

CEYLON ELECTRICITY BOARD

Request for Proposals (RFP) **(Quality and Cost Based Selection)**

**Procurement of Consultancy Services for Conducting EIA
Studies and Submission of two EIA Reports for;**

- i. Project 1 - Capacity Enhancement to Thambapawani Wind Farm**
- ii. Project 2 - 100 MW Mullikulam Wind Farm with Grid Connecting Transmission Line & Wind Farm Collector Substation**

Ref No: PD/MWPP/Ph III/2022/01

February, 2022

Section 1. Letter of Invitation

RFP No : PD/MWPP/Ph III/2022/01
Date : 24 February 2022

Dear Sir,

Procurement of Consultancy Services for conducting Environmental Impact Assessment (EIA) studies and submission of two separate EIA reports for the following two projects based on the Terms of References (TORs) given by each Project Approving Agency (PAA);

- i) Project 1 - Capacity Enhancement to Thambapawani Wind Farm**
- ii) Project 2 - 100 MW Mullikulam Wind Farm with Grid Connecting Transmission Line & Wind Farm Collector Substation**

1. The Project Consultant Procurement Committee (CPCP) on behalf of the Ceylon Electricity Board invites proposals to provide the above consulting services. More details on the services are provided in the Terms of Reference in Section 5 of the RFP.
2. CPCP has decided to directly call RFP's from prospective consultants for this consultancy. Therefore, there are no previously shortlisted consultants for this consultancy. However, the RFP document is prepared using the 'Standard Request for Proposals- Selection of Consultants' document published by National Procurement Agency in December 2007. Hence, the term "shortlisted consultants" mentioned in the RFP should be changed as "prospective consultants" in all occurrences.
3. A Consulting firm/ Organization will be selected under Quality and Cost Base Selection (QCBS) method and Procedures described in this RFP, in accordance with the policies described in the latest Version of the following Guidelines:
 - a) Selection and Employment of Consultants published by National Procurement Agency
4. This RFP includes the following documents:

Section 1 - Letter of Invitation

Section 2 - Instructions to Consultants (including Data Sheet)

Section 3 - Technical Proposal - Standard Forms

Section 4 - Financial Proposal - Standard Forms

Section 5 - Terms of Reference

Section 6 - Standard Forms of Contract

Yours Sincerely,

THE CHAIRMAN

PROJECT CONSULTANTS PROCUREMENT COMMITTEE

Section 2. Instructions to Consultants

- Definitions
- a) “Client” means the procuring entity with which the selected Consultant signs the Contract for the Services.
 - b) “Consultant” means any organization that may provide or provides the Services to the Client under the Contract.
 - c) “Contract” means the contract signed by the Parties and all the attached documents listed in Clause 1 of, that is the General Conditions (GC), the Special Conditions of the form of agreement.
 - d) “Data Sheet” means such part of the Instructions to Consultants used to reflect specific assignment conditions.
 - e) “Day” means calendar day.
 - f) “Foreign Personnel” means such professionals and support staff who at the time of being so provided had their domicile outside Sri Lanka;
 - g) “Instructions to Consultants” (Section 2 of the RFP) means the document which provides shortlisted Consultants with all information needed to prepare their Proposals.
 - h) “Local Personnel” means such professionals and support staff who at the time of being so provided had their domicile within Sri Lanka.
 - i) “LOI” (Section 1 of the RFP) means the Letter of Invitation being sent by the Client to the shortlisted Consultants.
 - j) “Party” means either or both the Client or the Consultant, as the context requires.
 - k) “Personnel” means professionals and support staff provided by the Consultant or by any Sub-Consultant and assigned to perform the Services or any part thereof;
 - l) “Proposal” means the Technical Proposal and the Financial Proposal.
 - m) “RFP” means the Request for Proposal prepared by the Client for the selection of Consultants.
 - n) “Services” means the work to be performed by the Consultant pursuant to the Contract.
 - o) “Sub-Consultant” means any person or entity with whom the Consultant subcontracts any part of the Services.
 - p) “Terms of Reference” (TOR) means the document included in the RFP as Section 5 which explains the objectives, scope of work, activities, tasks to be performed, respective responsibilities of the Client and the Consultant, and expected results and deliverables of the assignment.

1.
Introduction

- 1.1 The Client named in the Data Sheet will select a consulting firm/organization (the Consultant) from those listed in the Letter of Invitation, in accordance with the method of selection specified in the Data Sheet.
- 1.2 The shortlisted Consultants are invited to submit a Technical Proposal and a Financial Proposal, for consulting services required for the assignment named in the Data Sheet. The Proposal will be the basis for contract negotiations and ultimately for a signed Contract with the selected Consultant.
- 1.3 Consultants should familiarize themselves with local conditions of the location where the assignment has to be carried out and take them into account in preparing their Proposals. To obtain first-hand information on the assignment and local conditions, Consultants are encouraged to visit the Client before submitting a proposal and to attend a pre-proposal conference if one is specified in the Data Sheet. Attending the pre-proposal conference is optional. Consultants should contact the Client's representative named in the Data Sheet to arrange for their visit or to obtain additional information on the pre-proposal conference. Consultants should ensure that these officials are advised of the visit in adequate time to allow them to make appropriate arrangements.
- 1.4 The Client will timely provide at no cost to the Consultants the inputs and facilities specified in the Data Sheet, assist the firm in obtaining licenses and permits needed to carry out the services, and make available relevant project data and reports.
- 1.5 Consultants shall bear all costs associated with the preparation and submission of their proposals and contract negotiation. The Client is not bound to accept any proposal, and reserves the right to annul the selection process at any time prior to Contract award, without thereby incurring any liability to the Consultants.

Conflict of
Interest

- 1.6 The Client requires that Consultants provide professional, objective, and impartial advice and at all times hold the Client's interests paramount, strictly avoid conflicts with other assignments or their own corporate interests and act without any consideration for future work.
 - 1.6.1 Without limitation on the generality of the foregoing, Consultants, and any of their affiliates, shall be considered to have a conflict of interest and shall not be recruited, under any of the circumstances set forth below:

- Conflicting Activities (i) A firm that has been engaged by the Client to provide goods, works or services other than consulting services, and any of its affiliates, shall be disqualified from providing consulting services related to those goods, works or services. Conversely, a firm hired to provide consulting services, and any of its affiliates, shall be disqualified from subsequently providing goods or works or services other than consulting services resulting from or directly related to the firm's consulting services.
- Conflicting assignments (ii) A Consultant (including its Personnel and Sub-Consultants) or any of its affiliates shall not be hired for any assignment that, by its nature, may be in conflict with another assignment of the Consultant to be executed for the same or for another Client. For example, a Consultant hired to prepare engineering design for an infrastructure project shall not be engaged to prepare an independent environmental assessment for the same project. Similarly, a Consultant hired to prepare Terms of Reference for an assignment should not be hired for the assignment in question.
- Conflicting relationships (iii) A Consultant (including its Personnel and Sub-Consultants) that has a business or family relationship with a member of the Client's staff who is directly or indirectly involved in any part of (i) the preparation of the Terms of Reference of the assignment, (ii) the selection process for such assignment, or (iii) supervision of the Contract, may not be awarded a Contract.
- 1.6.2 Consultants have an obligation to disclose any situation of actual or potential conflict that impacts their capacity to serve the best interest of their Client, or that may reasonably be perceived as having this effect. Failure to disclose said situations may lead to the disqualification of the Consultant or the termination of its Contract.
- 1.6.3 No agency or current employees of the Client shall work as Consultants Personnel under their own ministries, departments or agencies. Recruiting former government employees of the Client to work for their former ministries, departments or agencies is acceptable provided no conflict of interest exists. When the Consultant nominates any government employee as Personnel in their technical proposal, such Personnel must have written certification from their government or employer confirming that they are allowed to work full-time outside of their previous official position. Such certification shall be provided to the Client by the Consultant as part of his technical proposal.
- Unfair Advantage 1.6.4 If a shortlisted Consultant could derive a competitive advantage from having provided consulting services related to the assignment in question, the Client shall make available to all shortlisted Consultants

together with this RFP all information that would in that respect give such Consultant any competitive advantage over competing Consultants.

Only one Proposal

1.7 Shortlisted Consultants may only submit one proposal. If a Consultant submits or participates in more than one proposal, such proposals shall be disqualified. However, this does not limit the participation of the same Sub-Consultant, including individual experts, to more than one proposal.

Proposal Validity

1.8 The Data Sheet indicates how long Consultants' Proposals must remain valid after the submission date. During this period, Consultants shall maintain the availability of professional staff nominated in the Proposal. The Client will make its best effort to complete negotiations within this period. Should the need arise, however, the Client may request Consultants to extend the validity period of their proposals. Consultants who agree to such extension shall confirm that they maintain the availability of the professional staff nominated in the Proposal, or in their confirmation of extension of validity of the Proposal, Consultants could submit new staff in replacement, which would be considered in the final evaluation for contract award. Consultants who do not agree have the right to refuse to extend the validity of their Proposals.

Eligibility of Sub-Consultants

1.9 In case a shortlisted Consultant intends to associate with Consultants who have not been shortlisted and/or individual expert(s), such other Consultants and/or individual expert(s) shall be subject to the requirements set forth in this RFP.

Fraud and Corruption

1.10 The officials of the procuring entity, as well as Consultants participating in this consultant selection process should adhere to the highest ethical standards, both during the selection process and throughout the execution of a contract. In pursuance of this policy, the following definitions are given:

- (i) "corrupt practice" means offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the selection process or in contract execution;
- (ii) "fraudulent practice" means a misrepresentation or omission of facts in order to influence a selection process or the execution of a contract;
- (iii) "collusive practices" means a scheme or arrangement between two or more consultants with or without the knowledge of the PE, designed to establish prices at artificial, noncompetitive levels;
- (iv) "coercive practices" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in a procurement process, or affect the execution of a contract.

2.
Clarification
and
Amendment
of RFP
Document

- 2.1 Consultants may request a clarification of any of the RFP documents up to the number of days indicated in the Data Sheet before the proposal submission date. Any request for clarification must be sent in writing, to the Client's address indicated in the Data Sheet. The Client will respond in writing, and will send written copies of the response (including an explanation of the query but without identifying the source of inquiry) to all Consultants, who have been invited to submit a proposal. Should the Client deem it necessary to amend the RFP as a result of a clarification, it shall do so following the procedure under para. 2.2.
- 2.2 At any time before the submission of Proposals, the Client may amend the RFP by issuing an addendum in writing. The addendum shall be sent to all Consultants and will be binding on them. Consultants shall acknowledge receipt of all amendments. To give Consultants reasonable time in which to take an amendment into account in their Proposals the Client may, if the amendment is substantial, extend the deadline for the submission of Proposals.

3.
Preparation
of Proposals

- 3.1 The Proposal (see para. 1.2), as well as all related correspondence exchanged by the Consultants and the Client, shall be written in English Language.
- 3.2 In preparing their Proposal, Consultants are expected to examine in detail the documents comprising the RFP. Material deficiencies in providing the information requested may result in rejection of a Proposal.
- 3.3 While preparing the Technical Proposal, Consultants must give particular attention to the following:
- (a) If a shortlisted Consultant considers that it may enhance its expertise for the assignment by associating with other Consultants in a joint venture or sub-consultancy, it may associate with either (a) non-shortlisted Consultant(s), or (b) shortlisted Consultants if so indicated in the Data Sheet. A shortlisted Consultant must first obtain the approval of the Client if it wishes to enter into a joint venture with non-shortlisted or shortlisted Consultant(s). In case of association with non-shortlisted Consultant(s), the shortlisted Consultant shall act as association leader. In case of a joint venture, all partners shall be jointly and severally liable and shall indicate who will act as the leader of the joint venture.
 - (b) The estimated number of Professional staff-months or the budget for executing the assignment shall be shown in the Data Sheet, but not both. However, the Proposal shall be based on the number of Professional staff-months or budget estimated by the Consultants.

For fixed-budget-based assignments, the available budget is given in the Data Sheet, and the Financial Proposal shall not exceed this budget, while the estimated number of Professional staff-months shall not be disclosed.

- (c) Alternative professional staff shall not be proposed, and only one curriculum vitae (CV) may be submitted for each position.
 - (d) Documents to be issued by the Consultants as part of this assignment must be in English language.
- Language
- Technical Proposal Format and Content
- 3.4 The Technical Proposal shall provide the information indicated in the following para from (a) to (g) using the attached Standard Forms (Section 3)
- (a) a brief description of the Consultants' organization and an outline of recent experience of the Consultants and, in the case of joint venture, for each partner, on assignments of a similar nature is required in Form TECH-2 of Section 3. For each assignment, the outline should indicate the names of Sub-Consultants/ professional staff who participated, duration of the assignment, contract amount, and Consultant's involvement. Information should be provided only for those assignments for which the Consultant was legally contracted by the client as a corporation or as one of the major firms within a joint venture. Assignments completed by individual professional staff working privately or through other consulting firms cannot be claimed as the experience of the Consultant, or that of the Consultant's associates, but can be claimed by the professional staff themselves in their CVs. Consultants should be prepared to substantiate the claimed experience if so requested by the Client.
 - (b) Comments and suggestions on the Terms of Reference including workable suggestions that could improve the quality/ effectiveness of the assignment; and on requirements for counterpart staff and facilities including: administrative support, office space, local transportation, equipment, data, etc. to be provided by the Client (Form TECH-3 of Section 3).
 - (c) a description of the approach, methodology and work plan for performing the assignment covering the following subjects: technical approach and methodology, work plan, and organization and staffing schedule. Guidance on the content of this section of the Technical Proposals is provided under Form TECH-4 of Section 3. The work plan should be consistent with the Work Schedule (Form TECH-8 of Section 3) which will show in the form of a bar chart the timing proposed for each activity.

- (d) The list of the proposed professional staff team by area of expertise, the position that would be assigned to each staff team member, and their tasks (Form TECH-5 of Section 3).
- (e) Estimates of the staff input (staff-months of foreign and local professionals) needed to carry out the assignment (Form TECH-7 of Section 3). The staff-months input should be indicated separately for foreign (if required) and local professional staff.
- (f) CVs of the professional staff signed by the staff themselves or by the authorized representative of the professional staff (Form TECH-6 of Section 3).
- (g) a detailed description of the proposed methodology and staffing for training, if the Data Sheet specifies training as a specific component of the assignment.

3.5 The Technical Proposal shall not include any financial information. A Technical Proposal containing financial information may be declared non responsive.

Financial Proposals

3.6 The Financial Proposal shall be prepared using the attached Standard Forms (Section 4). It shall list all costs associated with the assignment, including (a) remuneration for staff (local and foreign (if required); and (b) other expenses indicated in the Data Sheet. If stated in the Data Sheet, these costs should be broken down by activity using FORM FIN – 5 and, if appropriate, into foreign and local expenditures. All activities and items described in the Technical Proposal must be priced separately; activities and items described in the Technical Proposal but not priced, shall be assumed to be included in the prices of other activities or items.

Taxes

- 3.7 A foreign Consultant may be subject to local taxes on amounts payable by the Client under the Contract. Any such amounts shall not be included in the Financial Proposal as they will not be evaluated, but they will be discussed at contract negotiations, and applicable amounts will be included in the Contract. The tax liability of a local Consultant shall be borne by the Consultant.
- 3.8 The Consultants must price the local cost in Sri Lanka Rupees only. However, the expenditure involves in foreign currency such as foreign consultant's fees and air ticket may be price in foreign currency.

4. Submission, Receipt, and Opening of Proposals

4.1 The original Proposal (Technical Proposal and, Financial Proposal) shall contain no interlineations or overwriting, except as necessary to correct errors made by the Consultants themselves. The person who signed the Proposal must initial such corrections. Submission letters for both Technical and Financial Proposals should respectively be in the format of TECH-1 of Section 3, and FIN-1 of Section 4.

- 4.2 An authorized representative of the Consultants shall initial all pages of the original Technical and Financial Proposals. The authorization shall be in the form of a written power of attorney accompanying the Proposal or in any other form demonstrating that the representative has been duly authorized to sign. The signed Technical and Financial Proposals shall be marked "ORIGINAL".
- 4.3 The Technical Proposal shall be marked "ORIGINAL" or "COPY" as appropriate. The Technical Proposals shall be sent to the addresses referred to in para. 4.5 and in the number of copies indicated in the Data Sheet. All required copies of the Technical Proposal are to be made from the original. If there are discrepancies between the original and the copies of the Technical Proposal, the original governs.
- 4.4 The original and all copies of the Technical Proposal shall be placed in a sealed envelope clearly marked "TECHNICAL PROPOSAL" Similarly, the original Financial Proposal shall be placed in a sealed envelope clearly marked "FINANCIAL PROPOSAL" followed by the the name of the assignment, and with a warning "**DO NOT OPEN WITH THE TECHNICAL PROPOSAL.**" The envelopes containing the Technical and Financial Proposals shall be placed into an outer envelope and sealed. This outer envelope shall bear the submission address, reference number and title, and be clearly marked "**DO NOT OPEN, EXCEPT IN PRESENCE OF THE OFFICIAL APPOINTED, BEFORE 10:30 HRS OF 24th MARCH 2022.**" The Client shall not be responsible for misplacement, losing or premature opening if the outer envelope is not sealed and/or marked as stipulated. This circumstance may be case for Proposal rejection. If the Financial Proposal is not submitted in a separate sealed envelope duly marked as indicated above, this will constitute grounds for declaring the Proposal non-responsive.
- 4.5 The Proposals must be sent to the address indicated in the Data Sheet and received by the Client no later than the time and the date indicated in the Data Sheet, or any extension to this date in accordance with para. 2.2. Any proposal received by the Client after the deadline for submission shall be returned unopened.
- 4.6 The Client shall open the Technical Proposal immediately after the deadline for their submission. The envelopes with the Financial Proposal shall remain sealed and securely stored.
5. Proposal Evaluation
- 5.1 From the time the Proposals are opened to the time the Contract is awarded, the Consultants should not contact the Client on any matter related to its Technical and/or Financial Proposal. Any effort by

Consultants to influence the Client in the examination, evaluation, ranking of Proposals, and recommendation for award of Contract may result in the rejection of the Consultants' Proposal.

