THE ISLAMIC REPUBLIC OF PAKISTAN

DETAILED DESIGN STUDY
ON
WEST WHARF
THERMAL POWER PLANT PROJECT

FINAL REPORT-II

LOT IIA (VOLUME 1)

JANUARY 1990

JAPAN INTERNATIONAL COOPERATION AGENCY

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KARACHI ELECTRIC POWER SUPPLY CORPORATION LTD.

WEST WHARF THERMAL POWER STATION UNITS 1 AND 2

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SECTION I: INSTRUCTIONS TO TENDERERS

SECTION I. INSTRUCTIONS TO TENDERERS

IT.1. INVITATION

IT.1.1 INTRODUCTION

The Karachi Electric Supply Corporation Limited, hereafter referred to as KESC or the Owner, invites experienced firms to submit tenders for design, manufacture, supply, delivery, storage at the site, erection, testing, start-up, operation and commissioning, equipment and materials for the 220 kV and 132 kV West Wharf Substation, 220 kV Baldia Grid Station and two (2) circuits of 220 kV underground cable transmission lines and their related accessories, including the related civil and architectural works.

The first project site, the said West Wharf Substation, is located inside the site area of the West Wharf Thermal Power Station at the West Wharf area of Karachi Bay near the center of Karachi City.

Karachi is the largest city in Pakistan and an important commercial and industrial center. The distance to the project site from the city center is approximately 10 km.

The site is now being used for the existing outdoor 66 kV switchyard for the West Wharf Thermal Power Plant, and has a total site area of about 36,400 m^2. The existing 66 kV switchyard is comprised of outdoor and indoor switchyards.

The equipment together with the associated cables of the outdoor 66

kV switchyard will be moved to the new area by the Owner.

The second project site, the said Baldia Grid Station, is located in Baldia Town.

The distance to the project site from the Karachi City center is approximately 11 km.

This grid station is still in operation.

The third project site, the said 220 kV underground cable transmission lines, is located between the West Wharf Substation and the No. 1 tower, approximately 1.3 km apart.

All the Tenderers should keep in mind that due to the narrow site area as mentioned above, special consideration shall be incorporated in design and site construction works to avoid any untoward happenings at the site.

These Instructions to Tenderers are intended to provide guidance in the preparation of Tenders. However, failure to comply with these instructions may render the Tender nonresponsive and liable to be rejected, unless otherwise stated.

The periods named in these Instructions to Tenderers shall be consecutive calendar days, except that, if a due date falls on a local holiday, the due date will be the next working day.

IT.1.2 INVITATION FOR TENDERS

The final Tender (see Clause IT.1.3 (3)) will be received via

registered mail, or delivered personally by local time on or before _____ to the following address of the Owner:

The Karachi Electric Supply Corporation Ltd.
Aimai House
Abdullah Haroon Road,
P.O. Box No. 7197,
Karachi-3, Pakistan.
Attention: Project Engineer,
West Wharf Thermal Power Station Project
Units 1 and 2

One (1) original and two (2) identical copies of the final Tender shall be delivered by the Tenderer to the Owner. One (1) copy to the Engineer by hand or mail before Tender-opening, at the following address and Tender submitted shall be enclosed in a sealed envelope clearly marked as follows:

SEALED TENDER FOR EQUIPMENT, MATERIAL AND SERVICES 200 MW each West Wharf Thermal Power Station Units 1 and 2 for the Karachi Electric Supply Corporation Ltd.
NOT TO BE OPENED BEFORE A.M. ----------
Package Number _____ of _____
Submitted by _____

Name and Address of The Engineer

registered mail, or delivered personally by local time on or before _____ to the following address of the Owner:

The Karachi Electric Supply Corporation Ltd.
Aimai House
Abdullah Haroon Road,
P.O. Box No. 7197,
Karachi-3, Pakistan.
Attention: Project Engineer,
West Wharf Thermal Power Station Project
Units 1 and 2

One (1) original and two (2) identical copies of the final Tender shall be delivered by the Tenderer to the Owner. One (1) copy to the Engineer by hand or mail before Tender-opening, at the following address and Tender submitted shall be enclosed in a sealed envelope clearly marked as follows:

SEALED TENDER FOR EQUIPMENT, MATERIAL AND SERVICES 200 MW each West Wharf Thermal Power Station Units 1 and 2 for the Karachi Electric Supply Corporation Ltd.
NOT TO BE OPENED BEFORE A.M. ----------
Package Number _____ of _____
Submitted by _____
Tokyo Electric Power Services Co. Ltd.
Hibiya Chunichi Bldg.
1-4 Uchisaiwai-cho, 2-chome,
Chiyoda-ku, Tokyo 100 Japan.

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If a Tender is sent by registered mail, the inner sealed envelope shall be enclosed in an outer envelope suitable for mailing.

IT.1.3 AVAILABILITY OF TENDERING DOCUMENTS

(1) Purchase of Tendering Documents

A complete package of Tendering Documents for this Contract consisting of three (3) sets of six (6) volumes each, may be obtained from Owner's Office upon payment of US$1,000.00 or equivalent PAK Rs.

One (1) set or more if required additionally can be obtained upon payment of US$250.00 or equivalent PAK Rs. for each set.

(2) Tender Documents

Each of the set of Tendering Documents will consist of the following volumes:

VOLUME 1

- Instruction to Tenderer
- Tender and Appendices

Appendices

Form of Tender

Appendix A - Schedule of Prices

Appendix B - Form of Tender Bond

Appendix C - N.A

Appendix D - Receipt of Addenda

Appendix E - List for Goods Imported from Outside of

Eligible Source Countries

Appendix F - Delivery and Construction Schedule

Appendix G - Departures from or Qualifications to the Tender Documents (as required)

Appendix H - Management Procedures

Appendix I - Tenderer's Data Sheets

Appendix J - Mandatory and Recommended Spare Parts

- General Condition of Contract

Exhibits

A Form of Contract Agreement

B Form of Performance Bond

C-1 Undertaking by Contractor for Issuance of Provisional Taking Over Certificate

C-2 Provisional Taking Over Certificate

D Affidavit of Contractor

E Certificate of Compliance

F Release of Lien

G Form of Bank Guarantee for Advance Payment

VOLUME 2

- Technical General Conditions
- General Specification
- Design Standard
- Substation and Grid station Facilities
- 220 kV Underground Cables
- Architectural and Civil Works

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VOLUME 3

Drawings for Tendering

(3) Tender Requirements

In preparing the Tenders, the Tenderers shall observe the following requirements:

- Tenders shall be prepared on the prescribed Form of Tender, Schedules, Data Sheets, Tenderer's Qualification informations and Tender Bond without any alterations. All entries on the ORIGINAL set shall be typewritten or in clearly legible BLOCK CAPITALS. All entries in the Tender Form Schedules, Data Sheets, Tender's Qualifications and Tender Bond shall be in English language. SI or metric unit system shall be used in the Data Sheets. The ORIGINAL shall be signed by an authorized person in the space provided therefor. The COPIES shall be reproduced from the ORIGINAL.

  The final Tender as submitted by the Tenderer to the Owner shall consist of:

  (a) One (1) original proposal of the Volumes 1 to 3 each page duly stamped and initialled and two copies of the completed-sheets volumes as described above.

  (b) One (1) copy of each item duly completed to the Engineer.

  (c) A copy of the Tender Bond or certified cheque attached

to each copy of the Tender, alongwith the original.

(d) A copy of power of attorney, if Tender Form is executed by a person other than President, partner or owner of Tenderer's company, attached to copy of Tender, alongwith the original.

In the event of a Tender being submitted by a consortium, one member of the consortium shall be designated as the Coordinator or leader and this member shall be the point of contact for the Owner/Engineer. All members of the Consortium shall duly execute the Contract if the Consortium is the successful Tenderer.

In order to minimize coordination and communication problems during the Tender preparation and evaluation periods, the Tenderer is cautioned to observe the following instructions. Failure to comply may result in rejection of the Tender except stated otherwise.

(a) All Specification Data Sheets must be typed/hand-written for each item called for. If, for the Tenderer's equipment, a particular item is not applicable or required, the letters NA (not applicable) or NR (not required) shall be typed in the space provided.

(b) Tenderer must state any deviation from material or other standards specified. In the case American/BS material standards called for in the technical

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Specifications are required to be filled in by the Tenderer, comparable European, Japanese standards or other national standards may be cited by the Tenderer in filling the technical Specifications Data Sheets. A separate list of proposed standards shall then be attached to the Tender indicating the appropriate standards proposed by the Tenderer, stating in each case the comparable standards specified.

(c) Any explanation desired by the Tenderer regarding the meaning or interpretation of the Tendering Documents must be requested in writing and addressed to the office of the Owner with copies to Engineer. If any explanation or interpretation is necessary, it will be issued in the form of a numbered Addendum which will formally supplement or revise the Tendering Documents and be issued to all Tenderer's. Any written request must be sent early enough, at least four (4) weeks before Tender due date, to allow sufficient time for the Addendum to reach all Tenderers before submission of their Tenders. The receipt of every addendum issued during the bidding period must be acknowledged in the space provided in the tender form and also by letter or cable received before the Tender due time. Oral explanations or instructions given during the Tendering period will not be binding.

(4) Tenderer will be himself responsible for ensuring that his

Tender is received in accordance with the instructions stated in. A late Tender will not be considered even if it becomes late as a result of circumstances beyond the Tenderer's control.

IT.2. SOURCE OF FUNDS (TENTATIVE)

The financing source for this project has not been decided yet. Therefore, this clause will be finalized after a favorable funding arrangement has been settelled.

This clause will be incorporated, together with the necessary instructions for applying the fund for the project, by considering relevant regulations and instructions based upon the particulars related to the funding agency.

IT.2. SOURCE OF FUNDS (TENTATIVE)

(To be filled in at a later date)

IT.2. SOURCE OF FUNDS (TENTATIVE)

(To be filled in at a later date)

(End of clause)

IT.3. QUALIFICATION OF TENDERERS

(1) Tenders are only invited from firms (individual) or joint-venture) who are prepared to submit complete and comprehensive tenders for the whole of the supply, erection and other works included in these documents. Tenderers must have previously successfully completed contracts of similar magnitude and complexity.

Tenderers must also prove and provide evidence to the fact that they have adequate administration, technical and site staff to complete the project by the required dates in accordance with the Tender Documents. Documentary evidence of tenderers experience on previous similar contracts must accompany the Tender.

Tenderers shall also submit proof of their financial capacity to undertake the contract.

(2) Tenderer shall be a firm of international repute, designated in the eligible source countries, and having experience of exporting three (3) or more same facilities.

GIS manufacturers shall have an experience of manufacturing of ten (10) years or more 220 kV, 3,150 A, 40 kA or higher voltage and interrupting current ratings GIS as offered with successful and continuous operation for at least five (5) years.

