on the compliance of such measures to the Employer.

Where unanticipated environmental risks or impacts become apparent during the Contract, the Contractor is required to update the SSEMP to outline the potential

impacts to site works and associated mitigation measures for the Project Manager's approval."

10. Employer's Responsibilities

- 10.2 There shall be no work nor construction activities at the Site or any part thereof (as the case may be) unless the Employer has granted access to the Site or part thereof (as the case may be) in accordance with this Subclause 10.2.

11. Contract Price

- 11.2 The Contract Price shall be adjusted in accordance with the provisions of Appendix 2 (Price Adjustment) to the Contract Agreement.

13. Securities

- 13.3.1 The amount of performance security, as a percentage of the Contract Price for the Facility or for the part of the Facility for which a separate Time for Completion is provided, shall be: 10 % of contract price.
- 13.3.2 The performance security shall be in the form of the **Bank Guarantee from scheduled bank having rating A+** as per form included in Section 9 (Contract Forms).
- 13.3.3 The performance security shall not be reduced on the date of the Operational Acceptance.

19. Subcontracting

- 19.6 The Contractor shall not subcontract (i) works with a total accumulated value greater than the specified percentage of the Contract Price, or (ii) any part of the Works for which subcontracting is not permitted as specified below;
- (i) Maximum allowable accumulated value of work subcontracted (as a percentage of the Contract Price): NA %
- (ii) Parts of the Works for which subcontracting is not permitted: NA.

20. Design and Engineering

- 20.3 Approval/Review of Technical Documents by Project Manager

- 20.3.2 Within 21 days after receipt by the Project Manager of any document requiring the Project Manager's approval in accordance with GCC Subclause 20.3.1, the Project Manager shall either return one copy thereof to the Contractor with its approval endorsed thereon or shall notify the Contractor in writing of its disapproval thereof and the reasons therefor and the modifications that the Project Manager proposes.

If the Project Manager fails to take such action within the said 21 days, then the said document shall be deemed to have been approved by the Project Manager.

22. Installation

22.2 Labor

22.2.5 Working Hours

- (a) Normal working hours are: As per labour laws of Islamic Republic of Pakistan

22.2.7 Health and Safety

- (d) The Contractor shall throughout the contract (including the Defect Liability Period):
- (i) conduct Information, Education and Consultation Communication (IEC) campaigns, at least every other month, addressed to all the Site staff and labor (including all the Contractor's employees, all Subcontractors and Employer's and Project Manager's employees, and all truck drivers and crew making deliveries to Site for construction activities) and to the immediate local communities, concerning the risks, dangers and impact, and appropriate avoidance behavior with respect to of Sexually Transmitted Diseases (STD)—or Sexually Transmitted Infections (STI) in general and HIV/AIDS in particular;
 - (ii) provide male or female condoms for all Site staff and labor as appropriate; and
 - (iii) provide for STI and HIV/AIDS screening, diagnosis, counseling and referral to a dedicated national STI and HIV/AIDS program, (unless otherwise agreed) of all Site staff and labor.

The Contractor shall include in the program to be submitted for the execution of the Facilities under Subclause 18.2 an alleviation program for Site staff and labor and their families in respect of STI and STD including HIV/AIDS. The STI, STD and HIV/AIDS alleviation program shall indicate when, how and at what cost the Contractor plans to satisfy the requirements of this Subclause and the related specification. For each component, the program shall detail the resources to be provided or utilized and any related subcontracting proposed. The program shall also include provision of a detailed cost estimate with supporting documentation. Payment to the Contractor for the preparation and implementation this program shall not exceed the amount dedicated for this purpose.

After the existing paragraph in GCC 22.2.7 (a), add the following:

"The Contractor is responsible for establishment of preventive and emergency preparedness and response measures to avoid, and where avoidance is not possible, to minimize, adverse impacts and risks of the construction site work to the health and safety of local communities.

Within 28 days of commencement the Contractor shall submit a detailed Site Specific Health and Safety Management Plan (SSHSMP), based on the Environmental Health and Safety Management Plan submitted in the technical proposal, for the Project Manager 's no objection showing how he/she intends to comply with the local Health and Safety laws and regulations and other specific requirements prescribed in the Contract, taking into account the Supplementary Information in Section 6- Employer's Requirements. Work shall not commence on the Site until the confirmation of no objection of the SSHSMP has been obtained from the Project Manager and is being implemented.

Where unanticipated health and safety hazards or risks become apparent during the Contract, the Contractor is required to update the SSHSMP to outline the potential impacts to site works and associated mitigation measures for the Project

Manager's no objection.

The Contractor shall comply with the approved SSHSMP and any corrective or preventative actions set out in safeguards monitoring reports that the Employer will prepare from time to time to monitor the implementation of the project EMP through the SSHSMP.

In particular, the Contractor is required to provide all personnel on site including Employer's Personnel and visitors with personal protective equipment, including protection for feet (safety boots), head, eyes, ears (safety helmets) and hands, etc., in accordance with the Contractor's SSHSMP. The Contractor should ensure that his Subcontractors comply with the SSHSMP and provide all such necessary equipment to their personnel.

The Contractor shall bear the costs to ensure that such measures, requirements and actions are carried out.

The Contractor shall submit semi-annual reports on the compliance of such measures to the Employer."

Add after the existing paragraph in GCC 22.2.7 (c) the following:

"In the event of a significant injury involving medical treatment or hospitalization and fatal accident the Contractor shall notify the Project Manager immediately by verbal communication and submit a formal report as soon as practicable after its occurrence. For all accidents, whether fatal or not, the Contractor shall also notify the appropriate local authorities in accordance with the Laws of the Country."

22.2.8 Funeral Arrangements

Funeral arrangements: As per labour laws of Islamic Republic of Pakistan

22.2.17 Respectful Work Environment

The Contractor shall ensure that its employees and Subcontractors observe the highest ethical standards and refrain from any form of bullying, discrimination, misconduct, and harassment, including sexual harassment and shall, at all times, behave in a manner that creates an environment free of unethical behavior, bullying, misconduct, and harassment, including sexual harassment. The Contractor shall take appropriate action against any employees or Subcontractors, including suspension or termination of employment or subcontract, if any form of unethical or inappropriate behavior is identified.

The Contractor shall conduct training programs for its employees and Subcontractors to raise awareness on and prevent any form of bullying, discrimination, misconduct, and harassment including sexual harassment, and to promote a respectful work environment. The Contractor shall keep an up to date record of its employees and subcontractors who have attended and completed such training programs and provide such records to the Employer or the Engineer at their first written request.

25. Commissioning and Operational Acceptance

25.2.2 The Guarantee Test of the Facilities shall be successfully completed within NA from the date of Completion.

26. Completion Time Guarantee

26.2 Applicable rate for liquidated damages: 0.05% per day.

Maximum deduction for liquidated damages: 10 % of the contract price

26.3 Applicable (amount or rate) for the bonus for early Completion: NA

No bonus will be given for earlier Completion of the Facilities or part thereof.

