

ESKOM GENERATION

2024

**Camden Power Station Rapid
Deployment Desalination Water
Treatment Plant Project - Phase
1 - Bills Of Quantities****CONTRACT NUMBER****CONTRACTOR****CONTRACT AMOUNT
(Excluding VAT)****CONTRACT AMOUNT
(incl VAT)**

PHASE 1 - DESIGN SUPPLY AND INSTALLATION

**Camden Power Station Rapid Deployment Desalination Water Treatment Plant
Project Bills Of Quantities**

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| | |
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NOTES TO TENDERERS

Camden Power Station Rapid Deployment Desalination Water Treatment Plant Project Bills Of Quantities

NOTES TO TENDERERS

NOTES TO TENDERERS

1. BILLS OF QUANTITIES

This document comprises Notes to Tenderers and Bills of Quantities and is hereafter referred to as "the Bills of Quantities".

The Tenderers are to note that this is a Contract with a Bills of Quantities.

2.1 CONTRACT DOCUMENTS

The contract documents will consist of:

2.1.1 The NEC3 Engineering and Construction Short Contract 2013 together with all amendments for the designs, manufactures, procures and installation PHASE 1

2.1.1 The NEC3 Engineering and Terms Service Contract 2013 together with all amendments for the Operation and Maintenance PHASE 2

2.1.2 These Bills of Quantities, including all annexures and supplementary documentation referred to therein.

2.1.3 Documents to be provided by the Contractor in terms of the requirements of these Bills of Quantities.

2.1.4 Construction Regulations 2014

2.1.5 Occupational Health and Safety Act of 1993

2.1.11 CESMM3 Standard Method of Measuring Civil Engineering work

3. DRAWINGS

There are no drawings available for this project

4 VALUE ADDED TAX

Tenderers should compute their rates from the net costs (excluding Value Added Tax). Value Added Tax at the current rate of 15% is to be added to the net sub-total on the final summary page by means of a single sum calculation to establish the tender price.

5 SCOPE OF WORK

As a guide only, the work comprises as follows:-

The Project is split in two Phases namely:

Phase 1 includes the Design,Manufacture,Supply and Install a Mobile Desaination Water Treatment Facilitiy

Phase 2 Includes the Operation and Maintenance for the Water Treatment Plant

6 ADDRESS WHERE DOCUMENTS CAN BE OBTAINED

Tender documents will be made available Electronically on an online portal to be provided by Eskom

7 POSSESSION OF SITE

The date of which possession of the Site shall be given to the Contractor shall be within 7 **working days** of the acceptance of this tender.

8 CONSTRUCTION PERIOD - DATES FOR PRACTICAL COMPLETION

The intended date for practical completion and penalty for each calendar day for non-completion shall be:

Practical Completion: PHASE 1 (6 Month from the date of Site Handover)

Practical Completion: PHASE 2 (18 Month from the date of Site Handover)

9. TENDERS

Tenderers are required to visit the site of the Works before tendering and must obtain a signature from the Employer or his duly authorised representative to the effect that they have done so. Failure to visit the site and to submit the Certificate of Acquaintance with the tender will result in the rejection of the tender.

10. A NON compulsory site inspection will be conducted.

The Tenderer confirms that he has acquainted himself with the contract documentation and that he fully understands the extent of the Works to be executed as specified and implied for the execution of this contract.

The Employer will not be liable for any costs incurred in the preparation of the tender nor will he be bound to accept the lowest or any portion of any tender.

No telegraphic or facsimile tenders will be accepted.

When a Tenderer has been advised by letter of acceptance of his tender, the office of the SA Post Office Limited shall be regarded as the agent of the Tenderer and delivery of such notice of acceptance to the SA Post Office Limited shall be considered as delivery to the Tenderer.

Where a Tenderer has been informed per email message of the acceptance of his tender, the acknowledgement of receipt transmitted to his email shall be regarded as proof of delivery to the Tenderer.