(3) The civil contractor shall have experience in the execution of civil/architectural works of steel structure building of three (3) or more projects, and shall have more than ten (10) years experience in the construction field.

Also, the civil contractor shall have experience in excavation with retaining wall (depth : GL-6 m or more) adjacent to an existing structure/building.

The civil designer shall have more than ten (10) years experience in the design field.

All equipment and materials shall be manufactured by companies which have at least ten (10) years previous experience in the design and manufacture of equipment and/or material of comparative type or more capacity and operating conditions, unless specified otherwise in the Technical Specification.

(4) As the site area is limited no deviation of site plan is

possible, that is, substation building and Grid station and other foundations shall be kept in the dimension as shown in the Owner's Drawings.

Matching of the size of equipment and other facilities shall be strictly in accordance with the site plan, which is prime importance and attention for each Tenderer.

(5) Any tender not complying with the above items (1), (2) and (3) shall be rejected and not evaluated.

(6) The Tenderer shall furnish the following information to substantiate conformance to the above qualifications for general and technical experience:

(i) Experience list of GIS, transformer and civil work respectively including;

(a) Name of Owner

(b) Plant Location

(c) Type of Equipment

(d) Capacity

(e) Date of putting into Commercial Operation

(f) Operation Period Recorded

(g) Availability and Plant Efficiency Records

(ii) User's certification for above item (i)

(7) Logical construction sequence to meet such narrow site to avoid congestion of the site works shall be submitted.

(8) The Tenderer/manufacturer erector and civil contractor shall

submit satisfactory evidence with the proposal that they have adequate facilities for research, development and testing of the offered equipment, and shall demonstrate his design resources, experience and ability necessary to attain the reliability and performance as specified.

The Tenderer/manufacturer of major equipment who manufacturs such equipment under the license shall identify his licenser from which the offered equipment are originated, and shall have manufacturing experience of three (3) sets or more of each equipment by themselves.

The Tenderer/manufacturer shall have a valid license agreement with internationally recognized licenser for atleast last five (5) years for the offered equipment.

(9) The designer/manufacturer/erector/civil contractor being a consortium/joint venture shall arrange its internal agreement to execute the work. Such evidence shall be submitted with the Tender.

(10) The Tenderer/manufacturer shall have a "Quality Assurance" organization and programme to ensure that appropriate standards of equipment reliability are attained.

Such organization and programme shall be submitted with the Tenders.

(11) The Tenderer/manufacturer of steam generator and turbine-generator shall have an organization and financial standing

commensurate with the execution of its full scope of the works. Company organization chart and financial reports shall be submitted for each company.

(12) If any portion of the Works or equipment is to be supplied or imported from the countries other than Tenderer's/manufacturer's country, the Tenderer/manufacturer shall submit with his Tender the list of such equipment or parts, country of origin and their price included in his Tender.

(13) The Tenderer, shall be able to provide, technical services in Pakistan for supervisors and servicemen required by the specifications and the supporting documents in this regard be included in the Tender.

(14) The above stated requirement are a minimum and the Owner reserves the right to request the submittal of additional information (if required).

(15) The Owner reserves the right to reject the Proposal of any Tenderer without assigning any reasons.

(16) The Tenderer/manufacturer shall not provide equipment/ material and other facilities which have some outstanding claims from some other clients.

(17) All qualification and information asked for shall be completed and forwarded with the Tender.

IT.4. ALTERNATIVE TENDERS

IT.4.1 ALTERNATIVE TENDERS

Each Tenderer must submit a Tender (called "Base Tender") exactly in accordance with the Tender Documents. At the Tenderer's option, alternative Tender(s) may be submitted for equipment which will give the same or better guaranteed performance than the equipment specified in the Base Tender, at the same or reduced costs.

If the Tenderer elects to submit alternative Tender(s), complete information shall be given on such alternative equipment including all technical specification data sheets and tender forms in the pricing section duly completed.

Alternative Tender(s) will probably have auxiliary requirements differing from the Base Tender. However, in selecting auxiliaries for alternative Tender(s), design margins shall not be less than those specified for the Base Tender.

IT.4.2 DETAILS OF OFFER AND DEPARTURES FROM THE SPECIFICATIONS

If the Tenderer wishes to vary or amend parts of the Specification as an alternative, he shall complete the corresponding Schedule of "Appendix G - Departures from or Qualifications to the Tender Documents" Associated with Alternative Tender" - as provided herein and he must refer to the Part, Clause and Section of the Specifications which the Tender proposes to vary or amend. In such case the Tenderer shall provide a statement of his reasons for proposing such alternatives, modifications or qualifications.

Notwithstanding any description, drawings, or illustrations which may be submitted with the Tender, only those departures or variations as listed will be considered and apart from these it will be deemed that the Tenderer complies entirely with the requirements of the Specifications.

IT.5. TENDER BOND

(a) The Tenderer must accompany his Tender with a Tender Bond (see Exhibit-A) or certified cheque drawn on a bank of international repute payable to the order of the Owner, in an amount equal to two (2) percent of the Tender's firm bid price.

(b) The Tender Bond or certified cheque will be acceptable in the currency of the country of the Owner or in the currency of the country in which the Tender originates.

(c) The Tender Bond or certified cheque of all unsuccessful Tenderer will be returned after the issuance of the award of Contract to a successful Tenderer, within 195 days from the Tender opening date.

(d) Each successful Tenderer shall be required to keep his tender bond or certified cheque valid until he activates his Performance Bond.

(e) Should a successful Tenderer fails or refuses to execute final Contracts and/or to furnish a Performance Bond satisfactory to the Owner within forty-five (45) days after execution of the Contract the Tenderer will be considered to have abandoned his

Tender and the amount of the Tender Bond or certified cheque delivered with the Tender shall thereupon be due and owing to the Owner as liquidated damages and shall be encashed for such failure or refusal. The Owner may thereupon award the Contract to any other Tenderer. In addition, the Tenderer will be blacklisted by the Owner. The term "successful Tenderer" shall then be deemed to mean the Tenderer whose Tenderer is thereafter accepted.

(f) A bond of a foreign bank shall be counter-guaranteed by a Scheduled Bank of Pakistan.

(g) If alternative Tender(s) are submitted, the Tender Bond must be for the Tender of highest value.

(h) Awards will be made within 195 days after Tender opening date. However, upon request by the Owner to extend the validity period, Tenderer may extend the validity of the offer without changing of the offered price.

(i) Should a Tenderer withdraw his Tender or declare it invalid within 195 days after the Tender-opening, the Tenderer will be considered to have abandoned his Tender and the amount of the Tender Bonds or certified cheques delivered with the Tender shall thereupon be due and owing to the Owner as liquidated damages.

IT.6. TENDERING PERIOD

The Tendering period will be three (3) months.

Tenderer are responsible for despatching their Tenders in such time as to allow ample margin for timely delivery personally or by registered mail. No Tender will be received after Tender due date and time, regardless of the cause of delay. Any Tender modification sent by cable or telex will not be accepted unless written confirmation, executed by the same authorized person as in the original Tender, is received prior to the Tender due time.

IT.6.1 TENDER OPENING

All Tenders will be opened publicly by the Owner at the date and time at Karachi address given in Clause IT.1 above. The amounts of each Tender will be read aloud and recorded.

IT.7. PRICES

IT.7.1 EQUIPMENT/MATERIAL AND TRANSPORTATION

(1) Material/Equipment

The Tenderer shall quote firm equipment and material prices on the basis of F.O.B. port of export in column (A) of Schedule of Prices Appendix A such prices shall include the followings:

(a) Design, manufacture, factory testing, export packing, and all shipping costs incurred in placing the equipment on board the vessel.

(b) Provision of clear on board bills of lading.

(c) Responsibility for any loss or damage until the equipment

and materials have been placed on board the vessel.

(d) The cost of export taxes, fees or charges levied on exporting goods in the country of origin.

(e) Certificate of origin, consular invoices (if required) or any other documents issued in the country of shipment.

(2) Marine Transportation

The Tenderer shall quote maximum or ceiling price(s) for marine transportation from port of shipment to the port in Pakistan, in Appendix A, Column (B). Such prices shall include all marine transportation costs for ocean freight, heavy lift charges incurred by the vessel, fees, other charges, etc. including supervision and responsibility for any loss or damage while unloading, storing and trimming all major equipment on board the inland carrier.

It is understood that in the event that marine transportation costs are less than the ceiling prices quoted by the Tenderer, any savings therefrom shall accrue to the Owner. Any marine transportation costs in excess of those quoted shall be borne by the Contractor. Such saving or excess in marine transportation costs shall be on the basis of all equipment and material as a whole and not on the basis of each item.

(3) Inland Transportation

Inland transportation from the Port of Karachi (Pakistan) to the Project storage area. All equipment and materials shall be the responsibility of the Contractor and all charges

occurring therefrom including fees and charges for loading unloading, clearing and forwarding expenses shall be borne by the Contractor.

Loading and transportation from the project storage area and unloading at Site, issue of all receiving and damaged reports, storage and subsequent handling of the Plant equipment and materials shall be the responsibility of the Contractor.

(4) Indigenous Equipment and Material

The quoted prices for the local materials should include all costs, including transportation, loading, unloading, overheads and all duties and taxes except reimbursible charges, such as, excise duty, sales taxes and surcharges if any leviable on the finished goods and octroi charges, which shall be reimbursed to the Contractor on the basis of actual costs and submittal of original receipts and documents.

(5) Erection and Commissioning

The Tenderer shall also quote price(s) for installation and commissioning of the Plant equipment and materials at the Project Site. Such prices shall include unloading at site, handling to designated point of site, storage, checking and verifying all shipments received against shipping documents, submission of receiving reports and damage reports (when applicable), handling from site, storage to point of final installation, installation and erection including all construction, inspection, training of Owner, personnel at

Site, initial performance tests, and responsibility for operation and maintenance of equipment until acceptance by the Owner. The cost and local transportation of any indigenous equipment and material and insurance for the transportation shall also be included under this category. All other charges not specifically mentioned herein but necessary for the completion of the Works shall also be included under this category.

(6) Training for Owner's Staff

The Tenderer shall quote the price for training at the manufacturer(s) work. The total cost for all living that is, boarding and lagging, return air ticket and transport expenses of the trainees during the period of training including daily allowance, medical expenses, or medical insurance from time to time shall be covered by the Contractor.

(7) Spare Parts

The Tenderer shall also quote prices for mandatory and recommended spare parts in accordance with the instructions given in Appendix J hereof.

All prices quoted shall be firm during the entire period of execution of Contract and no escalation on any account will be allowed.

IT.7.2 INSURANCE

The Tenderer shall quote the price(s) for insurance cover from Ex-

works to the Site for all equipment and material including erection/commissioning for the Project, and responsibility for all loss or damages while loading, unloading, storing, and trimming on board or on inland carrier. The insurance cover shall be taken from National Insurance Corporation of Pakistan or a Japanese insurance company, and shall obtain prior approval from the Owner after the Contract signing for use of the Company.