Evaluators of Technical Proposals shall have no access to the Financial Proposals until the technical evaluation is concluded.

Evaluation of Technical Proposals

5.2 The Client shall evaluate the Technical Proposals on the basis of their responsiveness to the Terms of Reference, applying the evaluation criteria, sub criteria, and point system specified in the Data Sheet. Each responsive Proposal will be given a technical score (St). A Proposal shall be rejected at this stage if it does not respond to important aspects of the RFP, and particularly the Terms of Reference or if it fails to achieve the minimum technical score indicated in the Data Sheet.

Public Opening of Financial Proposals (only for QCBS, FBS and LCS)

5.3 After the technical evaluation is completed in accordance with paragraph 5.2 above, the Client shall notify those Consultants whose Proposals did not meet the minimum qualifying mark or were considered non responsive to the RFP and TOR, that their Financial Proposals will be returned unopened after completing the selection process. The Client shall simultaneously notify in writing Consultants that have secured the minimum qualifying mark, the date, time and location for opening the Financial Proposals. The opening date should allow Consultants sufficient time to make arrangements for attending the opening. Consultants' attendance at the opening of Financial Proposals is optional

5.4 Financial Proposals shall be opened publicly in the presence of the Consultants' representatives who choose to attend. The name of the Consultants and the technical scores obtained by each qualified Consultant shall be read aloud. The Financial Proposal of the Consultants who met the minimum qualifying mark will then be inspected to confirm that they have remained sealed and unopened. These Financial Proposals shall be then opened, and the total prices read aloud and recorded.

Evaluation of Financial Proposals for QBS

5.5 Following the ranking of technical Proposals as described under 5.2 above, The Client will examine the Financial Proposal of the first ranked Consultant. First, the Client will examine whether Financial Proposal is complete. Then the Proposal is checked for arithmetical errors.

The Reasonability of the following in comparison with the supporting documents submitted by the Consultant is examined:

- a) The remuneration rates, social costs, overheads, profits; and
- b) Other costs such as out of pocket expenses, cost of surveys, equipment, office rent, supplies, travel, transport, computer rental, mobilisation, and printing.

Following the ranking of technical Proposals, when selection is based on quality only (QBS), the first ranked Consultant is invited to negotiate its proposal and the Contract in accordance with the instructions given under para. 6 of these Instructions.

Evaluation of Financial Proposals (only for QCBS, FBS, and LCS)

5.6 The Evaluation Committee will correct any computational errors. When correcting computational errors, in case of discrepancy between a partial amount and the total amount, or between word and figures the formers will prevail. In addition to the above corrections, as indicated under para.3.6, activities and items described in the Technical Proposal but not priced, shall be assumed to be included in the prices of other activities or items. In case an activity or line item is quantified in the Financial Proposal differently from the Technical Proposal, (i) if Option B is applicable under Clause 6 of GC, the Evaluation Committee shall correct the quantification indicated in the Financial Proposal so as to make it consistent with that indicated in the Technical Proposal, apply the relevant unit price included in the Financial Proposal to the corrected quantity and correct the total Proposal cost, (ii) if Option A is applicable under Clause 6 of GC, no corrections are applied to the Financial Proposal in this respect. Prices shall be converted to Sri Lankan Rupees, if the consultants were allowed to indicate certain expenditure of the Financial Proposal in foreign currency, using the selling rates of exchange, source and date indicated in the Data Sheet.

Combined Evaluation Technical and Financial Proposals (only for QCBS)

5.7 In case of QCBS, the lowest evaluated Financial Proposal (F_m) will be given the maximum financial score (S_f) of 100 points. The financial scores (S_f) of the other Financial Proposals will be computed as indicated in the Data Sheet. Proposals will be ranked according to their combined technical (S_t) and financial (S_f) scores using the weights (T = the weight given to the Technical Proposal; P = the weight given to the Financial Proposal; $T + P = 1$) indicated in the Data Sheet: $S = S_t \times T\% + S_f \times P\%$. The firm achieving the highest combined technical and financial score will be invited for negotiations.

Evaluation of Financial Proposals (only for FBS)

5.8 In the case of Fixed-Budget Selection, the Client will select the firm that submitted the highest ranked Technical Proposal within the budget. Proposals that exceed the indicated budget will be rejected. The evaluated proposal price according to para. 5.6 shall be considered, and the selected firm is invited for negotiations

Evaluation of Financial Proposals (only for LCS)

5.9 In the case of the Least-Cost Selection, the Client will select the lowest Proposal among those that passed the minimum technical score. The evaluated proposal price according to para. 5.6 shall be considered, and the selected firm is invited for negotiations

6.

- Negotiations 6.1 Negotiations will be held at the date and address indicated in the Data Sheet. The invited Consultant will, as a pre-requisite for attendance at the negotiations, confirm availability of all professional staff. Failure in satisfying such requirements may result in the Client proceeding to negotiate with the next-ranked Consultant. Representatives conducting negotiations on behalf of the Consultant must have written authority to negotiate and conclude a Contract.
- Technical Negotiations 6.2 Negotiations will include a discussion of the Technical Proposal, the proposed technical approach and methodology, work plan, and organization and staffing, and any suggestions made by the Consultant to improve the Terms of Reference. The Client and the Consultants will finalize the Terms of Reference, staffing schedule, work schedule, logistics, and reporting. These documents will then be incorporated in the Contract as "Description of Services". Special attention will be paid to clearly defining the inputs and facilities required from the Client to ensure satisfactory implementation of the assignment. The Client shall prepare minutes of negotiations which will be signed by the Client and the Consultant.
- Availability Of Professional Staff/experts 6.3 Having selected the Consultant on the basis of, among other things, an evaluation of proposed Professional staff, the Client expects to negotiate a Professional Contract on the basis of the professional staff named in the Proposal. staff/experts Before contract negotiations, the Client will require assurances that the professional staff will be actually available. The Client will not consider substitutions during contract negotiations unless both parties agree that undue delay in the selection process makes such substitution unavoidable or for reasons such as death or medical incapacity. If this is not the case and if it is established that professional staff were offered in the proposal without confirming their availability, the Consultant may be disqualified. Any proposed substitute shall have equivalent or better qualifications and experience than the original candidate and be submitted by the Consultant within the period of time specified in the letter of invitation to negotiate.
- Financial Negotiations (only for QCBS,FBS and LCS) 6.4 In the cases of QCBS, FBS, and the LCS methods, unless there are exceptional reasons, the remuneration rates for staff and other proposed unit rates of the financial negotiations shall not be negotiate.
- Financial Negotiations (only for QBS) 6.5 For QBS method, if requested by the Client, the Consultants shall provide negotiations the information on remuneration rates described in the Appendix attached (only for to Section 4 - Financial Proposal - Standard Forms of this RFP)

Conclusion
of the
negotiations

6.6 Negotiation will conclude with a review of the draft Contract. to complete negotiations the Client and the Consultant will initial the agreed Contract. If negotiations fail, the Client will invite the Consultant whose proposal received the second highest score to negotiate a Contract.

7.
Award of
Contract

7.1 After completing negotiations the Client shall award the Contract to the Award of selected Consultant, and promptly notify all Consultants who have Contract submitted proposals. After Contract signature, the Client shall return the unopened Financial Proposals to the unsuccessful Consultants.

7.2 The Client will notify the selected Consultant the date, time and venue for the signing of the agreement following the template given in Section 6. The option selected for the method of payment, under GC Clause 6 is stated in the Data Sheet.

7.3 The Consultant is expected to commence the assignment on the date and at the location specified in the Data Sheet.

8.0
Confidential
ity

8.1 Information relating to evaluation of Proposals and recommendations concerning awards shall not be disclosed to the Consultants who submitted the Proposals or to other persons not officially concerned with the process, until the publication of the award of Contract. The undue use by any Consultant of confidential information related to the process may result in the rejection of its Proposal and may be subject to the provisions of the Bank's antifraud and corruption policy.

Instructions to Consultants

CPCP has decided to directly call RFP's from prospective consultants for this consultancy. Therefore, there are no previously shortlisted consultants for this consultancy. However, the RFP document is prepared using the 'Standard Request for Proposals – Selection of Consultants' document published by National Procurement Agency in December 2007. Hence, the term “shortlisted consultants” mentioned in the RFP should be changed as “prospective consultants” in all occurrences.

DATA SHEET

Paragraph Reference	Descriptions
1.1	<p>Name of the Client: CEYLON ELECTRICITY BOARD</p> <p>Method of selection: Quality and Cost Based Selection (QCBS)</p>
1.2	<p>The assignment is: Procurement of Consultancy Services for conducting Environmental Impact Assessment (EIA) studies and submission of two separate EIA reports for the following two projects based on the Terms of References (TORs) given by each Project Approving Agency (PAA);</p> <ul style="list-style-type: none"> i) Project 1 - Capacity Enhancement to Thambapawani Wind Farm ii) Project 2 - 100 MW Mullikulam Wind Farm with Grid Connecting Transmission Line & Wind Farm Collector Substation <p>Contract No: PD/MWPP/Ph III/2022/01</p>
1.3	<p>A pre-proposal conference will be held: Yes</p> <p>Online pre-bid meeting will be held at 1000 Hrs., on March 10, 2022. Link for the online meeting will be shared among the potential bidders</p>
1.4	<p>The Client will provide the following inputs and facilities;</p> <ul style="list-style-type: none"> a) Copies of all the project related documents as available on the date of signing the Contract b) Assist in obtaining necessary permissions from the relevant authorities and organizations to access particular sites and locations necessary to perform the studies c) Any other inputs as agreed at the time of signing the agreement
1.8	Proposals must remain valid until: May 26, 2022

2.1	<p>Clarifications may be requested not later than 07 days before the submission date. The address for requesting clarifications is:</p> <p>Office of the Project Director Mannar Wind Power Project – Phase III Ceylon Electricity Board No. 754 New Parliament Road, Pelawatta BATTARAMULLA 10120</p> <p>Tel: +94 11 2889640 Fax: +94 11 2869631 E-mail: amaawpsm@gmail.com</p>
3.3(a)	<p>Prospective Consultants may associate with other Consultants: Not allowed</p>
3.3(b)	<p>A: If QCBS/QBS/LCS methods are used: The available budget is: LKR Twenty (20) million</p>
3.4(g;)	<p>Training is a specific component of this assignment: No</p>
3.6	<p>a) No reimbursable payment will be made. The consultant shall include all associated costs in their Financial Proposal including;</p> <ul style="list-style-type: none"> i. Staff costs, remuneration for any consultants/sub-consultants engaged by the consultant ii. Overheads and profits in carrying out the scope of services as per the Terms of Reference iii. All travel, transport, lodging & boarding of Consultant's staff iv. Cost of Office accommodation including overheads v. Computing and communication facilities and software as needed vi. Cost of reports production (including printing) and delivering to the Client vii. Any other costs deemed necessary to carry out this assignment <p>(b) Breakdown of cost of activities required: No</p>
3.7	<p>The tax liability of all foreign or local Consultants shall be borne by the consultant</p>
4.3	<p>Consultant must submit the original and one copy of the Technical Proposal and the original of the Financial Proposal</p>

4.5	<p>The Proposal submission address is:</p> <p style="text-align: center;">Office of the Project Director Mannar Wind Power Project – Phase. III Ceylon Electricity Board No. 754 New Parliament Road, Pelawatta BATTARAMULLA 10120</p> <p style="text-align: center;">Proposals must be submitted no later than the following date and time: March 24, 2022 at 10:30 am</p>																																												
5.2	<p>Criteria, sub-criteria, and point system for the evaluation of Technical Proposals are:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="text-align: right; width: 20%;">Points</th> </tr> </thead> <tbody> <tr> <td>(i) Specific experience of the Consultants relevant to the assignment: (refer Annex I)</td> <td style="text-align: right; vertical-align: bottom;">[10]</td> </tr> <tr> <td>(ii) Methodology and Work plan</td> <td></td> </tr> <tr> <td style="padding-left: 20px;">a) Technical approach and methodology</td> <td style="text-align: right;">[20]</td> </tr> <tr> <td style="padding-left: 20px;">b) Work plan</td> <td style="text-align: right;">[5]</td> </tr> <tr> <td style="padding-left: 20px;">c) Organization and staffing</td> <td style="text-align: right;">[5]</td> </tr> <tr> <td style="padding-left: 40px;">Total points for criterion (ii):</td> <td style="text-align: right;">[30]</td> </tr> <tr> <td>(iii) Key professional staff qualifications and competence for the assignment:</td> <td></td> </tr> <tr> <td style="padding-left: 20px;">a) Team Leader</td> <td style="text-align: right;">[10]</td> </tr> <tr> <td style="padding-left: 20px;">b) Fauna Specialist</td> <td style="text-align: right;">[8]</td> </tr> <tr> <td style="padding-left: 20px;">c) Flora Specialist</td> <td style="text-align: right;">[7]</td> </tr> <tr> <td style="padding-left: 20px;">d) Sociologist</td> <td style="text-align: right;">[7]</td> </tr> <tr> <td style="padding-left: 20px;">e) Fishery Expert</td> <td style="text-align: right;">[4]</td> </tr> <tr> <td style="padding-left: 20px;">f) Wind technology specialist</td> <td style="text-align: right;">[4]</td> </tr> <tr> <td style="padding-left: 20px;">g) Coastal Engineer</td> <td style="text-align: right;">[4]</td> </tr> <tr> <td style="padding-left: 20px;">h) Marine Ecologist</td> <td style="text-align: right;">[4]</td> </tr> <tr> <td style="padding-left: 20px;">i) Financial Analyst (cost benefit analysis)</td> <td style="text-align: right;">[4]</td> </tr> <tr> <td style="padding-left: 20px;">j) Geologist</td> <td style="text-align: right;">[3]</td> </tr> <tr> <td style="padding-left: 20px;">k) Hydrologist</td> <td style="text-align: right;">[3]</td> </tr> <tr> <td style="padding-left: 20px;">l) GIS Specialist</td> <td style="text-align: right;">[2]</td> </tr> <tr> <td style="padding-left: 40px;">Total points for criterion (iii):</td> <td style="text-align: right;">[60]</td> </tr> </tbody> </table> <p>The number of points to be assigned to each of the above positions or disciplines shall be determined considering the following three sub criteria and relevant percentage weights:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">1) General qualifications</td> <td style="text-align: right;">[20%]</td> </tr> </table>		Points	(i) Specific experience of the Consultants relevant to the assignment: (refer Annex I)	[10]	(ii) Methodology and Work plan		a) Technical approach and methodology	[20]	b) Work plan	[5]	c) Organization and staffing	[5]	Total points for criterion (ii):	[30]	(iii) Key professional staff qualifications and competence for the assignment:		a) Team Leader	[10]	b) Fauna Specialist	[8]	c) Flora Specialist	[7]	d) Sociologist	[7]	e) Fishery Expert	[4]	f) Wind technology specialist	[4]	g) Coastal Engineer	[4]	h) Marine Ecologist	[4]	i) Financial Analyst (cost benefit analysis)	[4]	j) Geologist	[3]	k) Hydrologist	[3]	l) GIS Specialist	[2]	Total points for criterion (iii):	[60]	1) General qualifications	[20%]
	Points																																												
(i) Specific experience of the Consultants relevant to the assignment: (refer Annex I)	[10]																																												
(ii) Methodology and Work plan																																													
a) Technical approach and methodology	[20]																																												
b) Work plan	[5]																																												
c) Organization and staffing	[5]																																												
Total points for criterion (ii):	[30]																																												
(iii) Key professional staff qualifications and competence for the assignment:																																													
a) Team Leader	[10]																																												
b) Fauna Specialist	[8]																																												
c) Flora Specialist	[7]																																												
d) Sociologist	[7]																																												
e) Fishery Expert	[4]																																												
f) Wind technology specialist	[4]																																												
g) Coastal Engineer	[4]																																												
h) Marine Ecologist	[4]																																												
i) Financial Analyst (cost benefit analysis)	[4]																																												
j) Geologist	[3]																																												
k) Hydrologist	[3]																																												
l) GIS Specialist	[2]																																												
Total points for criterion (iii):	[60]																																												
1) General qualifications	[20%]																																												

	<p>2) Adequacy for the assignment [60%]</p> <p>3) Experience with similar projects [20%]</p> <p>Total Points for main three criteria 100</p> <p>The Minimum technical score (St) required to pass is 75 points (out of 100 points allocated for the Technical Proposal)</p>
5.6	<p>For the conversions to Sri Lankan Rupees:</p> <p>The source of official selling rates is: Not applicable</p> <p>The date of exchange rates is: Not applicable</p>
5.7	<p>The formula for determining the financial scores is the following:</p> <p>$S_f = 100 \times F_m / F$, in which S_f is the financial score, F_m is the lowest price and F the price of the proposal under consideration.</p> <p>The weights given to the Technical and Financial Proposals are: $T = 0.85$ and $P = 0.15$</p>
6.1	<p>Expected date and address for contract negotiations:</p> <p>Date : During 1st week of April, 2022</p> <p>Office of the Project Director Mannar Wind Power Project – Phase III Ceylon Electricity Board No. 754 New Parliament Road, Pelawatta BATTARAMULLA 10120</p>
7.2	<p>The Option applicable is : Option A</p>
7.3	<p>Expected date for commencement of consulting services Date : During 2nd week of April, 2022</p> <p>The date for the commencement of Services is the following day from the effective date</p>

Section 3
Technical Proposal –Standard Forms

Section 3. Technical Proposal –Standard Forms

TECH-1	Technical Proposal Submission Form
TECH-2	Consultant's Organization and Experience A Consultant's Organization B Consultant's Experience
TECH-3	Comments or Suggestions on the Terms of Reference and on Counterpart Staff and Facilities to be provided by the Client A On the Terms of Reference B On the Counterpart Staff and Facilities
TECH-4	Description of the Approach, Methodology and Work Plan for Performing the Assignment
TECH-5	Team Composition and Task Assignments
TECH-6	Curriculum Vitae (CV) for Proposed Professional Staff
TECH-7	Staffing Schedule
TECH-8	Work Schedule

Form TECH-1 Technical Proposal Submission Form

Location & Date

Chairman,
Project Consultants Procurement Committee,
Ceylon Electricity Board,
No. 754
New Parliament Road, Pelawatta
BATTARAMULLA 10120

Dear Sir;

We, the undersigned, offer to provide consulting services for conducting EIA studies and submission of two separate EIA reports for the following two projects;

- i) Project 1 - Capacity Enhancement to Thambapawani Wind Farm
- ii) Project 2 - 100 MW Mullikulam Wind Farm with Grid Connecting Transmission Line & Wind Farm Collector Substation

in accordance with your Request for Proposal dated [*Insert Date*] and our Proposal. We are hereby submitting our Proposal, which includes this Technical Proposal, and a Financial Proposal sealed under a separate envelope.

