

CEYLON ELECTRICITY BOARD

N0: 50, Sir Chittampalam A. Gardiner Mawatha, Colombo 02, Sri Lanka

Mannar Wind Power Project -Phase I Extension

BIDDING DOCUMENT

FOR

Contract for Geotechnical Investigation of Mannar Wind Power Project – Phase I Extension in Mannar Island.

BID NO: CEB/MFS/Ph, I EXT/2022/01

- BID DATA SHEET
- GENERAL CONDITIONS OF BID
- TECHNICAL SPECIFICATION OF BID
- APPENDIX A CERTIFICATE OF PURCHASE OF BIDDING DOCUMENT
- APPENDIX B FORM OF BID
- APPENDIX C SCHEDULE OF QUANTITIES & PRICES
- APPENDIX D PROOF OF ABILITY
- APPENDIX E METHOD STATEMENT & WORK ROGRAMME
- APPENDIX F TIME SCHEDULE FOR COMPLETION OF WORK
- APPENDIX G SAMPLE FORMS
- APPENDIX H DRAWINGS

PROJECT DIRECTOR
MANNAR WIND POWER PROJECT – PHASE III & PHASE I Ext
CEYLON ELECTRICITY BOARD
NO.754, NEW PARLIAMENT ROAD
PELAWATTA
BATTARAMULLA

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BID DATA SHEET

SCOPE	 Soil investigation at theareaproposed for construction of Mannar Wind Power Project – Phase I Extension in Manna Island Submit a Complete Soil Investigation Report with Recommendations for Construction of Foundations for Win Turbine Generator Units. 		
BID NUMBER	CEB/MFS/Ph.I EXT/2022/01		
BIDDING PROCEDURE	Single Stage		
OPENING & CLOSING DATE OF BID	BID will be closed at 10.00 hrs. on 19/04/2022 and will be opened immediately thereafter.		
PERIOD OF VALIDITY OF BIDS	The Bids shall be valid for ninety (90)days from the date of closing of Bids.		
BID SECURITY	Sri Lankan Rupees One Hundred and Twenty-FiveThousand Only. (LKR 125,000.00) The Bid Security shall be valid for One Hundred and Eighteen (118) days from the date of closing of Bids.		
PLACE OF ACCEPTANCE OF BID	Office of Project Director Mannar Wind Power Project— Phase III& Phase I Ext No. 754, New Parliamentary Road, Pelawatha, Battamulla.		
TIME SCHEDULE	Please see APPENDIX – F		
PRE-BID MEETING & SITE VISIT	Attending to the Pre-Bid meeting Site visits by the interested bidders are Mandatory. Pre-Bid meeting will be held 10:00 hrs. on 07/04/2022 at the Office of the Project Director (MWPP- Phase III & Phase I Ext). Site visit will be held on 08/04/2022 .		

Theorination Copy. Hot for Biddings

GENERAL CONDITIONS OF BID

1. Scope of Work

- 1.1 This Bid is toCarryout necessary soil investigation works including boreholes, field and laboratory tests deemed to be necessary to obtain the full details of soil parameters required for the design of deep foundations for Wind Energy Conversion System (WECS)which shall be located at the Southern Coast of Mannar Island. Details of Soil investigation area is attached as **Appendix H**
- 1.2. During the execution of work, Ceylon Electricity Board (CEB), (herein after called as The Employer) may require modification to the scope depending on the soil conditions encountered during the execution of work,including increase the number of test locations, depth of penetrations etc. in order to achieve satisfactory completion of soil investigation.
- 1.3. In such event, the Employer may inform any change required to the Contractor in writing, for which the contractor shall comply with, and the change of price will be calculated based on the unit rates offered in the tender, and the final contract price may be adjusted accordingly.

2. Eligibility

- 2.1. The investigation team shall be comprised of qualified Personnel, whose names, assignment of work and carrier history shall be submitted for the approval of CEB, and no change or replacement to the approved personnel of the investigation team shall be made during the investigation work without prior approval of CEB.
- 2.2. All bids should be in original bidding documents obtained from the Employer's representative, Project Director (MWPP-Ph.III& Ph.1.Ext) or from his authorized officer/s, on payment of a non-refundable fee of Rs. 5,000.00, in cash or bank draft written in favour of "General Manager, Ceylon Electricity Board".

3. Qualification of the Bidder

To be qualified for award of Contract, bidders shall conform to the following:

3.1 General Experience:

Minimum of 5 years of experience in general Soil Investigation works.

3.2 Specific Experience:

Experience insoil investigation works including Borehole tests for Wind turbine Foundations, High rise & Medium rise buildings, high elevated water tanks, Bridges, Flyovers or 220 kV or 132 kV Transmission line routes and substation lands incurred Pile foundations, during the last 5 years.

3.3 Financial Performance:

3.3.1 Average annual turnover of at least LKR 10 million over the past 5 years and availability of credit facilities of at least LKR 2million.

3.3.2 Copies of certified audited balance sheets, profit and loss statements for the last 5 years, if available, and other supporting documents shall be submitted by the bidder in proof of sound financial capacity. The Employer has the right to make inquiries from the bidder's bankers.

3.4 Technical Capabilities

- 3.4.1 The bidder shall have at least three experienced Material Technicians and a Geotechnical engineer and Geologist or Geophysicist having a degree or equivalent qualifications in related fields. Recommendations for foundations shall be obtained from an accredited Senior Geotechnical Engineer.
- 3.4.2 The Bidders shall clearly indicate that they have skilled manpower and other resources to complete the work within the contract period. It is expected that minimum of fully equipped 03 Nos of investigation teams shall be deployed to work parallel. The bidder shall have the ability to increase the number of soil investigation teams (if required) to achieve the target dates.
- 3.4.3 Site organization proposed and the Quality Assurance System to be introduced shall be given, in detail, with the Bid. The Soil Investigation teams shall be composed of qualified personnel, whose names, assignment of work and personal history shall be submitted for the approval of the Employer.