Insurance cover shall be obtained by Contractor for the equipment, material and personnels loss or damages during the erection/ commissioning activities.

IT.7.3 UNIT RATE FOR CIVIL AND ARCHITECTURAL WORKS

Unit rate of each job item for Civil and Architectural Works in the Schedule of Prices shall include the all necessary costs required to perform and complete the work as listed below, but not limited to the followings.

(1) Direct cost
- Main, subsidiary and consumable materials equipment
- Labor cost
- Rent and purchase of constructional equipment and instrument including assembling, disassembling and transportation cost of the equipment
- Transportation fees and expenses for various materials and equipment including

ocean freight

. Fuel expenses

. Royalty

. Cost of material and labor for temporary work

(2) Common cost

. Cost of material and labor for temporary facilities

. Rent of area for material storage and constructional equipment

. Cost of Safety equipment and facility

. Rent of area for the material storage, constructional equipment and temporary facilities etc.

. Cost of personnel expence related to safety

. Expenses of common constructional equipment

(3) Site administration cost

. Site personnel Expense

. Welfare expense

. Insurance for employee's accident

. Other expenses such as communication expense, social expense and others

(4) General administration cost

. Business expenses of the main and branch offices

(5)	Insurance	. Legal insurance expense in accordance with the laws . Insurance for property damage under construction . Insurance for property damage during shipping . Other insurances
(6)	Tax	. All kinds of taxes

IT.8. PROGRESS SCHEDULE

Tentative project implementation Schedules are attached in Vol. 6 as part of the Tender Documents. These tentative schedules show the completion dates of the individual stages as desired by the Owner and the estimated delivery and erection times that will be required to meet these completion dates.

The Tenderer shall furnish his implementation schedule(s) showing the times for manufacture, shipment from Warehouse to Site, erection, preliminary testing, initial startup, trial operation and performance testing for the equipment provided in his Tender. Schedule(s) shall be generally in accordance with the tentative schedules attached hereto, using the same symbols for convenience in making evaluations. Furthermore, the Tender shall show in the implimentation schedule the readiness of electrical, mechanical and civil works, which will give access to interface works to be performed by the Contractor himself or by some other Contractor.

Since power is so urgently needed in Karachi, such schedules will be a major consideration in evaluation of each Tender and the Tenderer shall submit his best guaranteed completion date(s) and the guaranteed readiness for connection dates.

IT.9. PRELIMINARY EXAMINATION OF TENDERS

No Tenderer will be permitted to alter his Tender after it has been opened, but clarifications not changing the substance of the Tender will be accepted. The Owner may ask any Tenderer for clarifications but any change suggested by the Tenderer in the substance of his original Tender will not be accepted.

Tenders will be reviewed to determine their responsiveness to the requirements of the Tendering Documents. A responsive Tender is one which complies with all the terms and conditions of the bidding documents without material modification. A material modification is one which effects the prices, quantity, quality, delivery, installation or commissioning dates of the equipment or materials or which limits in any way the responsibilities, duties or liabilities of the Tenderer or any rights of the Owner as defined in the tendering documents. The Owner may waive off any minor informality in the Tender which does not constitute a material modification.

Only Tenderers fulfilling the requirements of eligibility and offering Tenders substantially responsive to the requirements of the Tendering Documents will be shortlisted in the following manner:

(1) Eligibility and Qualifications of all Tenderers/Manufacturers will be checked to determine the conformance as specified in Clause IT.3 hereof.

(2) All eligible Tenders will be examined to determine whether they are substantially responsive to the Tender Documents i.e. whether (i) Tenders have been properly signed (ii) Tender bond and all required guarantees and sureties have been provided, and are valid and in good order (iii) prices quoted are fixed i.e. non-escalable, during the performance of the Contract (iv) the Tenders meet the technical criteria detailed in the Technical Provisions and (v) the Tender are otherwise generally in order.

(3) Guaranteed Performance and Output of the Equipment offered, as indicated by the Tenderer will also be taken into account.

(4) Tender will not be shortlisted if:

(i) it is determined as not conforming with the specified eligibility requirements.

(ii) it is determined as not substantially responsive.

(iii) it indicates Commercial Operation Period more than 12 weeks later than the specified period of the Commercial Operation in the Tendering Documents.

A Tender determined as substantially non-responsive will not subsequently be made responsive by the Tenderer by correction of the non-conformity.

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Discrepancies that do not essentially affect the substance of the Tender, such as arithmetical errors do not normally result in the rejection of the Tender but are clarified with the Tender.

(5) Alternative Tender if any, will be considered only if they comply with Clause IT.4, Alternative Tender, hereof and, will be examined in the similar manner.
The Owner reserves the right to waive minor irregularities or errors in any Tender, if it appears to the Owner that such irregularities or errors were made inadvertently. Any such irregularities or errors so waived must be corrected in the Tender in which they occur prior to the execution of the Contract which may be awarded thereon.

The Owner may limit the number of shortlisted Tenders to a maximum of (3) for detailed evaluation on the basis of initial evaluated ranking.

IT.10. CONTRACT

The Contract when executed, shall be deemed to include the entire Agreement between the parties thereto, and the Contractor shall not claim any modification thereof resulting from any representation or promise made at any time by any officer, agent or employee of the Owner or his representative or by any other person.

The Tenderer shall visit the offices of the Owner/Engineer, if called to do so, for the purpose of discussing and clarifying his

Tender so that the Tender-evaluation is completed as soon as possible. The Tenderer may bring with him other concerned persons to assist him in the discussions.

All expenses in connection with the said visits and discussions shall be borne by the Tenderer.

Date of Award of Contract shall be the date of issuance of Notice of Award. However, the Contract shall become effective on the date of Notification of approval of the Contract by the funding agency.

IT.10.1 CONTRACT DOCUMENTS

The Contract shall consist of articles setting forth the basic understanding between Owner and the Contractor and incorporating but not limited to the following:

(1) Tendering Documents consisting of Instructions to Tenderers, Tender Form as completed and submitted by the Contractor as part of his Tender and accepted by the Owner, General Conditions of Contract, the Technical Specifications with Data Sheets as completed and submitted by the Tenderer as part of his Tender, and the Drawings.

(2) Implementation schedule(s) giving Contract completion dates and dates for readiness for interface works.

(3) Where applicable and accepted by the Owner in writing the deviations from the Tendering Documents.

The Contractor's customary Tender and Contractor's contract

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forms shall not be accepted as a part of the Contract Documents.

IT.10.2 CURRENCY CONVERSION RATES

For the purpose of comparison of Tenders, each Tender price shall be valued in terms of the Pakistani rupee. The rate of exchange be used for such evaluation shall be the selling rate officially prescribed by the State Bank of Pakistan and prevailing on the Tender date (i.e. date of Bid opening), (unless there should be a change in the value of the currencies before the award is made. In the later case, the exchange rates prevailing at the time of the decision to notify the award to the successful Tenderer, shall be used.)

IT.11. EVALUATION CRITERIA AND COMPARISON OF TENDERS

1) The Owner will evaluate and compare the Tenders determined to be substantially responsive, pursuant to Clause IT.9 hereof.

2) Adjusted Tender Price shall include Tender Price and Tender adjustments as given below:

   a) Tender Price will be increased at the rate of 0.1 % of the Tender Price per day for each calender day of completion later than the specified day of completion.

   b) Credit shall be given for the purpose of evaluation at the rate of 0.05 % of the Tender Price for each calender day of completion up to a maximum limit of 2.5 % of the Tender Price.

c) Deficiencies in the Tender

d) Deviations from the specifications

e) Correction of errors

f) Recommended spare parts will not be evaluated as part of the Tender Price

IT.12 ACCEPTANCE OF TENDERS

The Owner does not bind himself to award the Contract to the lowest or any Tenderer.

However, the Contract will be normally awarded to the lowest evaluated responsive qualified Tenderer. A "responsive" Tender is one that complies with all the terms and conditions in the Tender Documents without material deviation or modification. A material deviation or modification is one which affects in any way the price, quality, scope, or completion date of construction, services or which limits in any way any responsibilities, duties, or liabilities of the Contractor or any rights of the Owner or as any of the foregoing have been specified or defined in the Tender Documents. Tenderers may not modify nonresponsive Tenders after opening in order to make them responsive. However, the Owner may request a Tenderer to clarify its Tender as long as no material modification is made.

The Owner reserves the right to reject any or all Tenders and to waive minor informalities if it appears in the Owner's best

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interest to do so.

Tenderers are requested not to contact the Owner on any matter relating to the Tender, from the time of the opening to the time the Contract is awarded, except to respond to inquiries by the Owner.

Any effort by a Tenderer to influence the Owner in the Tender evaluation, Tender comparison or contract award decisions may result in the rejection of his Tender. Once the Owner has arrived at a decision regarding the award of the Contract, he will notify promptly the successful Tenderer in writing by issuing "Notice of Award". The successful Tenderer will be required to send to Owner's Chief Engineer Project and Civil (P & C), in writing the acceptance of the same notice, within ten (10) days of the date of receipt of such notice, A representative or representatives with proper power of attorney for the purpose of executing the Contract in the form set out in the Contract Documents with such alterations or additions thereto as may be required to adopt to the circumstances of the Tender shall be dispatched to the Owners office after receipt of such notice.

Failure on the part of the successful Tenderer to provide a Performance Bond in accordance with the Conditions of Contract and/or to enter into a Contract with the Owner shall be sufficient grounds for the annulment of the award and in the event of such annulment the Tender guarantee of the successful Tenderer shall be retained by and become payable to the Owner. The award may then be made to another Tenderer, or the Owner may call for

the submission of new Tenders.

All recipients of the Tender Documents (whether they submit a Tender or not) shall treat the details of the Tender Documents as private and confidential.

Any Tender which does not conform to the foregoing instructions may be rejected.

VOLUME 1

SECTION II

TENDER AND APPENDICES

FORM OF TENDER

WEST WHARF THERMAL POWER PLANT PROJECT, UNIT NO.1 AND NO.2

LOT-IIA 220 kV/132 kV SUBSTATION AND EXTENSION OF BALDIA GRID STATION

(NOTE: - Tenderers are required to fill in all blank spaces in this Tender Form and Appendices).

TO:

KARACHI ELECTRIC SUPPLY CORPORATION LIMITED

GENTLEMEN,

1. Having examined the Tender Documents and Appendices, Conditions of Contract, Conditions of Particular Application, Specifications, Drawings, Schedule of Prices, and Addenda Numbers _____ for above named works, and having been satisfied as to all conditions under which the above-named works must be performed, we the undersigned offer to design, manufacture, furnish, deliver, store at site, erect, construct, start to work, test and maintain the whole of the said Works, in conformity with the said Conditions of Contract, Conditions of Particular Application, Specifications, Schedule of Prices etc., for the total Tender Price of _____ consisting of foreign currency component in equivalent Pakistani Repee _____ and local currency component in Pakistani Rupee _____.