We hereby declare that all the information and statements made in this Proposal are true and accept that any misinterpretation contained in it may lead to our disqualification.

If negotiations are held during the period of validity of the Proposal, i.e., before the date indicated in Paragraph Reference 1.8 of the Data Sheet, we undertake to negotiate on the basis of the proposed staff. Our Proposal is binding upon us and subject to the modifications resulting from Contract negotiations.

We undertake, if our Proposal is accepted, to initiate the consulting services related to the assignment not later than the date indicated in Paragraph Reference 7.3 of the Data Sheet.

We understand you are not bound to accept any Proposal you receive. We remain,

Yours sincerely,

Authorized Signature [*In full and initials*]: _____

Name and Title of Signatory: _____

Name of Firm: _____

Address: _____

FORM TECH-2 CONSULTANT'S ORGANIZATION AND EXPERIENCE

A - Consultant's Organization

[Provide here a brief (two pages) description of the background and organization of your firm/entity and each associate for this assignment.]

Information Copy

B - Consultant's Experience

[Using the format below, provide information on each assignment for which your firm, and each associate for this assignment, was legally contracted either individually as a corporate entity or as one of the major companies within an association, for carrying out consulting services similar to the ones requested under this assignment. Use maximum of 20 pages.]

Name of the Firm ³⁴			
Name and address of Client:			
Assignment name:			
Approx. value of the contract:		Duration of assignment (months):	
Location:		Total No of staff-months of the assignment	
No of professional staff-months provided by you:		Approx. value of the services provided by firm:	
Start date (month/year):		Completion date (month/year):	
Name of associated Consultants, if any:			
Name of senior professional staff of your firm involved and functions performed (indicate most significant profiles such as Project Director/Coordinator, Team Leader):			
Narrative description of Project:			
Description of actual services provided by your staff within the assignment:			

³⁴ Indicate the firms' name or associate firms' name

FORM TECH-3 COMMENTS AND SUGGESTIONS ON THE TERMS OF
REFERENCE AND ON COUNTERPART STAFF AND FACILITIES TO BE PROVIDED
BY THE CLIENT

A - On the Terms of Reference

[Present and justify here any modifications or improvement to the Terms of Reference you are proposing to improve performance in carrying out the assignment (such as deleting some activity you consider unnecessary, or adding another, or proposing a different phasing of the activities). Such suggestions should be concise and to the point, and incorporated in your Proposal.]

B - On Counterpart Staff and Facilities

[Comment here on counterpart staff and facilities to be provided by the Client according to Paragraph Reference 1.4 of the Data Sheet including: administrative support, office space, local transportation, equipment, data, etc.]

Information Copy

FORM TECH-4 DESCRIPTION OF APPROACH, METHODOLOGY AND WORK
PLAN FOR PERFORMING THE ASSIGNMENT

Technical approach, methodology and work plan are key components of the Technical Proposal. Suggested to present the Technical Proposal (maximum of 50 pages, inclusive of charts and diagrams) divided into the following three chapters:

- a. Technical Approach and Methodology,
 - b. Work Plan, and
 - c. Organization and Staffing,
- 1 Technical Approach and Methodology. Explain your understanding of the objectives of the assignment, approach to the services, methodology for carrying out the activities and obtaining the expected output, and the degree of detail of such output. Should highlight the problems being addressed and their importance, and explain the technical approach that would adopt to address them. Should also explain the methodologies you propose to adopt and highlight the compatibility of those methodologies with the proposed approach.
 - 2 Work Plan. Should propose the main activities of the assignment, their content and duration, phasing and interrelations, milestones (including interim approvals by the Client), and delivery dates of the reports. The proposed work plan should be consistent with the technical approach and methodology, showing understanding of the TOR and ability to translate them into a feasible working plan. A list of the final documents, including reports, drawings, and tables to be delivered as final output, should be included here. The work plan should be consistent with the Work Schedule of Form TECH-8.
 - 3 Organization and Staffing. Should propose the structure and composition of the team. Should list the main disciplines of the assignment, the key expert responsible, and proposed technical and support staff.]

FORM TECH-5 TEAM COMPOSITION AND TASK ASSIGNMENTS

Name of Staff	Firm	Area of Expertise	Position Assigned	Task/s Assigned

FORM TECH-6 CURRICULUM VITAE FOR PROPOSED PROFESSIONAL STAFF

1. Proposed Position³⁵:
2. Name of Firm³⁶: -----
3. Name of Staff³⁷: -----
4. Date of Birth: ----- Nationality: -----
5. Education³⁸: -----
6. Membership of Professional Associations: -----
7. Other Relevant Qualifications³⁹: -----
8. Languages⁴⁰: -----
9. Employment Record⁴¹:
 From [Year]: to [Year]: -----
 Employer: -----
 Positions held (with brief description): -----
10. Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that any willful misstatement described herein may lead to my disqualification or dismissal, if engaged.

----- Date-----
[Signature of staff member]

----- Date-----
[Signature of authorized representative of the client]

Full name of authorized representative: -----

³⁵only one candidate shall be nominated for each position

³⁶ Insert name of firm proposing the staff

³⁷ Insert full name

³⁸ Indicate /university and other specialized education of staff member, giving names of institutions, degrees obtained, and dates of obtainment

³⁹Indicate significant qualification/ training

⁴⁰For each language indicates proficiency: good, fair, or poor in speaking, reading, and writing]:

⁴¹Starting with present position, list in reverse order every employment held by staff member since graduation, giving for each employment (see format): dates of employment, name of employing organization, positions held

FORM TECH-7 STAFFING SCHEDULE⁴²

No	Name of Staff	Staff input(in the form of a bar chart) ⁴³													Total staff-month input		
		1	2	3	4	5	6	7	8	9	10	11	12	n	Office	Field	Total
National																	
1		[Office]															
		[Field]															
2																	
n																	
															Subtotal		
Foreign⁴⁴																	
1		[Office]															
		[Field]															
2																	
n																	
															Subtotal		
															Total		

 Full time input
 Part time input

42 For Professional Staff the input should be indicated individually; for Support Staff it should be indicated by category (e.g.: draftsmen, clerical staff, etc.).
 43 Months are counted from the start of the assignment. For each staff indicate separately staff input for office and field work
 44 Only if Expatriate staff is proposed

Section 4
Financial Proposal - Standard Forms

Section 4. Financial Proposal - Standard Forms

Financial Proposal Standard Forms shall be used for the preparation of the Financial Proposal according to the instructions provided under para. 3.6 of Section 2. Such Forms are to be used whichever is the selection method indicated in para. 3 of the Letter of Invitation.

FIN-1 Financial Proposal Submission Form

FIN-2 Summary of Costs

FIN-3 Breakdown of Remuneration

FIN-4 Reimbursable expenses

FIN-5 Breakdown of Costs by Activity (if requested under Clause 3.6 of Data Sheet)

FORM FIN-1 FINANCIAL PROPOSAL SUBMISSION FORM

[Location, Date]

Chairman,
Project Consultants Procurement Committee,
Ceylon Electricity Board,
No. 754
New Parliament Road, Pelawatta
BATTARAMULLA 10120

Dear Sir,

We, the undersigned, offer to provide consulting services for conducting EIA studies and submission of two separate EIA reports for the following two projects;

- i) Project 1 - Capacity Enhancement to Thambapawani Wind Farm
- ii) Project 2 - 100 MW Mullikulam Wind Farm with Grid Connecting Transmission Line & Wind Farm Collector Substation

in accordance with your Request for Proposal dated [Insert Date] and our Technical Proposal. Our attached Financial Proposal is for the sum of [Insert amount(s) in words and figures⁴⁸].

Our Financial Proposal shall be binding upon us subject to the modifications resulting from Contract negotiations, up to expiration of the validity period of the Proposal, i.e. before the date indicated in Paragraph Reference 1.8 of the Data Sheet.

We understand you are not bound to accept any Proposal you receive.

Authorized Signature [In full and initials]: -----

Name and Title of Signatory:-----

Name of Firm: -----

Address: -----

⁴⁸ Amounts must coincide with the ones indicated under Total Cost of Financial proposal in Form FIN-2

FORM FIN-2 SUMMARY OF COSTS

	Local cost	Foreign Cost	
	(Sri Lankan Rupees)	Currency	Amount
Remuneration (from FIN 3)		Not Applicable	Not Applicable
Other Expenses (From FIN 4)		Not Applicable	Not Applicable
Total Costs of Financial Proposal carried to Financial Proposal Submission Form		Not Applicable	Not Applicable

FORM FIN-3 BREAK DOWN OF REMUNERATION

Name ⁴⁹	Position ⁵⁰	Input (Staff- months)	Staff Month Rate		Amount		
			Currency	Amount	Local Currency	Foreign Currency	
						Currency	Amount
						Not Applicable	Not Applicable
						Not Applicable	Not Applicable
						Not Applicable	Not Applicable
						Not Applicable	Not Applicable
						Not Applicable	Not Applicable
						Not Applicable	Not Applicable
Total Costs carried to FIN -2						Not Applicable	Not Applicable

⁴⁹ Professional staff should be indicated individually; Support Staff should be indicated per category (e.g.: draftsmen, clerical staff).

⁵⁰ Positions of professional staff shall coincide with the ones indicated in Form TECH-5.

FORM FIN-4 BREAKDOWN OF OTHER EXPENSES

No	Description ⁵¹	Unit	Quantity	Unit Cost ⁵²			Amount		
				Local in Sri Lankan Rupees	Foreign		Local in Sri Lankan Rupees	Foreign	
					Currency	Amount		Currency	Amount
	Per diem allowances	Day			Not Applicable	Not Applicable		Not Applicable	Not Applicable
	International flights ⁵³	Trip			Not Applicable	Not Applicable		Not Applicable	Not Applicable
	Communication costs between [Insert place] and [Insert place]				Not Applicable	Not Applicable		Not Applicable	Not Applicable
	Drafting, reproduction of reports				Not Applicable	Not Applicable		Not Applicable	Not Applicable
	Equipment, instruments, materials, supplies, etc.				Not Applicable	Not Applicable		Not Applicable	Not Applicable
	Use of computers, software				Not Applicable	Not Applicable		Not Applicable	Not Applicable
	Laboratory tests.				Not Applicable	Not Applicable		Not Applicable	Not Applicable
	Subcontracts				Not Applicable	Not Applicable		Not Applicable	Not Applicable
	Local transportation costs				Not Applicable	Not Applicable		Not Applicable	Not Applicable
	Office rent, clerical assistance				Not Applicable	Not Applicable		Not Applicable	Not Applicable
	Training of the Client's personnel				Not Applicable	Not Applicable		Not Applicable	Not Applicable
Total Costs carried to FIN - 2								Not Applicable	Not Applicable

51 Delete items that are not applicable or add other items required

52 Should not repeat remuneration considered under Form Fin -4

53 Indicate route of each flight, and if the trip is one- or two-ways

Section 5. Terms of Reference

1. Scope of Work

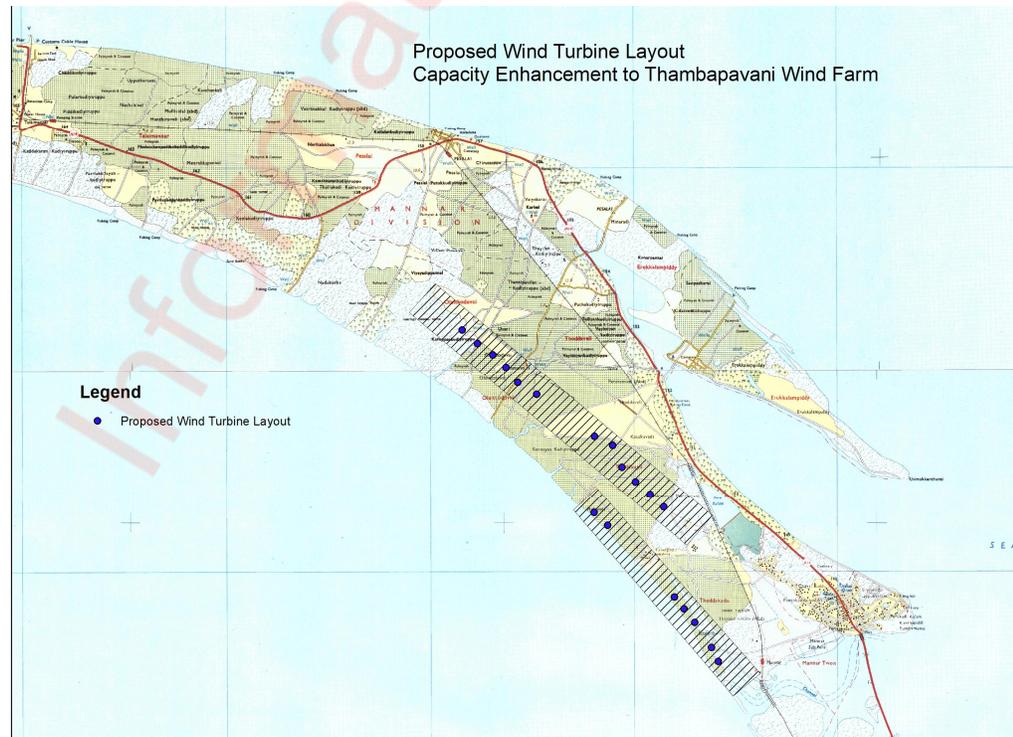
1.1. The Selected Consultant (Team or Firm)'s scope of work include undertaking the relevant assessment studies and submit two separate reports for all aspects in the respective Terms of Reference (TOR) for Environmental Impact Assessment (EIA), issued by respective project approving agencies for the following two projects;

Project 1 - Capacity Enhancement to Thambapavani Wind Farm

CEB envisaged to explore the possibility of increasing the wind power development in Mannar Island after successful completion of 100 MW Thambapavani wind plant which was implemented under Phase I of Mannar Wind Power Project. It has been decided to enhance the capacity of the already commissioned 100 MW wind plant by installing additional wind turbine generators in southeast corner of Mannar Island by investigating the feasibility of utilizing fifteen (15) no. of potential locations.

The project scope would comprise of constructing following major components;

- Probable 19 nos. of wind turbines - Typical details of a wind turbine is given in Annex II
- Power network - The power network would comprised of medium voltage collector cables established to link the individual wind turbines to the existing collector substation at Nadukkuda village
- Supporting infrastructure - This includes access roads, temporary storage facilities etc.



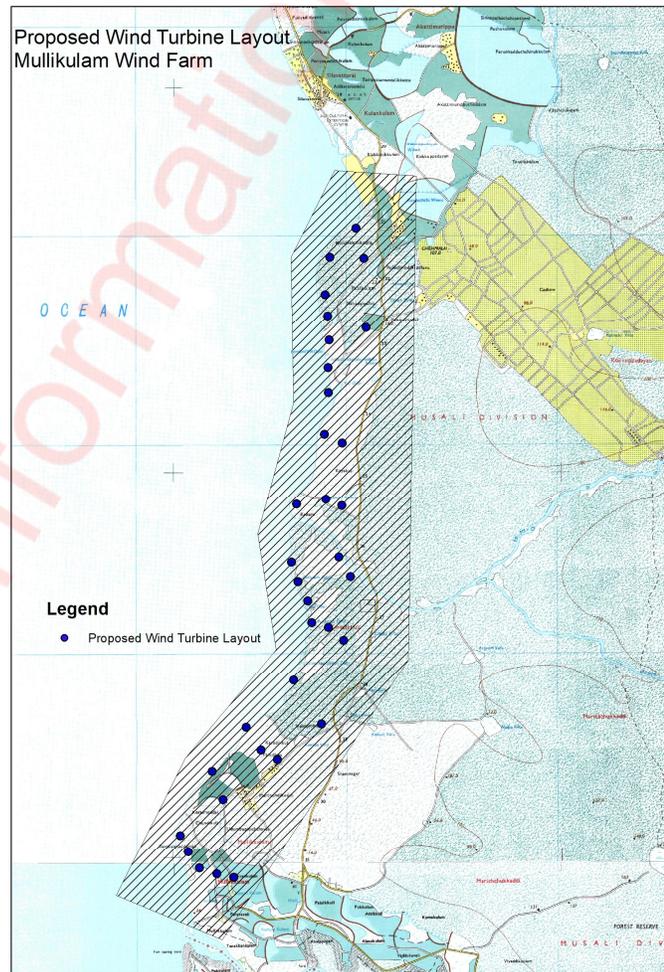
The project approving agency for this project is Coast Conservation and Coastal Resource Management Department (CCD). Hence the EIA study and the final EIA report applicable for this project shall be based on the TOR issued by CCD, given in Annex IV.

Project 2 – Wind Power Development in Mullikulam Area

CEB intends to implement wind power plant in Mullikulam area with a minimum capacity of 100MW by exploring the possibility of utilizing 34 nos. of potential wind turbine locations. The project area is located in Musali Divisional secretariat and extends between Mullikulam to Marichchikaddi.