27. Defect Liability

27.10 All the goods that will be procured shall be under the warranty of **02 years** whereas defect liability period for the works/services performed shall also be of **02 Years** from the date of delivery of last consignment **at AMI Interoperability Lab at 132kV Pirwadhai Grid Station**

30. Limitation of Liability

30.1 (b) The multiplier of the Contract Price is: **NA**

42. Termination

42.1 Termination for Employer's Convenience

42.1.3 (f) a reasonable amount of profit for the parts of the Works not executed by the Contractor as at the date of termination.

45. Disputes and Arbitration

45.1 The Dispute Board shall be appointed within NA after the Effective Date.

The Dispute Board shall be NA

List of potential Dispute Board members is: NA

45.2 Appointment (if not agreed) to be made by: NA

45.3 This sentence shall be added as last paragraph in GCC Subclause 45.3:

If the decision of the Dispute Board requires a payment by one Party to the other Party, the Dispute Board may require the payee to provide an appropriate security in respect of such payment.

45.5 Rules of procedure for arbitration proceedings:

(a) Contracts with foreign contractors:

International arbitration shall be conducted in accordance with the rules of NA. If no rules have been specified, then the Rules of the Singapore International Arbitration Centre (SIAC) shall apply.

Arbitration shall be administered by NA. If no institution has been specified, then SIAC shall be the institution to administer the arbitration.

The place of arbitration shall be the place of the institution administering the arbitration.

(c) Contracts with contractors being nationals of the Employer's country:

1. If any dispute of any kind whatsoever shall arise between the Procuring Agency and the Supplier in connection with or arising out of the Contract, including without prejudice to the generality of foregoing, any question regarding its existence, validity, termination and the execution of the Contract - whether during developing phase or after their completion and whether before or after the termination, abandonment or breach of the Contract – the parties shall seek to resolve any such dispute or difference by mutual diligent negotiations in good faith within seven (07) days following a notice sent by one Party to the other Party in this regard.
2. At future of negotiation the dispute shall be resolved through mediation and mediator shall be appointed with the mutual consent of the both parties.
3. At the event of failure of mediation to resolve the dispute relating to this contract such dispute shall finally be resolved through binding Arbitration by sole arbitrator in accordance with Arbitration Act 1940. The arbitrator shall be appointed by mutual consent of both the parties. The Arbitration shall take place in [Islamabad] and proceedings will be conducted in – [Local Language i.e.Urdu and English in case of foreign contractor] language.
4. The cost of the mediation and arbitration shall be shared by the parties in equal proportion however both the parties shall bear their own costs and lawyer's fees regarding their own participation in the mediation and arbitration. However, the Arbitrator may also make an award of costs upon the conclusion of the arbitration making any party to the dispute liable to pay the costs of another party to the dispute.
5. Arbitration proceedings as mentioned in the above clause regarding resolution of disputes may be commenced prior to, during or after delivery of goods.
6. . Notwithstanding any reference to the arbitration herein, the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree that the Procuring Agency shall pay the Supplier any monies due to the Supplier.

45.6 GCC Subclause 45.6 shall be replaced with the following sentence:

In the event that a Party fails to comply with a Dispute Board decision which has become either binding or final and binding, then the other Party may, without prejudice to any other rights it may have, refer the failure itself to arbitration under Subclause 45.5 [Arbitration] for summary or other expedited relief, as may be appropriate. Subclause 45.3 [Obtaining Dispute Board's Decision] and Subclause 45.4 [Amicable Settlement] shall not apply to this reference.

46. Eligibility

- 46.1 The Contractor shall have the nationality of an ADB member country. The Contractor shall be deemed to have the nationality of a country if the Contractor is a citizen or is constituted, incorporated, or registered, and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed subcontractors or suppliers for any part of the Contract including related services.
- 46.2 The materials, equipment and services to be supplied under the Contract shall have their origin in eligible source countries and all expenditures under the Contract will be limited to such materials, equipment, and services. At the Employer's request, the Contractor may be required to provide evidence of the origin of materials, equipment and services.
- 46.3 For purposes of SCC 46.2, "origin" means the place where the materials and equipment are mined, grown, produced or manufactured, and from which the services are provided. Materials and equipment are produced when, through manufacturing, processing, or substantial or major assembling of components, a commercially recognized product results that differs substantially in its basic characteristics or in purpose or utility from its components.

SECTION-IX
CONTRACT FORMS

Form of Contract

THIS AGREEMENT made the ____ day of _____ 20____ between *Islamabad Electric Supply Company Islamabad (IESCO)* of Pakistan (hereinafter called "the Procuring Agency") of the one part and M/s _____ of _____ (hereinafter called "the Supplier") of the other part:

WHEREAS the Procuring Agency invited Bids for certain goods and related services, viz., _____ and has accepted a Bid by the Supplier for the supply of those goods and related services in the sum of _____ (hereinafter called "the Contract Price").

NOW THIS CONTRACT WITNESSETH AS FOLLOWS:

1. In this Contract words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Contract, In the event of any ambiguity or conflict between the Contract Documents listed below, the order of precedence shall be the order in which the Contract Documents are listed below: -
 - (a) This form of Contract;
 - (b) the Form of Bid and the Price Schedule submitted by the Bidder;
 - (c) the Schedule of Requirements;
 - (d) the Technical Specifications;
 - (e) the Special Conditions of Contract;
 - (f) the General Conditions of the Contract;
 - (g) the Procuring Agency's Letter of Acceptance; and
 - (h) [add here: any other documents]
3. In consideration of the payments to be made by the Procuring Agency to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Procuring Agency to provide the goods and related services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Procuring Agency hereby covenants to pay the Supplier in consideration of the provision of the goods and related services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the contract.

IN WITNESS whereof the parties hereto have caused this Contract to be executed in accordance with their respective laws the day and year first above written.

Signed, sealed, delivered by _____ the _____ (for the
Procuring Agency)

Witness to the signatures of the Procuring Agency:

.....

Signed, sealed, delivered by _____ the _____ (for the
Procuring Agency)

Witness to the signatures of the Supplier:

Performance Security (or guarantee) Form

To: *[name of Procuring Agency]*

WHEREAS *[name of Supplier]* (hereinafter called "the Supplier") has undertaken, in pursuance of Contract No. *[reference number of the contract]* dated *[insert date]* to delivery *[description of goods and services]* (hereinafter called "the Contract").