11 COMMON LAW OR BY-LAW REQUIREMENTS

No liability for not specifically mentioning any normal contractual, Common Law or By-Law requirements will be accepted by the Employer, or Contracts Manager.

12 AREA OF WORKS

The Tenderer shall ascertain by personal viewing of the site any restrictions to the area that may be occupied by the contractor including any restrictions imposed by any buildings, etc. and any limitations or restrictions that may be imposed by Eskom Engineers.

Access to the site shall be logically planned and enclosed to ensure minimum disruption to existing user operations.

The contractor is deemed to have allowed for all necessary temporary fencing, screening, hoardings, etc.

Space for the storage of Materials must be arranged with the Contracts Manager

The Contractor shall make all necessary provisions in all rates to take into account these requirements as no claims for extras arising from these matters will be subsequently entertained as admitted. Tenderers will be held responsible for any misunderstanding of incorrect information, however obtained, except information which may have been given in writing over the signature of the Contracts Manager.

13 MANAGEMENT OF WORKS

The Contractor shall, to the satisfaction of the Contracts Manager, provide, in addition to the Contractor's Site Representative, the services of an experienced and competent Construction Manager.

The names and CV's of the Contractor's proposed Management Team shall be submitted to the Contracts Manager prior to commencement on site and, after the Contracts Manager's agreement on the composition and competence thereof has been obtained, no changes shall be made nor shall any member of the said team be removed from the project while remaining in the employ of the Contractor without the Contracts Manager's prior written approval.

The Contractor shall make necessary provisions in all rates to take into account these requirements as no claims for extras arising from these matters will be subsequently entertained or admitted.

14 INSPECTION OF WORK

The Contractor shall obtain all local authority approvals if required and shall ensure that all work is also approved by the Contracts Manager prior to covering up. The fact that the work will be inspected periodically in no way absolves the Contractor from total responsibility for the quality of his workmanship and for compliance with the specification. He shall timeously notify the Contracts Manager so that inspections can be arranged.

15 SITE CLEANLINESS

The Contractor shall clear away all dirt, rubbish and superfluous material as they accumulate and leave the whole of the site clean and tidy on completion to the satisfaction of the Contracts Manager. The Contractor is advised that the adjacent site is functional at all times and that the incumbents should not be unduly inconvenienced.

16 ORDERING OF MATERIALS

No claims will be entertained due to non-availability of materials or labour. The Tenderer is therefore required to investigate and ensure that the specific materials and components required for the works will be available at the relevant estimated construction times, at the time of tendering.

17 PROGRAMME

The Contractor will be required to submit an outline programme of work to completion of the contract with the issue of the Form of Offer and Acceptance.

18 CONTRACT PRICE ADJUSTMENT

PHASE 1 IS NOT SUBJECT TO ESCALATION

PHASE 2 IS SUBJECT TO ESCALATION

19a. PRICED BILLS OF QUANTITIES:

Tenderers must submit to the Contracts Manager a copy of the Bills of Quantities fully priced and extended, with his tender. After the Bills have been checked, and when called upon, each page of the Bills of Quantities shall be initialed and the Index page and the Final Summary page signed in full by the Tenderer.

19 b. PAYMENT OF PRELIMINARIES:

Tenderers are to note that the Payment of Preliminaries & Generals shall be on the NEC3 Short Contract [Prorated to the Value of Work Executed]

19 c. ADJUSTMENT OF PRELIMINARIES:

Tenderers are to note that the Adjustment of Preliminaries & Generals shall be on NEC3 Short Contract [Fixed - 10%, Value - 15% and Time - 75%]

20 DIFFERENCE AND DISCREPANCIES:

Should there be any difference or discrepancy between the prices or particulars contained in the official Tender Form and those contained in any covering letter from the Tenderer, the prices contained in the official Tender Form shall prevail.

Every Tenderer shall be deemed to have waived, renounced and abandoned any conditions printed or written upon any stationery used by him for the purpose of or in connection with the submission of his Tender, which are in conflict with the Conditions of Tender or Special and General Conditions of Contract.

Tenderers are warned that any material divergence from the official conditions or specifications may render their Tenders liable to disqualification.