2. Should this Tender be accepted by you, we propose to send a representative or representatives having our power of attorney to KARACHI, PAKISTAN, within ten days following receipt of your written acceptance of this Tender for the purpose of executing a Contract Agreement in the form set out in the Contract Documents with such alterations or additions thereto as you may require to adopt such Agreement to the circumstances of this Tender.

3. We undertake, if our Tender is accepted, to commence the Works upon receipt of the Owner/Engineer's orders to commence and to complete all the Works comprised in the Contract in accordance with Appendix F (Delivery and Completion Schedule).

4. We propose to retain the following firms:
(Name, Type of Service and Country of Registration)

_____

_____

_____

as Surety or Sureties if approved by you to be jointly and severally bound with us for the due performance of said Contract in sum in Japenese Yen currency and Pakitani Rupee equivalent to the sum named in Paragraph 1 hereof, and to procure and to have executed by the said surety or such other surety as approved by you within 30 days of notification by you that we should do so, a Performance Bond in the form set forth in the Contract Documents.

5. We agree that this Tender shall remain valid for a period of 210 days following the Tender Date and may be accepted by you at any time before the expiration of such period.

6. Unless and until a formal Agreement is prepared and executed, this Tender together with your written acceptance thereof shall constitute a binding Contract between us.

7. We understand that you are not bound to accept the lowest or any Tender you may receive and that you will not defray any expense incurred by us in tendering.

8. As security for the due performance of the undertakings and obligations of this Tender, we submit herewith a Tender Bond in the amount of _____ or the equivalent in Pakistani Rupee drawn in your favour or made payable to you and valid for ___ days from the Tender Date.

9. We understand that all Appendices attached hereto form part of this Tender.

DATED this Day of 1990.

TENDERER: _____

BY: _____

TITLE: _____

ADDRESS: _____

ATTEST:

_____

(Secretary) (Seal)

APPENDIX A

SCHEDULE OF PRICES

_____
(Tenderer's Name)

Preamble

1. General

The Schedule of Prices shall be read in conjunction with the "Instructions to Tenderer's", "Conditions of Contract", "Conditions of Particular Application", "Technical Specifications" and "Drawings for Tendering".

2. Quoted Prices

In the Schedule of Prices (Appendix A to Tender) the prices shall be quoted for the total quantity of each item required to fully complete the works strictly in accordance with the Tender Documents, the quoted prices shall be deemed to include all costs incurred by the Contractor in performance of the Works including his overheads, income tax, super tax, other indirect costs, profits and costs of accepting the general risks, liabilities or obligations set forth or implied in the Contract except for such costs which are specified herein as reimbursable.

We, _____ (Company name), the Tenderer do hereby certify that the Schedule of Prices submitted to the Owner is in full compliance with the requirement stated above.

Signed _____

Date _____

Seal of Tenderer

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SUMMARY OF

SCHEDULE OF PRICES

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(Tenderer's Name)

SUMMARY OF

SCHEDULE OF PRICES

DESCRIPTION	FOREIGN CURRENCY	LOCAL CURRENCY (Rp)	TOTAL IN EQUIVALENT LOCAL CURRENCY(Rp)
I. SUBSTATION AND GRID STATION FACILITIES			
II. 220kV UNDER GROUND CABLE			
III. CIVIL AND ARCHI-TECHTURAL WORKS			
IV. MANDATORY SPARE PARTS & EXPENDABLES			
V. TECHNICAL ADVISERS FOR OPERATION AND MAINTENANCE			
VI. TRAINING FOR KESC PERSONNEL			
Total of Tender Price			

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(Tenderer's Name)

SUMMARY OF

SCHEDULE OF PRICES

(1/8)

DESCRIPTION	FOREIGN CURRENCY	LOCAL CURRENCY (Rs)	TOTAL IN EQUIVALENT LOCAL CURRENCY(Rs)
I. SUBSTATION AND GRID STATION FACILITIES			
(1) Equipment and materials (FOB)			
(2) Tansportation to Site			
(3) Insurance for transport to Site			
(4) Erection on Site			
(a) Equipment and materials for erection and test operation			
(b) Manufacturer's Specialists			
(c) Erection specialists, technicians and labors			
(d) Insurance for erection			
SUB-TOTAL			

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(Tenderer's Name)

DESCRIPTION	FOREIGN CURRENCY	LOCAL CURRENCY (Rs)	TOTAL IN EQUIVALENT LOCAL CURRENCY(Rs)
1. SUBSTATION EQUIPMENT			
(1) Equipment and materials (FOB)			
(2) Transportation to Site			
(3) Insurance for transport to Site			
(4) Erection on Site			
(a) Equipment and materials for erection and test operation			
(b) Manufacturer's Specialists			
(c) Erection specialists, technicians and labors			
(d) Insurance for erection			
SUB-TOTAL			

(Tenderer's Name)

DESCRIPTION	FOREIGN CURRENCY	LOCAL CURRENCY (Rs)	TOTAL IN EQUIVALENT LOCAL CURRENCY(Rs)
2. OUTDOOR EQUIPMENT			
(1) Equipment and materials (FOB)			
(2) Transportation to Site			
(3) Insurance for transport to Site			
(4) Erection on Site			
(a) Equipment and materials for erection and test operationperation			
(b) Manufacturer's Specialists			
(c) Erection specialists, technicians and labors			
(d) Insurance for erection			
SUB-TOTAL			

(Tenderer's Name)

(4/8)

DESCRIPTION	FOREIGN CURRENCY	LOCAL CURRENCY (Rs)	TOTAL IN EQUIVALENT LOCAL CURRENCY(Rs)
3. BALDIA GRID STATION EQUIPMENT			
(1) Equipment and materials (FOB)			
(2) Transportation to Site			
(3) Insurance for transport to Site			
(4) Erection on Site			
(a) Equipment and materials for erection and test operation			
(b) Manufacturer's Specialists			
(c) Erection specialists, technicians and labors			
(d) Insurance for erection			
SUB-TOTAL			

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(Tenderer's Name)

DESCRIPTION	FOREIGN CURRENCY	LOCAL CURRENCY (Rs)	TOTAL IN EQUIVALENT LOCAL CURRENCY(Rs)
II. 220kV UNDER GROUND CABLE			
(1) Equipment and materials (FOB)			
(2) Transportation to Site			
(3) Insurance for transport to Site			
(4) Erection on Site			
(a) Equipment and materials for erection and test operation			
(b) Manufacturer's Specialists			
(c) Erection specialists, technicians and labors			
(d) Insurance for erection			
SUB-TOTAL			

(Tenderer's Name)

DESCRIPTION	FOREIGN CURRENCY	LOCAL CURRENCY (Rs)	TOTAL IN EQUIVALENT LOCAL CURRENCY(Rs)
III. CIVIL AND ARCHITECTURAL WORKS			
220/132 kV Substation Building			
Transformer Yard Foundations			
Grid Station Baldia Building Extension			
Outdoor Equipment Foundations			
Underground Cable Tunnel			
SUB-TOTAL			

(Tenderer's Name)

DESCRIPTION	FOREIGN CURRENCY	LOCAL CURRENCY (Rs)	TOTAL IN EQUIVALENT LOCAL CURRENCY(Rs)
IV. MANDATORY SPARE PARTS AND EXPENDABLES (excluding Tenderer's recommended spare parts and recommended testing equipment)			
(1) Mandatory spare parts (FOB)			
(2) Expendables (consumable) (FOB)			
(3) Inland transportation to Site			
(4) Insurance for transport to Site			
SUB-TOTAL			
V. TECHNICAL ADVISERS FOR OPERATION AND MAINTENANCE			
VI. TRAINING FOR KESC PERSONNEL			
Total of Tender Price			

(Tenderer's Name)

Description	Foreign Currency in Currency of Country of Origin							Local Currency						Total in Equivalent Pak Rupees
	FOB Port of Export (A)	Marine Transportation to Port of Karachi (B)	Insurance for Transportation (C)	Erection and Commissioning (D)	Insurance for Erection and Commission (E)	Total Currency of Country of Origin (A)+(B)+(C)+(D)+(E)	Equivalent Pak Rupees	Customs Clearance & Inland Transportation to Project Storage Area (F)	Indigenous Equipment Material (G)	Insurance from port of Karachi to Project Storage Area (H)	Erection, Commissioning (I)	Insurance for Erection and Commissioning (J)	Total in Rupees (F)+(G)+(H)+(I)+(J)	
I. SUBSTATION AND GRID STATION FACILITIES														
1. SUBSTATION EQUIPMENT														
1.1 SF_6 GAS INSULATED SWITCHGEAR (GIS) WITH ACCESSORIES														
(1) 220 kV GIS														
(a) Transmission bay														
(b) Generator transformer bay														
(c) Interchange transformer bay														
(d) Bustie bay														
(e) Bus V.T.														
(f) Air compressor														
(2) 132 kV GIS														
(a) Transmission bay														
(b) Interchange and starting transformer bay														
(c) Grid station transformer bay														
(d) Bustie bay														
SUB-TOTAL														

(Tenderer's Name)

Description	Foreign Currency in Currency of Country of Origin							Local Currency						Total in Equivalent Pak Rupees
	FOB Port of Export (A)	Marine Transportation to Port of Karachi (B)	Insurance for Transportation (C)	Erection and Commissioning (D)	Insurance for Erection and Commission (E)	Total Currency of Country of Origin (A)+(B)+(C)+(D)+(E)	Equivalent Pak Rupees	Customs Clearance & Inland Transportation to Project Storage Area (F)	Indigenous Equipment Material (G)	Insurance from port of Karachi to Project Storage Area (H)	Erection, Commissioning (I)	Insurance for Erection and Commissioning (J)	Total in Rupees (F)+(G)+(H)+(I)+(J)	
(e) Bus V.T.														
(f) Air compressor														
1.2 POWER TRANSFORMER WITH ACCESSORIES														
(1) 220 kV/132 kV interchange transformer														
(2) 132 kV/11 kV grid station transformer														
1.3 CONTROL ROOM EQUIPMENT WITH ACCESSORIES														
(1) Line and bus control panel														
(2) Line and bus protective relay panel														
(3) 400 V switchgear														
(4) Distribution panel														
(5) Battery and battery charger														
1.4 TELECOMMUNICATION EQUIPMENT WITH ACCESSORIES														
(1) Non-metaric optical cable														
SUB-TOTAL														

(Tenderer's Name)