3.5 Equipment Requirement

- 3.5.1 Bidder shall have a minimum of 04 Nos of complete sets of bore hole investigation equipment (one set of equipment for standby), in good working condition, for execution of work.
- 3.5.2 All the laboratory testing shall be carried out in an accredited laboratory using timely calibrated standard testing equipment.
- 3.5.3 A List of all equipment owned by or available to the bidder for the uninterrupted execution of work shall be provided by the bidder with his bid. Explanation on the use of all the equipment proposed and details of availability shall be given in the bid.

3.6 Power of Attorney

The bidder shall submit a valid power of attorney authorizing the signatory of the bid to commit the bidder.

4. Pre-bid Meeting and Site Visit

Pre-bid meeting and site visit are mandatory. Pre-bid meetinghas been arranged on the date as stipulated in the Bid Data Sheet at the Office of Project Director – Mannar Wind Power Project-Phase III& Ph-I. Ext, Ceylon Electricity Board it will be coordinated by the PD. (MWPP Phase III & Ph-I Ext).

A site visit has been arranged on the date as stipulated in the Bid Data Sheet to give fair understanding and surrounding information to the bidders who wish to participate in the bid. The costs of visiting the site shall be at the Bidder's own expense.

It is the responsibility of bidder to visit and examine the proposed wind parksite subsequently and obtain all information that may be necessary for preparing the bid and entering into a contract for soil investigation work for himself is his own responsibility.

5. Receipt of Bids

- 5.1. Bids shall be submitted in duplicate. The Original and Duplicate copy of the Bid shall be placed in two separate envelopes marked "Original" and "Duplicate". Both envelopes shall be enclosed in one securely sealed envelope. The Name "Soil Investigation Works of MWPP-Ph. I Extension" and the Bid Number shall be clearly marked on the top left hand corner of the envelope. The Name and Address of the Bidder shall also be clearly marked on the envelope.
- 5.2. Project Director(MWPP-Ph.III & Ph. I Ext), Ceylon Electricity Board, No.754, New Parliamentary Road, Pelawatta, Battaramullawill receive sealed bids on behalf of Chairman-Divisional Procurement Committee-Projects of Ceylon Electricity Board.
- 5.3. The Bidder shall bear all costs associated with the preparation and submission of the bid and Ceylon Electricity Board will in no way be responsible or liable for those costs.

6. Closing of Bids

- 6.1. Bids enclosed, marked, sealed and addressed as aforesaid shall be;
 - 6.1.1. Sent under registered cover to reach **Project Director(MWPP-Ph.III & Ph. I Ext), Ceylon Electricity Board, No. 754, New Parliamentary Road, Pelawatta, Battaramulla**not later thanthe Bid closing time as indicated in the Bid Data Sheet

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- 6.1.2. Deposited in the Box provided for this purpose at the **Project Director(MWPP-Ph.III & Ph. I Ext)**, Ceylon Electricity Board, No. 754, New Parliamentary Road, Pelawatta, Battaramullanot later than the Bid closing time as indicated in the Bid Data Sheet
- 6.1.3. Handed over to the officer authorized by Project Director (MWPP-Ph.III & Ph. I Ext), Ceylon Electricity Board, No. 754, New Parliamentary Road, Pelawatta, Battaramullanot later than the Bid closing time as indicated in the Bid Data Sheet, before the closing time of bids. In such an event, the sealed cover should bear the name and address of the Bidder and a receipt should be obtained after such handing over.
- 6.2. Any Bid received after the closing time will be rejected and returned unopened to the Bidder or to his Agent.

7. Opening of Bid

- 7.1. The Employer shall conduct the opening of bids immediately after the closing time fixed for receipt of bids, at the Office of Project Director (MWPP-Ph.III & Ph. I Ext), Ceylon Electricity Board, No. 754, New Parliamentary Road, Pelawatta, Battaramulla or such other place as arranged.
- 7.2. Bidders or their duly authorized representative/s may be present at the time of opening of bids.
- 7.3. The total Bid Sum, Name and Address of each Bidder, whether a Bid Security is submitted, the amount of the Bid Security and the amount of discount declared if any, as

indicated in the Schedule of Quantities and Prices shall be read out or cause to be read out and recorded.

7.4. Detailed Prices, Technical Data, Specifications or other particulars of the Bid will not be divulged.

8.0 Bid Security

- **8.1** Each bid shall be accompanied by Bid Security in the form of a Bank Draft or a Bank Guarantee issued by a Bank operating in Sri Lanka and payable to the **General Manager**, **Ceylon Electricity Board**, equivalent invalueas indicated in the Bid Data Sheet. Sample form of Bid Security is attached in Appendix G.
- **8.2** All Guarantees should be unconditionally encashable; on the receipt of first written demand from General Manager, Ceylon Electricity Board or his authorized officer/s. Failure to submit the Bid Security at the time or before the closing of the bids will result in the bid being rejected.
- **8.3** The Bid Security shall be valid as indicated in the Bid Data Sheetfrom the date of closing of bids. Bid Security of unsuccessful Bidders will be returned after the contract award is made to the successful Bidder. The Bid Security of the successful Bidder will be returned after receipt of the Performance Security.
- **8.4** The Bid Security may be forfeited;
 - (a). if a bidder withdraws its bid during the period of bid validity specified in the Form of Bid or
 - (b). if the Successful bidder fails to;
 - (i). sign the Contract
 - (ii). furnish a Performance Security
 - (iii). accept the arithmetical corrections of his/her bid

9.0 Schedule of Quantities and Prices

- **9.1** The quantities given in the Schedule of Quantities and Prices shall be regarded as approximate only. Payment shall be made on measure and pay basis. The decision by the Project Director (MWPP-Ph.III & Ph. I Ext) on the method of measurement and the final quantities for payment is final and conclusive.
- **9.2** The prices quoted shall be written clearly in ink or type written. The total amount of the offer should be given in words (in English) as well as in figures. Where the amount given in figures differs from the amount given in words, the amount given in words will be taken as correct. If the total cost differs from the product of unit rate and quantity, the unit rate will be taken as correct.
- 9.3 The prices quoted shall be excluding VAT, but including all other taxes and levies. The amount of VAT, if applicable, should be indicated separately and clearly. The VAT registration number should also be indicated in the Schedule of Quantities and Prices. A copy of the VAT registration certificate should be attached with the bid. The bidders who are not registered to collect VAT should submit a letter issued by Department of Inland Revenue to that effect. Declaration of VAT registration is a mandatory requirement for determination of bids and any bidder who does not declare VAT registration will make his/her bid liable for rejection.
- **9.4** The Contractors shall comply with regulations of the Department of Inland Revenue for payment of any kind of tax imposed by the government arising out of the contract and the contractor should allow for it in his/her bid price.