The Tenderers are to note that if there are any arithmetical errors in the Tenderers' form of tender in calculation of the Tender Sum, the Contracts Manager will correct the calculation accordingly.

21 COMMUNICATION WITH MEMBERS OF THE CLIENT COMPANY OR PROFESSIONAL TEAM

A Tenderer shall not in any way communicate with a member of the Client Company or Professional Team or with any officer on a question affecting any contract or the supply of goods or for any work, undertaking or service which is the subject of a Tender during the period between the closing date for receipt of Tenders and the dispatch of the written notification of the Employer's decision on the award of the contract; provided that a Tenderer shall not hereby be precluded from obtaining from the Employer or his authorised representative information as to the date upon which the award of the contract is likely to be made or, after the decision upon the award has been made by the Contracts Manager to which the Employer had delegated its powers, information as to the nature of the decision or such information as was publicly disclosed at the opening of Tenders.

22 IMPORT PERMITS:

Tenderers must apply direct for any import permit and/or currency required, however the Contracts Manager will furnish successful Tenderers with a supporting statement if required.

23 BILLS OF QUANTITIES:

No alteration, erasure, omission or addition is to be made to the text and conditions of these Bills of Quantities and should any such alteration, amendment, note or addition be made, the same will not be recognised, but the reading of the Bills of Quantities as prepared by the Contracts Manager will be adhered to.

It should be understood that the system of measurement herein adopted is the only system of measurement which will be recognised in connection with this contract. Before the signing of the contract, the Contracts Manager will be entitled to call for adjustments of individual rates and rectify discrepancies, as he considers necessary without alterations to the Tender amount.

24 TRAFFIC AUTHORITIES AND REGULATIONS (N/A)

The Contractor shall comply with all requirements of the Authorities in connection with traffic control, gaining access to the site, prevention or disruption of the flow of traffic, transporting of materials and equipment to and from the site and he shall make all necessary arrangements, pay all deposits, fees and charges in connection therewith.

25 PROTECTION OF PERSONS AND PROPERTY

The Contractor shall adopt all safety measures in compliance with all statutes, regulations, etc., and shall take all measures to protect all property and to secure the safety and freedom from injury of all persons.

The Contractor shall in addition take all necessary steps to prevent nuisance from dust and the like and shall use every endeavors to minimise noise emanating from the Contract Works. The Contractor is referred to the various forms that require his attention prior to commencing work on site - All forms duly completed and signed must be forwarded to the Contracts Manager.

Tenders are to note that the building will remain occupied for the duration of the Works except for the sections of the Works under construction in terms of the requirements of the Sectional Completion.

26 EXISTING AND ADJOINING PROPERTIES, PAVINGS ETC.

The Contractor shall execute the whole of the Contract Works with the minimum of disturbance to the existing and adjoining premises and occupants thereof. He shall keep the Site dust free and clean, and shall keep pavements, surrounding roads etc., free of builder's rubble and clean to the entire satisfaction of the Contracts Manager and the Authorities.

The Contractor shall leave such buildings, structures, fences, paving's, roadways, Kerbs, gardens, municipal pavements, streets, etc., in the same condition at completion as they were at the commencement of the Contract. Before commencing work, the Contractor shall arrange with the owners of the existing and adjoining buildings and/or the Authorities for an inspection to be made jointly with themselves, the Contractor and the Contracts Manager in order to make written notes of any defects, etc. which may later be claimed to have been caused by the operations under this Contract. Should defects be disclosed, the Contractor shall submit same in writing to the Contracts Manager before commencing the Contract, failing which it shall be understood that no such defects existed and the Contractor shall be liable for all claims in this connection.

27 PROCEDURE OF WORKS

The Contractor shall be solely responsible for ensuring that the procedure of works is kept to and no deviations will be entertained.

Should this, however not be possible then the Contractor shall timeously notify the Contracts Manager

The Contractor shall make any and all necessary allowances in his pricing for the disruption and costs that will be required to comply with any such restrictions.