AND WHEREAS it has been stipulated by you in the said Contract that the Supplier shall furnish you with a Bank Guarantee by a reputable bank for the sum specified therein as security for compliance with the Supplier's performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Supplier a guarantee:

THEREFORE, WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, up to a total of *[amount of the guarantee in words and figures]*, and we undertake to pay you, upon your first written demand declaring the Supplier to be in default under the Contract and without cavil or argument, any sum or sums within the limits of *[amount of guarantee]* as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the: *[insert date]*

Signature and seal of the Guarantors

[name of bank or financial institution]

[address]

[date]

Advance Payment Security (Bank Guarantee) Form

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

Beneficiary: [Name and Address of Employer]

Contract Name and No.:

Date: [date]

ADVANCE PAYMENT GUARANTEE No.: [Advance Payment Guarantee Number]

We have been informed that on [date of award] you awarded Contract No. [Contract number] for [title and/or brief description of the Contract] (hereinafter called "the Contract") to [complete name of Contractor] (hereinafter called "the Contractor"). Furthermore, we understand that, according to the conditions of the Contract, GCC Clause 3.1 (b) of the Contract (interpreted in Special Conditions of Contract), an advance payment in the sum of [amount in numbers and words, for each currency of the advance payment] is to be made to the Contractor against an advance payment guarantee.

At the request of the Contractor, 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 Contractor is in breach of its obligations under the Contract because the Contractor 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 Contractor on its account [number and domicile of the account].

This security shall remain valid and in full effect from the date of the advance payment received by the Supplier under the Contract until twenty-eight (28) days following completion of delivery CIF/DDP/CIP /FCS to **AMI Interoperability Lab at 132kV Pirwadhai Grid Station** basis as certified by the Purchaser.

This guarantee is valid until the: [insert date]

Signature and seal of the Guarantors

[name of bank or financial institution]

[address]

[date]

Integrity Pact

DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC. PAYABLE BY THE SUPPLIERS OF GOODS, SERVICES & WORKS IN CONTRACTS WORTH RS.10.00 MILLION OR MORE

Contract Number: _____
Contract Value: _____
Contract Title: _____

Dated: _____

M/s _____ hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Pakistan or any administrative subdivision or agency thereof or any other entity owned or controlled by it (GoP) through any corrupt business practice.

Without limiting the generality of the foregoing M/s _____ represents and warrants that it has fully declared the brokerage, commission, fee etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultations fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP, except that which has been expressly declared pursuant hereto.

M/s _____ certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GoP and has not taken any action or will not take any action to circumvent the above declaration, representative or warranty.

M/s _____ accepts full responsibility and strict liability for making and false declaration, not making full disclosure, misrepresenting fact or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to

any other right and remedies available to GoP under any law, contract or other instrument, be voidable at the option of GoP.

Notwithstanding any rights and remedies exercised by GoP in this regard, M/s _____ agrees to indemnify GoP for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GoP in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by M/s _____ as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP.

[Buyer]

[Seller/Supplier]

**MECHANISM
FOR BLACKLISTING OF
CONTRACTORS / CONSULTANTS /
MANUFACTURE**

MECHANISM FOR BLACKLISTING OF CONTRACTORS / CONSULTANTS / MANUFACTURERS



**Approved by IESCO Board of Directors (BoD) in its
178th Meeting held on 23rd August 2019.**

ISLAMABAD ELECTRIC SUPPLY COMPANY (IESCO)

28th October, 2019

DISCLAIMER

If any clause of this policy afterwards develops contradiction with PPRA Rules, then PPRA Rules will supersede the relevant clause of IESCO Mechanism for Blacklisting of Contractors / Consultants / Manufacturers.

TABLE OF CONTENTS

PREFACE	1
DEFINITIONS	2
Chapter No.1	
1.1 Introduction	4
1.2 Extent of Application	4
1.3 Basic Principles of Blacklisting Mechanism	5
Chapter No.2	
Grounds for Blacklisting	
2.1 General Grounds	6
2.2 Grounds at Competitive Bidding Stage	6
2.3 Grounds at Contract Implementation Stage	8
2.4 Blacklisted Person / Entity etc.	10
Chapter No.3	
Formulation of “IESCO Standing Committee for Blacklisting”	
3.1 Defining Structure of Committee	11
3.2 Provision of Additional Member	11
3.3 Timeline for Finalization of Recommendations	11
Chapter No.4	
Procedure for Suspension and Blacklisting.	12
4.1 The Competitive Bidding Stage	12
4.1.1 Initiation of Action	12
4.1.2 Notification	12
4.1.3 Hearings	13
4.1.4 Decision	13
4.1.5 Notice of Decision	13
4.2 Contract Implementation Stage	14
4.2.1 Initiation of Action	14
4.2.2 Notification	14
4.2.3 Hearings	14
4.2.4 Decision	15
4.2.5 Notice of Decision	15
4.3 Blacklisted Person / Entity etc.	15
Chapter No.5	
Review against Decision of the Procuring Agency	16
5.1 Filing an appeal for Review against decision	16
5.2 Constituting Decision Review Committee	16
5.3 Timeline for deciding the Appeal	16
5.4 Finalization of the Decision	16
Chapter No.6	
Appeal	
6.1 Filing an Appeal with the Authority	17
Chapter No.7	
Period of Debarment	
7.1 Period of Debarment for Blacklisted Firms	18

	Chapter No.8	
	Appraisal to Procurement Committee/Board of Directors	
8.1	Appraisal of Blacklisted Firms to Procurement Committee / Board of Directors (BoD)	19
	Chapter No.9	
	Communication of Notification to Authority	
9.1	Methodology for Communication of Notification of the PPRA / NTDC / WAPDA /DISCOs Delisting	20
9.2	Effectiveness	21
9.3	Amendments	21
9.4	Delisting	21
	Appendix-1 - Process to deal with Complaints	22
	Appendix-2 - Guidelines for Evaluation of Performances of Contractors	24
	Form for Hearing	25

PREFACE

This mechanism of blacklisting has been drafted in the light of Rule-19 “Blacklisting of suppliers and contractors” of the Public Procurement Rules, 2004 “PPRA Rules”. This Mechanism has been developed to mitigate the possibilities of corrupt practices and ensure the transparent and corruption free public procurement in the organization. The blacklisting policies of various procurement agencies have also been consulted. The policy was placed on IESCO website for more than 03 months & all the stake holders were invited to furnish their comments so that no one may have any objection after its implementation. This mechanism consists of 09 chapters containing Grounds for Blacklisting, Procedure for Suspension and Blacklisting, Formulation of “IESCO Standing Committee for Blacklisting”, Review against Decision of the Procuring Agency, Period of Debarment, Process to deal with Complaints & Guidelines for Evaluation of Performances of Contractors. The procedure has been developed for both of the procurement stages including competitive bidding stage and contract implementation stage. A disclaimer Clause has also been added so that Authority’s instructions could prevail. This document shall be considered an integral part of IESCO Bidding Documents / Tender Documents/ RFPs as well as contract agreements / purchase orders etc. The bidders shall have to submit an undertaking along with their bid that they have read all the contents of this blacklisting mechanism and they accept all the provisions of this document.