Description	Foreign Currency in Currency of Country of Origin							Local Currency						Total in Equivalent Pak Rupees
	FOB Port of Export (A)	Marine Transportation to Port of Karachi (B)	Insurance for Transportation (C)	Erection and Commissioning (D)	Insurance for Erection and Commission (E)	Total Currency of Country of Origin (A)+(B)+(C)+(D)+(E)	Equivalent Pak Rupees	Customs Clearance & Inland Transportation to Project Storage Area (F)	Indigenous Equipment Material (G)	Insurance from port of Karachi to Project Storage Area (H)	Erection, Commissioning (I)	Insurance for Erection and Commissioning (J)	Total in Rupees (F)+(G)+(H)+(I)+(J)	
(2) Optical line terminal equipment														
(3) RTU														
(4) Transduser panel														
(5) Power supply equipment														
(6) VHF communication equipment														
(7) Control console desk														
1.5 LIGHTING SYSTEM WITH ACCESSORIES														
1.6 CV (XLPE) CABLE WITH ACCESSORIES														
(1) 132 kV CV cable														
(2) 11 kV CV cable														
2. OUTDOOR EQUIPMENT AT NO. 1 TOWER														
(1) Lightning arrester with accessories														
(2) Gantry with accessories														
SUB-TOTAL														

(Tenderer's Name)

Description	Foreign Currency in Currency of Country of Origin							Local Currency						Total in Equivalent Pak Rupees
	FOB Port of Export (A)	Marine Transportation to Port of Karachi (B)	Insurance for Transportation (C)	Erection and Commissioning (D)	Insurance for Erection and Commission (E)	Total Currency of Country of Origin (A)+(B)+(C)+(D)+(E)	Equivalent Pak Rupees	Customs Clearance & Inland Transportation to Project Storage Area (F)	Indigenous Equipment Material (G)	Insurance from port of Karachi to Project Storage Area (H)	Erection, Commissioning (I)	Insurance for Erection and Commissioning (J)	Total in Rupees (F)+(G)+(H)+(I)+(J)	
3. BALDIA GRID STATION														
3.1 220 kV SF_6 GAS INSULATED SWITCH-GEAR WITH ACCES-SORIES														
(1) Transmission bay														
(2) Outdoor bushing														
3.2 CONTROL ROOM EQUIPMENT WITH ACCESSORIES														
(1) Line control panel														
(2) Line protective relay panel														
(3) Lighting system														
3.3 OUTDOOR EQUIPMENT														
(1) Lightning arrester with accessories														
(2) Gantry with acces-sories														
4. CONSTRUCTION MATERIALS														
4.1 CABLE														
(1) 600 V power cable														
SUB-TOTAL														

(Tenderer's Name)

Description	Foreign Currency in Currency of Country of Origin							Local Currency							Total in Equivalent Pak Rupees
	FOB Port of Export (A)	Marine Transportation to Port of Karachi (B)	Insurance for Transportation (C)	Erection and Commissioning (D)	Insurance for Erection and Commission (E)	Total Currency of Country of Origin (A)+(B)+(C)+(D)+(E)	Equivalent Pak Rupees	Customs Clearance & Inland Transportation to Project Storage Area (F)	Indigenous Equipment Material (G)	Insurance from port of Karachi to Project Storage Area (H)	Erection, Commissioning (I)	Insurance for Erection and Commissioning (J)	Total in Rupees (F)+(G)+(H)+(I)+(J)		
(2) 600 V control cable															
(3) Communication cable															
(4) Special cable															
4.2 CONDUIT															
4.3 CABLE TRAY															
4.4 GROUNDING WIRE															
5. TEST AND TESTING MATERIAL															
SUB-TOTAL															

(Tenderer's Name)

Description	Foreign Currency in Currency of Country of Origin							Local Currency						Total in Equivalent Pak Rupees
	FOB Port of Export (A)	Marine Transportation to Port of Karachi (B)	Insurance for Transportation (C)	Erection and Commissioning (D)	Insurance for Erection and Commission (E)	Total Currency of Country of Origin (A)+(B)+(C)+(D)+(E)	Equivalent Pak Rupees	Customs Clearance & Inland Transportation to Project Storage Area (F)	Indigenous Equipment Material (G)	Insurance from port of Karachi to Project Storage Area (H)	Erection, Commissioning (I)	Insurance for Erection and Commissioning (J)	Total in Rupees (F)+(G)+(H)+(I)+(J)	
II. 220 KV UNDER GROUND CABLE														
1. 220 KV OIL FIELD CABLE WITH ACCESSORIES														
2. CABLE HEAD														
3. OIL PRESSURE TANK WITH VALVE PANEL														
SUB-TOTAL														
GRAND TOTAL														

SCHEDULE OF PRICES

FOR

CIVIL AND ARCHITECTURAL WORKS

The quantities and working items which are listed in the Schedule of Prices are considered to be the estimated quantities and items for which the Bidder will be held responsible and on which the Bidder will submit his proposal price. The Bidder shall include all required materials and labors required to complete all works as stipulated in the Specification and/or Drawings.

Remarks FC means foreign currency in country of origin.

Unit rate for Civil and Architectural Works

Unit rate of each job item for Civil and Architectural Works in the Schedule of Prices shall include the all necessary costs required to perform and complete the work as listed below, but not limitted to the followings.

1. Direct cost
   - Main, subsidiary and consumable materials and equipment
   - Labor cost
   - Rent and purchase of constructional equipment and instrument including assembling, disassembling and transportation cost of the equipment
   - Transportation fees and expenses for various materials and equipment including ocean freight
   - Fuel expenses
   - Royalty
   - Cost of material and labor for temporary work

2. Common cost
   - Cost of material and labor for temporary facilities
   - Rent of area for material storage and constructional equipment storage area.
   - Cost of Safety equipment and facility
   - Cost of personnel expense related to safety
   - Expenses of common constructional equipment

3. Site administration cost
   - Site personnel Expense
   - Welfare expense
   - Insurance for employee's accident
   - Other expenses such as communication expense, social expense and others

4. General administration cost
   - Business expenses of the main and branch offices

5. Insurance
   - Legal insurance expense in accordance with the laws
   - Insurance for property damage under construction
   - Insurance for property damage during shipping
   - Other insurances

6. Tax
   - All kinds of taxes

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PROJECT: WEST WHARF THERMAL POWER PLANT LOT-IIA

SUBJECT: Civil & Architectural Works

SCHEDULE OF PRICES

DATE

SHEET OF

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
A. 220/132 kV Substation		L.S	1					
B. Transformer Yard Foundations		L.S	1					
C. Grid Station Baldia Extension		L.S	1					
D. Misc. Foundations		L.S	1					
E. Underground Cable Tunnel		L.S	1					
Total								

PROJECT: WEST WHARF THERMAL POWER PLANT LOT-IIA

SUBJECT: 220/132kV Substation

SCHEDULE OF PRICES

DATE

SHEET OF

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
A. 220/132 kV Substation								
(1) Earth Work		L.S	1					
(2) Piling Work		L.S	1					
(3) Reinforced Concrete Work		L.S	1					
(4) Structural Steel Work		L.S	1					
(5) Concrete Block Work		L.S	1					
(6) Waterproofing Work		L.S	1					
(7) Tile Work		L.S	1					
(8) Carpentry		L.S	1					
Sub total (1) - (8)								

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
(9) Metal Work		L.S	1					
(10) Plaster Work		L.S	1					
(11) Doors, Windows and Louvers		L.S	1					
(12) Painting Work		L.S	1					
(13) Interior Finish Work		L.S	1					
Sub total (9) - (13)								
(14) Ventilation and Air-Conditioning System								
1. Equipment work		L.S	1					
2. Piping work		L.S	1					
3. Air duct work		L.S	1					
4. Ventilation system		L.S	1					
5. Secondary electrical work		L.S	1					

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
Sub total (14)								
(15) Water Supply, Drainage Sewage System		L.S	1					
1. Water supply equipment work		L.S	1					
2. Sanitary fixture		L.S	1					
3. Drainage and vent system		L.S	1					
Sub total (15)								
(16) Dismantling Works		L.S	1					
Total (1) - (16)								

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DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
(1) Earth Work								
Excavation		m^3	1,730					Including disposal
Backfilling	Excavated sand	m^3	1,040					
Gravel layer	150mm thick	m^3	125					
Leveling concrete	50mm thick Class-F	m^3	45					
Dewatering		L.S	1					
Sheet pile	Horizontal projection length	m	132					Driving & Removing
Sub total (1)								

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
(2) Piling Work								
Steel pipe pile	Driving length ø609.6 x 9.0mm thick	m	1,296					Including materials, sand in pile, top reinforcement and field weld joint
Sub total (2)								
(3) Reinforced Concrete Work								
Reinforcing bar	ASTM A615 Gr.40 deformed	ton	115					Including bending, cutting and placing
Reinforced concrete	Mat foundation Class-D	m^3	720					Including form work
Reinforced conctrete	Under-ground wall Class-D	m^3	30					Including form work
Reinforced concrete	Slab Class-D	m^3	170					Including form work

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
Precast conrete panel	t=120mm Class-C	m^2	670					Including form with steel attachment and back-up materila & caulking
Light weight concrete		m^3	320					
Anchor frame and bolt setting		ton	1					
Sub total (3)								
(4) Structural Steel Work								
Structural steel	SS41	ton	202					Material & Fabrication
Structural steel erection		ton	202					Including Grouting for columm base
Miscellaneous steel	SS41	ton	5					Material,Fabri-cation & erection

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
Sub total (4)								
(5) Concrete Block Work								
Concrete hollow block	390 x 190 x 150	m^2	50					
Precast concrete block								
Light weight conrete block for roof		m^2	720					With sand cushion, elastic joint
Concrete block at corner roofing		m	175					
Terrazzo panel		m^2	5					With fixture
Sub total (5)								

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
(6) Waterproofing Work								
Built-up asphalt waterproof	Class-A	m^2	800					
Built-up asphalt waterproof	Class-B	m^2	10					
Caulking		m	680					Dobrs, windows, parapet lowers
Sub total (6)								
(7) Tile Work								
Ceramic mosaic tile		m^2	6					
Grazed wall tile		m^2	21					
Sub total (7)								

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
(8) Carpentry Work								
Wood trim and stool	w=750	m	80					Including painting
Kettle unit		set	1					Including painting
Mop rack		each	1					Including painting
Blind box	150 x 150 mm	m	11					Including painting
Hanging shelf	Painted plywood	set	1					With double swing door and enclosure
Sub total (8)								
(9) Metal Work								
Grating for floor	t=32mm galvanized	m^2	6					

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
Grating for tread of stair	t=25mm galvanized	m^2	17					
Steel deck	614 x 50 x 1.2 galvanized	m^2	1,150					
Metal siding	With fixing hardware	m^2	1,420					Including boiler
Hand rail	H=1,100	m	60					With painting Including stair hand rail
Metal trim		m	45					
Steel ladder	With safety cage	m	21					With painting Including anchoring
Checked & covers and frames		L.S	1					With corner angle with painting
Vinyl coated metal flushing		m^2	100					
Coping	Flattened area	m^2	160					
Vinyl coated metal for parapet rear side		m^2	115					
Corner beads		m	130					