28 WITHDRAWAL OF TENDERS

Tenders must hold good for a period of 60 calendar days from the date of opening.

Any action taken by the Employer in terms of this Clause shall not affect any other rights whether by way of a claim for loss or damage suffered by the Employer arising out of such breach.

SPECIAL CLAUSES

29 TRADE NAMES, ETC.

All materials, fittings, finishes, etc. specified under a "Trade Name", catalogue number or reference shall be either exactly as described or of equal quality, specification and weight to those described.

The Contracts Manager's written approval must be obtained for any departure from the specification before the submission of tenders, failing which specified materials, fittings, finishings, etc. shall be deemed to have been allowed for in the tenders.

Where articles other than what the manufacturer specified are used, an adjustment of the prices will be made and Variation Orders issued to cover these adjustments.

The Contractor must take delivery of, handle, store, use, apply and/or fix all proprietary branded products in strict accordance with the manufacturer's instructions after consultation with the manufacturer's authorised representative.

All references in these Bills of Quantities to Specifications of the Bureau of Standards shall be deemed to be reference to the latest issues of such Specifications, and any subsequent amendments thereto. All articles, materials or items described as to conform to the SABS Specifications must bear the SABS mark.

30 CONTRACTOR'S RESPONSIBILITY

The Contracts Manager and the other Professional Consultants shall not be responsible for any act or omission on the part of the Contractor, which may result in any patent or latent defects, in materials or workmanship, breach or neglect of any local regulations. The Contractor shall at all times be responsible for any such neglect, deviation or wrong act, whether the same is discovered before or after the final certificate, or any other Certificate, has been approved.

31 SITE INSTRUCTIONS AND RECORDS

The Contractor shall supply and have available at the site of the works at all times, the following site books:-

a) Site Instruction Book

Receiving and recording instructions in a suitable A4 size triplicate book kept on site. Instructions issued shall be recorded by the Contracts Manager or other Employer's Agents to whom the Contracts Manager has delegated Authority in the book.

Only site instructions issued in such a book shall be recognised.

b) Daily Record Book

The Contractor shall record in a suitable A4 size triplicate book kept at the site, a daily record of work done, all site visits by the Contracts Manager and other professional personnel and all events affecting the Works, such as progress, issue of plans, breakdown of machinery, etc. The labour, plant and material on site shall be recorded as well as work performed. Entries must be made by the Contractor and must be signed and forwarded to the Contracts Manager for his counter signature on a daily basis. Copies of these records shall be for the Contracts Manager, Employer and Contractor.

32 LOCATION OF TEMPORARY BUILDING AND TEMPORARY SERVICES

The Contractor shall provide all necessary temporary works, including temporary roads, tracks, crossings, hard standing and services, etc. required for his own and Sub-Contractor's use during the construction and maintenance period.

There is no guarantee given or implied that Site Conditions will be such that the Contractor will be able to erect such offices, stores and temporary accommodation within the site boundaries and it shall be the Contractor's responsibility to adopt whatever measures he deems necessary in this regard and to obtain permission and pay all cost in connection therewith.

By the submission of a tender, any Tenderer will, if awarded the contract to which this tender document relates, be deemed to be the mandatory as envisaged by Section 37 (2) of the Act. As a mandatory the successful Tenderer will be deemed to be the " Contractor" and an Employer in his/her/their own right with duties as prescribed in the Act and accordingly will be deemed to have agreed to be solely responsible for ensuring that in connection with the service to which this tender document relates, all work will be performed and machinery and plant used in accordance with the Act. Should the Contractor, for whatever reason be unable to perform as required by the Act, the Contractor undertakes to inform the Employer accordingly.