DEFINITIONS

In addition to definitions mentioned in bidding document, following definitions are also applicable:

- (i) **Authority:** The Public Procurement Regulatory Authority.
- (ii) **Appeal:** Right of firm/individual to bring its / his grievance against the issuance of Blacklisting Order at the appropriate legal forum.
- (iii) **Appellate Authority:** The department, office or government unit exercising general and/or administrative supervision/control over the blacklisting agency. Department level agencies shall exercise appellate authority over offices, agencies, under their jurisdiction. *Provided, further,* that blacklisting decisions of government agencies that are not subject to general and/or administrative supervision/control of any department, office or government unit shall be final and executor.
- (iv) **Award:** A written notice from the procuring entity accepting a bid or proposal.
- (v) **Blacklisting:** An administrative penalty disqualifying a person or an entity from participating in any government procurement for a given period.
- (vi) **Blacklisting Mechanism:** A mechanism adopted by IESCO as a procuring agency/entity for Blacklisting supplier(s), manufacturer(s), distributor(s), contractor(s) or Experts/consultants/consulting firm(s) etc.
- (vii) **Blacklisted Person/Entity.** A person/entity that was disqualified by an agency and/or is included in the PPRA/ADB/World Bank/Donor Agencies' (working with Government of Pakistan) Consolidated Blacklisting Report/sanctioning list.
- (viii) **Contractor** includes-suppliers, contractors and consultants
- (ix) **Consolidated Blacklisting Report:** The report prepared by the NTDC/WAPDA/DISCOs/PPRA/ADB/World Bank/Donor Agency working with Government of Pakistan containing the list of supplier(s), manufacturer(s), distributor(s), contractor(s) or Experts/ consultants/ consulting firm(s) blacklisted by procuring entities/agencies.
- (x) **Debarment:** state of being legally excluded from participating in all types of procurement proceedings of the procuring department for a given period.
- (xi) **Delist.** Removal of a person/entity from the Consolidated Blacklisting Report.
- (xii) **Procuring Agency:** Any department, attached department or any office of the Islamabad Electric Supply Company;

- (xiii) **Suspension.** Administrative action taken for infractions committed by a contractor during the competitive bidding stage, whereby such contractor is prohibited from further participation in the bidding process of an agency.
- (xiv) **Termination of Contract-** Extinction of contract by reason or resolution or rescission under applicable rules/regulations/laws arising from the default of the firms/individuals.

Chapter No.1

1.1 Introduction

Blacklisting is one of the effective tools used in the struggle against the corruption in connection with public procurement. The main objectives of any procurement process are transparency, economy, fairness and efficiency so that public money is spent on welfare of the public. Hence, blacklisting is an instrument, which may lead to the decrease of the potential corruption risks and also inculcate protection of public means and increase of effectiveness of allocation of the limited resources.

Rule-19 “Blacklisting of suppliers and contractors” of the Public Procurement Rules, 2004 (hereinafter “**PPRA Rules**”) stipulates that;

*“The procuring agencies shall specify a mechanism and manner to permanently or temporarily bar, from participating in their respective procurement proceedings, suppliers and contractors who either consistently fail to provide satisfactory performances or are found to be indulging in corrupt or fraudulent practices. Such barring action shall be duly publicized and communicated to the Authority:
Provided that any supplier or contractor who is to be blacklisted shall be accorded adequate opportunity of being heard.”*

In the light of the above said Clause, Blacklisting Mechanism (hereinafter **the Mechanism**) has been specified for all procurements made by IESCO. This policy shall govern the blacklisting of manufacturers, suppliers, distributors, contractors, consultants and consulting firms (“contractors” for brevity) involved in government procurement for offenses or violations committed during competitive bidding and contract implementation

Any capitalized terms and abbreviations used in this mechanism which are not defined herein shall have the meanings given to them in Public Procurement Regulatory Authority Ordinance, 2002 (hereinafter “**PPRA Ordinance**”) and PPRA Rules amended upto date.

1.2 Extent of Application

- i. The Mechanism shall be applicable and remain in force, along with any amendments thereto, within IESCO until any clear instructions or guidelines are imparted by the Government through PPRA, PEC, or any other competent forum.
- ii. The Mechanism shall also be applicable on the pre-qualified firms.
- iii. The Mechanism shall be applicable for suppliers / bidders / contractors / local agents / representatives / consultants / firms / individuals / distributors / Manufacturers / organization transacting business with IESCO.

- iv. Wherever any provision of this mechanism shall be in conflict with provisions of any applicable guidelines of donor agencies, or any other applicable Statute / Law or Rule enforced at the time in Pakistan, the provisions of the Statute / Law or rule shall prevail.
- v. After Approval of this mechanism by the competent Authority, it shall be considered an integral part of bidding document/tender document/RFP as well contract agreement/Purchase Order, unless otherwise specified PPRA rule-5. The bidder will submit an Undertaking along-with their bid that they have read and accept the provisions of this Mechanism. Non-submission of an Undertaking may result in rejection of their bid. The said Undertaking will subsequently become part of the Contract Agreement as well.

1.3 Basic Principles of Blacklisting Mechanism

Following are the important basic principles of Blacklisting Mechanism::

- i. To lay down effective mechanism for disciplining deviant Contractors against whom, misconduct has been established;
- ii. An opportunity will be provided to any contractor alleged to have committed an act of misconduct, to defend himself;
- iii. The formal hearing be conducted by a Committee/Committees.
- iv. The presenter has the sole responsibility for deciding the terms of suspension.
- v. Blacklisting is a temporary action and not permanent measure.
- vi. The period of blacklisting / suspension would invariably depend upon the seriousness / nature of offence committed by the erring contractor.
- vii. Blacklisting Mechanism is applicable for all type of national or international contractors, manufacturers, consultants, pre-qualified contractors /manufacturers, local agents, distributors and suppliers.

CHAPTER NO. 2

GROUND S FOR BLACKLISTING

2.1 General Grounds

The following shall comprise the broad multilateral grounds for blacklisting:

- i. **Corrupt Practice**" the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution;
- ii. **Fraudulent Practice**" a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract
- iii. **Collusive Practice**" a scheme of arrangement between two or more bidders, with or without the knowledge of the Purchaser, designed to establish bid price at artificial, non-competitive levels, and
- iv. **Coercive Practice**" harming or threatening to directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract.