- **9.5** Bidders shall provide in the prescribed Schedule of Quantities and Prices, the name and address of the Bidder.
- **9.6** The payments will be made at the respective unit rates quoted in the Schedule of Quantities and Prices. Any extra work or work associated with the deviation of the locations, on written instruction by the PD(MWPP-Ph.III & Ph. I Ext), will be paid at the applicable unit rates quoted in the schedule of prices.
- 9.7 Hourly Rates entered for Soil Investigation Gang is applicable only for delays in testing work caused by objection of landowners or such other obstructions beyond the control of the Contractor. In such an event, the nature of the delay and the duration of delay shall be informed to the PD(MWPP-Ph.III & Ph. I Ext) immediately and shall confirm in writing within 24 hours of such event. No additional payment would be paid to delays attributed to the Contractor or caused by adverse weather conditions. Decision of the PD(MWPP-Ph.III & Ph. I Ext) will be considered as final and conclusive for the amount of payment certified for any extra work or any unavoidable delays.

10.0 Minimum Validity Period of Offer

- 10.1 All offers shall be valid for a minimum period of as indicated in the Bid Data Sheet.
- **10.2** All prices indicated in the Schedule of Quantities and Prices shall be firm and shall not be subjected to any price variation within the contract period of bid.

11.0 Price Variance

All quoted rates should be firm and fixed without any price variance within the Contract Period.

12.0 Bidder to Inform Fully

Bidders shall acquaint themselves fully with the conditions of the bid no plea for lack of information or insufficient information will be entertained at any time. Bidders should visit the sites before submitting their offers.

13.0 Default Bidders®

A bid is liable to be rejected forthwith if it is submitted by a Bidder who has, in the past, failed to perform his obligation satisfactorily in accordance with the terms and conditions of his contract with the CEB.

14.0 Declaration of Directors

When forwarding offers, Private Companies should declare the names of the Current Directors and the Share Holders of the Company. In the case of Public Companies, the Current Directors of such Public Company should be declared.

15.0 Proof of Ability

15.1 Bidders shall submit with their offer the documentary evidence of their ability to carry out the contract. Factors such as experience, nature of business, capital invested or authorized, turnover, availability of qualified personnel, tools, Measuring Instruments and communication equipment available and other relevant information. In particular, Bidders shall furnish information requested in **APPENDIX - D**with supporting documents to prove their ability and qualifications.

15.2 The Employer reserves the right to call for further documentary evidence of the ability of the Bidders to fulfil the terms and conditions of bidding.

16.0 Documents and Details to accompany Bid

All Bids should contain adequate particulars in respect of the items offered. Failure to furnish the following documents and details could result in the bid being rejected.

- i. Duly signed "Certificate of Purchase of Bidding Document" (APPENDIX- A) of this document.
- ii. Duly signed "Form of Bid" (APPENDIX-B) of this document.
- iii. Bid Security Vide Clause 8.0 substantially in accordance with the given format in sample forms (**APPENDIX G**).
- iv. Duly completed "Schedule of Quantities and Prices" (<u>APPENDIX- C</u>) and "Proof of Ability" (<u>APPENDIX- D</u>).
- v. Variations and/or deviations from specifications if any.
- vi. Copy of the VAT Registration Certificate and Business Registration Certificate.
- vii. Letter of confirmation to the time schedule (APPENDIX F).
- viii. Document for proof of Eligibility Vide Clause 2.0 and Qualifications Vide Clause 3.0.
- ix. Particulars of Insurance Covers, Indemnity Bonds available or provided
- x. Method Statement and Work Program including details of equipment (tools, GPS Equipment, Measuring Instruments and communication equipment etc available)(APPENDIX-E)

17.0 Any Further Information

Any further information can be obtained from the PD(MWPP-Ph.III & Ph. I Ext) on any working day between 09.00 hrs and 15.00 hrs during the period of issue of Bid Documents (Telephone: 011-2889640, Fax: 011-2869631).

18.0 Evaluation of Bids

- **18.1** The Employer may seek in writing, clarifications or additional information on any Bids. In the absence of any response from the Bidder within the specified period, the Employer reserves the right to make its own decision even-rejecting the bid. All responses to requests for clarifications or additional information shall be in writing and no change in the offered price shall be sought, offered or permitted.
- **18.2** The awards will generally be made to the technically and commercially responsive, lowest evaluated bidder as decided by the Employer.

19.0 Power to Accept or Reject Offers and Intimation of Acceptance.

19.1 The Employer is not bound to award the bid for the lowest offer.

- **19.2** The Employer reserves the right to reject any or all offers without adducing any reasons. The Employer may accept any offer or part of any offer and reserves the right to increase or decrease the scope of work at rates indicated in the Schedule of Quantities and Prices.
- **19.3** The letter of award of contract will be sent by registered postto the successful Bidder to the address given in the Form of Bid.

20.0 Signing of Agreement

WithinFourteen (14) days from the date of the Letter of Award or as given in the Letter of award, the successful Bidder shall sign a Contract Agreement incorporating all agreements between the parties.

21.0 Performance Security

- 21.1 WithinFourteen (14) days from the date of the Letter of Award or as given in the Letter of award, the successful Bidder shall furnish a Performance Security in the form of a Bank Guarantee from a Bank operating in Sri Lanka, acceptable to the CEB for the amount equal to ten percent (10%) of the Contract Value. The Performance Security shall be in favour of the General Manager, Ceylon Electricity Board, and shall be valid at least TwentyEight (28) days beyond the intended date of completion of work.
- **21.2** The Performance Security should be unconditionally encashable, on the receipt of first written demand from General Manager, Ceylon Electricity Board or his authorized officer/s. The format of the Performance Security shall be as given in Sample Forms**APPENDIX G**.
- **21.3** In the event of default on the part of the contractor resulting from breach of agreement or relevant conditions hereto, the Project Director(MWPP-Ph.III & Ph. I Ext) may, by a written notice, terminate the right of the contractor to proceed with, and claim the Performance Security without recourse to law.
- 21.4 On satisfactory completion of the Contract, the Performance Security will be released.