The Contractor (mandatory) will be required to:-

- 1 Provide the Employer with a Health and Safety programme and plan specifically related to the Works and ensure that the programme and plan are implemented and maintained, with the programme being subject to audit, at least once a month, by the Contracts Manager;
- 2 Exercise discretion and appoint a Full-time Safety Officer (in writing) to assist in the control of all safety related aspects, and to give input into the health and safety plan;
- 3 Appoint (in writing) a full time competent Supervisor (as defined in the Regulation in terms of the Act) to supervise the project;
- 4 Provide the Employer and any Sub-Contractors that may be engaged by the Contractor and/or Nominated Sub-Contractors with a programme of construction for the Works as well as a method statement with the necessary details and procedures for execution;
- 5 Provide the Employer both before commencing and during construction work with a copy of a risk assessment performed by a competent person who has been appointed in writing by the Contractor, and the risk assessment must form part of the health and safety plan;
- 6 Ensure that every employee or person (including visitors) who enters the site of the Works undergoes health and safety induction training pertaining to hazards identified on the site of the Works and upon such training having been successfully completed, the Contractor must issue written confirmation by a competent person to the trained employees or persons who shall be further instructed to carry such confirmation with them at all times whilst on the site of the Works;
- 7 Issue, on loan, the necessary personal protective equipment to visitors to the site of the Works; and
- 8 Be in good standing with the Compensation Commissioner at all times during the duration of the Contract.

9 The Contractor is to sign a Non-Disclosure Agreement prior to collecting or receiving any proprietary information from Eskom, drawings, documentation, reports and photographs

The Contractor will be deemed to have satisfied himself with his obligations in terms of the Act and to have allowed for all costs arising from compliance with the Act as no claim for extra costs arising from compliance with, and obligations in terms of the Act will be entertained.

33 CONTRACTORS TO VISIT SITE PRIOR TO SUBMISSION OF TENDER

The contractors are urged to visit the site that has been identified to get an overview of the nature of works and the location of the building prior to pricing this document.

34 PRICING OF THESE GENERAL NOTES

The Contractor must allow in his pricing for any additional costs arising from these "General Notes" as no later claims for additional costs will be considered.

35 TAX COMPLIANCE

Failure to provide mandatory information required in this Bid will result in the submissions being deemed null and void and shall be considered non-responsive. An Electronic Tax Compliance Status (TCS) System will be used to verify the bidder's tax compliance status so bidders must request a unique security personal identification number (PIN) from SARS which must be submitted with the bid

No alternative tender offers will be considered.

These Bills are not to be used for the purpose of ordering materials.

All Bill rates are to include for material, labour, plant, wastage, transport and profit.

PRELIMINARIES AND GENERAL

Camden Power Station Rapid Deployment Desalination Water Treatment Plant Project Bills Of Quantities

| | Schedule Description | Unit | |
|----------|--|-------------|--|
| | PRELIMINARIES AND GENERAL | | |
| | ESTABLISHMENT OF FACILITIES ON SITE | | |
| 1 | FIXED CHARGES | | |
| 1,1 | Contractual requirement (Contractor to supply breakdown) | sum | |
| 1,2 | Establishment of facilities on site | | |
| 1.2.1 | Transportation to site | sum | |
| 1.2.2 | Offices for engineer & staff and signs | sum | |
| 1.2.3 | Quality | sum | |
| 1.2.4 | Other fixed-charge obligations: e.g. security | sum | |
| 1,3 | Contractor's obligations in respect of the Occupational Health and Safety Act | | |
| 1.3.1 | Health and Safety Requirements | sum | |
| 1.3.2 | PPE | sum | |
| 1.3.3 | Medicals and Induction | sum | |
| 1.3.2 | SAPS Vetting and /or Finger Print Check | sum | |
| 1,4 | De- establishment | sum | |
| | TOTAL COST FIXED CHARGES (A) | R | |
| | | | |
| 2 | TIME RELATED CHARGES | | |
| | FACILITIES FOR CONTRACTOR | | |
| 2,1 | Operate & maintain facilities for the duration of the contract | sum | |
| 2,2 | Offices for engineer & staff | sum | |
| 2,3 | Facilities for the Contractor for the duration of construction | | |
| 2,4 | Offices & storage sheds | sum | |
| 2,5 | Workshops | sum | |
| 2,6 | Ablution & latrine facilities | sum | |
| 2,7 | Accommodation | sum | |
| 2,8 | Transport | sum | |
| 2,9 | Plant | sum | |
| 2,1 | Other time-related obligations: security and other | sum | |
| | TOTAL COST TIME RELATED ITEMS (B) | R | |
| | | | |
| | TOTAL COST A+B TRANSFERRED TO FINAL SUMMARY PAGE | R | |