In addition to above, blacklisting of firms/individuals may be resorted to when the charges are of serious nature, which include but are not limited to the following:

2.2 Grounds at Competitive Bidding Stage

The procuring Agency shall impose on bidder(s)/JV/Entities/Consulting firm(s) or prospective bidders the penalty of suspension or blacklist them for a specific period for the offense from participating in the public bidding process, without prejudice to the imposition of additional administrative sanctions as the internal rules of the agency may provide and/or further criminal prosecution, as provided by applicable laws, for the following violations:

- i. Indulging in Corrupt, Fraudulent as well as Collusive & Coercive Practices.
- ii. Submission of eligibility requirements containing false information or falsified or spurious documents
- iii. Submission of false/forged/unauthentic Bid Security/Pay Order/CDR or infringement of documents to get undue monetary or any other benefit.
- iv. Submission of Bids that contain false information or falsified documents, or the concealment of such information in the Bids or making frivolous complaints and allegations in order to influence the outcome of eligibility screening or any other stage of the public bidding.

- v. Unauthorized use of one's name, or using the name of another for purpose of public bidding.
- vi. Withdrawal of a bid after submission, or refusal to accept an award, or enter into contract with the government without justifiable cause, after he had been adjudged as having submitted the Lowest Calculated Responsive Bid or Highest Rated/ranked Responsive Bid.
- vii. Refusal or failure to submit the required performance security within the prescribed time limit.
- viii. Any documented unsolicited attempt by a bidder to unduly influence the outcome of the bidding in his favor.
- ix. All other acts that tend to defeat the purpose of the competitive bidding, such as but not limited to: an eligible contractor not buying bid documents from procuring agency or not complying with the requirements during bid evaluation, and contractors habitually withdraw from bidding for at least three (3) times within a year.
- x. Bidder(s) (prior to or after bid submission) designed to establish bid prices at artificial, non-competitive levels and to deprive the procuring agencies of the benefit(s) of free and open competition and any request for, or solicitation of anything of value by any public official in the course of the exercise of his duty;
- xi. Involved in litigation or needless petitioning to influence or obstruct the procurement process either on his own behalf or at the behest of any other vested interest.
- xii. Breach of confidentiality of evaluation process as mentioned in Appendix-I based on illegal access or in any way to get undue benefit or to provide benefit or to frustrate the bidding/evaluation process. This will also include attempts to sabotage the bidding process directly or indirectly.
- xiii. Any effort by the bidder to influence the procuring agency in the examination, evaluation, ranking of Proposals, and recommendation for award of Agreement.

In addition to the penalty of suspension, the bid security posted by the concerned bidder or prospective bidder shall also be forfeited.

2.3 Grounds at Contract Implementation Stage

Without prejudice to the imposition of additional administrative sanctions as the internal rules of the procuring agency may provide and/or further criminal prosecution as provided by applicable laws, the procuring agency shall take against the contractors after the termination of the contract, the action of suspension for specific period from participating in the public bidding process, for violations committed during the contract implementation stage, which include but not limited to the following:

- a. Indulging in Corrupt, Fraudulent as well as Collusive & Coercive Practices.
- b. Extraordinary delay in signing or refusal to accept the Notification of Award (NOA) and/or the contract without any cogent reason.
- c. Failure of the contractor, due solely to his fault or negligence, to mobilize and start work or performance within the specified period in the Notice of Award (NOA).
- d. Submission of fake / frivolous or mutilated Performance Guarantee or Advance Payment guarantee etc.
- e. Failure by the contractor to fully and faithfully comply with its contractual obligations without valid cause, or failure by the contractor to comply with any written lawful instruction of the procuring entity or its representative(s) pursuant to the implementation of the contract. For the procurement of infrastructure projects or consultancy contracts, lawful instructions include but are not limited to the following:
 - i. Employment of competent technical personnel, competent engineers and/or work supervisors; and Deployment of committed equipment, facilities, support staff and manpower; and
 - ii. Provision of warning signs and barricades in accordance with approved plans and specifications and contract provisions;
 - iii. Stockpiling in proper places of all materials and removal from the project site of waste and excess materials, including broken pavement and excavated debris in accordance with approved plans and specifications and contract provisions;
 - iv. Renewal of the effective dates of the performance security after its expiration during the course of contract implementation.
- f. Assignment and subcontracting of the contract or any part thereof or substitution of key personnel named in the proposal without prior written approval by the procuring entity.
- g. For the procurement of goods, unsatisfactory progress in the delivery of the goods by the manufacturer, supplier or distributor arising from his

fault or negligence and/or unsatisfactory or inferior quality of goods, as may be provided in the contract or as under:

- i. Deviations from specifications and terms & conditions of the purchase order/contract.
 - ii. Provision of fake prototype/type test reports
 - iii. Provision of fake inspection call FAT/Type test
 - iv. Failure to rectify the fault/damage/problem during period of warrantee
 - v. Supply of goods through inappropriate way such as smuggling of goods
 - vi. Supply of stolen goods/re-sold goods.
 - vii. Provision of fake /forged custom /taxes /duties documents
- h. For the procurement of consulting services, poor performance by the consultant of his services arising from his fault or negligence. Any of the following acts by the consultant shall be construed as poor performance and is liable to be Blacklisted:
- i. Defective design resulting in substantial corrective works in design and/or construction;
 - ii. Failure to deliver critical outputs due to consultant's fault or negligence; and
 - iii. Specifying materials which are inappropriate, substandard, or way above acceptable standards.
 - iv. Allowing defective workmanship or works by the contractor being supervised by the consultant.
 - v. Submitting CV's of key personnel in the prequalifying process or bid documents of professionals that are not in actual employment of the bidder or without consent of experts.
 - vi. Acting together (Contractor & Consultant) in secret toward a fraudulent or illegal end
- i. For the procurement of infrastructure projects, poor performance by the contractor or unsatisfactory quality and/or progress of work arising from his fault or negligence. Any of the following acts by the constructor shall be construed as poor performance:

- i. Negative slippage of 15% and above within the critical path of the project due entirely to the fault or negligence of the contractor; and
- ii. Quality of materials and workmanship not complying with the approved specifications/Drawing(s) arising from the contractor's fault or negligence.
- iii. Unnecessary delay in completion of project
- iv. Failure to rectify fault/problem/damages during defect liability.
- j. Willful or deliberate abandonment or non-performance of the project or contract by the contractor resulting to substantial breach thereof without lawful and/or just cause.
- k. In addition to above, other grounds for blacklisting of firms/individuals include but are not limited to the following:
 - i. Obtaining fraudulent payments;
 - ii. Obtaining contracts by misleading the purchaser;
 - iii. Refusal to pay IESCO dues etc.;
 - iv. Failure to fulfill contractual obligations Changes in the status of firm's ownership/partnership etc., causing dissolution of the firm which existed at the time of inspection prior to original registration of the firm
 - v. Registration of a firm with a new name by the Proprietor or family or a nominee thereof of a firm that has been already blacklisted;
 - vi. Contractors who have negotiated Plea Bargain under the National Accountability Ordinance 1999, or contractors involved with any other criminal proceedings conducted by any investigation agency where default has been proved specifically in relation to supplies made to or contracts concluded with IESCO or department thereof;.
 - vii. Non-compliance of the existing policy/rules/law of GoP during execution of contract.
 - viii. Hiring of underage personnel for assignments or works violating Child Labor (Prohibition and Regulation) Amendment Bill, 2016.
 - ix. Non-Adherence to safety codes.