22.0 Completion Period

The Soil Investigation work shall be completed as per time schedule given in **APPENDIX-F**. The Bidders should specifically state in their bid whether they could comply with this time of commencement of contract and the completion period. If they are unable to comply with the said time of commencement and the completion period, they should clearly state their proposed commencement time and the completion period possible in the Bid.

23.0 Extension of Completion Period

- 23.1 The contractor should anticipate any delay at any time during the execution of work to comply with the time schedule given in APPENDIX F, Contractor shall at once give notice accordingly in writing to the PD (MWPP-Ph.III & Ph. I Ext) explaining the cause for the delay. In the case of delay, PD (MWPP-Ph.III & Ph. I Ext) or the officer authorized by him, shall have the option of either granting an extension or terminating the contract ruling the case as default of contract.
- **23.2** If the extension is granted, the Contractor shall complete the work within the extended period but will in addition to any other liabilities incurred under this contract, be subject to a deduction of liquidated damages, unless the liquidated damages is waived or reduced by the Employer, in view of any special circumstances.

23.3 If the extension of time is granted the Contractor shall extend the period of validity of Performance Security.

24.0 Liquidated Damages

If the Contractor fails to achieve targets within the period(s) specified in time schedule given in **APPENDIX-F**, without prejudice to its other remedies under the Contract, the Employer will deduct from the Contract Value, as liquidated damages, a sum equivalent to **0.5%** of the Contract Value for each day or part thereof of delay until actual completion of work, up to a maximum deduction of **10%** of the Contract Value. Once the maximum is reached, the Employer may consider termination of the Contract.

25.0 Payment

Payments for the work will be made as follows:

- i. Twenty percent (20%) of the contract sum will be paid as an advance payment on the receipt of an Advance Payment Bank Guarantee from a bank operating in Sri Lanka acceptable to CEB. A specimen form of bank guarantee is given in this Bidding Document APPENDIX G.
- ii. Thereafter payment shall be made on submission of interim bills certified by the Employer.
- iii. Twenty percent (20%) of the cost of each bill of payment will be deducted as recovery of the advance payment. However, it will be fully deducted when the cumulative bill value reaches 80% of the contract sum.
- iv. The payments for the Soil Investigation will be paid according to the respective rates (per unit) quoted in the Schedule of Quantities and Prices. Any extra work or work associated with the deviation of the proposed wind park Lands will be paid at the rates quoted in the Schedule of Quantities and Prices.
- v. Every certificate for payment on account of work shall be regarded as only provisional and approximate.
- vi. The payment for delays due to unforeseen restrictions will be paid to the contractor on the rates given in the Schedule of Quantities and Prices only on the acceptance by the Employer.
- vii. The final payment of 20% of the contract sum shall be paid on the completion of the Soil investigation works and submission of all documents and reports, to the satisfaction of the Employer as specified in this Bidding document. Any recovery to the Employer will be deducted from the final payment. The Employer reserves the right to recover any shortfalls.

26.0 Taxation

26.1 Income Tax

The Contractor will have to comply with regulations of the Department of Inland Revenue for payment of any kind of tax imposed by the government arising out of the contract.

26.2 Value Added Tax (VAT)

Any applicable VAT will be paid by the Employer at prevailing rates if claimed with the VAT registration number.

27.0 Contract not to be Sub-let.

27.1 The Contractor shall not assign or subcontract his obligations, without the written authority of the Employer.

27.2 If any part of his obligation has been assigned or sublet by the Contractor with written authority, he shall nevertheless be held responsible for the due performance of the part assigned or sublet.

28.0 Indemnities

- **28.1** Each party shallbe liable for and indemnify the other Party against losses, expenses and claims for loss or damage to physical property, personal injury, and death caused by his own acts or omissions.
- **28.2** Notwithstanding the above, the Contractor shall be solely responsible for and shall indemnify and hold harmless the Employer from and against all claims, liabilities and costs of action in respect of injury to or death of any person in the employment of the Contractor or any of its Subcontractors.
- **28.3** The Contractor shall indemnify and hold the Employer harmless against all third-party claims of infringement of industrial design or intellectual property rights arising from the use or provision of the works, including any equipment, drawings, documents or materials, or any part thereof.

29.0 Workmen's Compensation

Adequate workmen's compensation and/or employer's liability insurance which complies with applicable legislation in Sri Lanka shall be provided and maintained by the Contractor for the entire contract period. This shall include cover against riots and civil commotion.

30.0 Insurance

The Contractor shall obtain and maintain for the entire contract period an insurance cover against third party liabilities, in an amount not less than TwoHundred Thousand Sri Lankan Rupees (Rs 200,000.00) per occurrence of claim or series of claims arising out of any one accident or event. Maximum limit of the insurance cover shall not be less than One million Sri Lankan Rupees.

31.0 Force Majeure

The Contractor shall not be responsible for delay or non-performance of his contractual obligations, and the Employer shall not be held responsible for delay or non-performance of its contractual obligations, all or any part of the service, caused by war, blockade, embargo, insurrection, mobilization, act of God, Government direction or intervention of civil, naval or military authorities or other agencies of Governmental, riots, civil commotions, warlike conditions, labour troubles (including strikes) sabotage, prolonged failure or other epidemics, quarantine, fire, flood, wind flood, typhoon, hurricanes, tidal waves, tsunamis, landslides, lightning, and explosion.

32.0 Arbitration

If during the continuance of this contract or at any time after the termination thereof, any differences or disputes, which may arise between the parties hereto in regard to the interpretation of any of the provisions herein contained or any other matter or thing relating to this contract (other than any difference or dispute in respect of which a decision of the Employer is declared to be final and binding on the parties hereto) such difference or dispute shall be forthwith referred to an Arbitral tribunal in Sri Lanka. Composition of the Arbitral Tribunal, Jurisdiction of the Arbitral Tribunal, Conduct of Arbitration Proceeding, Awards and

any other matters relation to the Arbitration shall abide by Arbitration Act, No. 11 of 1995 of the Democratic Socialist Republic of Sri Lanka.