The project scope would comprise of constructing following major components;

- Probable 34 nos. of wind turbines - Typical details of a wind turbine is given in Annex II
- Collector substation – a new collector substation including transforms, switchgears and accessories will be constructed near Kal Aaru facing the main road
- Collector cables – network of collector cables will be established to link the individual wind turbines to the new substation near Kal Aaru
- Overhead transmission line – the power generated from the wind farm will be supplied to the national grid through newly constructed 220kV, 29km long power transmission line between the new collector substation near Kal Aaru and the Mannar (Puthukamam) Grid substation. Further details of the transmission line is given in Annex III
- Supporting infrastructure - This includes access roads, temporary storage facilities, control building etc.



The project approving agency for this project is Central Environmental Authority (CEA). Hence the EIA study and the final EIA report applicable for this project shall be based on the TOR issued by CEA, given in Annex V.

- 1.2. The successful bidder “hereinafter called Consultant” will be scrutinized for timely completion of the scope stipulated in each of the TORs and subsequent submission of the EIA reports to respective approving agencies.
- 1.3. The consultant is expected to carryout necessary works, studies, surveys, meetings, consultation with public/stakeholders etc. as relevant so that all the items in each of those TOR are comprehensively addressed.
- 1.4. CEB will provide the following documents/information to the successful bidder which shall be referred or utilized in the process of report preparation.
 - Geo-referenced drone-survey maps, video clips, images and contour maps
 - Project layout marked on 1: 50,000 topographic maps
 - Bathymetric survey data
 - Transport and logistic survey data
 - Previous Avi-fauna study reports (available for Thambapavani wind farm)
 - Noise modelling and shadow flicker reports
 - Proposed access road layouts, preliminary elevation details etc.
- 1.5. The consultant with his proposed team of specialists/experts shall have the sound capability of completing the specified scope within the specified timeline.
- 1.6. Within one (01) week from signing of the Contract, an inception report shall be submitted. This should comprised of an outline of the EIA reports which addresses key issues to be covered as per TOR issued by each project approving agency, work plan, methodology for public and stakeholder consultations etc.
- 1.7. The Consultant shall conduct awareness programmes/ meetings/ presentations including details of the ecological and sociological aspects for public or for any other stakeholders (if required by PAA) during the process of environmental approval by PAA.
- 1.8. The Consultant shall submit one hard copy and a soft copy of the draft Expert inputs for CEB comments including all the relevant tables, questionnaires, figures, annexes etc. The consultant shall address any comments / clarifications raised by CEB after the submission of the first draft to CEB. Once CEB provides the comments/feedback in writing to the Consultant which shall be re-submitted incorporating such comments.
- 1.9. Upon CEB’s acceptance of the final revisions, the two (02) EIA reports will be submitted to the respective project approving agencies to check adequacy and compliance. If any of the project approving agency made comments therein, the Consultant shall re-submit after addressing and resolving such comments.
- 1.10. Once the EIA reports are submitted to respective project approving agencies, the Consultant shall attend all the subsequent meetings related to the evaluation of the EIA reports called by respective project approving agency or by CEB, and make presentations, answer/clarify and comments/queries raised by the members of the scoping committees chaired by relevant project approving agencies. It is the obligation of the Consultant to revise/amend the EIA reports until such submission is approved by respective project approving agencies.

2. Eligibility

An organization, individuals or a team of experts who are qualified with a degree in their relevant field of expertise from a reputed University with adequate experience, and demonstrated capability to carry out the specified scope of work are invited to bid. The consultant shall disclose fully and provide supplementary documents to support academic and professional qualifications/experience of the individuals/experts proposed in the teams. The bidder shall submit all the forms given in this bid document which required to support the eligibility criteria.

3. Qualifications of the Bidder

According to each TOR given by respective project approving agency, each study will comprise of different fields and sectors to be addressed with an involvement of specific expertise. The consultant shall have team members with specialized knowledge, experience and hold academic qualifications in the following fields, but not limited to thereof:

No.	Position	Qualification	Experience
01	Team Leader	PhD in Natural Sciences/Biological Sciences/Management fields	At least 10 years work experience in the related field, and at least 10 years experiences in the EIA studies, and at least team leader for 2 foreign funded projects in EIA/IEE studies. EIA Work Experience related to wind farms and transmission lines will be preferred.
02	Fauna Specialist	PhD/MPhil/MSc in Zoological related subjects, Specialization in field of Ornithology	At least 7 years work experience in the related field of Bird Surveys and ornithological studies, and at least 7 years experiences in the EIA/IEE studies. EIA Work Experience related to wind farms and transmission lines will be preferred.
03	Flora Specialist	PhD/MPhil/MSc in Botanical related subjects, Specialization in field of Sustainable Forestry Management	At least 7 years work experience in the related field of Forestry Management and Flora Studies, and at least 7 years experiences in the EIA/IEE studies.
04	Sociologist	MSc in Sociology/Social Sciences/Anthropology	At least 7 years work experience in the related field of Sociology and social Studies, and at least 7 years experiences in the EIA studies. EIA/IEE Work Experience related to wind farms will be preferred.
05	Geologist	MSc in Geology/Earth Sciences/Geography	At least 7 years work experience in the related field of Geology and Earth science Studies, and at least 7 years experiences in the EIA/IEE studies.
06	Wind technology specialist	PhD/MSc/BSc in Electrical/Electronics/Mechanical Engineering	At least 7 years academic and work experience in power systems, wind energy conversion technologies and their controls, grid connected renewable energy projects.
07	Hydrologist	MSc in Hydrology/Climatology	At least 7 years work experience in the related field of Drainage management and design of Drainages, and at least 7 years experiences in the EIA/IEE studies.

08	Financial Analyst (cost benefit analysis)	CFA/MA/MBA/ACA in Economics/Business Administration/Finance	At least 7 years work experience in the related field of Finance management and Cost Benefit Analysis, and at least 7 years experiences in the EIA studies. EIA Work Experience related to wind farms will be preferred.
09	Fishery Expert	MSc in Aquaculture/Fisheries Management/Marine Biology	At least 7 years work experience in the related field of Aquaculture and Fishery management, and at least 7 years experiences in the EIA studies. EIA Work Experience related to wind farms will be preferred.
10	Coastal Engineer	BSc in Coastal Process/Oceanography	At least 10 years work experience in the related field of coastal engineering & management, estuary management and coastal process, and at least 7 years experiences in the EIA studies. EIA Work Experience related to wind farms will be preferred.
11	Marine Ecologist	MSc in Marine Ecology/Marine Biology	At least 7 years work experience in the related field of Marine Biology, and at least 7 years experiences in the EIA studies. EIA Work Experience related to wind farms will be preferred.
12	GIS Specialist	MSc in GIS, Degree in relevant technical field	At least 7 year working experience in transmission line projects or similar category projects. EIA Work Experience related to wind farms will be preferred.

The bidder shall clearly indicate the qualifications and experience of the team members by duly filling the biodata according to the format given in FORM TECH-6 for each team member separately.

4. Deliverables

No	Deliverables	Duration
1	Inception Report	Within one week from the date of signing of the Agreement
2	Presentation of progress of EIA study to CEB	End of each month from the date of signing of the Agreement
3	Issuing the comments by CEB after submitting draft EIA report	Within one week from submission of first draft EIA report
4	Re-submission of EIA report to CEB incorporating comments from CEB	Within one week from the date of issue of such comments
5	Submission of EIA reports to PAA after incorporating CEB comments	Within one week from the date of receiving CEB comments
6	Issuing the comments by PAA	Within two weeks from the submission
7	Re-submission of EIA report to CEB incorporating comments from PAA	Ten days from the date of receiving PAA comments
8	Public consultation	30 working days

9	Re-submission of EIA report incorporating comments from public consultation	Within ten days from the date of receiving public comments
10	Receiving of PAA approval	-

5. Assignment Period

The Assignment is expected to be completed within 05 (inception to submission of final report to PAA) months from the date of commencement of the contract.

Information Copy

Information Copy

Section 6.

Standard Forms of Contract

I. Form of Contract

(Text in brackets [] is optional; all notes should be deleted in final text)

This CONTRACT (hereinafter called the “Contract”) is made the [day] day of the month of [month], [year], between, on the one hand, Ceylon Electricity Board (hereinafter called the “Client”) and, on the other hand, [name of Consultant] (hereinafter called the “Consultant”).

[Note: If the Consultant consist of more than one entity, the above should be partially amended to read as follows: “...(hereinafter called the “Client”) and, on the other hand, a joint venture/consortium/association consisting of the following entities, each of which will be jointly and severally liable to the Client for all the Consultant’s obligations under this Contract, namely, [name of Consultant] and [name of Consultant] (hereinafter called the “Consultant”).]

WHEREAS

- (a) the Client has requested the Consultant to provide certain consulting services as defined in this Contract (hereinafter called the “Services”);
- (b) the Consultant, having represented to the Client that it has the required professional skills, and personnel and technical resources, has agreed to provide the Services on the terms and conditions set forth in this Contract;

NOW THEREFORE the parties hereto hereby agree as follows:

1. The following documents attached hereto shall be deemed to form an integral part of this Contract:
 - (a) The General Conditions of Contract;
 - (b) The Special Conditions of Contract;
 - (c) The following Appendices: [Note: If any of these Appendices are not used, the words “Not Used” should be inserted below next to the title of the Appendix]

Appendix A: Description of Services	Not used
Appendix B: Reporting Requirements	Not used
Appendix C: Personnel and Sub-Consultants	Not used
Appendix D: Breakdown of Contract Price	Not used
Appendix E: Services and Facilities Provided by the Client	Not used
Appendix G: Form of Advance Payment Guarantee	Used

2. The mutual rights and obligations of the Client and the Consultant shall be as set forth in the Contract, in particular:

- (a) the Consultants shall carry out the Services in accordance with the provisions of the Contract; and
- (b) the Client shall make payments to the Consultants in accordance with the provisions of the Contract.

IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names as of the day and year first above written.

For and on behalf of [name of Client]

[Authorized Representative]

For and on behalf of [name of Consultant]

[Authorized Representative]

[Note: If the Consultant consists of more than one entity, all these entities should appear as signatories, e.g., in the following manner:]

For and on behalf of each of the Members of the Consultant

[name of member]

[Authorized Representative]

[name of member]

[Authorized Representative]

II General Conditions of Contract

1. GENERAL PROVISIONS

1.1 Definitions

Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:

- (a) “Applicable Law” means the laws and any other instruments having the force of law in Democratic Socialist Republic of Sri Lanka, as they may be issued and in force from time to time.
- (b) “Consultant” means any private or public entity that will provide the Services to the Client under the Contract.
- (c) “Contract” means the Contract signed by the Parties and all the attached documents listed in its Clause 1 of the form of agreement, that is these General Conditions (GC), the Special Conditions (SC), and the Appendices.
- (d) “Contract Price” means the price to be paid for the performance of the Services, in accordance with Clause 6;
- (e) “Day” means calendar day.
- (f) “Effective Date” means the date on which this Contract comes into force and effect pursuant to Clause GC 2.1.
- (g) “Foreign Currency” means any currency other than Sri Lankan Rupees.
- (h) “GC” means these General Conditions of Contract.
- (i) “Member” means any of the entities that make up the joint venture/consortium/association, and “Members” means all these entities.
- (j) “Party” means the Client or the Consultant, as the case may be, and “Parties” means both of them.
- (k) “Personnel” means persons hired by the Consultant or by any Sub-Consultants and assigned to the performance of the Services or any part thereof. “Foreign Personnel” means such professionals and support staff that at the time of being so provided had their domicile outside Sri Lanka; “National Staff” means such professionals and support staff who at the time of being so provided had their domicile inside Sri Lanka; and “Key Personnel” means the Personnel referred to in Clause GC 4.2
- (l) “Reimbursable expenses” means all assignment-related costs

that will be paid to the Consultant on actuals.

(m) “SC” means the Special Conditions of Contract by which the GC may be amended or supplemented.

(n) “Services” means the work to be performed by the Consultant pursuant to this Contract, as described in Appendix A hereto.

(o) “Sub-Consultants” means any person or entity to whom/which the Consultant subcontracts any part of the Services.

(p) “Third Party” means any person or entity other than the Government, the Client, the Consultant or a Sub-Consultant.

(q) “In writing” means communicated in written form with proof of receipt.

**1.2 Relationship
Between the
Parties**

Nothing contained herein shall be construed as establishing a relationship of master and servant or of principal and agent as between the Client and the Consultant. The Consultant, subject to this Contract, has complete charge of Personnel and Sub-Consultants, if any, performing the Services and shall be fully responsible for the Services performed by them or on their behalf hereunder.

**1.3 Law Governing
Contract**

This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Applicable Law.

1.4 Language

This Contract has been executed in English Language, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract.

1.5 Headings

The headings shall not limit, alter or affect the meaning of this Contract.

1.6 Notices

1.6.1

Any notice, request or consent required or permitted to be given or made pursuant to this Contract shall be in writing. Any such notice, request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent to such Party at the address specified in the SC.

1.6.2

A Party may change its address for notice hereunder by giving the other Party notice in writing of such change to the address specified in the SC.

1.7 Location

The Services shall be performed at such locations as are specified in Appendix A hereto and, where the location of a particular task is not

so specified, at such locations, as the Client may approve.

- 1.8 Authority of Member in Charge** In case the Consultant consists of a joint venture/ consortium/ association of more than one entity, the Members hereby authorize the entity specified in the SC to act on their behalf in exercising all the Consultant's rights and obligations towards the Client under this Contract, including without limitation the receiving of instructions and payments from the Client.
- 1.9 Authorized Representatives** Any action required or permitted to be taken, and any document required or permitted to be executed under this Contract by the Client or the Consultant may be taken or executed by the officials specified in the SC.
- 1.10 Taxes and Duties** The Consultant, Sub-Consultants, and their Personnel shall pay such indirect taxes, duties, fees, and other impositions levied under the Applicable Law, the amount of which is deemed to have been included in the Contract Price

2. COMMENCEMENT, COMPLETION, MODIFICATION AND TERMINATION OF CONTRACT

- 2.1 Effectiveness of Contract** This Contract shall come into force and effect on the date (the "Effective Date") of the Client's notice to the Consultant instructing the Consultant to begin carrying out the Services. This notice shall confirm that the effectiveness conditions, if any, listed in the SC have been met.
- 2.2 Commencement of Services** The Consultant shall begin carrying out the Services not later than the number of Days after the Effective Date specified in the SC.
- 2.3 Expiration of Contract** Unless terminated earlier pursuant to Clause GC 2.7 hereof, this Contract shall expire at the end of such time period after the Effective Date as specified in the SC.
- 2.4 Modifications or Variations** Any modification or variation of the terms and conditions of this Contract, including any modification or variation of the scope of the Services, may only be made by written agreement between the Parties. However, each Party shall give due consideration to any proposals for modification or variation made by the other Party.
- 2.5 Force Majeure**
- 2.5.1 Definition**
- (a) For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party, is not foreseeable, is unavoidable, and which makes a Party's performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible in the

circumstances, and includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions, strikes, lockouts or other industrial action (except where such strikes, lockouts or other industrial action are within the power of the Party invoking Force Majeure to prevent), confiscation or any other action by Government agencies.

- (b) Force Majeure shall not include (i) any event which is caused by the negligence or intentional action of a Party or such Party's Sub-Consultants or agents or employees, nor (ii) any event which a diligent Party could reasonably have been expected both to take into account at the time of the conclusion of this Contract, and avoid or overcome in the carrying out of its obligations hereunder.
- (c) Force Majeure shall not include insufficiency of funds or failure to make any payment required hereunder.

**2.5.2
No Breach of
Contract**

The failure of a Party to fulfil any of its obligations under the contract shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event (a) has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract, and (b) has informed the other Party as soon as possible about the occurrence of such an event.

**2.5.3
Measures to be
Taken**

- (a) A Party affected by an event of Force Majeure shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall take all reasonable measures to minimize the consequences of any event of Force Majeure.
- (b) A Party affected by an event of Force Majeure shall notify the other Party of such event as soon as possible, and in any case not later than fourteen (14) Days following the occurrence of such event, providing evidence of the nature and cause of such event, and shall similarly give written notice of the restoration of normal conditions as soon as possible.
- (c) Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.
- (d) During the period of their inability to perform the Services as a result of an event of Force Majeure, the Consultant, upon instructions by the Client, shall either:

- (i) demobilize, in which case the Consultant shall be reimbursed for additional costs they reasonably and necessarily incurred, and, if required by the Client, in reactivating the Services; or
 - (ii) continue with the Services to the extent possible, in which case the Consultant shall continue to be paid under the terms of this Contract and be reimbursed for additional costs reasonably and necessarily incurred.
- (e) In the case of disagreement between the Parties as to the existence or extent of Force Majeure, the matter shall be settled according to Clause GC 8.

2.6 Suspension

The Client may, by written notice of suspension to the Consultant, suspend all payments to the Consultant hereunder if the Consultant fails to perform any of its obligations under this Contract, including the carrying out of the Services, provided that such notice of suspension (i) shall specify the nature of the failure, and (ii) shall request the Consultant to remedy such failure within a period not exceeding thirty (30) Days after receipt by the Consultant of such notice of suspension.

2.7 Termination

2.7.1 By the Client

The Client may terminate this Contract in case of the occurrence of any of the events specified in paragraphs (a) through (f) of this Clause GC 2.7.1. In such an occurrence the Client shall give a not less than thirty (30) Days' written notice of termination to the Consultant, and sixty (60) Days' in the case of the event referred to in (e).

- (a) If the Consultant fails to remedy a failure in the performance of its obligations hereunder, as specified in a notice of suspension pursuant to Clause GC 2.6 hereinabove, within thirty (30) Days of receipt of such notice of suspension or within such further period as the Client may have subsequently approved in writing..
- (b) If the Consultant becomes (or, if the Consultant consists of more than one entity, if any of its Members becomes) insolvent or bankrupt or enter into any agreements with their creditors for relief of debt or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary.
- (c) If the Consultant fails to comply with any final decision reached as a result of arbitration proceedings pursuant to Clause GC 8 hereof.