For the Blacklisting of a Firm, in addition to the penalty of suspension for a certain period, the performance security posted by the contractor shall also be forfeited.

CHAPTER NO. 3

FORMULATION OF “IESCO STANDING COMMITTEE FOR BLACKLISTING”

3.1 Defining Structure of Committee

A permanent Committee namely “IESCO’s Standing Committee for Blacklisting” comprising of the following members shall examine the justification of the reasons given by the Project Authority prior to blacklisting / debarment of any firm/supplier/contractor/ individual.

i. General Manager Technical	Convener
ii. Director General/ Manager (Legal) IESCO	Member
iii. Representative of Finance Director (Not Less than the Rank of Manager)	Member
iv. Deputy Manager (Village Electrification Cell)	Member
v. Deputy Manager Procurement PMU	Member

The quorum for committee meeting will be 3 members including the Convener, the presence of Convener is mandatory. Committee shall evaluate the case and develop consensus however, in case of conflict among the member of committee, decision of convener shall be considered final.

3.2 Provision of Additional Member

Depending upon the nature of the case, the Committee may consult or appoint / nominate additional members from within IESCO with the approval of Chief Executive Officer (CEO) IESCO, provided that the Committee consists of an odd number of individuals as per spirit of Rule 48(1) of the PPRA Rules. Independence of any additional members shall be ensured while making the selection of such additional members. Furthermore, the aforementioned Standing Committee shall also be authorized to seek external expert advice or call any employee of IESCO as and when required.

3.3 Timeline for Finalization of Recommendations

The committee shall finalize its recommendations within the time specified in this mechanism.

CHAPTER NO. 4

PROCEDURE FOR SUSPENSION AND BLACKLISTING.

4.1 The Competitive Bidding Stage

4.1.1 Initiation of Action

Upon receipt of or obtaining information and / or knowledge that any person(s) is involved in practices mentioned in Article 2.1 and 2.2 of the Mechanism, the concerned project Authority / formation may initiate the suspension and blacklisting proceedings by filing its recommendations with the procuring agency or procuring agency also motu proprio (by itself) commence the proceedings upon prima facie (self-sufficient) determination that the bidder/ prospective bidder/ JV/ Person/Entity has committed any of the grounds for blacklisting during the competitive bidding stage as mentioned in article-2.1 & article-2.2 of the policy.

The Project Director or Project implementation Agency shall provide substantial evidence for the person/entity/JV/Firm against whom the case for blacklisting has been initiated.

4.1.2 Notification

Upon verification of the existence of grounds for blacklisting, the procuring agency shall immediately notify the contractor concerned in writing, advising him that:

- a. Complaint for suspension and blacklisting has been filed against him, or he has been considered by the procuring agency for suspension and blacklisting, stating the grounds for such;
- b. He has the opportunity to explain his position regarding why he should not be suspended and blacklisted;
- c. Hearing shall be conducted before the procuring agency or “IESCO’s Standing Committee for Blacklisting”, upon his request, where he may present documentary evidence, verbal testimony and cross-examine the witnesses presented against him; and
- d. The consequences of being suspended and blacklisted.

Within seven (7) calendar days from receipt of notification, the bidder shall submit its written answer with documentary evidence to the procuring agency or “IESCO’s Standing Committee for Blacklisting” with a manifestation for request of hearing to determine questions of fact, if he so desires. No time extension shall be allowed. if contractor fail to answer within the stipulated period, the procuring agency shall issue a resolution recommending its blacklisting with the immediate suspension of the contractor from participating in any bidding process of the agency for a certain period and the forfeiture of his bid security.

4.1.3 Hearings

If a hearing is requested by the contractor, the procuring agency shall immediately set the date and time for hearing. The hearing shall be non-litigious and shall be terminated within five (5) days. The procuring agency shall constitute an independent "Hearing Committee" comprising of odd Number members. The procuring agency may also invite a representative from PPRA or a duly recognized private group in a sector or discipline relevant to the procurement at hand as an observer for each hearing.

If no request is made, the procuring agency shall make a determination of the case based on the complaint, answer, documentary evidence submitted and facts verified. If the procuring agency is convinced that the contractor/bidder is at fault, it shall issue a resolution recommending for its blacklisting with suspension of the bidder from participating in any bidding process of the agency and the forfeiture of his bid security.

4.1.4 Decision

The Head of the Procuring Entity shall, within fifteen (15) days from receipt of the resolution and the records of proceedings, determine whether reasonable cause exists for the suspension of the contractor and the forfeiture of the latter's bid security. If the Head of the Procuring Entity determines that such reasonable cause exists, he shall issue a decision regarding its blacklisting and suspending the contractor from participating in any bidding process of the agency, and further declaring that his bid security is forfeited. Otherwise, he shall dismiss the case.

The decision shall clearly and distinctly state the facts, evidence and the law on which it is based, as well as the date of effectiveness of the penalty, if any.

In case a contractor commits more than one offense or a combination of offenses for the same project/contract in a particular agency, each violation shall be met the corresponding penalty.

4.1.5 Notice of Decision

The procuring agency shall furnish the suspended contractor a copy of the decision immediately from its promulgation.

4.2 Contract Implementation Stage

4.2.1 Initiation of Action

Procuring Agency shall commence the proceedings upon prima facie (self-sufficient) determination that the contractor has committed any of the grounds for blacklisting during the contract implementation stage as mentioned in bidding document/Contract agreement or any event as mentioned in article-2.1 & article-2.3 of the policy of written complaint from Engineer/ consultant/ supervisory office.

The Project Director or Project implementation Agency shall provide substantial evidence for the person/entity/JV/Firm/Contract against whom the case for blacklisting has been initiated.

4.2.2 Notification

Upon verification of the existence of grounds for blacklisting, the procuring agency shall immediately notify the contractor concerned in writing, advising him that:

Within seven (7) calendar days from receipt of notification, the contractor shall submit its written answer with documentary evidence to the procuring agency with a manifestation for request of hearing to determine questions of fact, if he so desires. No time extension shall be allowed.

If the contractor fail to answer within the stipulated period, the procuring agency shall issue a resolution recommending the blacklisting with immediate suspension of the contractor from participating in any bidding process of the agency and the forfeiture of his bid security.

4.2.3 Hearings

If a hearing is requested by the contractor, the procuring agency shall immediately set the date and time for hearing. The hearing shall be non-litigious and shall be terminated within five (5) days. The procuring agency shall constitute an independent "Hearing Committee" comprising of odd Number members. The procuring agency may also invite a representative from PPRA or a duly recognized private group in a sector or discipline relevant to the procurement at hand as an observer for each hearing.