33.0 Law of the Democratic Socialist Republic of Sri Lanka.

The bids and any contracts resulting there from shall be governed and abide by Law of the



TECHNICAL SPECIFICATION OF BID

1. GENERAL

1.1 AMBIGUITY OR DISCREPANCY IN SPECIFICATIONS

Any ambiguity or discrepancy as to the meaning of these specifications shall be referred to the Employer for interpretation and any instructions where necessary.

1.2 COORDINATION

The Contractor shall at all times keep the Employer informed about the progress and state of the works related to the Soil testing, in particular, the Contractor shall give notification to the Employer,

- 48 hours in advance of commencing any fieldwork.
- Immediately upon discovery of any unforeseen event or situation.

The contractor shall provide the access to the site at all times to Employer or his representative for the inspection works.

The contractor shall be sufficiently equipped with communication facilities to communicate with the Employer at any time.

The Contractor shall closely coordinate with the Employer for any clarification.

1.3 WORK EXECUTION PLAN

The contractor shall submit work execution plan and get it approved from the Employer before commencement of the work. The work execution plan should include the details of the execution of soil testing works and distribution of soil testing teams.

1.4 WEEKLY REPORT

The Soil testing teams shall submit a weekly progress report giving the progress of work, number of soil testing personnel engaged on each working day, substance of work, number of locations the soil testing was carried out, weather on each working day and any pertinent matters from the start to the completion of the Soil testing.

Sample format of a weekly report to be submitted to the Employer, shall be obtained from the Employer.

1.5 PROTECTION OF EXISTING SERVICES

The Contractor shall physically locate services onsite (if any), prior to beginning of any excavation where the locations of services shall be confirmed and updated on the Drawings and shown to the Employer for approval prior to excavation.

The Contractor shall take all reasonable precautions to avoid damage if any such services above and below ground such as sewers drains water mains electricity and other cables etc., are available. In the case of any damage occurring to such facilities, the matter shall be immediately reported to the Employer. The cost of the necessary repairs or renewals shall be borne entirely by the Contractor.

2. SPECIFICATION

2.1. Standards for Drilling, Sampling and Testing of soils

All the exploration, sampling techniques, fieldwork and intervals shall be performed in accordance with BS EN 1997-2:2007 Code or any other equal or higher standard acceptable to Employer shall be used apply for ground investigations.

Borehole drilling method shall be chosen on the basis that would provide the best geological and geotechnical information for the benefit of design. The rotary wash boring method is generally most appropriate method to use in soil specially below the ground water level in cases of granular soil for soft clay and soft rock triple tube HQ3 drilling shall be performed. Rock coring shall be carried out using double-tube core barrel with NX core size.

All samples taken from borehole shall be sealed and preserved in the borehole box until the laboratory testing. The Contractor shall consider use of borehole casing if required, depending on the ground condition. Where required, an approved core orientator shall be used.

At least, disturbed samples of soil shall be obtained from all soil strata encountered or at 3.0m intervals in a single stratum having thickness greater than 3.0m to determine the consistency and chemical characteristic of soil.

2.2. Bore hole Test

Standard Penetration Test (SPT) shall be carried out in all soil strata or 1.5m intervals in a single stratum having thickness greater than 1.5m as specified in BS 1377 part 9 during each borehole drilling. The SPT values shall be obtained until the number of blows to penetrate 300mm depth or 100 blows and blows shall be conducted auto-trip method.

2.2.1.Location of Boring

Prior to the commencement of the field work, CEB will instruct on exact locations of boring.

2.2.2.Depth of Boring

The boring shall terminate 3m below if it meets the bedrock of hard stratum which has Rock Quality Designation (RQD) Value > 75%.

The boring shall be terminated 8 - 10m below if it meets the bedrock of hard stratum which has Rock Quality Designation (RQD) Value < 75%.

The boring shall be terminated 30-35m below if it meets the last three consecutive SPT values greater than 50.

However, the Employer has reserved the right to change above conditions according to site conditions.

2.2.3. Encountering the hard Stratum or Obstruction

Any obstruction encountered during boring should be brought to the attention of the CEB. If an obstruction in the form of bed rock, boulder, hard layer such as sandstone concrete brick log or other object encountered which prevents further progress in boring. The contractor shall first attempt to break through the obstruction either by chiseling or by rotary coring methods to drill through and obtain cores of the obstruction. If the drilling shows that the obstruction is bed rock, the rotary core drilling shall be continued as

specified in clause 2.2.2 in this specification or as required by the CEB to prove the continuity and Engineering characteristics of the formation.

If the obstruction is shown to be a boulder or other object underlain by soil the Contractor shall consult and agree with the Employer/Engineer on the use of one of the following lines of action.

- a. Chisel out the cored borehole through the obstruction to allow boring sampling and in-situ testing to be carried out beneath the obstruction.
- b. Continue the advancement of the borehole by rotary drilling
- c. Abandon the borehole and drill one additional borehole nearby for which the cost will be bore by contractor

Contractor shall backfill the hole as the casing is withdrawn. The soil backfilled in to the borehole shall be placed in layers. Each successive layer being tamped by the suitable tools. The surface shall be reinstated to the original.

2.2.4. Evaluation of changes in Strata

Evaluation of changes in strata shall be made by accurately checking the settlement degree of the rod, and also by observation of slime, discharged from the bore hole etc. during the boring operation. These data shall be carefully recorded together with information strata depth in relation to the elevation.

2.2.5. Ground Water Level

The investigation team shall check the ground water level prior to the commencement of each day's work and record the level, in the daily report. The effect of tide on the ground water level shall also be checked and reported when such effect is notable.

2.3. Laboratory Tests

Name and numbers of Tests to be carried out shall be as shown on below.