- (d) If the Consultant, in the judgment of the Client has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.
- (e) If, as the result of Force Majeure, the Consultant are unable to perform a material portion of the Services for a period of not less than sixty (60) Days.
- (f) If the Client, in its sole discretion and for any reason whatsoever, decides to terminate this Contract.

**2.7.2
By the Consultant**

The Consultants may terminate this Contract, by not less than thirty (30) Days' written notice to the Client, such notice to be given after the occurrence of any of the events specified in paragraphs (a) through (c) of this Clause GC 2.7.2:

- (a) If the Client fails to pay any money due to the Consultant pursuant to this Contract and not subject to dispute pursuant to Clause GC 8 hereof within sixty (60) days after receiving written notice from the Consultant that such payment is overdue.
- (b) If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than ninety (90) Days.
- (c) If the Client fails to comply with any final decision reached as a result of arbitration pursuant to Clause GC 8 hereof.

**2.7.3
Cessation of Rights
and Obligations**

Upon termination of this Contract pursuant to Clauses GC 2.7 hereof, or upon expiration of this Contract pursuant to Clause GC 2.3 hereof, all rights and obligations of the Parties hereunder shall cease, except (i) such rights and obligations as may have accrued on the date of termination or expiration, (ii) the obligation of confidentiality set forth in Clause GC 3.3 hereof, (iii) the Consultant's obligation to permit inspection, copying and auditing of their accounts and records set forth in Clause GC 3.6 hereof, and (iv) any right which a Party may have under the Applicable Law.

**2.7.4
Cessation of
Services**

Upon termination of this Contract by notice of either Party to the other pursuant to Clauses GC 2.7.1 or GC 2.7.2 hereof, the Consultant shall, immediately upon dispatch or receipt of such notice, take all necessary steps to bring the Services to a close in a prompt and orderly manner and shall make every reasonable effort to keep expenditures for this purpose to a minimum. With respect to documents prepared by the Consultant and equipment and materials furnished by the Client, the Consultant shall proceed as provided, respectively, by Clauses GC 3.7 hereof.

**2.7.5
Payment upon
Termination**

Upon termination of this Contract pursuant to Clauses GC 2.7.1 or GC 2.7.2, the Client shall make the following payments to the Consultant:

- (a) payment and reimbursable expenditures pursuant to Clause GC 6 for Services satisfactorily performed prior to the effective date of termination;
- (b) except in the case of termination pursuant to paragraphs (e) and (f) of Clause GC 2.7.1, reimbursement of any reasonable cost incident to the prompt and orderly termination of the Contract, including the cost of the return travel of the Personnel and their eligible dependents.

**2.7.6
Disputes about
Events of
Termination**

If either Party disputes whether an event specified in Clause GC 2.9.1 or in Clause GC 2.9.2 hereof has occurred, such Party may, within forty-five (45) days after receipt of notice of termination from the other Party, refer the matter to Clause GC 8 hereof, and this Contract shall not be terminated on account of such event except in accordance with the terms of any resulting arbitral award.

3. OBLIGATIONS OF THE CONSULTANT

3.1 General

**3.1.1
Standard of
Performance**

The Consultant shall perform the Services and carry out their obligations hereunder with all due diligence, efficiency and economy, in accordance with generally accepted professional standards and practices, and shall observe sound management practices, and employ appropriate technology and safe and effective equipment, machinery, materials and methods. The Consultant shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to the Client, and shall at all times support and safeguard the Client's legitimate interests in any dealings with Sub-Consultants or third Parties.

**3.2 Conflict of
Interests**

The Consultant shall hold the Client's interests paramount, without any consideration for future work, and strictly avoid conflict with other assignments or their own corporate interests.

**3.2.1
Consultants Not to
Benefit from
Commissions, Dis-
counts, etc.**

The payment of the Consultant pursuant to Clause GC 6 shall constitute the Consultant's only payment in connection with this Contract or the Services, and the Consultant shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations under the Contract, and the

Consultant shall use their best efforts to ensure that the Personnel, any Sub-Consultants, and agents of either of them similarly shall not receive any such additional payment.

**3.2.2
Consultant and
Affiliates Not to be
Otherwise
Interested in
Project**

The Consultant agrees that, during the term of this Contract and after its termination, the Consultant and any entity affiliated with the Consultant, as well as any Sub-Consultants and any entity affiliated with such Sub-Consultants, shall be disqualified from providing goods, works or services (other than consulting services) resulting from or directly related to the Consultant's Services for the preparation or implementation of the project.

**3.2.3
Prohibition of
Conflicting
Activities**

The Consultant shall not engage, and shall cause their Personnel as well as their Sub-Consultants and their Personnel not to engage, either directly or indirectly, in any business or professional activities which would conflict with the activities assigned to them under this Contract.

**3.3
Confidentiality**

Except with the prior written consent of the Client, the Consultant and the Personnel shall not at any time communicate to any person or entity any confidential information acquired in the course of the Services, nor shall the Consultant and the Personnel make public the recommendations formulated in the course of, or as a result of, the Services.

**3.4
Insurance to be
Taken Out by the
Consultant**

The Consultant (a) shall take out and maintain, and shall cause any Sub-Consultants to take out and maintain, at their (or the Sub-Consultants', as the case may be) own cost but on terms and conditions approved by the Client, insurance against the risks, and for the coverage, as shall be specified in the SC; and (b) at the Client's request, shall provide evidence to the Client showing that such insurance has been taken out and maintained and that the current premiums have been paid.

**3.5
Consultant's
Actions Requiring
Client's Prior
Approval**

The Consultant shall obtain the Client's prior approval in writing before taking any of the following actions:

- (a) entering into a subcontract for the performance of any part of the Services,
- (b) appointing such members of the Personnel not listed by name in Appendix C, and
- (c) any other action that may be specified in the SC.

**3.6
Reporting
Obligations**

(a) The Consultant shall submit to the Client the reports and documents specified in Appendix B hereto, in the form, in the numbers and within the time periods set forth in the said Appendix.

- (b) Final reports shall be delivered in CD ROM in addition to the hard copies specified in said Appendix.

3.7 Documents Prepared by the Consultant to be the Property of the Client

- (a) All plans, drawings, specifications, designs, reports, other documents and software submitted by the Consultant under this Contract shall become and remain the property of the Client, and the Consultant shall, not later than upon termination or expiration of this Contract, deliver all such documents to the Client, together with a detailed inventory thereof.
- (b) The Consultant may retain a copy of such documents and software. Restrictions about the future use of these documents, if any, shall be specified in the SC.

3.8 Accounting, Inspection and Auditing

The Consultant (i) shall keep accurate and systematic accounts and records in respect of the Services hereunder, in accordance with accepted accounting principles and in such form and detail as will clearly identify all relevant time changes and costs, and the bases thereof, and (ii) shall periodically permit the Client or its designated representative and/or the Bank, and up to two years from the expiration or termination of this Contract, to inspect the same and make copies thereof as well as to have them audited by auditors appointed by the Client or the Bank, if so required by the Client or the Bank as the case may be.

4. CONSULTANT'S PERSONNEL

4.1 Description of Personnel

- (a) The Consultant shall employ and provide such qualified and experienced Personnel and Sub-Consultants as are required to carry out the Services. The titles, agreed job descriptions, minimum qualifications, and estimated periods of engagement in the carrying out of the Services of the Consultant's Key Personnel are described in Appendix C. The Key Personnel and Sub-Consultants listed by title as well as by name in Appendix C are hereby approved by the Client.
- (b) If required to comply with the provisions of Clause GC 3.1.1 hereof, adjustments with respect to the estimated periods of engagement of Key Personnel set forth in Appendix C may be made by the Consultant by written notice to the Client, provided (i) that such adjustments shall not alter the originally estimated period of engagement of any individual by more than 10% or one week, whichever is larger, and (ii) that the aggregate of such adjustments shall not cause payments under this Contract to exceed the ceilings set forth in Clause GC 6.1(b) of this Contract. Any othersuch

adjustments shall only be made with the Client's written approval.

- (c) If additional work is required beyond the scope of the Services specified in Appendix A, the estimated periods of engagement of Key Personnel set forth in Appendix C may be increased by agreement in writing between the Client and the Consultant. In case where payments under this Contract exceed the ceilings set forth in Clause GC 6.2 of this Contract, this will be explicitly mentioned in the agreement.

4.2 Approval of Personnel

The Key Personnel and Sub-Consultants listed by title as well as by name in Appendix C are hereby approved by the Client. In respect of other Personnel which the Consultant proposes to use in the carrying out of the Services, the Consultant shall submit to the Client for review and approval a copy of their Curricula Vitae (CVs). If the Client does not object in writing (stating the reasons for the objection) within twenty-one (21) Days from the date of receipt of such CVs, such Personnel shall be deemed to have been approved by the Client.

4.3 Working Hours, Overtime, Leave, etc

In case where Consultant will be paid based on the time spend by any Personnel the Working hours and holidays for such Personnel are set forth in Appendix C hereto. To account for travel time, Foreign Personnel carrying out Services inside Sri Lanka shall be deemed to have commenced, or finished work in respect of the Services such number of days before their arrival in, or after their departure from Sri Lanka as is specified in Appendix C hereto. Such Key Personnel shall not be entitled to be paid for overtime nor to take paid sick leave or vacation leave except as specified in Appendix C hereto, and except as specified in such Appendix, the Consultant's remuneration shall be deemed to cover these items. All leave to be allowed to the Personnel is included in the staff-months of service set forth in Appendix C. Any taking of leave by Personnel shall be subject to the prior approval by the Consultant who shall ensure that absence for leave purposes will not delay the progress and adequate supervision of the Services.

4.4 Removal and/or Replacement of Personnel

- (a) Except as the Client may otherwise agree, no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Consultant, such as retirement, death, medical incapacity, among others, it becomes necessary to replace any of the Key Personnel, the Consultant shall provide as a replacement a person of equivalent or better qualifications.
- (b) If the Client finds that any of the Personnel have (i) committed serious misconduct or have been charged with having committed a criminal action, or (ii) have reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Consultant shall, at the Client's written request specifying the grounds thereof,

provide as a replacement a person with qualifications and experience acceptable to the Client.

- (c) The Consultant shall have no claim for additional costs arising out of or incidental to any removal and/or replacement of Personnel.

5. OBLIGATIONS OF THE CLIENT

5.1 Assistance and Exemptions

Unless otherwise specified in the SC, the Client shall use its best efforts to ensure that the Government of Sri Lanka shall:

- (a) Provide where applicable, the Consultant, Sub-Consultants and Personnel with work permits and such other documents as shall be necessary to enable the Consultant, Sub-Consultants or Personnel to perform the Services.
- (b) Arrange where applicable, for the Personnel and, if appropriate, their eligible dependents to be provided promptly with all necessary entry and exit visas, residence permits, exchange permits and any other documents required for their stay in Sri Lanka.
- (c) Facilitate where applicable, prompt clearance through customs of any property required for the Services and of the personal effects of the Personnel and their eligible dependents.
- (d) Issue to officials, agents and representatives of the Government agencies all such instructions as may be necessary or appropriate for the prompt and effective implementation of the Services.
- (e) Provide to the Consultant, Sub-Consultants and Personnel any such other assistance as may be specified in the SC.

5.2 Change in the Applicable Law Related to Taxes and Duties

If, after the date of this Contract, there is any change in the Applicable Law with respect to taxes and duties which increases or decreases the cost incurred by the Consultant in performing the Services, then the remuneration and reimbursable expenses otherwise payable to the Consultant under this Contract shall be increased or decreased accordingly by agreement between the Parties, and corresponding adjustments shall be made to the amounts referred to in Clauses GC 6.2

5.3 Services and Facilities

- (a) The Client shall make available free of charge to the Consultant the professional and support counterpart personnel, Services and Facilities listed under Appendix E.

(b) In case that such personnel, services, facilities and property shall not be made available to the Consultant as and when specified in Appendix E, the Parties shall agree on (i) how the affected part of the Services shall be carried out ; (ii) any time extension that it may be appropriate to grant to the Consultant for the performance of the Services, (iii) the manner in which the Consultant shall procure any such personnel, services, facilities and property from other sources, and (iv) the additional payments, if any, to be made to the Consultant as a result thereof pursuant to Clause GC 6. hereinafter.

5.4 Counterpart Personnel

- (a) The Client shall make available to the Consultant free of charge such professional and support counterpart personnel, to be nominated by the Client with the Consultant's advice, if specified in Appendix E.
- (b) If counterpart personnel are not provided by the Client to the Consultant as and when specified in Appendix E, the Client and the Consultant shall agree on (i) how the affected part of the Services shall be carried out, and (ii) the additional payments, if any, to be made by the Client to the Consultant as a result thereof pursuant to Clause GC 6.4 for option A or 6.3 for option B.
- (c) Professional and support counterpart personnel, excluding Client's liaison personnel, shall work under the exclusive direction of the Consultant. If any member of the counterpart personnel fails to perform adequately any work assigned to such member by the Consultant that is consistent with the position occupied by such member, the Consultant may request the replacement of such member, and the Client shall not unreasonably refuse to act upon such request.

6. PAYMENTS TO THE CONSULTANT

6.1 Option 'A' or Option 'B' is applicable

Two options, 'Option A' and 'Option B' are given below. The applicable option is stated in the SC. If no option is stated in SC, Option A is applicable.

OPTION A (Clause 6.2 to 6.6 below are applicable)

6.2 Lump-Sum Payment

The total payment due to the Consultant shall not exceed the Contract Price which is an all inclusive fixed lump-sum covering all costs required to carry out the Services described in Appendix A. Except as provided in Clause 5.2, the Contract Price may only be increased above the amounts stated in Clause 6.3 if the Parties have agreed to additional payments in accordance with Clause 2.4 or clause 5.4.

- 6.3 Contract Price**(a) The price payable in Sri Lankan Rupees is set forth in the SC.
- (b) The price payable in foreign currency/currencies is set forth in the SC.
- 6.4 Payment for Additional Services** For the purpose of determining the remuneration due for additional services as may be agreed under Clause 2.4 or per clause 4.1c, a breakdown of the lump-sum price is provided in Appendices D.
- 6.5 Terms and Conditions of Payment** Payments will be made according to the payment schedule stated in the SC. Unless otherwise stated in the SC, the first payment shall be made against the provision by the Consultant of an advance payment guarantee acceptable to the Client in an amount (or amounts) and in a currency (or currencies) specified in the SC. Such guarantee (i) to remain effective until the advance payment has been fully set off, and (ii) to be in the form set forth in Appendix G hereto, or in such other form as the Client shall have approved in writing. The advance payments will be set off by the Client in installments proportionate to the payments made to the Consultant. Any other payment shall be made after the conditions listed in the SC for such payment have been met, and the Consultant has submitted an invoice to the Client specifying the amount due.
- 6.6 Interest on Delayed Payments** If the Client has delayed payments beyond thirty (30) days after the due date stated in the Clause SC 6.5, interest shall be paid to the Consultant for each day of delay at the rate stated in the SC.

OPTION B (Clause 6.2 to 6.5 below are applicable)

- 6.2 Cost Estimates; Ceiling Amount**
- (a) An estimates of the cost of the Services payable in foreign currency is set forth in Appendix D.
- (b) Except as may be otherwise agreed under Clause GC 2.4 and subject to Clause GC 6.2(c), payments under this Contract shall not exceed the ceilings in Sri Lankan Rupees and foreign currency
- (c) Notwithstanding Clause GC 6.2(b) hereof, if pursuant to any of the Clauses GC 5.2, 5.3 or 5.4 hereof, the Parties shall agree that additional payments in local and/or foreign currency, as the case may be, shall be made to the Consultant in order to cover any necessary additional expenditures not envisaged in the cost estimates referred to in Clause GC 6.2(a) above, the ceiling or ceilings, as the case may be, set forth in Clause GC 6.2(b) above shall be increased by the amount or amounts, as the case may be, of any such additional payments.
- 6.3 Remuneration and**
- (a) Subject to the ceilings specified in Clause GC 6.2(b) hereof, the Client shall pay to the Consultant (i) remuneration as set forth in

Reimbursable Expenses

Clause GC 6.3(b) hereunder, and (ii) reimbursable expenses as set forth in Clause GC 6.3(c) hereunder. Unless otherwise specified in the SC, said remuneration shall be fixed for the duration of the Contract.

- (b) Payment for the Personnel shall be determined on the basis of time actually spent by such Personnel in the performance of the Services after the date determined in accordance with Clause GC 2.2 and Clause SC 2.2 (or such other date as the Parties shall agree in writing), at the rates referred to in Clause SC 6.3(b), and subject to price adjustment, if any, specified in Clause SC 6.3(a).
- (c) Reimbursable expenses actually and reasonably incurred by the Consultant in the performance of the Services, as specified in Clause SC 6.3(c).
- (d) The remuneration rates referred to under paragraph (b) here above shall cover: (i) such salaries and allowances as the Consultant shall have agreed to pay to the Personnel as well as factors for social charges and overhead (bonuses or other means of profit-sharing shall not be allowed as an element of overhead), (ii) the cost of backstopping by home office staff not included in the Personnel listed in Appendix C, and (iii) the Consultant's fee.
- (e) Any rates specified for Personnel not yet appointed shall be provisional and shall be subject to revision, with the written approval of the Client, once the applicable salaries and allowances are known.
- (f) Payments for periods of less than one month shall be calculated on an hourly basis for actual time spent and directly attributable to the Services (one hour being equivalent to 1/176th of a month) and on a calendar-day basis for time spent away from home office (one day being equivalent to 1/30 of a month).

6.4 Currency of Payment

Foreign currency payments shall be made in the currency or currencies specified in the SC, and local currency payments shall be made in Sri Lankan Rupees.