If no request is made, the procuring agency shall make a determination of the case based on the complaint, answer, documentary evidence submitted and facts verified. If the procuring agency is convinced that the contractor is at fault, it shall issue a resolution recommending for blacklisting with suspension of the contractor from participating in any bidding process of the agency and the forfeiture of his performance security.

4.2.4 Decision

The procuring agency shall, within fifteen (15) days from receipt of the resolution and the records of proceedings, determine whether reasonable cause exists for the suspension of the contractor and the forfeiture of the latter's performance security. If the Head of the Procuring Entity determines that such reasonable cause exists, he shall issue a decision for blacklisting the contractor with suspending the contractor from participating in any bidding process of the agency, and further declaring that his performance security is forfeited. Otherwise, he shall dismiss the case.

The decision shall clearly and distinctly state the facts, evidence and the law on which it is based, as well as the date of effectivity of the penalty, if any.

In case a contractor commits more than one offense or a combination of offenses for the same project/contract in a particular agency, each violation shall be met the corresponding penalty

4.2.5 Notice of Decision

The procuring agency shall furnish the blacklisted contractor a copy of the decision immediately from its promulgation.

CHAPTER NO. 5

REVIEW AGAINST DECISION OF THE PROCURING AGENCY

5.1 Filing an Appeal for Review against decision

The Contractor shall have the right to lodge request to review the blacklisting decision, if the same is convinced that some concrete evidence proves the case otherwise in favor of the Contractor. For this purpose, the same will file an appeal within five (5) days from receipt of the notice of decision.

5.2 Constituting Decision Review Committee

The procuring agency shall constitute an independent “Decision Review Committee” comprising of three members and external observer(s) preferably PPRA representative.

5.3 Timeline for Deciding the Appeal

Committee shall resolve with finality the review application within ten (10) days from the filing thereof and furnish blacklisted/suspended contractor/bidder a copy of the resolution immediately from its promulgation.

5.4 Finalization of the Decision

The decision of the committee shall become final and executor after the lapse of fifteen days from the receipt of the notice of decision or decision of review application. If an appeal is filed, the affirmed, modified or reversed decision shall become final and executory upon receipt thereof by the department and person/entity concerned. Upon finality of the decision suspending the contractor, the procuring agency shall issue a Blacklisting Order disqualifying the erring contractor from participating in the bidding of all projects.

CHAPTER NO. 6

APPEAL

6.1 Filing an Appeal with the Authority

The Contracting Firm shall have the right to file an appeal with the Authority within ten days from the date of receipt of the decision for either or both of the following causes, provided that only a single application shall be filed with the Authority:

- a. The decision is not in conformity with the evidence and/or facts presented, hence does not construe grounds for Blacklisting laid down under Rule 19 of the PPRA Rules – 2004; and
- b. Newly discovered evidence or facts which could not be discovered and produced at the investigation and which when presented would probably alter the result of the investigation.

CHAPTER NO. 7

PERIOD OF DEBARMENT

7.1 Period of Debarment for Blacklisted Firms

The Blacklisting shall be for a reasonable specified period of time and as a general rule of prudence, the period may not exceed three years. The following time periods shall be considered for debarment on account of blacklisting;

Causes of Blacklisting	Time for Debarment
Corrupt & fraudulent & collusive practices, criminal breach of trust.	03 years
Submission of fake documents including financial instruments like securities & guarantees, submission of false Financial statement / Audit reports etc.	03 years and forfeiture of securities
Making false statement and allegation to gain undue advantage	03 years and forfeiture of securities
Commission of embezzlement, theft, cheating, forgery, bribery, falsification or destruction of records, receiving stolen property, false use of trademark, securing fraudulent registration, giving false evidence, furnishing false information.	03 years and forfeiture of securities
Breach of confidentiality of evaluation process as mentioned in Appendix 1 hereto	06 month to 02 years as mentioned in Appendix-1 and forfeiture of securities
Extraordinary delay in signing or refusal to accept a procurement contract without cogent reasons, when the bid has been accepted by IESCO	06 month to 02 years as determined by the committee and forfeiture of securities
Non-satisfactory performance as mentioned in Appendix-2	2 years and forfeiture of securities
The contractor was blacklisted by the government or the donor agency and subsequently adopted by IESCO	3 years or the time period for which the concerned agency debarred the contractor, whichever is higher

In case the person/ contractor / firm/ consortium appeared in Consolidated Blacklisting Report shall also be considered debarred in participation of bidding process.

Note: **All the penalties given herein above will be in addition to the consequences already agreed upon by the parties in the contract or any other documents.**

CHAPTER NO. 8

APPRAISAL TO PROCUREMENT COMMITTEE/BOARD OF DIRECTORS

8.1 Appraisal of Blacklisted Firms to Procurement Committee/ Board of Directors (BoD)

The Procuring Agency shall apprise the Procurement Committee/Board of Directors (BoD) before communicating its Blacklisting decision to the Authority, if a Firm/Company/Bidder/JV/Manufacturer/Subcontractor/Consultant etc. is declared blacklisted by the IESCO.

CHAPTER NO. 9

COMMUNICATION OF NOTIFICATION TO AUTHORITY

9.1 METHODOLOGY FOR COMMUNICATION OF NOTIFICATION TO THE PPRA/NTDC/WAPDA/DISCOs

9.1.1 Unless otherwise provided in these policies, the blacklisting agency concerned shall submit to the PPRA /NTDC/WAPDA /DISCOs, within seven (7) calendar days after the issuance of the blacklisting order/delisting orders made by the agency, the following documents:

- a. Blacklisting Order duly signed by the Head of procuring agency containing, among others, Department/Office Order or Board Resolution number, name and address of the blacklisted person/entity, license number, if applicable, project/contract and location/amount, specific ground(s)/offense(s) committed as provided in article-9, sanction imposed and its date of start and completion, date of issuance of the order to blacklist, and other conditions which can extend duration of sanctions in article-9.
- b. Delisting Order duly signed by the blacklisting agency containing, among others, Department/Office Order or Board Resolution number, name and address of the blacklisted person/entity, name of project/contract and location, specific sanction being lifted and the number of previously issued blacklisting Department/Office Orders or Board Resolutions, effectively date of delisting, and date of delisting approval.

9.1.2 The PPRA shall prepare the Consolidated Blacklisting Report every quarter, based on the submitted Blacklisting Orders and disseminate the same to procuring agencies. The report shall be further posted in the PPRA website and shall indicate the number of times a person/entity has been blacklisted, the type of offense/violation committed, the penalty imposed, and the blacklisting agency concerned. The PPRA shall delist from such report those whose sanctions are lifted automatically after serving the given penalty as provided for in article-9 hereof and those whose sanctions are lifted through the issuance of Delisting Orders.