Table 1: Laboratory Test Frequencies

No	Name of the test	Frequency
1	Partical Size Distribution - Sieve Analysis with Hydrometer	6 samples per one borehole
2	Natural moisture content	6 samples per one borehole
3	Atterberg Limits	6 samples per one borehole
4	Specific Gravity	6 samples per one borehole
5	Triaxial test -UU test -CU test with Pore-water Pressure Measurements -CD test	3
6	1-D Consolidation test	3
7	Unconfined Compressive strength Test for Rock	2 per one borehole

8	Chemical Analysis of water (Cl ⁻ , SO4-2, pH etc.)	1 per one borehole
9	Chemical Analysis of Soil	1 per one borehole

If can't carry out Unconfined Compressive Strength test for rock Point Load test should be done.

3. Reporting

3.1. Preliminary logs

The contractor shall prepare a preliminary log of each borehole using and agreed format, and submit the same to CEB within 7 working days of the completion of each bore hole.

3.2. Preliminary laboratory test results

Laboratory test result shall be submitted to the CEB in batches at the completion of each week's testing. Legible photocopies of work sheets are acceptable.

3.3. Reports

Draft copy of the report (Soft Copy & Hard Copy) shall be submitted to the CEB for acceptance before submitting the final report. Two copies of the report typed in English shall be submitted. The report shall include the following.

- i. Title of investigation, Location, Period and Name of the Investigation Team.
- ii. Statement of the purpose of and rationale of the investigation.
- iii. Description of work carried out, including reference to specification and standards adopted and any deviation from them
- iv. Site location Plan
- v. Location Plan of bore holes and other test locations
- vi. Boring Log
 - a. Ground elevation from **MSL** at boring point
 - b. Elevation and depths of layers
 - c. Thickness of layers, classification of soil by field observation, water
 - d. N-Values by SPT and graph of N Values.

vii. Details of rock cores

- d. Conditions of each core run in terms of percentage of Core Recovery and percentage of Rock Quality Designation.
- e. Description of rock type, its alterations state and relative strength, details of the natural discontinuities and rock structures.
- viii. Geological cross section along the line joining collars of Boreholes.
- ix. Any additional information that may required

3.3.1. Laboratory Test Result

- i. Descriptive explanation
- ii. Sample and Test Photograph
- iii. Data sheets
- iv. synthetic table and figures (if any)

3.3.2. Foundation Recommendations

Foundation recommendation shall be provided with necessary alternative proposals. The recommendation shall be adopted based on guidelines and notations given in BS EN 1997-2:2007.

Theorination Copy. Hot for Biddings

CERTIFICATE OF PURCHASE OF BIDDING DOCUMENT Bid No: CEB/MFS/Ph.I EXT/2022/01

Soil Investigation Of Proposed Mannar Wind Power Project-Phase I Extension InMannar Island

(TO BE ATTACHED WITH THE OFFER)

Ceylon Electricity Board

Date	
Issued to M/s	:
Address:	
Tel No:	Fax No:
On behalf of M/s	
Payment made a	s non-refundable fee of LKR 5,000.00 per set of Bidding Document.
Receipt/PIV No: (Bank Draft No)	
For Project I	Director
Mannar Win	d Power Project – Ph. III& Ph. I Ext

FORM OF BID

The General Manager, Ceylon Electricity Board,

Dear Sir,

Bid No: CEB/MFS/Ph.I EXT/2022/01

Soil Investigation of Proposed Mannar Wind Power Project-Phase I Extension in Mannar Island

I/We having examined the Conditions of Bid, the Schedule of Quantities and Prices and all other Documents pertaining to this work/supply, do hereby offer and undertake to carry out the work /supply, to the satisfaction of the General Manager, Ceylon Electricity Board strictly in accordance with the conditions of Bid, at the prices set forth in the accompanying Schedule of Quantities and Prices pertaining to Bid No.: CEB/MFS/Ph.I EXT/2022/01and in consideration of the trouble and expense incurred by you in preparing the contract documents and in examining and considering the bid, I/We further undertake that this bid shall not be withdrawn by me/us before the expiration of Ninety (90) days from the date of closing but shall remain binding on me/us and may be accepted at any time before such expiration.

And I/We further undertake in the event of this bid being accepted to furnish a Performance Security corresponding to 10% of the contract sum. Such Security shall be on the form of a Bank Guarantee or such other from as provided in the Bidding Conditions and shall be in favour of the General Manager, Ceylon Electricity Board for the due Performance of the Contract and for the payment of all claims to which the Ceylon Electricity Board may be entitled , and to execute an agreement in the prescribed form duly stamped by me/us at my/our expense in accordance with the Stamp Duty Ordinance and to complete the work to the entire satisfaction of the General Manager, Ceylon Electricity Board.

And I/We further agree that, in the event of my/our withdrawing the offer or declining or failing to execute such security and/or agreement within fourteen (14) days of my/our being called upon to execute such security and/or such Agreement, the Ceylon Electricity Board has the right to confiscate the Bid Security and to recover from me/us the full amount of damages sustained by the Ceylon Electricity Board as a result of my/our so declining or failing.

I/We understand that you are not bound to accept the lowest or any bid you may receive.

Signature of Bidder	0.0		
Date			
Bidder's Name			
Position	:		
Address	:		
Company Seal	:		
Witness 1	•	Witness 2	:
Signature	2	Signature	:
Name	:	Name	:
Address	£	Address	:

Tender No: CEB/MFS/Ph.I EXT/2022/01

1.6 SCHEDULE OF QUANTITIES AND PRICES

The Bidder shall take due account of the ground cover, in his offer. Delays and claims for additional payment due to density or type of ground cover will not be considered.

The Bidder shall provide a Contract Price based on the following bill of quantities.