6.5 Mode of Billing and Payment

Billings and payments in respect of the Services shall be made as follows:

- (a) Within the number of days after the Effective Date specified in the SC, the Client shall cause to be paid to the Consultant advance payments in foreign currency and in Sri Lankan Rupees as specified in the SC. When the SC indicate advance payment, this will be due after provision by the Consultant to the Client of an advance payment guarantee acceptable to the Client in an amount (or amounts) and in a currency (or currencies) specified in the SC.

Such guarantee (i) to remain effective until the advance payment has been fully set off, and (ii) to be in the form set forth in Appendix G hereto, or in such other form as the Client shall have approved in writing. The advance payments will be set off by the Client in equal installments against the statements for the number of months of the Services specified in the SC until said advance payments have been fully set off.

- (b) As soon as practicable and not later than fifteen (15) days after the end of each calendar month during the period of the Services, or after the end of each time intervals otherwise indicated in the SC, the Consultant shall submit to the Client, in duplicate, itemized statements, accompanied by copies of invoices, vouchers and other appropriate supporting materials, of the amounts payable pursuant to Clauses GC 6.4 and GC 6.5 for such month, or any other period indicated in the SC. Separate statements shall be submitted in respect of amounts payable in foreign currency and in local currency. Each statement shall distinguish that portion of the total eligible costs which pertains to remuneration from that portion which pertains to reimbursable expenses.
- (c) The Client shall pay the Consultant's statements within sixty (60) days after the receipt by the Client of such statements with supporting documents. Only such portion of a statement that is not satisfactorily supported may be withheld from payment. Should any discrepancy be found to exist between actual payment and costs authorized to be incurred by the Consultant, the Client may add or subtract the difference from any subsequent payments. Interest at the annual rate specified in the SC shall become payable as from the above due date on any amount due by, but not paid on, such due date.
- (d) The final payment under this Clause shall be made only after the final report and a final statement, identified as such, shall have been submitted by the Consultant and approved as satisfactory by the Client. The Services shall be deemed completed and finally accepted by the Client and the final report and final statement shall be deemed approved by the Client as satisfactory ninety (90) calendar days after receipt of the final report and final statement by the Client unless the Client, within such ninety (90) day period, gives written notice to the Consultant specifying in detail deficiencies in the Services, the final report or final statement. The Consultant shall thereupon promptly make any necessary corrections, and thereafter the foregoing process shall be repeated. Any amount, which the Client has paid or caused to be paid in accordance with this Clause in excess of the amounts actually payable in accordance with the provisions of this Contract, shall be reimbursed by the Consultant to the Client within

thirty (30) days after receipt by the Consultant of notice thereof. Any such claim by the Client for reimbursement must be made within

twelve (12) calendar months after receipt by the Client of a final report and a final statement approved by the Client in accordance with the above.

- (e) Payments in respect of remuneration or reimbursable expenses, which exceed the cost estimates for these items as set forth in Appendices D and E, may be charged to the respective contingencies provided for foreign and local currencies only if such expenditures were approved by the Client prior to being incurred.
- (f) With the exception of the final payment under (d) above, payments do not constitute acceptance of the Services nor relieve the Consultant of any obligations hereunder.

7. GOODFAITH

7.1 Good Faith

The Parties undertake to act in good faith with respect to each other's rights under this Contract and to adopt all reasonable measures to ensure the realization of the objectives of this Contract.

8. SETTLEMENT OF DISPUTES

8.1 Amicable Settlement

- (a) The Parties agree that the avoidance or early resolution of disputes is crucial for a smooth execution of the Contract and the success of the assignment. The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or its interpretation.
- (b) If either Party objects to any action or inaction of the other Party, the objecting Party may file a written Notice of Dispute to the other Party providing in detail the basis of the dispute. The Party receiving the Notice of Dispute will consider it and respond in writing within 30 Days after receipt. If that Party fails to respond within 30 Days, or the dispute cannot be amicably settled within 30 Days following the response of that Party, Clause GC 8.2 shall apply

8.2 Dispute Resolution

Any dispute between the Parties as to matters arising pursuant to this Contract that cannot be settled amicably within thirty (30) Days after receipt by one Party of the other Party's request for such amicable settlement may be submitted by either Party for settlement in accordance with the provisions specified in the SC and in accordance with Sri Lanka Arbitration Act No. 11 of 1995.

III. Special Conditions of Contract

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
1.6	<p>Client: Ceylon Electricity Board</p> <p>Attention: Project Director Mannar Wind Power Project – Phase III Ceylon Electricity Board No. 754 New Parliament Road, Pelawatta BATTARAMULLA 10120</p> <p>Facsimile: +94 11 2869631</p> <p>E-mail: amaawpsm@gmail.com</p> <p>Consultant:</p> <p>Attention:</p> <p>Facsimile:</p> <p>E-mail:</p>
{1.8}	<p>{The Member in Charge is [insert name of member]}</p> <p>Note: If the Consultant consists of a joint venture/ consortium/ association of more than one entity, the name of the entity whose address is specified in Clause SC 1.8 should be inserted here. If the Consultant consists only of one entity, this Clause SC 1.8 should be deleted from the SC.</p>
1.9	<p>The Authorized Representatives are:</p> <p>For the Client: Project Director – Mannar Wind Power Project (Phase III)</p> <p>For the Consultant: _____</p>
{2.1}	<p>The effective date is the date of signing the contract by both parties</p>

2.2	The date for the commencement of Services is the following day from the effective date
2.3	The Contract will be expired after receiving of the environmental clearance from the Project approving agency
3.4	<p>The risks and the coverage shall be as follows:</p> <ul style="list-style-type: none"> (a) Third Party motor vehicle liability insurance in respect of motor vehicles operated by the Consultant or its Personnel or any Sub Consultants or their Personnel; (b) Third Party liability insurance, with a minimum coverage of Rs. 150,000.00 per event with unlimited number of events (c) Professional liability insurance, with a minimum coverage of the value of the Contract valid until a period of one year beyond the approval date of EIAs by PAAs. Beneficiary of the insurance should be Ceylon Electricity Board. (d) Any other insurance cover deemed to be necessary to mitigate risks involved with the assignment
{ 3.5 (c)}	The other actions are: None
{3.7 (b)}	The Consultant shall not use these documents for purposes unrelated to this Contract without the prior written approval of the Client.
{5.1}	As indicated in TOR
6.1	The applicable option is : Option A
6.3(a)	The amount in Sri Lankan Rupees is: (Total Value)
6.3(b)	The amount in foreign currency or currencies is: Not applicable

6.5

Payments shall be made according to the following schedule

Deliverable	Payment
Advanced payment guarantee	20% of the contract value against the submission of the Advanced payment guarantee for the same amount
Inception Report containing the work plan, outline of the EIA reports including key issues to be covered, methodology and list of people/stakeholder to be interviewed	20% of the contract value (<i>refer Note 1</i>)
Submission of EIA reports to PAA after incorporating comments from CEB & PAA	20% of the contract value (<i>refer Note 1</i>)
Re-submission of EIA reports incorporating comments from public consultation	20% of the contract value (<i>refer Note 1</i>)
Receiving of PAA approvals	20% of the contract value (<i>refer Note 1</i>)

Note 1: Weightages applicable for payments relate to Project 1 and Project 2 are 40% and 60% of the contract value respectively

6.6

The interest rate is: Not Applicable

8.2

Disputes shall be settled by arbitration in accordance with the following provisions:

1. Selection of Arbitrators. Each dispute submitted by a Party to arbitration shall be heard by a sole arbitrator:
 - (a) The Parties may agree to appoint a sole arbitrator or, failing agreement on the identity of such sole arbitrator within thirty (30) Days after receipt by the other Party of the proposal of a name for such an appointment by the Party who initiated the proceedings, either Party may apply to High Court of Sri Lanka to nominate the arbitrator for the matter in dispute.
2. Substitute Arbitrators. If for any reason an arbitrator is unable to perform his function, a substitute shall be appointed in the same manner as the original arbitrator.
3. The decision of the sole arbitrator shall be final and binding and shall be enforceable in any court of competent jurisdiction, and the Parties hereby waive any objections to or claims of immunity in respect of such enforcement.

IV. Appendices

APPENDIX A – DESCRIPTION OF SERVICES

Note: This Appendix will include the final Terms of Reference worked out by the Client and the Consultants during technical negotiations. Give detailed descriptions of the Services to be provided, dates for completion of various tasks, place of performance for different tasks, specific tasks to be approved by Client, etc.

APPENDIX B - REPORTING REQUIREMENTS

Note: List format, frequency, and contents of reports; persons to receive them; dates of submission; etc. If no reports are to be submitted, state here “Not applicable.”

APPENDIX C - KEY PERSONNEL AND SUB-CONSULTANTS

Note: List under:

C-1 Titles [and names, if already available], detailed job descriptions and minimum qualifications of Key Personnel to be assigned to work, and estimated staff-months for each.

C-2 List of approved Sub-Consultants (if already available); same information with respect to their Personnel as in C-1.

In case where Consultant will be paid based on the time spend by any Personnel, list here the hours of work for Key Personnel; travel time to and from the country of the Government for Foreign Personnel (Clause GC 4.4(a)); entitlement, if any, to overtime pay, sick leave pay, vacation leave pay, etc.

APPENDIX D - BREAKDOWN OF CONTRACT PRICE

Note: List here the elements of cost used to arrive at the breakdown of the lump-sum price - foreign currency portion:

1. Monthly rates for Personnel (Key Personnel and other Personnel).
2. Reimbursable expenses (items that are not applicable should be deleted; others may be added):
 - (a) Per diem allowances for each of the Personnel for every day in which such Personnel shall be required to work outside the Location
 - (b) Air transport for Foreign Personnel:

the cost of international transportation of the foreign Personnel by the most appropriate means of transport and the most direct practicable route to and from the Consultants' home office;

- (c) International communications: the cost of communications (other than those arising in the Client's country) reasonably required by the Consultant for the purposes of the Services.
- (d) The cost of printing, reproducing and shipping of the documents, reports, drawings, etc.
- (e) The cost of acquisition, shipment and handling of the following equipment, instruments, materials and supplies required for the Services, to be imported by the Consultants and to be paid for by the Client (including transportation to the Client's country).
- (f) The cost of laboratory tests on materials, model tests and other technical services authorized or requested by the Client.
- (m) The cost of such further items not covered in the foregoing but which may be required by the Consultants for the purpose of the Services, subject to the prior authorization in writing by the Client.

APPENDIX E - SERVICES AND FACILITIES PROVIDED BY THE CLIENT

- I. Provide available project data, information and documents required for the services.
- II. Assist in obtaining permission from the relevant authorities and organizations to access particular sites and locations necessary to perform the studies

APPENDIX F - FORM OF ADVANCE PAYMENTS GUARANTEE

Note: See Clause GC 6.4 and Clause SC 6.4.

Bank Guarantee for Advance Payment

_____ [Bank's Name, and Address of Issuing Branch or Office]

Beneficiary: _____ [Name and Address of Client]

Date: _____

ADVANCE PAYMENT GUARANTEE No.: _____

We have been informed that [name of Consulting Firm] (hereinafter called "the Consultants") has entered into Contract No. [reference number of the contract] dated [insert date] with you, for the provision of [brief description of Services] (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum of [amount in figures] ([amount in words]) is to be made against an advance payment guarantee.

At the request of the Consultants, we [name of Bank] hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of [amount in figures] ([amount in words])¹ upon receipt by us of your first demand in writing accompanied by a written statement stating that the Consultants are in breach of their obligation under the Contract because the Consultants have used the advance payment for purposes other than toward providing the Services under the Contract.

It is a condition for any claim and payment under this guarantee to be made that the advance payment referred to above must have been received by the Consultants on their account number _____ at [name and address of Bank].

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Consultants as indicated in copies of certified monthly statements which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of the monthly payment certificate indicating that the Consultants have made full repayment of the amount of the advance payment, or on the ___ day of _____, 2___,² whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458.

[signature(s)]

Note: All italicized text is for indicative purposes only to assist in preparing this form and shall be deleted from the final product.

¹ The Guarantor shall insert an amount representing the amount of the advance payment and denominated either in the currency (ies) of the advance payment as specified in the Contract, or in a freely convertible currency acceptable to the Client.

² Insert the expected expiration date. In the event of an extension of the time for completion of the Contract, the Client would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee.

Summary of Specific Project Experience

Provide information on carrying out similar EIA assignments pertaining to wind, transmission line, Grid Substation and related work as per the following format.

Project Name	Location/ Country	Detailed Project Description	Present stage of the project at EIA process	Services provided by the Consultant (indicate the relevant stage/s)

Information Copy

Typical details of a Wind Turbine

An estimation of unit dimensions and transport weights for a range of wind turbines in the capacity of 3.5MW to 6MW which can be considered as viable for the proposed wind farms are listed below.

Table B1: Estimated Dimensions and Weights of Target Wind Turbines

Component	Length (m)	Width (m)	Height (m)	Weight (MT)
Blade	60 - 80	4.0 – 5.0	3.0 – 4.0	15 - 35
Nacelle	12 - 14	4.0 – 5.0	3.0 - 4.0	100 - 125
Hub	5.0 – 6.0	3.0 – 4.0	3.0 – 4.0	30 - 40
Tower (single section)	20 - 30	3.0 – 4.0	3.0 – 4.0	60 - 80

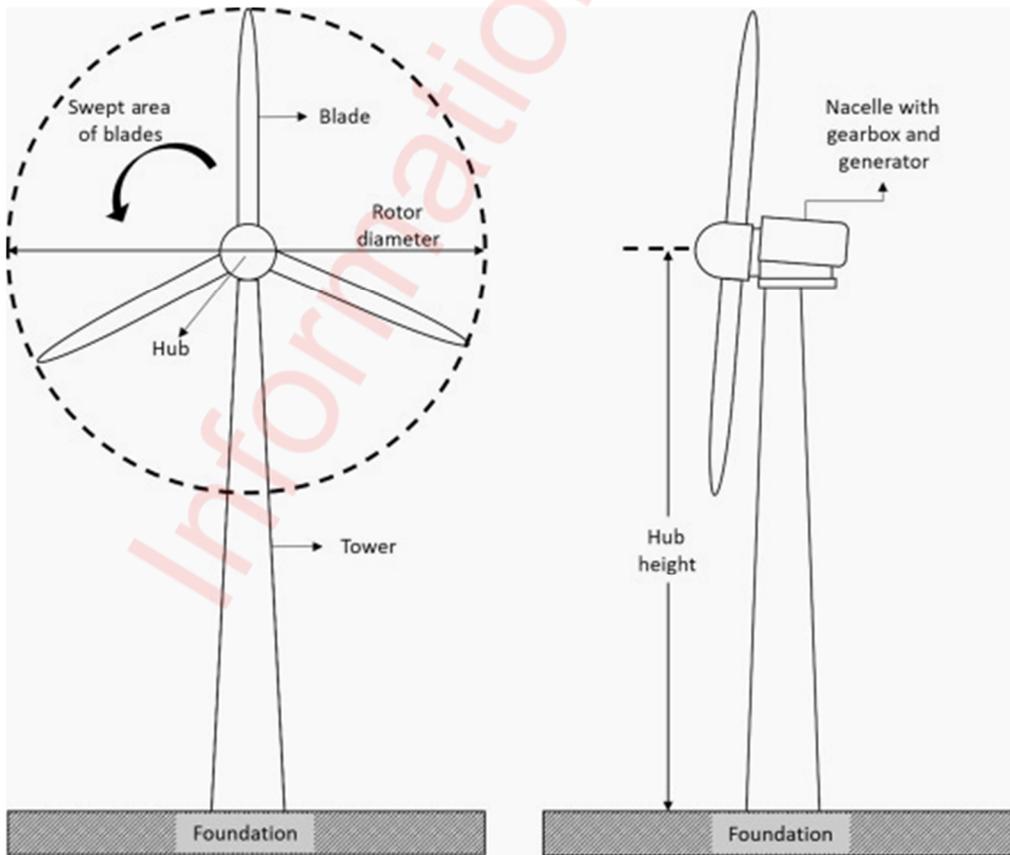


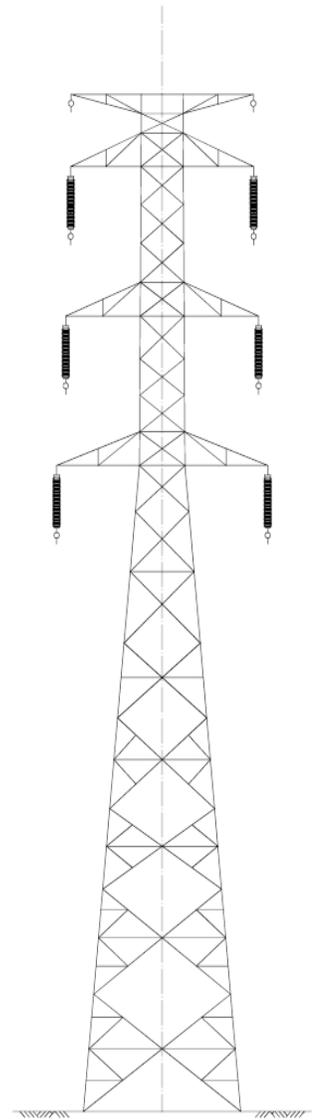
Figure B1: Typical components of a wind turbine

Details of Transmission Line and Collector Substation (Project 2)

All wind turbines are to be connected to the proposed collector station in Kal-Aaru area in a land of 7 acres. A 220kV transmission line of about 29km is to be constructed from there to existing Mannar Grid Substation in Puthukamam. Following tables shows the land use along the line corridor and administrative areas traversed by the transmission line.