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
Embedded plates hook and sleeve		L.S	1					With painting
Steel ring		each	35					With painting
Light weight suspended ceiling		m^2	340					
Light weight wall bed		m^2	320					
Roof drain	125mm dia vertical type	each	6					
Down spout	125mm galvanized	m	85					
Door sill	Stailess steel	m	5					
Free access floor	450 x 450 x 40	m^2	280					With cell fittings
Portable ladder	Aluminum l = 2.4 m	L.S	1					For the tunnel
Checkered plates	t = 6 mm	m^2	20					
Sub total (9)								

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
(10) Plaster Work								
Mortar steel trowolled	With metal lath	m^2	40					Stair tread & Roof gutter
Mortar steel trowelled finish		m^2	70					
Sub total (10)								
(11) Doors, Windows, and Louvers								
Steel flush hollow core swing door	Including threshold	m^2	23					With louver, glass painting and hardwares
Wood flush hollow core hanger door	Including threshold	m^2	1					With louver, glass, painting and hardwares
Rolling door		m^2	18					With louver, glass, painting and hardwares

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
Aluminium louvers		m^2	15					With bird screen
Aluminium window	With glass	m^2	23					
Sub total (11)								
(12) Painting Work								
Oil paint for structural steel		m^2	7,040					
Vinyl paint for concrete	3 coats exterior	m^2	820					
Vinyl paint for Gypsum board		m^2	180					
Acid & alkali proof paint		m^2	120					
Sub total (12)								

ep-1

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
(13) Interior Finish Work								
Vinyl tile	t=3.0mm	m^2	350					
Vinyl base	H-100	m	120					
Gypsum board		m^2	380					
Acoustic board		m^2	300					Incombustible
Glass wool	t=50	m^2	710					
Vinyl cloth		m^2	240					
Nameplates of room		each	5					
Cements asbestos flexible board		m^2	40					
Sub total (13)								

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
(14) Ventilation & Air-conditioning System								
1. Equipment work								
Packaged air conditioner	Air cooled Cooling capacity 37,200 Kcal/H Air flow: 10500CMH	EA	2					
Miscellaneous		L.S	1					
Sub total 1.								
2. Piping work								
Refrigerant pipe (Copper pipe)		L.S	1					
Drain pipe (Galvanized steel pipe)	25 ø	L.S	1					
Insulation		L.S	1					

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
Hanger & supports		L.S	1					
Miscellaneous		L.S	1					
Sub total 2.								
3. Air duct work								
Air duct (Galvanized iron sheet)	#24	L.S	1					
	#25	L.S	1					
	#26	L.S	1					
Volume damper	Multi-blade	L.S	1					
Air diffuser		L.S	1					
Insulation		L.S	1					

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
Hanger & support		L.S	1					
Miscellaneous		L.S	1					
Sub total 3.								
4. Ventilation system								
Exhaust air fan	Propeller fan 600ø x 6350CMH x 5mmAq x 0.75kW	EA	6					
Exhaust air fan	Propeller 350øx900CMHx5mmAqx50w	EA	3					
Miscellaneous		L.S	1					
Sub total 4.								

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
5. Secondary electrical work								
Materials for cables etc.		L.S	1					
Board		EA	1					
Sub total 5.								
Sub total (14)								
(15) Water Supply, Drainage Sewage System								
1. Water supply equipment work								
Water supply pipe (Galvanized steel pipe)	20 - 25ø	L.S	1					
Valve	With box 20 - 25ø	EA	1					

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
Insulation		L.S	1					
Hanger & support		L.S	1					
Miscellaneous		L.S	1					
Electric heater		L.S	1					
Sub total 1.								
2. Sanitary fixture								
Water closet	Vitreous china wash down coupled w/low tank, paper holder	EA	1					
Urinal	V.C wall hanged flash valve	EA	1					
Lavatory	V.C wall hanged w/liquid soap holder, mirror	EA	1					

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DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
Miscellaneous		L.S	1					
Sub total 2.								
3. Drainage & vent system								
Septic tank	FRP Capacity: 2.0m^3							
Sewage pipe (Cast iron pipe)	50ø - 100ø	L.S	1					
Drain pipe & vent pipe (Galvanized steel pipe)	40ø - 100ø	L.S	1					
Lead pipe	50ø - 75ø	Lot	1					
Insulation		L.S	1					
Floor drain	FD	L.S	1					
Clean out	CO	L.S	1					

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
Soil water basin	Concrete	L.S	1					
Rain water basin	Concrete	L.S	1					
Miscellaneous		L.S	1					
Sub total 3.								
Sub total (15)								
(16) Dismantling Works		L.S	1					

PROJECT: WEST WHARF THERMAL POWER PLANT LOT-IIA

SCHEDULE OF PRICES

DATE

SUBJECT: Transformer Yard Foundations

SHEET OF

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
B. Transformer/Yard Foundations		L.S	1					Including oil separator
Excavation		m^3	1,350					Including disposal
Backfilling		m^3	430					
Sheet pile	Horizontal projection length	m	147					Driving and removing
Dewatering		L.S	1					
Gravel layer	150 mm thick	m^3	60					
Leveling concrete	50 mm thick Class-F	m^3	20					
Steel pipe pile	ø609.6 x 9.0 mm	m	792					Including materials sand pile, concrete in pile, top reinforcement and field weld joint
Reinforced concrete	Under ground Class-D	m^3	840					

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
Reinforced concrete	Wall Class-D	m^3	65					
Reinforced bar	ASTM A615 Gr 40 Deformed	ton	52					
Checkered plate cover and corner angle	Plate 6 mm	m^2	4					Including painting
Asbestos cement pipe		L.S	1					
Ladder (steps)	400 mm width ø 22	L.S	1					Including painting
Drainage system		L.S	1					Steel pipes valves etc.
Hand rail	H = 1.1 m with chain	m	22					
Wire net		m^2	5					
Grating		m^2	3					
Dismantling		L.S	1					
Total								

PROJECT: WEST WHARF THERMAL POWER PLANT LOT-IIA

SUBJECT: Grid Station Baldia Extension

SCHEDULE OF PRICES

DATE

SHEET OF

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
C. Grid Station Baldia Extension								
(1) Earth Work		L.S	1					
(2) Reinforced Concrete Work		L.S	1					
(3) Concrete Block Work		L.S	1					
(4) Waterproofing Work		L.S	1					
(5) Metal Work		L.S	1					
(6) Plaster Work		L.S	1					
(7) Doors Windows and Louvers		L.S	1					
(8) Painting Work		L.S	1					
(9) Ventilation System		L.S	1					

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
(10) Drainage system		L.S	1					
Total B.								

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
(1) Earth Work								
Excavation		m^3	1,560					Including disposal
Backfilling	Excavated sand	m^3	1,200					
Gravel layer	150mm thick	m^3	75					
Leveling concrete	50mm thick Class-F	m^3	25					
Sub total (1)								
(2) Reinforced Concrete Work								
Reinforcing bar	ASTM A615 Gr.40 deformed	ton	64					Including bending, cutting and placing
Reinforced concrete	Underground Class-D	m^3	55					Including form work

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
Reinforced concrete	Column, wall, beam, slab Class-D	m^3	230					Including form work
Reinforced concrete	Slab on grade Class-E	m^3	105					Including form work
Precast concrete panel	Class-C	m^2	400					Roof
Concrete chipping		m^3	21					Including form work
Expansion joints	Asphalt felt 12 mm thick	m^2	50					Including asphalt filling
Sub total (2)								
(3) Concrete Block Work								
Concrete hollow block	390 x 190 x 150	m^2	580					
Precast concrete block								

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
Light weight concrete block for roof		m^2	400					With sand cushion, elastic joint
Splush block		each	4					
Removal of existing concrete block wall		L.S	1					Including existing ladder conduit etc.
Sub total (3)								
(4) Waterproofing Work								
Built-up asphalt waterproof	Class-A	m^2	450					
Caulking		m	220					Door, windows, parapet louvers
Sub total (4)								

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
(5) Metal Work								
Grating	t = 32 mm galvanized	m^2	4					
Steel ladder	With safety cage	m	12					Including anchoring
Checkered plate cover and frames		L.S	1					With corner angle with painting
Embedded plates, hooks, and sleeves		L.S	1					With anchoring painting
Steel ring		each	12					
Roof drain		each	4					
Down spout		m	50					
Expansion joint cover	Stainless steel	m	40					
Sub total (5)								

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
(6) Plaster Work								
Mortar plastering for wall		m^2	1,660					
Mortar steel trowolled	With metal lath	m^2	20					Roof gutter
Mortar steel trowelled	For coping	m	80					
Mortar steel trowolled	For floor	m^2	400					
Sub total (6)								
(7) Doors, Windows, and Louvers								
Steel flush hollow core swing door	Including threshold	m^2	2					With painting and hardwares
Aluminium window	With glass	m^2	21					
Nameplate for room		each	1					

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
Steel louvers		m^2	3					With bird screen
Sub total (7)								
(8) Painting Work								
Vinyl paint for mortar	2 coats interior	m^2	1,100					
Durosem cement paint		m^2	1,070					
Sub total (8)								
(9) Ventilation System								
Exhaust air fan	Propeller fan 500ø x 4240CMH x 5mmAq x 0.4 Kw	EA	5					

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
Miscellaneous		L.S	1					
Secondary electrical wiring		L.S	1					
Control panel		EA	1					
Sub total (9)								
(10) Drainage System								
Drainage system		L.S	1					
Sub total (10)								

PROJECT: WEST WHARF THERMAL POWER PLANT LOT-IIA

SUBJECT: Misc. Foundations

SCHEDULE OF PRICES

DATE

SHEET OF

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
D. Misc. Foundations for Grid Station Site and Tower No.1 Side								
Excavation	Ordinary	m^3	278					
Excavation	Rock	m^3	340					
Backfilling		m^3	420					
Gravel layer		m^3	16					
Leveling concrete	Class-F	m^3	17					
Dewatering		L.S	1					
Cast in situ RC pile	ø55.9 cm	m	24					
Reinforcing bar	ASTM A615 Gr. 40 Deformed	ton	10					
Reinforced concrete	Slab on grade Class-E	m^3	371					

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DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
Reinforced concrete	Equip. foundation Class-D	m^3	165					
Steel trowelled finish		m^2	1,855					
Embedded plates, hooks, and sleeves		L.S	1					With painting
Wire net fence	Galvanized H=1,500 mm	m	26					Including foundation with gate
Wire net fence	Galvanized H=1,800 mm	m	166					Including foundation with gate and barbed
Drainage system		L.S	1					
Total								