1.6.1 Soil Investigation of proposed Mannar Wind Power Project-Phase I Extension

Item	Item Description of Estimated Quantities			Rate (LKR)	Total (LKR)
A	Mobilization (including transportation within site)	1	Lump Sump	293	Y
В	Boring		- ^	O _V	
B.1	Preliminary and Setting up works at Bore Hole locations.	21	Nos.	Y	
B.2	Drilling with necessary SPT equipment (in overburden)	630	m		
B.2a	Drilling with necessary HQ3 for clay	25	m		
B.3	Drilling in Rock (Core Recovery value 0%-25% and RQD value <25%)	50	m		
B.3a	Drilling in Rock (Core Recovery value 25%-50% and RQD value <50%)	50	m		
B.4	Drilling in Rock (Core Recovery value>50% and RQD value <50%	50	m		
B.4a	Drilling in Rock (Core Recovery value > 50% and RQD value 50% -75%)	25	m		
B.5	Drilling in Rock (RQD value >75%)	25	m		
B.6	SPT Test (at every 1.5m interval)	510	Nos.		
C	Laboratory Test				
C.1	Particle Size Distribution Sieve Analysis with Hydrometer	130	Nos.		
C.2	Atterberg limits	130	Nos.		
C.3	Natural Moisture Content	130	Nos.		
C.4	Specific Gravity	130	Nos.		
C.5	Unconfined Compression Test	21	Nos.		
C.6	Triaxial test -UU test, -CU test with Pore water Pressure Measurements, -CD test	6	Nos.		
C.7	1-D Consolidation test	6	Nos.		
C.8	Chemical Analysis of water,(Cl-,SO4-2, pH etc.)	21	Nos.		
C.9	Chemical Analysis of Soil	21	Nos.		
C.10	Direct Shear Test	3	Nos.		
D	Detail report with foundation recommendation for every location.	1	Lump Sum		
E	Hourly rate for soil investigation team (including equipment and vehicle) for delays due to unforeseen restrictions as per clause 9.7	80	Hrs.		
SUB TOTAL	(LKR)				

FINALSUMMARY

Soil Investigation of proposed Mannar Wind Power Project-Phase I Extension in Mannar Island

TOTALBills of Quantities = Rs. Discount = Rs. TOTAL WITH DISCOUNT = Rs.Other Taxes Rs..... VAT Rs **GRAND TOTAL** Totalinwords (withoutVAT)Rs..... I/WeagreetoabidebytheConditions oftheTender. Date:.... SignatureofTenderer FullNameandAddress oftheTenderer: Witnesses (1)..... (2)..... Signature Signature Name&Address:... Date:.... Date:...

Bid No: CEB/MFS/Ph.I EXT/2022/01

Proof of Ability

Note: Please furnish the details in separate sheets indicating the reference in this table

01	Registered Name of the Company	
02	Registered Address	20117.60
03	Telephone /Fax Nos.	Bio
04	The date of Business Registration (Please annex a copy of the Registration Certificate)	
05	Value Added Tax (VAT) No. (Please attach a copy of the VAT Certificate)	O
06	Names, Positions & Addresses of the Chairman/Directors of the Company	
07	Number of permanent staff, in each category employed in the company on permanent basis.	
08	Particulars of Technical staff to be employed for this work (Please attach copies of their qualification and experience records, specially the experience on Soil Investigation in power lines and substations)	
09	Detail of Testing Equipment, Apparatus, Laboratory Facilities, Communication equipment and type of vehicles available for this work (Please list equipment type, make, model, serial numbers and date of manufacture)	

10	Details of jobs in Hand	
	(Please give Client, Description, Scope, Values of Contracts, percentage of progress, date of start, intended completion date and detail of the contact person for verification)	
11	Particulars of General Experience in Soil Investigation	
	(Please give Values of Contracts and detail of the contact person for verification)	
12	Particulars of Past Experience on Soil investigation works.	
	(Please attach copies of Letter of Awards, Completion Certificates, Route lengths, Values of Contracts and detail of the contact person for verification)	
13	Annual turnover of last 5 years	
	(please attach supporting Documents)	
14	Credit facilities available	
7	(please attach supporting Documents)	

METHOD STATEMENT & WORK PROGRAMME

Bid no.: CEB/MFS/Ph.I EXT/2022/01

Description	To be filled by	y the Bidder			
Working Method of investigation (Attach a method statement)					
Number of Teams Proposed					1991
Details of equipment	Instruments	Type & Brand	Model	Accuracy	No of units
				60,	
			X	y	
			40		
			/		
		1			
		40)			
		0 >			
Work Program:			<u> </u>		
Bar chart format for work program (can be attached)	100				
Special Comments If any					
Note: Separate sheets may be attached if the provided space is insufficient.					

Tender No: CEB/MFS/Ph.I EXT/2022/01

TIME SCHEDULE FOR COMPLETION OF WORK

Soil Investigation of proposed Mannar Wind Power Project-Phase I Extension in Mannar Island

Ref	Description	Date/Days
01	Intended Month of Award of Contract	May,2022
02	Signing of Contract	Within 14 days from the
	(Days, from the date of Letter of Award)	date of Letter of Award
03	Date of Commencement	Within 07 days from
	(Days, from the date of signing Contract)	signing of contract
04	Completion of all site works	Within 45 days from commencement
05	Completion of Soil Investigation and Laboratory tests& submission of final report with recommendation	Within 90 days from Commencement

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SAMPLE FORMS

TABLE OF SAMPLE FORMS

- 1. BID SECURITY (BANK GUARANTEE)
- 2. CONTRACT AGREEMENT
- 3. PERFORMANCE BANK GUARANTEE
- ANCE PAY. 4. FORM OF GUARANTEE FOR ADVANCE PAYMENT

BID SECURITY (BANK GUARANTEE)

(hereinafter called "the Soil Investigation forp	Bidder") has submitted his bid dated
	these presents that We
SEALED with the Com	amon Seal of the said Bank this day of 2022.
THE CONDITIONS o	of this obligation are:
(1) If the bidder w of Bid; or	vithdraws his Bid during the period of bid validity specified in the Form
	having been notified of the acceptance of his Bid by the Employer riod of bid validity:
	ails or refuses to execute the Contract Agreement in accordance with he Conditions of Tender, if required; or
	ails or refuses to furnish the Performance Security, in accordance with he Conditions of Tender
· ·	
demand, without the Err the Employer will note	the Employer up to the above amount upon receipt of his first written imployer having to substantiate his demand, provided that in his demand that the amount claimed by him is due to him owing to the occurrence o conditions, specifying the occurred condition or conditions.
submission of bids as extended by the Emplo	nain in force up to and including the date 118 days after the deadline for such deadline is stated in the Conditions of Tender or as it may be over, notice of which extension(s) to the Bank is hereby waived. Any is Guarantee should reach the Bank not later than the above date.
DATE:	SEAL
SIGNATURE OF AUT	HORISED OFFICERS OF THE BANK :
WITNESS:	