**DESIGN,SUPPLY AND
INSTALL - BILLS OF
QUANTITIES**

CAMDEN POWER STATION RAPID DEPLOYMENT DESALINATION WATER TREATMENT PLANT PROJECT

| Item | Description | Uom | Quantity | Rate | Amount |
|------|--|-----|----------|------|--------|
| | <p><u>BILLS OF QUANTITIES</u></p> <p><u>BILL NO.3 : DESIGN,SUPPLY AND INSTALLATION</u></p> <p><u>PREAMBLES</u></p> <p>For Trade Preambles refer to "Specification of Materials and Methods to be used will be the SANS DOCUMENT", which is obtainable on request for the full descriptions of materials and work to be done in this Bill.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Rate approvals:</u></p> <p>The tenderer is advised that any rate that is required for work must include the following breakdown: Material, labour, plant, wastage, transport and profit.</p> <p>Rate approvals must be authorised by the Principal Agent prior to work being carried out.</p> <p><u>LABOUR INTENSIVE</u></p> <p>The contractors work must be executed in a labour intensive manner as far as possible The Contractor must take this method of construction into consideration when programmes the work.</p> <p><u>PRICING OF THIS BILLS OF QUANTITIES</u></p> <p>Any items left unpriced will be understood to be provided free of charge and no claim for any extras arising out of the Tenderer's omission to price any item will be entertained.</p> <p><u>TECHNICAL SPECIFICATION DOCUMENT</u></p> <p>The Contractor is referred to entire Technical Specification Document commencing from Page 1 up to Page 69 for the details of the Scope. The Contractor is to study the details of this document prior to pricing this Bills of Quantities'</p> <p><u>SCOPE OF WORKS</u></p> <p><u>The Contractor is referred to Page 15 item 3.1.1 and Page 18 to Page 34 item 3.2.4.2.9 of the Technical Specification Document for the details of the Scope. The Contractor is to study the details of this document prior to pricing this Bills of Quantities</u></p> <p>The Contractor designs, manufactures, procures and installs all Mechanical, Civil, Electrical, Control & Instrumentation Plant, Equipment and Material required for the works as defined in this Works Information. This includes interfacing with and utilisation of existing plant and equipment where applicable.</p> <p>The <i>Contractor</i> shall ensure that the design of the <i>works</i> shall be performed by, or under the direction, control and supervision of an ECSA registered professional engineer for each discipline as required by the scope of the design.</p> <p>The <i>Contractor's</i> design is reviewed in accordance with the <i>Employer's</i> Design Review Procedure and Change Management Procedure in addition to the <i>Contractor's</i> own engineering governance processes. The <i>Contractor</i> is to submit the full design to the <i>Employer</i> before construction begins.</p> | | | | |

EMPLOYERS DESIGN

The Contractor is referred to Page 14 to Page 17 item 3.1.1 of the Technical Specification Document for the details of the Scope. The Contractor is to study the details of this document prior to pricing this Bills of Quantities

Description of the works

The Works is to design, procure, manufacture, deliver to site, install, test and commission a containerised process equivalent to 4ML/day treatment capacity, capable of treating water from De Jagers Pan to Usuthu water quality. The plant must be within enclosures, or alternatively have the capability to be enclosed for security and protection from the elements during storage.