PROJECT: WEST WHARF THERMAL POWER PLANT LOT-IIA

SCHEDULE OF PRICES

DATE

SUBJECT: Underground Cable Tunnel

SHEET OF

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
E. Underground Cable Tunnel								
Pavement removal	Ordinary	m^2	2,870					
Retaining wall work	Driving & removing	ton	3,730					
Retaining wall work	Only driving	ton	1,400					
Excavation work	By mechanical	m^3	11,250					
Excavation work	By mech. & manu.	m^3	18,900					
Disposal excavation mat.		m^3	10,400					
Back filling		m^3	17,800					
Dewatering		L.S	1					
Cravel layer	200 mm thick	m^3	820					

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DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
Leveling conc.	100 mm thick Class-F	m^3	410					
Conc.	Class-D	m^3	4,340					
Form staging	Timbering	m^3	7,000					
Reinforcing bar		ton	440					
Expansion joint	Water stop (polyvinyl)	No.	43					
Construction joint		m	5,000					
Miscellaneous fitting		L.S	1					
Site investigation Total		L.S	1					
Surveying		L.S	1					
Trial pit		L.S	1					
Decking work		L.S	1					
Protection of water pipe		L.S	1					

DESCRIPTION	SPECIFICATION	UNIT	QUANTITY	Rs		FC		REMARKS
				UNIT-PRICE	AMOUNT	UNIT-PRICE	AMOUNT	
Protection of other facilities		L.S	1					
Remove & reinstate road facilities		L.S	1					
Miscellaneous work at Lot-I boundaly		L.S	1					
Drainage work		L.S	1					
Dismantle & reinstate rail way		L.S	1					
Dismantle existing gantry		L.S	1					
Site preparation and reinstatement		L.S	1					
Traffic protection and safety control		L.S	1					
Total								

(Tenderer's Name)

APPENDIX B

FORM OF TENDER BOND

BOND Executed on _____

Name of Surety and Address _____

_____

Name of Principal (Tenderer) and Address _____

_____

_____

Panel Sum of Bond (Express in words and figures) _____

_____

Date of Bid _____

KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Bid and at the request of the said Principal (Tenderer) we, the Surety above-named are held and firmly bound onto the Karachi Electric Supply Corporation Limited (hereinafter called the Owner) in the sum stated above, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Tenderer has submitted the accompanying Bid dated _____ for Conftract No. _____ for the Supply and Erection, of _____ _____ for the West Wharf Thermal Power Plant Project Units No.1 and No. 2, Lot-IIA for the said Owner.

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_____
(Tenderer's Name)

WHEREAS, the Owner has required as a condition for considering said Tender that the Tenderer deposit with the Owner either a certified cheque or Cashier's cheque or banker's draft in the amount of _____ _____ (Rs. _____ _____ or in lieu therof furnish a Bid Bond or Guarantee in like amount from a Scheduled Bank of Pakistan (or in case of a foreign Bank under-written by a Scheduled Bank of Pakistan).

Conditioned as under:

(1) that the Bid Bond or Guarantee shall remain valid for not less than _____ days following the date set for opening of Bids regardless of the validity period of the Bid itself; and

(2) that the Bid Bond or Guarantees of unsuccessful Tenderers will be returned by the Owner upon award of the Contract; and

(3) that in event of failure of the successful Tenderer to execute the proposed Contract Agreement for such Works and furnish the required Performance Bond, the entire said sum be paid immediately to the said Owner as liquidated damages and not as penalty for the successful Tenderer's failure to perform.

NOW, THEREFORE, if the successful Tenderer shall, within the period specified therefor, on the attached prescribed form presented to him for signatures, enter into a formal Contract with the said Owner in accordance with his Bid as accepted and furnish within (45) days of his being requested to do so, a Performance Bond with good and sufficient surety, as may be required, upon the form prescribed by the said

(Tenderer's Name)

Owner for the faithful Performance and the proper fulfillment of said Contract, or in the event of withdrawal of said Bid within the time specified then this obligation shall be void and of no effect, but otherwise to remain in full force and effect.

PROVIDED THAT the Surety shall forthwith pay the Owner the sum of _____ (Rs. _____ upon first written demand of the Owner, notice of which shall be sent by the Owner by the registered post duly addressed to the Surety at its address given above.

PROVIDED ALSO THAT the Owner shall be the sole and final judge for deciding whether the Principal (Tenderer) has duly performed his obligations to sign the Contract and to furnish the requisite Performance Bond within the time stated above, or has defaulted in fulfilling said requirements and the Surety shall pay without objection the sum of _____ (Rs. _____ _____) upon demand from the Owner forthwith and without any reference to the Principal (Tenderer) or any person.

(Tenderer's Name)

IN WITNESS WHEREOF, the above bounden Surety has executed this instrument under its seal on the date indicated above, the name and seal of the Surety being, hereto affixed and these presents duly signed by its undersigned representative pursuant to authority of its governing body.

SURETY

WITNESS

1. _____

_____
Corporate Secretary (seal)

2. _____

_____

_____

1. Signature _____

2. Name _____

3. Title _____

_____
Corporate Surety (Seal)

_____

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_____
(Tenderer's Name)

APPENDIX D

RECEIPT OF ADDENDA

Tenderers shall acknowledge receipt of each addendum by listing hereunder each addendum received.

Receipt of the following addenda are acknowledged.

Addendum numbered _____ dated _____

_____ dated _____

_____ dated _____

_____ dated _____

_____ dated _____

_____ dated _____

Signed .....

Date .....

Company Stamp

(Tenderer's Name)

APPENDIX E

LIST FOR GOODS IMPORTED OUTSIDE OF ELIGIBLE SOURCE COUNTRIES

Refer to next page.

APPENDIX E

LIST FOR GOODS IMPORTED OUTSIDE OF ELEGIBLE SOURCE COUNTRIES

(Tenderer's Name)

Tenderers shall fill up and submit this List attaching to the FORM OF CERTIFICATES FOR SOURCES & ORIGIN, AND ELIGIBILITY OF OECF specified in Volum 1

Item No.	Name of Equipment for Item-by-Item (A)	Name of Equipment or Materials (B)	Cost	Percentage* of B/A (%)

(Tenderer's Name)

APPENDIX F

DELIVERY AND CONSTRUCTION SCHEDULE

Milestone	Delivery/Completion from Date of Owner's Order to proceed
o Contractor's Data and Drawings Specified in 3.1 of Part I, Volume 2	within 6 months
o Other Data and Drawings	
o Shipment of Plant Equipment and Materials at FOB Port of Export	
o Arrival of Plant Equipment and Materials at Karachi Port	2 months from the date of delivery FOB port of export
o Delivery of Plant Equipment and Materials at Job Site	
o Installation Complete Start Preoperational Test	
o Performance and Acceptance Test	21 months

(Tenderer's Name)

APPENDIX G

DEPARTURES FROM OR QUALIFICATIONS TO TENDER DOCUMENTS

The Tender shall specify below, in detail, all deviations from the Tender Document (additional sheets shall be included suffixed (a), (b), (c), etc. should the space provided be inadequate). Any entry shall be referenced to the Tender Documents Part No. and Clause No. to which they refer.

The Tender shall be deemed to be compliant in all respects with the content and intent of the Tender Documents except in respect of deviations and exceptions listed hereunder. The Tender shall sign under seal as indicated hereunder to confirm that in all matters, except as detailed in this Form, the Tender submitted is in accordance in all respects with the Tender Documents.

The Tender shall initial on all sheets and complete this Form by signing under seal as indicated.

(Tenderer's Name)

We, ... the Tenderer do hereby certify that the Tender submitted is in full compliance with the Tender Document except for the deviations listed herein.

We further certify that any other deviations or exceptions identified or detected prior to or during the execution of the Contract for the Works will be corrected by the Tenderer/Contractor to comply with the requirements of the Tender Documents and Contract Documents without any increase in the price for the Works and without any delay in the execution of the Contract.

Signed .....

Date .....

Seal of Tenderer

(Tenderer's Name)

APPENDIX H

MANAGEMENT PROCEDURES

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APPENDIX I

TENDERER'S DATA SHEETS

PAGE

Tenderer's Data Sheet

_____
(Tenderer's Name)

1. SUBSTATION EQUIPMENT

1.1 SF6 GAS INSULATED SWITCHGEAR

1.1.1 220 kV SF6 GAS INSULATED SWITCHGEAR

Electrical characteristics

Manufacturer		_____
Type		_____
Rated voltage	(kV)	_____
Highest system voltage	(kV)	_____
Rated frequency	(Hz)	_____
Insulation level:		
Impulse withstand voltage (1.2/50 wave)	(kV) (peak)	_____
Power frequency withstand voltage	(kV)	_____
Max. asymmetric threephase short-circuit		
withstand current	(kA) (peak)	_____
Short-time current		
a) 1 sec.	(kA)	_____
b) 3 sec.	(kA)	_____

Busbars

Rated current	(A)	_____
Busbar cross-section	(mm^2)	_____
Busbar material	-	_____
Single-phase/three-phase busbars enclosed in tubing	-	_____
Tubing material	(mm)	_____
Tubing diameter	-	_____
Rated pressure of SF6-insulation	(bar)	_____

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Tenderer's Data Sheet

_____
(Tenderer's Name)

Maximum and minimum admissible pressure of SF6-insulation (bar) _____

Circuit (outgoing, ingoing)

Rated current (A) _____

Busbars cross-section (mm^2) _____

Circuit Breakers

Type designation _____

Specification to which manufactured _____

Test certificates:

- Issuing Institute _____
- No. and date _____

Nominal system voltage (kV)(rms) _____

Maximum design voltage, (kV)(rms) _____

Rated frequency (Hz) _____

Rated normal current (A) _____

Rated short circuit breaking current at nominal system voltage

- Symmetrical (kA) _____
- Asymmetrical (kA) _____

Rated duration of short circuit (Sec.) _____

Nominal three phase interrupting capability at nominal rated voltage (MVA) _____

Rated short circuit making cuurent at nominal system voltage (kA)(peak) _____

Rated line charging breaking current at nominal system voltage, (A) _____

Tenderer's Data Sheet

_____
(Tenderer's Name)

Rated out of phase breaking current, at nominal system voltage	(A)	_____
Rated arc quenching pressure of isolation	(bar)	_____
Rated operating sequence	-	_____
Auto-reclose, single-phase/ three-phase	-	_____
Operating time		
Rated reclosing time	(ms)	_____
Rated maximum break time:	(ms)	_____
a) for 25-100 percent of the required rated breaking current	(msec.)	_____
b) for below 25 percent of the required rated breaking current	(msec.)	_____
Dead time	(ms)	_____
Tolerance	(%)	_____
Rated closing time	(ms)	_____
Lack of simultaneity between any two of three poles		
- At contacts parting	(msec.)	_____
- At contacts closing	(msec.)	_____
Rated power frequency withstand voltage	(kV)(rms)	_____
Rated impulse withstand voltage	(kV)(peak)	_____
First pole to clear factor		
Rated transient recovery voltage for terminal faults (for 2 kV/micro sec rate of rise	(kV)(peak)	_____