Land Use	As a percentage
Paddy	59.26
Home Gardens	1.91
Open/ Sparse Forest	8.57
Scrub Forest	27.83
Water Bodies	2.43

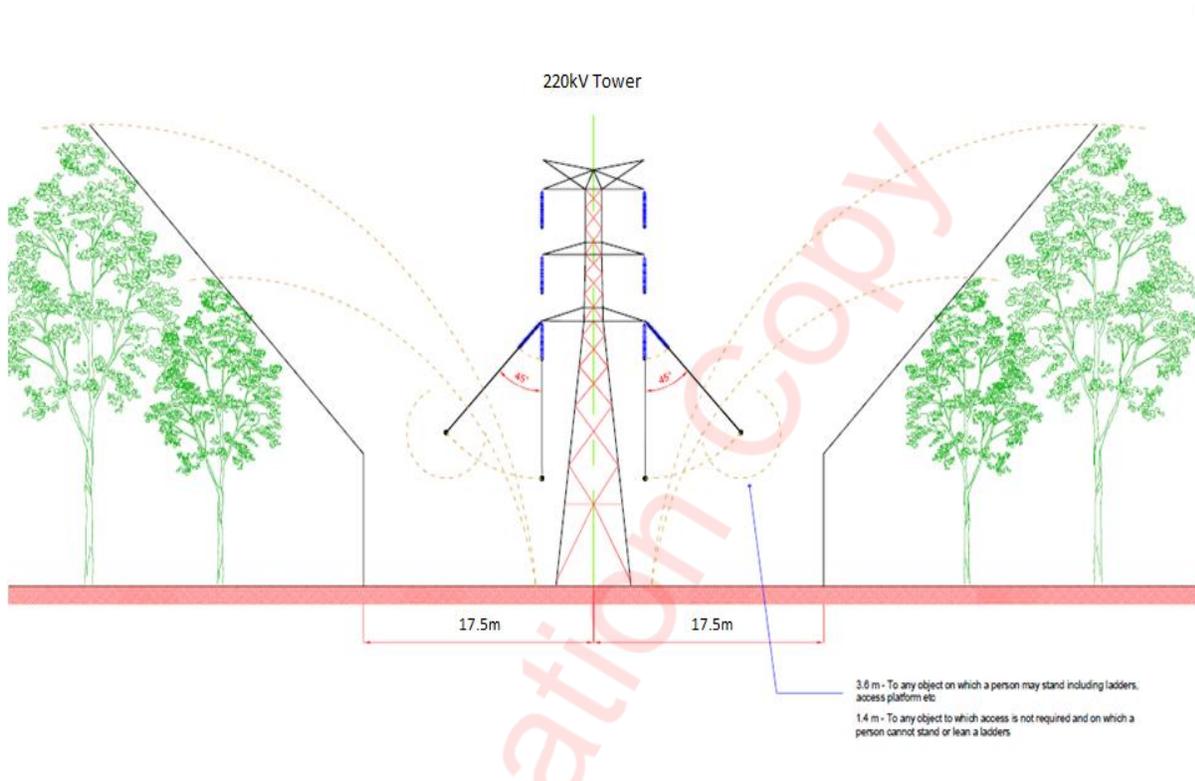
District	DS Division	GN Division
Mannar	Musali	Kadirakkuli Kondachchi Kokkupadayan Ahathimurippu Koolankulam Periyapullachchi Potkerni Puthuveli Poonochchikulam
	Nanaddan	Rasamadhu Achchankulam Umanagari Vanchiyankulam
	Mannar Town	Puthukkamam



Transmission line consists of six conductors, a shield wire and an optic fiber cable mounted on steel lattice towers. Towers will be placed on about 350m apart and typical height will be about 35m which can be

extended by using body or leg extensions of 3m as required. CEB will maintain a wayleave corridor of 35m (17.5m to either sides from centre line).

Following figure shows a cross section of the wayleave corridor.

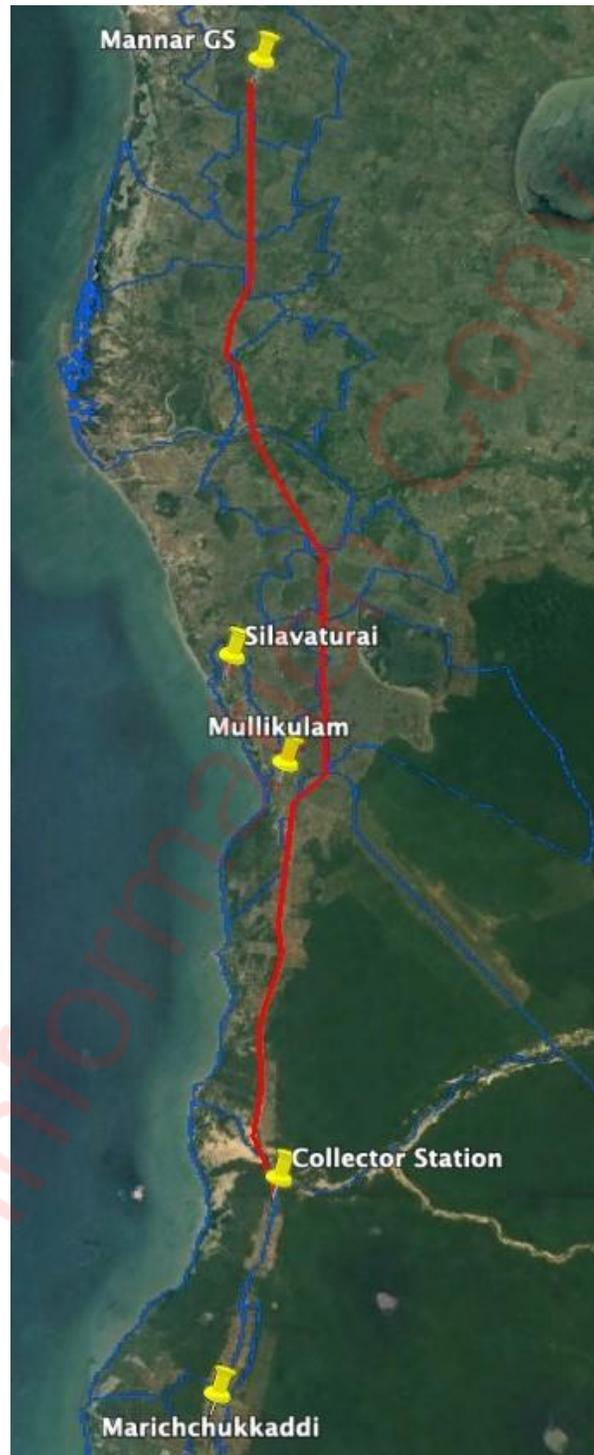


Following table shows tower details and minimum clearance to be maintained to some receptors.

Line Voltage	220kV
Minimum Tower Height (From Ground to bottom conductor)	20m
Maximum height of available extension	+18m
Average span	350m
Wayleave Corridor Width	35m
Horizontal distance between two circuits	10m

Description	Minimum Clearance (m)
Minimum ground clearance at any point not over roads	7.0
Line conductor to road surface	7.4
Line conductor to main roads/ expressways	8.5
Line conductor to railway crossings	8.2
Line conductor to Cradle guards	4.0
Line conductor to other power lines	3.7
Line conductor to any object on which a person may stand including ladders, access platforms etc.	4.6

Following figure indicates the proposed route of the transmission line.



**Terms of Reference (TOR) issued by
Department of Coast Conservation & Coastal Resource Management**

Information Copy

Draft Terms of Reference for the Environmental Impact Assessment (EIA)
Report for Proposed Additional 35 Mw Enhancement to the Existing
Mannar Wind Power Farm Project (Thambapawani wind Farm)- Mannar
Island

Under the Coast Conservation & Coastal Resource Management Act
No 57 of 1981

- Project** - Proposed Additional 35 Mw Enhancement to the Existing Mannar Wind Farm Project (Thambapawani Wind Farm)
- Project Location** - Mannar Island
- Project Proponent** - Ceylon Electricity Board
- Project Approving Agency** - Coast Conservation & Coastal Resource Management Department (CC & CRMD)
- Validity** - This Terms of Reference is valid only for 18 months from the date of issue. The **EIA** report should be submitted within the validity period.

This ToR is only a guideline document for preparation of the EIA of the Proposed Additional 35 Mw Enhancement to the Mannar Wind Farm Project. Any additional information, impacts, mitigation measures etc. which will be useful in decision making could be incorporated in the EIA report based on the findings of the EIA study.

Basic data shall be provided for all items mentioned in the ToR. The data may be supplied from existing source, but should be supplemented with data from field surveys as required.

Out Line of the EIA Report :

Executive summary

1. Introduction
2. Description of the project and reasonable alternatives
3. Description of the existing environment
4. Anticipated environmental impacts of the project
5. Proposed mitigation measures
6. Extended cost benefit analysis
7. Environment management Plan and Monitoring programme
8. Grievance Redress Mechanism
9. Conclusion and Recommendations

Annexure

- I Terms of Reference
- II References
- III Sources of data & information
- IV List of preparers including their work allocation and time schedules. (The report should be authenticated by the preparers)
- V Comments made by the public, NGOs and other agencies during the formal and informal scoping meetings held by the EIA Team
- VI Complete set of relevant maps, tables, charts, layout plans and other details

Executive Summary

The summary should be a brief, non-technical summary of the justification of the proposed project, description of the salient features of the project and alternatives considered, the existing environment of the project site and its environs, key environmental impacts, the measures proposed to mitigate the environmental impacts, monitoring programme and conclusions. A one page summary table indicating the significant impacts and proposed mitigatory measures should be presented.

1. INTRODUCTION

This chapter should include the following;

- Background of the proposed project
- Objectives and justification of the proposed project
(Summarize the need or problem being addressed by the project)
- Objectives of the EIA report
(Specify the objectives of the assessment and the relationship of the results to project design and implementation)
- Brief outline of the methodologies and technologies adopted in EIA preparation
- Policy legal and administrative frame work with reference to the project
- Compatibility with other development projects / programs / plans in the area, specially with the government development plan of the area
- Preliminary Clearances, Approvals needed for the project and any conditions laid down for implementation of the proposed project by state agencies including Department of Wildlife Conservation, Sri Lanka Sustainable Energy Authority, Central Environmental Authority, Department of Fisheries & Aquatic Resources, Department of Sri Lanka Railway, Urban Development Authority, Department of Archaeology and Local Authorities etc. should be mentioned here

2 DESCRIPTION OF THE PROPOSED PROJECT AND REASONABLE ALTERNATIVES

2.1 Details of Existing approved project

2.2 Description of the proposed project

- Name of the project and project location
- Give details on extent of the project area.
- Indicate the Divisional Secretariat Division/s and the Pradeshiya Sabha area/s within which the project site falls.
- State the present ownership of the project site. (if state own preliminary approval of such agencies should be attached to the EIA report)
- A location map of reasonable scale (1:10,000 scale is preferred) indicating the project site, accessibility to the site, surrounding developments, land use and infrastructure facilities.
- Drawings showing project layout plan covering the entire project area including all major components of the project, related structures etc. and reservation areas.
- Give a brief description on all major components of the project establishment and mechanism of the process. (Flow diagram also should be included)

2.3 Details of Proposed power project

2.3.1 Details of permanent structure

- Installed capacity of wind power plants
- Expected plant factors of wind power plants
(Type, design, size, capacity of units, number of units, configuration etc.)
- Details of wind power plant(s)
(Type, design, sizes/capacities of turbine(s) and generator(s), hub height, rotor diameter, spacing between turbines, number of units, configuration etc.)
- Internal power harnessing system / network incorporated
- Control, metering and monitoring systems
- Transformers, switch yard(s)
- Details of Transmission line
- Access roads
- Any other infrastructure required / provided by the project

2.3.2 Details of temporary structures

Pears, coastal structures and any other temporary structures for transportation of material/equipment to the site, Contractors and Engineer's site offices, Contractor's store building and store yards, Dumping sites, Temporary quarry sites, concrete batching plant, Labor camps and access to these plants/sites.

2.3.3 Methodology of construction wind towers

- The details on pre-construction and construction activities, phased implementation schedule, staffing/workforce, future development /expansion etc.
- Raw material and water requirements for construction activities
- Construction of tower foundations, switchgear building, transformer rooms and erection of wind towers
- Laying of power and instrumental cables
- Construction activities related to resettlement sites if any and infrastructure developments(if any)
- Techniques and equipment to be used.
- Method of material / equipment transport and installations
- Time schedule, staffing, and support facilities, technologies should be provided.
- Disposal of construction debris and solid waste.
- Other construction activities, including temporary structures

2.3.4 Methodology of operation, repair and maintenance

- Amount of water to be used for the project during operation period
- Water source and required approvals
- Construction of a fence around the land
- Preventive maintenance activities
- E-waste generation storage and disposal methods

2.4 Details of land acquisition, relocation of communities, relocation plan , including compensation procedure etc (if any) and details of compensation/ insurance program for emergency situation ex/ possible fall hazard of blades, towers, fire hazard etc.

2.5 Investment and funding sources/ state the total cost of the project.

2.6 Evaluation of Alternatives

Describe reasonable alternative considered and the basic environmental engineering and economic parameters used in their investigation and evaluation.

Compare alternatives in terms of potential environmental Impacts, mitigatory measures, capital and operating costs, reliability, etc.

The following Alternatives shall be described

- No action alternative
- Alternative site/s
- Alternative scales, design, technology and construction techniques.

Comparison of the alternatives considered and recommendations should be given

3 DESCRIPTION OF THE EXISTING ENVIRONMENT

This chapter should provide information on physical, biological socio-economic, archeological and cultural aspects of the environment likely to be affected by an activity of the project during and after the project. Information should be presented in a comprehensive format using tables, maps and diagrams where appropriate. The methods used to collect data should be clearly defined. The existing environment should be described under the following; following details should be provided for the study area

Study area

- a) Project site
- b) Area beyond the project site where there is potential for environmental impacts due to the project

Assemble evaluate and present baseline data on following environmental characteristics of the study area.

3.1 Physical Environment

3.1.1 Topography

A general description of topography of the study area with a recent topo-sheet of suitable scale should be provided.

3.1.2 Geology and Soil

- General geology of the area
- Special characteristics / formations
- Type of soil

3.1.3 Climate and Meteorology

- Rainfall pattern
- Wind speed and direction and intensity
- Sunshine/Cloud cover
- Relative Humidity

3.1.4 Hydrology and Drainage

- Surface water bodies in the study area
- Surface drainage pattern of the area
- Surface water availability, quality and present uses of surface water
- Details of annual flood levels and duration
- Ground water availability, quality and present uses of surface water

3.1.5. Coastal Features (Environment)

- Coastal features including beach profile
- Relevant oceanographic information including near shore wave height and direction, near shore current velocity, tidal and current characteristics
- Coastal erosion possibilities and coastal erosion records of last ten years
- Prior action which is taken to cope with any severe erosion
- Coastal structures, coastal protection system
- Coastal water quality
- Details of coastal hazard events in the past – Tsunamis, cyclones, storm surges etc. in the region

3.1.6 Details of the existing fishing activities of the area

3.1.7 Noise

- Existing noise source
- Existing noise levels
- Distribution of existing noise receptors
- Locations of noise sensitive receptors (if any)

3.2 Ecological Resources

- Habitat types in the study area including coastal vegetation ,mangroves, salt marshes, sand dunes and related habitats
- Proximity to protected areas (Wildlife Reserves National Parks, Sanctuaries, Wetlands, Forest Reserves, and other state owned forests)
- Rare, threatened and endemic fauna and flora, (if any) within the study area
- Movement path ways of birds and other animals with special attention to bird movements and seasonal patterns of such movements including bird detecting radar system, bird studies report etc.
- Availability of any commercially important species

3.3 Historical & Archaeological Importance

- Describe any landmarks or evidence of historic, religious, archaeological, scientific or cultural importance known to be in the study area.

3.4 Socio-economic Environment

- Present land use of the study area and zoning (if any) (a maps, photographs, satellite images etc. to be provided to get a clear picture)
- Population distribution and nature of households in the area
- Socio-economic status of the study are and principle economic activities

- Availability of infrastructure facilities (eg : roads, power, water supply communications, power supply, housing and sanitation, health care (hospitals) schools, etc.)
- Existing environmental problems and issues and any social cultural conflicts that may have bearing on the project.
- Main economic activities in the area including fishing activities of the area.

4. ANTICIPATED ENVIRONMENTAL IMPACTS OF PROPOSED PROJECT

This chapter should show the overall effects of the project on the individual environmental components. Impacts should include the direct and indirect, long and short-term positive and negative effects. Significance of impacts should be assessed using appropriate techniques. In all cases where an assessment is made it should be quite clear what criteria have been employed to assess impacts. Where possible, effects should be quantified, uncertainties highlighted and the basis of predictions should be stated and justified through case studies/models, literature etc. Nature of impacts should be considered in terms of magnitude, severity, duration, frequency, risk and indirect effects.

4.1 Impacts on coastal environment

- Impacts to the beach and shoreline and coastal vegetation
- impacts to the bank stability along the lagoon /estuary or other water bodies located within project site frontage (if any)
- Impact on stability and seasonal dynamics of sand dunes (if any)

4.2 Noise and vibration impacts

- Expected noise and vibration level during the construction period
- Predicted noise levels distribution patterns during the operation period.

4.3 Ecological impacts

- Impact on vegetation [number of trees (species names, height & girth size) to be removed due to the construction activities].
- Impact on fauna and their habitats in the project area including mangroves, salt marshes, sand dune, coastal wetlands etc
- Impacts on Vedithalathive Nature Reserve , Vankalai Bird Sanctuary , wetland areas etc.
- Impacts on migratory / movement paths of birds and other animals
 - Impact of transmission lines, blades of the wind turbines on birds
- Impacts on terrestrial aquatic ecosystems nearby
- Impact on animals due to operation of wind mills

4.4 Hydrological and water quality impacts

- Impacts on surface water bodies
- Impacts on ground water table and availability of ground water
- Impacts on surface and ground water quality (during the construction and operation)
 - Impacts of sewage, waste oil spills, waste water disposal on the environment
- Ground water extraction (if so)
- Impacts on natural drainage pattern (flow pattern) of the area
- Impact of electronic waste generation by repairing & damaging of the panels

4.5 Socio-economic Impacts

- Impacts on land use and zoning
 - Impacts on existing infrastructure facilities, properties and crops within the study area due to construction and operation of the project.
 - Impacts on livelihood of the neighbouring communities
 - Any relocation of families if so relocation sites facilities to be provided etc.(if any)
 - Impacts on fishery activities in the area and access to the beach and lagoon
 - Impacts on other economic activities (tourism, agriculture etc.) in the area
 - Shadow flicker effects employment generation during construction and operation
 - Impacts on scenic beauty and visual environment (shadow and flickering effects)
 - Impacts on Blade accidents, fall hazard etc.
 - Any impact on the proposed or planned government / private sector development activities in the vicinity.
 - Impacts due to transportation of material and equipment and increase of traffic volumes during the construction period
 - Impact on roads, buildings, and other properties during transportations of material, equipments during the construction period
 - Public and occupational health/safety
- 4.6 Impacts on navigation of air crafts
- 4.7 Impacts on land excavation for transmission lines.