DISMANTLING OF EXISTING PLANT

| | | | |
|---|---|------|---|
| 1 | Diamantle and Demoiish existig plant and hand over to Eskom at a designated point within the Camden Facility. | item | 1 |
|---|---|------|---|

DESIGN AND DRAWINGS

| | | | |
|---|--|------|---|
| 2 | There is no concept design or drawings from the Employer. The Contractor to comply with the requirements stipulated under the Contractor's design portion. | item | 1 |
|---|--|------|---|

PROCEDURE FOR SUBMISSION AND ACCEPTANCE OF CONTRACTORS DESIGN

| | | | |
|---|--|------|---|
| 3 | The Contractor is referred to Page 41 and Page 42 item 3.4 of the Technical Specification Document for the details of the Processes of submitting designs. The Contractor is to study the details of this document prior to pricing this Bills of Quantities | item | 1 |
|---|--|------|---|

ELECTRICAL DESIGN

| | | | |
|---|--|------|---|
| 4 | The Contractor is referred to Page 17 item 3.1.3.2 and Page 35 item 3.2.5 of the Technical Specification Document for the details of the Electrical Scope. The Contractor is to study the details of this document prior to pricing this Bills of Quantities | item | 1 |
|---|--|------|---|

| | | | |
|---|--|------|---|
| 5 | The Contractor is referred to Page 65 and 66 item 6.4 of the Technical Specification Document for the details of the Electrical Standards pertaining to this contract. The Contractor is to study the details of this document prior to pricing this Bills of Quantities | item | 1 |
|---|--|------|---|

CIVIL AND STRUCTURAL DESIGN

| | | | |
|---|---|------|---|
| 6 | The Contractor is referred to Page 17 item 3.1.3.3 ond Page 40 item 3.27 of the Technical Specification Document for the details of the Civil and Structural Scope. The Contractor is to study the details of this document prior to pricing this Bills of Quantities | item | 1 |
|---|---|------|---|

MECHANICAL DESIGN

| | | | |
|---|--|------|---|
| 7 | The Contractor is referred to Page 27 item 3.2.4.2 to Page 34 item 3.2.4.2.9 of the Technical Specification Document for the details of the Mechanical Scope. The Contractor is to study the details of this document prior to pricing this Bills of Quantities. | item | 1 |
|---|--|------|---|

| | | | |
|---|--|------|---|
| 8 | The Contractor is referred to Page 65 and 66 item 6.4 of the Technical Specification Document for the details of the Electrical Standards pertaining to this contract. The Contractor is to study the details of this document prior to pricing this Bills of Quantities | item | 1 |
|---|--|------|---|

CONTROL AND INSTRUMENTATION DESIGN

9 The Contractor is referred to Page 36 item 3.2.6 to Page 40 item 3.2.6.1.15 of the Technical Specification Document for the details of the Control and Instrumentation Scope. The Contractor is to study the details of this document prior to pricing this Bills of Quantities

item 1

10 The Contractor is referred to Page 66 and 67 item 6.5 of the Technical Specification Document for the details of the Control and Instrumentation Standards pertaining to this contract. The Contractor is to study the details of this document prior to pricing this Bills of Quantities

item 1

CHEMISTRY STANDARDS

11 The Contractor is referred to Page 67 item 6.6 of the Technical Specification Document for the details of the Chemistry Standards pertaining to this Contract. The Contractor is to study the details of this document prior to pricing this Bills of Quantities

item 1

OTHER STANDARDS

12 The Contractor is referred to Page 67 item 6.7 of the Technical Specification Document for the details of the Other Standards pertaining to this Contract. The Contractor is to study the details of this document prior to pricing this Bills of Quantities

item 1

DESIGN REVIEW

13 The Contractor is referred to Page 40 item 3.3 of the Technical Specification Document for the details of the Design Review Processes'd Contractor is to study the details of this document prior to pricing this Bills of Quantities

item 1

HAZOP STUDY

14 The Contractor is referred to Page 41 item 3.3.1 of the Technical Specification Document for the details of the Hazop Study Process. The Contractor is to study the details of this document prior to pricing this Bills of Quantities

item 1

FIRE PROTECTION

15 The Contractor must provide a fire risk analysis as part of the design approval process to the Employer for approval. The Contractor is to implement the protection measures required to mitigate the risks identified in the fire risk analysis

item 1

ASBUILT DRAWINGS,OPERATING MANUALS AND MAINTENANCE SCHEDULE

16 The Contractor is referred to Page 45 item 3.9 of the Technical Specification Document for the details of the As built Process. The Contractor is to study the details of this document prior to pricing this Bills of Quantities

item 1

SPARES AND CONSUMABLES

17 The Contractor is referred to Page 49 item 4.3.4 of the Technical Specification Document for the Provision of Spares and Consumables. For the duration of the contract. The Contractor is to study the details of this document prior to pricing this Bills of Quantities the Contractor is to provide details of all spares that is required during the course of the contract.