CONTRACT AGREEMENT

(a)

(b)

(c) (d)

(e)

Bid No: CEB/MFS/Ph.I EXT/2022/01 Soil Investigation of proposed Mannar Wind Power Project-Phase I Extension in Mannar Island THIS AGREEMENT made and entered into at Colombo Two Thousand Fifteen by and between the **Cevlon Electricity Board** a body corporate established under the Act No. 17 of 1969 and having its Head Office at No. 50, Sir Chittampalam A. Gardiner Mawatha, Colombo – 2, Sri Lanka (herein after called "The Employer") of the one part AND whose registered office is at (hereinaftercalled "The Contractor") of the other part. WHEREAS the Employer is desirous that certain works should be executed namely the Soil Investigation Works of Renewable Energy Absorption Transmission Development Project as described in the Bidding Document (Bid No. CEB/MFS/Ph.I EXT/2022/01), and has accepted a Tender by the Contractor for execution and completion of such works in the sum of Sri Lankan Rupees Excluding Value Added Tax payable in Sri Lanka but including all other taxes and levies payable by the contractor (LKR), which is to be paid on measure and pay basis in the manner prescribed by the contract document. NOW THIS AGREEMENT WITNESSETH as follows: 1. In this AGREEMENT words and expressions shall have the same meanings as respectively assigned to them in the conditions of contract referred to. 2. The following documents shall be deemed to form and be read and construed as part of this AGREEMENT namely:

3. In consideration of the payment to be made by the Employer to the Contractor as hereinafter mentioned, the contractor hereby covenants with the Employer to design, execute and complete the works and remedy any defects therein in conformity in all respects with the provisions of the contract.

The Technical Specifications, Schedules & Drawings.

The letter of Acceptance dated

The said tender dated

The Tender Document,

The Letter Confirming the Acceptance of Award dated

4. The Employer hereby covenants to pay the contractor in consideration of the design, execution and completion of the works and the remedying of defects

therein, the contract price on measure and pay basis at the times and in the manner prescribed by the contract.

IN WITNESS whereof, the parties have hereunto and to one other of the same tenor, set their respective seals and hands the day and year first above written.

For and on behalf of the **Ceylon Electricity Board**Common seal of the Ceylon Electricity Board is affixed in the presence of ;

			_		
CEB Seal	Signature/Name/Designation		Signature/Name/Designation		
	1				
For and on behalf of the					
Common seal of the		is a	ffixed	in the presence of	
Company Seal	Signature/	Name/Designation	Sign	ignature/Name/Designation	
. ,	Signature, i vanie, Besignation			C	
WITNESSES :-	~0	3,	•		
Name/NIC Numb	er	Signature		Address	
2.					

PERFORMANCE BANK GUARANTEE

To:	General Manager, Ceylon Electricity Board, No 50, Sir Chittampalam A Gardiner Mawatha, P.O Box 540, Colombo 02
Contraduction dated	REAS [name and address of Contractor] (hereinafter called "the ctor") has undertaken, in pursuance of Contract No. CEB/MFS/Ph.I EXT/2022/01 to execute [name of Contract and escription of Works] (hereinafter called "the Contract");
Contra	WHEREAS it has been stipulated by you in the said Contract that the actor shall furnish you with a Bank Guarantee by a recognized bank for the sum ed therein as security for compliance with his obligations in accordance with ntract;
AND Y	WHEREAS we have agreed to give the Contractor such a Bank Guarantee;
you, or propor pay you sums v	THEREFORE we hereby affirm that we are the Guarantor and responsible to a behalf of the Contractor, up to a total of
	reby waive the necessity of your demanding the said debt from the Contractor presenting us with the demand.
the Co docum release	ontract or of the Works to be performed thereunder or of any of the Contract tents which may be made between you and the Contractor shall in any way to us from any liability under this guarantee, and we hereby waive notice of any hange, addition or modification.
This g	uarantee shall be valid for 180 days from the date of signing of agreement.
	SIGNATURE AND SEAL OF THE GUARANTOR
	NAME OF BANK
	ADDRESS

FORM OF GUARANTEE FOR ADVANCE PAYMENT

To: General Manager, Ceylon Electricity Board, No. 50, Sir Chittampalam A Gardiner Mawatha, P.O.Box 540, Colombo 2, Sri Lanka

Soil Investigation of proposed Mannar Wind Power Project-Phase I Extension Mannar Island
Bid No: CEB/MFS/Ph.I EXT/2022/01
[name of Contractor]
In accordance with the provisions of the Conditions of Contract, Sub-Clause 25 ("payments") of the above-mentioned Contract, [name and address of the Contractor] (hereinafter called "the Contractor") shall deposit with the Ceylon Electricity Board, a bank guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of [amount of Guarantee] [in words].
We, the[bank or financial institution], as instructed by the Contractor agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to the Ceylon Electricity Board on his first demand without whatsoever right of objection on our part and without his first claim to the Contractor, in the amount not exceeding [amount of Guarantee] [in words].
We further agree that no change or addition to or other modification of the terms of the Contract or of Works to be performed thereunder or of any of the Contract documents which may be made between the Ceylon Electricity Board and the Contractor, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.
No claim may be made by you under this guarantee until we have received notice from you specifying the amount of each advance payment, which has been paid to the Contractor pursuant to the Contract.
Our outstanding liability under this guarantee will reduce by such amounts as may be notified to us in your authorized writing and stated to be the reduction of this guarantee required to be made in accordance with the Contract by reason of the repayments made by the Contractor.
This guarantee shall remain valid in full effect from the date of the advance payment under the Contract until the Ceylon Electricity Board receives full repayment of the same amount from the Contractor.
Yours faithfully, SIGNATURE AND SEAL OF THE GUARANTOR
NAME OF BANK
ADDRESS