9.1.3 In the case of procurement of infrastructure projects, a blacklisting agency should decide to refer the case of its blacklisted person/entity to Pakistan Engineering Council (PEC)/SECP for license suspension/revocation, it shall submit

to PEC/SECP a copy of the decision accompanied with supporting documents.

- 9.1.4** All existing blacklisting reports of the Government or any of its procuring agencies, as well as the list of constructors/Consultant/consulting firms whose licenses are suspended or revoked by the PEC as of the date of effectiveness, are hereby adopted and made part of the PPRA Consolidated Blacklisting Report upon the issuance of these orders.

9.2 EFFECTIVENESS

These guidelines / mechanism or any amendments thereof shall take effect immediately after its approval from Board of Directors of IESCO.

9.3 AMENDMENTS

In the implementation of this policy, the IESCO/PPRA may introduce modifications thereto through the amendment of its specific provisions as the need arises. Any amendment to this policy shall be applicable to government projects advertised for bid after the effectiveness of the said amendment.

9.4 DELISTING

A blacklisted person/entity shall automatically be delisted after the period for the penalty shall have elapsed, unless the blacklisting agency requests the PPRA/NTDC/DISCOs/WAPDA to maintain the blacklisted person/entity in the PPRA/PPRA/NTDC/DISCOs/WAPDA Consolidated Blacklisting Report due to justifiable reasons. In the latter case, the blacklisted person/entity shall be delisted only upon the blacklisting agency's issuance of a Delisting Order.

APPENDIX-1

PROCESS TO DEAL WITH COMPLAINTS

It has been frequently observed that after opening of tenders, the bidders start to influence the evaluation process. Such misleading attempts results in delay in finalizing of award of contract and cause financial loss to the National exchequer and stain its sanctity. The evaluation process is confidential till publication of award of contract process.

Provision of guidelines of international donor agencies and PPRA provides sufficient opportunity to bidders for redressal of their grievances. Hence, the attempts made by the bidders during evaluation process or thereafter to influence the contract award decisions fall under the definition of corrupt and fraudulent practices. Therefore, during bidding stage, the following mechanism shall be adopted in case of receipt of any complaint from the bidder.

- i. Anonymous complaints shall not be entertained.
- ii. The Procuring Agency reserves the right to call for an affidavit from the complainant verifying the truthfulness and correctness of the contents of the complaint.
- iii. The notice of displeasure and explanation will be immediately sent to those firms who lodge the complaint during the evaluation process.
- iv. If the firm itself or through its agent or any third party does not refrain from making complaints in the same tender, the official warning will be sent and their case will be sent to IESCO's Rights Protection Committee which may analyses the situation and suggest action including the rejection of the bid of the complainant, However, Project Authority with prior approval of CEO IESCO. May reject the bid even in first instance depending upon nature of the case or provision of the Bidding Documents.
- v. If the same bidder itself or through its agent or any third party lodges complaint in another tender floating in parallel before decision of Committee, its bid will straight forwardly be rejected by the project authority. It may also be debarred to participate in the next tender for six months under intimation to the Committee and CEO IESCO.
- vi. If the same bidder itself or through its agent or any third party lodges complaint third time in the same or any other tender within a period of one years, its bid will be rejected and bid security will be forfeited by the project authority. It may also be debarred to participate in the next tender for one year under intimation to the committee and CEO IESCO.
- vii. In order to monitor the record of the bidders, a data base will be maintained at IESCO's website and the offices of the project authorities regarding firms / supplier / contractors/consultant who consistently lodge complaints during the evaluation process by making clandestine access to confidential record and hamper the award of contract process.

- viii. In order to monitor the record of the persons, a data base will be maintained at IESCO's website and offices of the project authorities regarding such persons who consistently lodge frivolous complaints during the evaluation process by making clandestine access to confidential record and hamper the award of contract process.

NOTE:

It is clarified that the process provided above in Appendix-I is to discourage anonymous and frivolous complaints only and does not mean to prevent any person aggrieved by any act of the procuring agency from lodging a genuine complaint /grievance as provided under Rule-48 of the PPRA Rules-2004.

APPENDIX-2

GUIDELINES FOR EVALUATION OF PERFORMANCE OF CONTRACTORS

- i. After signing of the contract, the Project authority (or the Consultant / Engineer) must monitor and evaluate the Contractor's performance, that is, whether the Contractor is fulfilling his obligations based on the terms of the contract and plans that were developed and agreed upon with the Project authority at the time of signing of contract or during kick-off meetings. In case of breach of contract or consistent non-performance security or debarment / blacklisting.
- ii. Though the contractor's performance evaluation is an on-going process, which takes place throughout the duration of the contract and also during the Defect Liability / Warranty Period, hence a Contractors Performance Evaluation Report shall be drafted by the project authority once all of the contractual obligations of the latter have been completed so that the project authority have gained a more complete picture that will help it in formulating a more objective judgment.
- iii. The performance evaluation report may be prepared for all contracts of more than Rs. 50 million. When based on the Evaluation Report, the performance of the contractor is non-satisfactory in. EPC contract(s) (or the contractor receives 02 No Notices of Default within same contract or against consecutive contract (s) within a period of 2 years) and 03 No supply contracts awarded within a period of 02 years, the procuring agency may initiate the case of blacklisting of the contractors in accordance with the terms of this mechanism.
- iv. In case of any extra-ordinary delay in performance of a single contract of vital and critical importance, the procuring agency shall have the right to terminate the contract, recover the loss and debar the bidder/firm/JV/contractor/consultant from participation in future tenders. The procuring agency shall be the sole judge to determine the importance of the project.
- v. The above said assessment will be in addition to the provisions already agreed by the parties in the contract or any other documents.



No.

/IESCO/ISB

Dated:

Form for Hearing

Through Registered AD, Courier Service or email or Fax

1. A committee for investigation of blacklisting Proceedings in furtherance of Rule 19 PPRA, 2004 has been constituted to investigate and decide upon the allegations at Para-2/below. You are required to appear in person or defend in writing with evidence on_____ at IESCO Head Office as to why you should not be blacklisted for:

2.

*****Add charge*****

3. You are being given an opportunity to be heard and are required to appear in person or defend in writing with evidence on_____at IESCO Head Office. In case of you failure to attend or pay heed the Committee shall proceed ex-parte.
4. [To be added in the third notice]. As of final notice you are directed to furnish a satisfactory explanation in writing with supporting evidence within three days of receipt of this notice, to show cause as to why the blacklisting penalty may not be imposed. Failing to pay heed to this last notice shall stand a presumption against you that you have no explanation to offer and the matter shall be proceeded ex-part.

General Manager (Technical)
IESCO Head Office,
Street No. 40, Sector G-7/4.
Islamabad - 46000