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Tenderer's Data Sheet

_____
(Tenderer's Name)

Rated transient recovery voltage for short line faults (for 2 kV/micro sec rate of rise	(kV)(peak)	_____
Rated control voltage of		
- Closing coil	(V)dc	_____
- Tripping coil	(V)dc	_____
Operating voltage range		
- Closing coil	(V)dc	_____
- Tripping coil	(V)dc	_____
Rated 3 phase closing control current		
- Initial,	(A)dc	_____
- Holding,	(A)dc	_____
Rated tripping control current per trip coil	(A)	_____
Number and type and auxiliary contacts		
Current rating of auxiliary contacts		
- Making current	(A)	_____
- Holding current	(A)	_____
- Breaking current	(A)	_____
Number of operations before contacts have to be changed when used to interrupt		
- Full load current	(A)	_____
- Short circuit current	(A)	_____
- Line charging current	(A)	_____
No. of breaks per pole		_____
No. of operating mechanisms for 3 pole circuit breaker		_____

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Tenderer's Data Sheet

_____
(Tenderer's Name)

Whether trip free or fixed trip		
- Electrically		_____
- Mechanically		_____
Provision of anti-pumping device (Yes/No)		_____
Operating mechanism type		
- Tripping		_____
- Closing		_____
Number of close-open operations which can be performed by the stored energy in each circuit breaker operating device starting at the normal working pressure and without replenishing.		_____
Normal value of pressure, and range of pressure within which the circuit-breaker will operate satisfactorily.	M Pa	_____
Append description of stored energy system to be furnished with circuit breaker.		_____
Time required to pump from lockout pressure to normal pressure.	(Sec)	_____
Driving motor rating.	(W)	_____

Isolating Switches

Type designation	-	_____
Specification to which manufactured	-	_____
Test certificates:		
- Issuing Institute	-	_____
- No. and date	-	_____

Tenderer's Data Sheet

_____
(Tenderer's Name)

Nominal system voltage	(kV)(rms)	_____
Maximum design voltage,	(kV)(rms)	_____
Rated frequency	(Hz)	_____
Rated normal current	(A)	_____
Rated short time withstand current 1 sec/3 sec	(kA/kA)	_____
Rated peak withstand current	(kA)(peak)	_____
Rated short circuit making current	(kA)(peak)	_____
Rated one minute power frequency withstand voltage		
- Across the isolating distance	(kV)(rms)	_____
- To earth and between poles	(kV)(rms)	_____
Rated lightening impulse withstand voltage		
- Across the isolating distance	(kV)(peak)	_____
- To earth and between poles	(kV)(peak)	_____
Type of operating mechanism	-	_____
Rating of operating mechanism		_____
- Voltage, d.c.	(V)	_____
- Power	(kW)	_____
Are switches also manually operated	Yes/No	_____

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Tenderer's Data Sheet

_____
(Tenderer's Name)

Earthing switches

Type designation	-	_____
Specification to which manufactured	-	_____
Test certificates:		
- Issuing Institute	IEC 517 IEC 129	_____
- No. and date	-	_____
Nominal system voltage	(kV)(rms)	_____
Maximum design voltage,	(kV)(rms)	_____
Rated frequency	(Hz)	_____
Rated short-time 1 sec/3 sec withstand current	(kA/kA)	_____
Rated peak withstand current	(kA)(peak)	_____
Rated short-circuit making current fast earthing switches	(kA)(peak)	_____
Rated one minute power frequency withstand voltage	(kV)(rms)	_____
Rated lightening impulse withstand voltage	(kV)(peak)	_____
Type of operating mechanism	-	_____
Rating of operating mechanism		_____
- Voltage, d.c.	(V)	_____
- Power	(kW)	_____
Are switches also manually operated	Yes/No	_____

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Tenderer's Data Sheet

_____
(Tenderer's Name)

Torodidal current transformer

Type		_____
Rated primary current	(A)	_____
Rated secondary current:		_____
Measuring	(A)	_____
Protection 1	(A)	_____
Protection 2	(A)	_____
Diff. protection	(A)	_____
Accuracy class:		
Measuring	class	_____
Protection 1	class	_____
Protection 2	class	_____
Diff. protection	class	_____
Rating ouput:		
Measuring	(VA)	_____
Protection 1	(VA)	_____
Protection 2	(VA)	_____
Diff. protection	(VA)	_____
Saturation factor:		
Measuring	(n)	_____
Protection 1	(n)	_____
Protection 2	(n)	_____
Diff. protection	(n)	_____
Dynamic current	(x I_N)	_____
Thermal current	(x I_N)	_____

Tenderer's Data Sheet

_____
(Tenderer's Name)

Voltage transformer

Type	-	_____
Rated primary voltage	(kV)	_____
Rated secondary voltage:		
Measuring	(V)	_____
Protection	(V)	_____
Accuracy class:		
Measuring	class	_____
Protection	class	_____
Rated output:		
Measuring	(VA)	_____
Protection	(VA)	_____

Cable end fittings

Type	-	_____
Rated voltage	kV	_____
Rated current	A	_____
Insulation	-	_____

Main dimension (one field)

Height x width x depth	m	_____
Weight	t	_____
Weight of copper	t	_____
Weight of aluminium	t	_____

Tenderer's Data Sheet

_____
(Tenderer's Name)

1.1.2 132 kV SF6 GAS INSULATED SWITCHGEAR

Electrical characteristics

Manufacturer		_____
Type		_____
Rated voltage	(kV)	_____
Highest system voltage	(kV)	_____
Rated frequency	(Hz)	_____
Insultaion level:		
Impulse withstand voltage (1.2/50 wave)	(kV)(peak)	_____
Power frequency withstand voltage	(kV)	_____
Max. asymmetric threephase short-circuit		
Withstand current	(kA)(peak)	_____
Short-time current		
a) 1 sec.	(kA)	_____
b) 3 sec.	(kA)	_____

Busbars

Rated current	(A)	_____
Busbar cross-section	(mm^2)	_____
Busbar material	-	_____
Single-phase/three-phase busbar enclosed in tubing	-	_____
Tubing material	-	_____
Tubing diameter	(mm)	_____
Rated pressure of SF6-insulation	(bar)	_____
Maximum and minimum admissible pressure of SF6-insulation	(bar)	_____

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Tenderer's Data Sheet

_____
(Tenderer's Name)

Circuit (outgoing, ingoing)

Rated current	(A)	_____
Busbars cross-section	(mm^2)	_____

Circuit Breakers

Type designation		_____
Specification to which manufactured		_____
Test certificates:		
- Issuing Institute		_____
- No. and date		_____
Nominal system voltage	(kV)(rms)	_____
Maximum design voltage,	(kV)(rms)	_____
Rated frequency	(Hz)	_____
Rated normal current	(A)	_____
Rated short circuit breaking current at nominal system voltage		
- Symmetrical	(kA)	_____
- Asymmetrical	(kA)	_____
Rated duration of short circuit	(sec.)	_____
Nominal three phase interrupting capability at nominal rated voltage	(MVA)	_____
Rated short circuit making current at nominal system voltage	(kA)(peak)	_____
Rated line charging breaking current at nominal system voltage	(A)	_____
Rated out of phase breaking current, at nominal system voltage	(A)	_____

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Tenderer's Data Sheet

_____
(Tenderer's Name)

Rated arc quenching pressure of isolation	(bar)	_____
Rated operating sequence	-	_____
Auto-reclose, single-phase/ three-phase	-	_____
Operating time		
Rated reclosing time	(ms)	_____
Rated maximum break time:	(ms)	_____
a) for 25-100 percent of the required rated breaking curent	(msec)	_____
b) for below 25 percent of the required rated breaking current	(msec)	_____
Dead time	(ms)	_____
Tolerance	(%)	_____
Rated closing time	(ms)	_____
Lack of simultaneity between any two of three poles		
- At contacts parting	(msec)	_____
- At contacts closing	(msec)	_____
Rated power frequency withstand voltage	(kV)(rms)	_____
Rated impulse withstand voltage	(kV)(peak)	_____
First pole to clear factor		
Rated transient recovery voltage for terminal faults (for 2 kV/micro sec rate of rise)	(kV)(peak)	_____
Rated transient recovery voltage for short line faults (for 2 kV/micro sec rate of rise)	(kV)(peak)	_____

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Tenderer's Data Sheet

_____
(Tenderer's Name)

Rated control voltage of		
- Closing coil	(V)dc	_____
- Tripping coil	(V) dc	_____
Operating voltage range		
- Closing coil	(V)dc	_____
- Tripping coil	(V)dc	_____
Rated 3 phase closing control current		
- Initial	(A)dc	_____
- Holding	(A)dc	_____
Rated tripping control current per trip coil	(A)	_____
Number and type and auxiliary contacts		_____
Current rating of auxiliary contacts		_____
- Maxing current	(A)	_____
- Holding current	(A)	_____
- Breaking current	(A)	_____
Number of operations before contacts have to be changed when used to interrupt		
- Full load current	(A)	_____
- Short circuit current	(A)	_____
- Line charging curent	(A)	_____
No. of breaks per pole		_____
No. of operating mechanisms for 3 pole circuit breaker		_____

Tenderer's Data Sheet

_____
(Tenderer's Name)

Whether trip free or fixed trip	
- Electrically	_____
- Mechanically	_____
Provision of anti-pumping device (Yes/No)	_____
Operating Mechanism type	
- Tripping	_____
- Closing	_____
Number of close-open operations which can be performed by the stored energy in each circuit breaker operating device starting at the normal working pressure and without replenishing.	_____
Normal value of pressure, and range of pressure within which the circuit-breaker will operate satisfactorily. M Pa	_____
Append description of stored energy system to be furnished with circuit breaker.	_____
Time required to pump from lockout pressure to normal pressure. (Sec)	_____
Driving motor rating. (W)	_____

Tenderer's Data Sheet

_____
(Tenderer's Name)

Isolating switches

Type designation	-	_____
Specification to which manufactured	-	_____
Test certificates:		
- Issuing Institute	-	_____
- No. and date	-	_____
Nominal system voltage	(kV)(rms)	_____
Maximum design voltage,	(kV)(rms)	_____
Rated frequency	(Hz)	_____
Rated normal current	(A)	_____
Rated short time withstand current 1 sec/3 sec	(kA/kA)	_____
Rated peak withstand current	(kA)(peak)	_____
Rated short circuit making current	(kA)(peak)	_____
Rated one minute power frequency withstand voltage		
- Across the isolating distance	(kV)(rms)	_____
- To earth and between poles	(kV)(rms)	_____
Rated lightening impulse withstand voltage		
- Across the isolating distance	(kV)(peak)	_____
- To earth and between poles	(kV)(peak)	_____
Type of operating mechanism	-	_____
Rating of operating mechanism		_____
- Voltage, d.c.	(V)	_____
- Power	(kW)	_____

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