item 1

TESTING AND INSPECTIONS BEFORE DELIVERY

18 The Contractor is referred to Page 49 item 4.4 of the Technical Specification Document for the Provision Testing and Inspections before delivery of the contract. The Contractor is to study the details of this document prior to pricing this Bills of Quantities

item 1

| | | | | | |
|----|--|------|---|--|----------|
| | <u>TESTING AND COMMISSIONING</u> | | | | |
| 19 | The Contractor is referred to Page 42 item 3.5.3 of the Technical Specification Document for Testing and Commissioning of the contract. The Contractor is to study the details of this document prior to pricing this Bills of Quantities. Testing must be done prior and post delivery (FATs, SATs) Commissioning and testing (Cold commissioning, hot commissioning) | item | 1 | | |
| | <u>COMPLETION, TESTING, COMMISSIONING AND CORRECTION OF DEFECTS</u> | | | | |
| 20 | The Contractor is referred to Page 57 item 5.2 to Page 64 item 5.2.10.9 of the Technical Specification Document for the Completion, Testing, Commissioning and Correction of Defects of the contract. The Contractor is to study the details of this document prior to pricing this Bills of Quantities | item | 1 | | |
| | <u>TRAINING</u> | | | | |
| 21 | The Contractor is to provide training to the operating staff, maintenance and engineering departments of the Employer. This includes chemical, mechanical, electrical and C&I disciplines. Training (Classroom, practical, no. of students, no. of sessions, etc.) | item | 1 | | |
| 22 | All Operating & Maintenance requirements must be included in the training manuals. | item | 1 | | |
| | <u>CONSTRUCTION COSTS OF A NEW PLANT</u> | | | | |
| | <u>DESIGN</u> | | | | |
| 23 | The process design of the pretreatment system required of the water prior to feeding the desalination system. | item | 1 | | |
| 24 | The process design of the desalination system including the simulations showing the process of treating the feed water through the proposed system design | item | 1 | | |
| 15 | Provide a complete BOQ for all equipment forming part of the system to be installed (pipe details, valves, membranes, vessels, pumps, etc.) | item | 1 | | |
| | <u>SUPPLY AND/OR CONSTRUCTION OF THE TREATMENT PLANT</u> | | | | |
| 26 | Feedwater system repairs complete and tested | item | 1 | | |
| 27 | Pre-treatment system complete and tested | item | 1 | | |
| 28 | Desalination system complete and tested | item | 1 | | |
| 29 | Chemical storage and dosing system for chemical cleans (indicating maximum storage capacity of all chemicals) | item | 1 | | |
| 30 | Connections of tie-ins to clients battery limits | item | 1 | | |
| 31 | Online samples analysers for process monitoring | item | 1 | | |
| | Bill Total Carried to Final Summary | | | | R |

PHASE 1 SUMMARY: DESIGN, SUPPLY AND INSTALLATION

**CAMDEN POWER STATION RAPID DEPLOYMENT DESALINATION WATER TREATMENT PLANT
PROJECT**

PHASE 1 - SUMMARY

| No. | <u>Description</u> | | | Amount |
|------------|--|--|--|---------------|
| 1 | Preliminaries | | | R |
| 2 | Bills Of Quantities | | | R |
| | SUB-TOTAL | | | R |
| | VAT @ 15% | | | R |
| | GRAND TOTAL - CARRIED TO FORM OF OFFER AND ACCEPTANCE | | | R |