4.8 Historical & Archaeological

- Impacts on sites and monuments of historical cultural and religious significance

4.9 Brief analysis of combined effect of already existing projects with the proposed project within the study area.

4.10 Any other impacts not listed here but may be significant in view of the project proponent.

5. PROPOSED MITIGATORY MEASURES

This chapter should set out the proposed measures to avoid, reduce, mitigate or compensate the impacts identified in Chapter 4 to acceptable levels (in that order of priority) including conformity to the gazetted Sri Lankan standards. Mitigatory measures should be defined in specific practical terms. Alternative methods of mitigation should be discussed and the effectiveness of the proposed measures that are to be provided should be stated. A rationale should also be presented for selection of chosen mitigatory measures

6. COST – BENEFIT ANALYSIS

Total environmental cost (the cost of direct and indirect negative impacts, proposed mitigation cost, administration and monitoring cost etc.) and benefits arising out of the proposed project due to project activities should be incorporated and discussed. Findings should reflect the benefit arising out of the proposed project.

7. ENVIRONMENTAL MONITORING PROGRAMME

Prepare the outline of a plan for monitoring the impacts of the project and the implementation of mitigating measures during construction and operation.

The outline plan should be presented in Matrix form and should describe actions to be taken in sufficient details to provide a basis for subsequent auditing of compliance with commitments made in the EIA process including who is responsible, how and when it will be implemented, what will be done and what results will be achieved, why it is being done, and how to know whether it is effective in addressing the underlying concerns.

Environmental Management Plan (EMP) shall have the following;

□ **Environmental Mitigation Plan**

- Describe each mitigation measure with technical details, including the type of impact to which it relates and conditions under which it is required, together with designs, equipment descriptions, and operating procedures as appropriate.
- Institutional framework for mitigation of impacts

□ **Monitoring Program**

A suitable monitoring programme should be submitted to monitor the changes of environment and implementation of mitigatory measures.

This plan should include the following;

- Parameters to be monitored
- Frequency of monitoring, detection limits and definition of thresholds that will signal the need for corrective action
- Location / timing of sampling
- Responsibility of the monitoring

Describe monitoring and reporting procedures to ensure early detection of conditions that necessitate particular mitigation measure and document the progress and results of mitigation

□ **Implementation arrangements**

- Specify the implementation schedule showing phasing and coordination with overall project implementation schedule.
- Describe the institutional framework, namely who is responsible for carrying out the mitigation and monitoring, which may include, additional topics to strengthen environmental management capability, technical assistance programs, training programs, organizational changes etc.
- Identify the capital and recurrent costs to implement mitigation and monitoring measures described above. Identify the availability and source of funds to implement the measures.

A suitable safety and disaster management plan specifically for **Tsunami and fire hazard** also be evolved along with the monitoring plan to cater unexpected situations such as storm surges, cyclonic conditions, erosion etc.

8. GRIEVANCE REDRESS MECHANISM

This section describes the grievance redress framework (informal and formal channels) setting out the time frame and mechanism to resolve complaints about environmental performance.

9 CONCLUSION AND RECOMMENDATION

The environmental acceptability of the proposed project and key findings and recommendations of the assessment should be given. The consultants should make a firm recommendation on one of the alternatives based on the findings of the assessment.

Any programme to improve general environmental conditions can also be stated here.

**Terms of Reference (TOR) issued by
Central Environmental Authority**

Information Copy

**TERMS OF REFERENCE FOR THE ENVIRONMENTAL IMPACT ASSESSMENT (EIA)
REPORT ON PROPOSED 100 MW MANNAR PHASE III
WIND POWER PARK (MULLIKULAM) PROJECT**

The ToR is valid for one and half years from the date of issue.

This ToR has been issued by the CEA only as a means of providing guidance for preparation of the Environmental Impact Assessment (EIA) report for the proposed project. Required information on impacts mitigation measures etc. which will be useful in decision making should be incorporated in the EIA report based on the findings of the EIA study.

Issuance of the ToR does not in any way reflect an agreement on the part of the CEA regarding the granting of approval for the project. It is the responsibility of the project proponent to clear any issues regarding land ownership and to obtain approvals required from agencies other than the CEA. In the case where the project is to be sited on state land we recommend obtaining "in principle" approval of the land owner, prior to embarking on the EIA report preparation. The CEA will not be responsible for any costs incurred by the project proponent in EIA report preparation in case the project is rejected.

Project Name : **Proposed Mullikulam 100 MW Wind Power Project**

Project Proponent : **Ceylon Electricity Board**

Project Approving Agency : **Central Environmental Authority**

Issued Date of the TOR :

Outline of the Report :

Executive Summary

1. Introduction
2. Description of the Project and reasonable alternatives
3. Description of the existing environment
4. Anticipated environmental impacts of proposed project
5. Proposed mitigatory measures
6. Extended Cost-benefit analysis
7. Environmental Management Plan
8. Conclusion and Recommendations

ANNEXURE

- I Terms of Reference
- II References
- III Sources of data & information
- IV List of preparers including their work allocation and time schedules (The EIA Report should be authenticated by prepares.
- V Comments made by the public NGOs and other agencies during the formal and informal scoping meetings held by the EIA Team
- VI Complete set of relevant maps, contour maps, tables, charts, layout plans and other details

Executive Summary

The summary should be a brief, non-technical summary of the justification of the proposed project, description of the salient features of the project and alternatives considered, the existing environment of the project site and its environs, key environmental impacts, the measures proposed to mitigate the environmental impact, environmental management plan & monitoring programme and conclusion. A one-page summary table indicating the significant impacts and proposed mitigatory measures should be presented.

1. INTRODUCTION

This chapter should include the following;

- Background of the proposed project
- Objectives and justification of the proposed project
- (Summarize the need or problem being addressed by the project and how the proposed project is expected to resolve the problem or the issue)
- Objectives of the EIA report
(Specify the objectives of the assessment and the relationship of the results to project design and implementation)
- Brief outline of the methodologies and technologies adopted in EIA preparation
- Government policy, legal and administrative frame work with reference to the project
- Compatibility with other development projects / programs / plans in the area, specially with the government development plan of the area (present and proposed).
- Approvals needed for the project from other state agencies and any conditions laid down by state agencies for implementation of the project (eg : UDA, Palmyra Development Board)

2 DESCRIPTION OF THE PROPOSED PROJECT AND REASONABLE ALTERNATIVES

2.1 Description of the proposed project

- Location, indicate the Divisional Secretariat Division/s and the Pradeshiya Sabha area/s within which the project site falls.(Including the transmission line and grid substation).
- State the present ownership of the project site. (if state own preliminary approval of such relevant agencies should be attached to the EIA report)
- A location map of reasonable scale (1:10,000 scale is preferred) indicating the project site, accessibility to the site, surrounding developments, land use and infrastructure facilities. (The location map should include general location of the project site and exact location with clear coordinates).
- Clear coloured and readable maps together with diagrams and photographs to be provided for reviewer to get a clear understanding of the project area and the location of all the project components.
- Extent of the project area (area cover up for installation of wine tower and trace of transmission line).
- Project layout plan covering the entire project area including all major components of the project, related structures etc. and reservation areas.

2.1.1 Details of permanent structure

- **Wind power plant**
 - Installed capacity of wind power plant
 - Expected plant factor of wind power plant
 - Details of wind power plant.
No of wind towers and land area required for installation of tower together with reservation/ non building zone.
 - Type, design, sizes/capacities of turbine(s) and generator(s), hub height, rotor diameter, spacing between turbines, number of units, configuration etc.
 - Internal power harnessing system / network incorporated
 - Control, metering and monitoring systems
 - Transformers, switch yard
 - Security / safety measures such as fencing, CCTV, fire protection, prevention of bird strike and damage to the animals
 - Birds detecting mechanism/system
 - Any other infrastructure required / provided by the project

- **Transmission Line**

- Principle features of the transmission line route
- Length of line section, width of the line corridor, types and designs of transmission tower including land area occupied by tower (based on the tower type and height).
- Height of the tower
- Span between two tower locations
- Number of angle towers and geo coordinates of the tower location/s
- Ground clearance of the line pathway.
- Nature and type of any other related structures to be erected
- Land ownership along the transmission line
- Present ownership of the line corridor.
- Any additional structures to be constructed
- Provide a location map indicating the project site, surrounding development and infrastructure within 100 m of the site (at appropriate scale).

- **Land preparation**

- Removals of trees/ vegetation along the transmission line trace, Grid Substation and wind tower areas.
- Land clearing and filling etc.

2.1.2 Details of temporary structures

Pears and any other temporary structures for transportation of material/equipment to the site, Contractors and Engineer's site offices, Contractor's store building and store yards, Dumping sites, Temporary quarry sites, concrete batching plant, Labour camps and access to these plants/sites.

2.2 Methodology of construction wind plant and transmission line

- The details on pre-construction and construction activities, phased implementation schedule, staffing/workforce, future development/expansion etc.
- Raw material and water requirements for construction activities
- Construction of wind tower foundations, switchgear building, transformer rooms and erection of wind towers
- Installation of wind turbine and rotor blades
- Laying of power and instrumental cables
- Method of construction of substations / switchyards, transmission towers and method of stringing

- Infrastructure developments (if any)
- Details of any permanent / temporary access roads to be built / improved (existing condition and anticipated improvement)
- Techniques and equipment to be used.
- Method of material / equipment transport and installations
- Time schedule, staffing, and support facilities, technologies should be provided.
- Disposal of construction debris
- Other construction activities, including temporary structures

2.3 Methodology of operation

- Operational activities related to the wind plant and transmission line
- Repair and maintenance activities with frequencies

2.4 Resettlement (If any)

- Construction activities related to resettlement sites (if any)
- Number of families to be relocated
- Identification of relocation site
- Infrastructure facilities to be supplied them

2.5 Investment and funding sources

- State the total cost of the project and proposed funding mechanism

2.6 Evaluation of Alternatives

Describe reasonable alternatives considered to the proposed project which might be less harmful to the environment.

Following options can be considered for analysis of alternatives.

- Site alternatives
- Design and technology selection
- Construction techniques and phasing
- Operating and maintenance procedure etc.
- No action alternative

Compare alternatives in terms of potential environmental impacts, mitigatory measures, capital and operating costs, reliability etc.

Give reasons why such alternatives were rejected.

3 DESCRIPTION OF THE EXISTING ENVIRONMENT

This chapter should provide information on physical, biological socio-economic, archeological and cultural aspects of the environment likely to be affected by any activity during implementation of the project. Information should be presented in a comprehensive format using tables, maps and diagrams where appropriate.

The methods used to collect data should be clearly defined. All technical terms should be clearly defined. The existing environment should be described under following;

Study area

- a) Project site
- b) Area beyond the project site where there is potential for environmental impacts due to the project (influenced area)

Assemble evaluate and present baseline data on following environmental characteristics of the study area.

3.1 Physical Environment

3.1.1 Topography

- A general description of topography of the study area. (recent topographic sheet(s) of suitable scale should also be provided)
- Any seasonal variations in relation to topography.

3.1.2 Geology and Soil

- General geology of the area
- Special characteristics / formations
- Type of soil

3.1.3 Climate and Meteorology

- Rainfall pattern
- Wind speed and direction
- Relative Humidity

3.1.4 Hydrology and Drainage

- Surface water bodies in the study area
- Surface drainage pattern of the area
- Surface water availability, quality and present uses of surface water
- Ground water availability, quality and present uses of surface water

3.1.5 Noise

- Existing noise source and their distribution
- Existing noise levels
- Distribution of existing noise receptors

- Locations of noise sensitive receptors (if any) (Distance of towers to such receptors to be indicated)

3.2 **Ecological Resources**

- Habitat types in the study area
- Proximity to protected areas (Wildlife Reserves National Parks, Sanctuaries, Wetlands, Forest Reserves and other state owned forests)
- Rare, threatened and endemic fauna and flora, (if any) within the study area and distribution of such spp.
- Presence of movement path ways of birds and other animals. Special attention to be given for bird movements and seasonal patterns of such movements
- Availability of any commercially important species

3.3 **Historical & Archaeological Importance**

- Describe any landmarks or evidence of historic, religious, archaeological, scientific or cultural importance known to be in the study area and provide an inventory of such places / articles.

3.4 **Socio-economic Environment**

- Present land use of the study area and zoning (if any) (a maps, photographs, satellite images etc. to be provided to get a clear picture)
- Settlements, population characteristics
- livelihoods of settlers (dependency on Palmira industry/ others to be indicated)
- Cultural, historical, protected resources and archaeological aspects/considerations
- Socio-economic status of the study area and principle economic activities
- Availability of infrastructure facilities (eg: roads, power, water supply communications, power supply, housing and sanitation, health care (hospitals) schools, etc.)

4. **ANTICIPATED ENVIRONMENTAL IMPACTS OF PROPOSED PROJECT**

This chapter should show the overall effects of the project on the individual environmental components. Impacts should include the direct and indirect, long and short-term positive and negative effects. Significance of impacts should be assessed using appropriate techniques. In all cases where an assessment is made it should be quite clear what criteria have been employed to assess impacts. Where possible, effects should be quantified, uncertainties highlighted and the basis of predictions should be stated and justified through case studies/models, literature etc. Nature of impacts should be considered in terms of magnitude, severity, duration, frequency, risk and indirect effects.

Special attention should be given to following aspects in addition to the other impacts not listed here but may be significant in view of the project proponent.

4.1 **Noise and vibration impacts**

- Expected noise and vibration level during the construction period
- Predicted noise levels distribution patterns during the operation period.

4.2 **Ecological impacts**

- Impact on animals due to operation of wind mills, and due to erection of transmission line to be indicated.
- Impact on vegetation due to removal of trees/ vegetation [number, species names, height & girth size. Details to be provided considering construction wind plant and transmission line.)
- Impacts on protected areas declared under National Wilderness Act, Forests Ordinance, Fauna and Flora Protection Ordinance etc.
- Impacts due to spreading of invasive species, edge effects etc.
- Impacts on terrestrial and aquatic ecosystems nearby
- Impacts on migratory / movement paths of birds and other animals
- Any other direct or indirect impacts

4.3 **Hydrological and water quality impacts**

- Impacts on natural drainage pattern (flow pattern) of the area and impacts on water bodies.
- Impacts on surface and ground water quality (during the construction and operation)
- Disposal of debris / restoration
- Impacts due to haphazard disposal

4.4 **Socio-economic and cultural impacts**

- Impacts on land use and zoning
- Impacts on existing infrastructure facilities, properties and crops within the study area due to construction and operation of the project.
- Impacts on economic activities, (fishing, agriculture, tourism etc.) in the area
- Impacts on livelihood of the neighbouring communities.
- Impacts due to removing of Palmyrah trees
- Any relocation of families if so relocation sites facilities to be provided etc.
- Impacts on scenic beauty and visual environment (flickering effect)
- Any impact on the proposed or planned government / private sector development activities in the vicinity.
- Impacts due to transportation of material and equipment and increase of traffic volumes during the construction period

- Impacts due to waste and hazardous waste
- Public and occupational health and safety
- Impacts on sites and monuments of historical cultural and religious significance

5. PROPOSED MITIGATORY MEASURES

This chapter should set out the proposed measures to avoid, reduce, mitigate or compensate the impacts identified in Chapter 4 to acceptable levels (in that order of priority) including conformity to the gazetted Sri Lankan standards. Mitigatory measures should be defined in specific practical terms. Alternative methods of mitigation should be discussed and the effectiveness of the proposed measures that are to be provided should be stated. A rationale should also be presented for selection of chosen mitigatory measures

6. EXTENDED COST - BENEFIT ANALYSIS

Total environmental cost (the cost of direct and indirect negative impacts, proposed mitigation cost administration and monitoring costs etc.) and benefits arising out of the proposed project due to project activities should be incorporated and discussed. Findings should reflect the benefit arising out of the proposed project.

7. ENVIRONMENTAL MANAGEMENT PLAN AND MONITORING PROGRAMME

An Environmental Management Plan (EMP) should be submitted including the followings;

- i. A summary of the anticipated significant adverse environmental impacts together with the mitigation measures for each anticipated significant adverse environmental impact.
- ii. Monitoring plan including;
 - Parameters to be monitored
 - Frequency of monitoring, detection limits and definition of thresholds that will signal the need for corrective action
 - Location / timing of sampling
 - Institutional framework for mitigation of impacts
 - Responsible agency / agencies of monitoring
 - Describes monitoring and reporting procedures to ensure early detection of conditions that necessitate particular mitigation measure and documents the progress and results of mitigation

iii. Implementation arrangement including;

- Implementation schedule of the impact mitigation plan showing phasing and coordination with overall project implementation
- Institutional framework, indicating who is responsible for carrying out the mitigation and monitoring.
- Capital and recurrent costs to implement mitigation and monitoring measures described above. Identify the availability and source of funds to implement the measures.

8. CONCLUSION AND RECOMMENDATION

The environmental acceptability of the proposed project and key findings and recommendations of the assessment should be given. The consultants should make a firm recommendation on one of the alternatives based on the findings of the assessment.

Any programme to improve general environmental conditions can also be stated here.

emaanu\fa\mydoc\kgs\ToR for mannaer wind project phase III