

**Government of
Democratic Socialist Republic of Sri Lanka**

Ministry of Power & Energy

CEYLON ELECTRICITY BOARD

Request for Proposals

**Development of 100 MW_{AC} Solar Park Facility at
Siyambalanduwa on Build, Own and Operate (BOO) Basis and
Construction of 132 kV Transmission Facility on Turnkey Basis**

VOLUME II

PROPOSAL LETTERS AND FORMS

Issued on: 22nd August 2022
Bid No.: TR/RED&PM/ICB/2022/002/C
Employer: Ceylon Electricity Board
Country: Sri Lanka

Ceylon Electricity Board
P.O. Box 540,
Colombo 02,
Sri Lanka.

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INTRODUCTORY NOTES

1. General

The Proposal to be prepared by the Project Proponent shall include the documents and Forms of Part I and Part II of this Volume II. The Project Proponent's attention is drawn to the requirements of Volume I, Instructions to Project Proponents, and in particular to the requirement that the Project Proponent shall complete the Forms and respond to the questions in the specified format and in compliance with the RFP. The Project Proponent shall prepare technical and financial proposals separately for Solar Park and Transmission Facility and submit as per conditions detailed in Volume I.

Where the Project Proponent comprises two or more members to a bidding consortium, each being a properly constituted company, corporation, firm, joint venture or other entity, each member shall, where relevant and applicable, separately complete the Forms and otherwise respond to the RFP so that the Proposal contains the required information about each constituent member of the Bidder.

The Project Proponent's attention is drawn to the requirements of Volume I and to the general need to fully describe its Proposal. To the extent that information additional to that specifically requested in the Forms is required, the Project Proponent may include such information on other sheets and attach them to the Proposal.

2. Attachment to the Technical Proposal Letter

The Project Proponent's Financial Proposal will not be opened until its Technical Proposal has been evaluated. So that the responsiveness of the Financial Proposal can be confirmed as part of the Responsiveness Test, the Technical Proposal shall contain an explicit and unequivocal affirmation regarding the contents of the Financial Proposal in the form expressly sought as an attachment to the Technical Proposal letter (refer Section A of Volume II).

3. Inclusions in the Proposal

The Project Proponent's attention is drawn particularly to the provisions of Section 2.10 of Volume I, *Mandatory Proposal Requirements* and to the responsiveness requirements of the Responsiveness Test (Annex VII). Failure to satisfy the requirements of these provisions will be grounds for rejection of the Proposal as non-responsive.

Part I: TECHNICAL PROPOSAL FORMS

Part I(a): TECHNICAL PROPOSAL FORMS - GENERAL

SECTION A: PROPOSAL LETTER

PROPOSAL LETTER FOR THE DEVELOPMENT OF 100 MW SOLAR PV POWER PLANT ON BUILD OWN AND OPERATE (BOO) BASIS AND CONSTRUCTION OF 132 kV TRANSMISSION LINE AND GRID SUB-STATIONS ON TURNKEY BASIS

To : Cabinet Appointed Negotiation Committee,

In response to the Bid No.: TR/RED&PM/ICB/2022/002/C entitled “REQUEST FOR PROPOSALS FOR DEVELOPMENT OF 100 MW SOLAR PV POWER PLANT ON BUILD OWN AND OPERATE (BOO) BASIS AND CONSTRUCTION OF 132 kV TRANSMISSION LINE AND GRID SUB-STATIONS ON TURNKEY BASIS” and in accordance with the Instructions to Bidders, the undersigned hereby proposes to Ceylon Electricity Board, an agency of the Government of the Democratic Socialist Republic of Sri Lanka (the Government), to finance, design, procure, construct, test, commission, operate and maintain a Solar PV power generation facility, “Solar Park Facility” at Siyambalanduwa on a Build-Own-Operate basis, and to finance, design, procure, construct, test, commission and transfer 132 kV overhead transmission line (estimated length: 27 km), from the Siyambalanduwa project site to the CEB grid sub-station in Monaragala, 33/132 kV step-up transformers at collector sub-station and necessary upgrading of Monaragala grid substation, “Transmission Facility”, in accordance with the provisions of the Project Agreements (included as part this RFP).

The undersigned agrees that this Proposal shall remain open for acceptance and shall remain irrevocable for a period of 150 days from the Bid Closing given in the RFP, and it shall remain binding upon the undersigned and may be accepted at any time before the expiration of that period. The undersigned certifies that it has examined and is fully familiar with all the provisions of the RFP, the Project Agreements and any addenda thereto; has carefully reviewed the accuracy of all statements in the RFP and attachments thereto, has carefully examined the RFP (including the Project Agreements) and any addenda thereto, is satisfied as to the nature and location of all the works, the general and local conditions and all other matters which can in any way affect the Project or the cost thereof, and has otherwise taken steps to inform itself as required under the RFP. The undersigned hereby agrees that the Government or its Representatives will not be responsible for any errors or omissions on the part of the undersigned in preparing this Proposal.

Within a period of not more than 30 calendar days commencing on the day of issuance of a notice that the undersigned has been selected to undertake the Project, the undersigned will submit a Preliminary Obligations Bond to an amount of USD 3.4 million or equivalent LKR and agrees to execute a Power Purchase Agreement, Lease Agreement and Implementation Agreement for the provision of the Solar Park to be financed, designed, constructed, tested, commissioned and operated, and the Transmission Facility to be financed, designed, constructed, tested, commissioned and handover to CEB by a project company formed by the undersigned. The undersigned agrees to complete the Facility and to fulfil all conditions for it to enter commercial service on or prior to the respective date so stipulated in the PPA.

Attached hereto and by this reference incorporated herein and made a part of this proposal are the data required under the heading “TECHNICAL PROPOSAL”.

In addition to the proposal data required, the undersigned encloses the following additional information:

.....
.....

The undersigned also acknowledges receipt, understanding, and full consideration of the following addenda to the RFP Document into the proposal:

Addenda Nos: _____

Signature: _____

In the Capacity of: _____ (Title)
duly authorised to sign the proposal for and on behalf of:

Bidder: _____ (Name)

Dated: _____

Home Office: _____ (PO Box or Street No.)

_____ (State and Country)

_____ (Telephone No.)

_____ (Fax No.)

Attention: _____ (Name & capacity of authorised representative for Bidder)

Address in Sri Lanka (if applicable):

_____ (PO Box or Street No.)

_____ (State and Country)

_____ (Telephone No.)

_____ (Fax No.)

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**BIDDER'S AFFIRMATION
IN RESPECT OF ITS FINANCIAL PROPOSAL**

The Bidder unequivocally affirms that its Financial Proposal conforms to the requirements of the RFP and specifically meets the following conditions:

- The deviations to the Project Agreements set out in Sections B2.1 and B3.1 of the Bidder's Financial Proposal represent a complete list of deviations it would seek to discuss and do not contain any material deviations;
- The Tariff offered for energy exported from solar PV generation plant by the Bidder complies with the structure and pricing mechanisms specified in the draft PPA;
- The transmission investment recovery plan by the Bidder complies with the structure and pricing mechanism specified in the Contract for Development of Transmission Facility (CDTF)
- The Bidder's Financing Plan provided as Section J of its Proposal is comprehensive and has been endorsed by the Bidder's Financial Advisor as bankable without material change to either the Project Agreements or the Government's support package, such endorsement being in the form specified in Volume II, Section G.
- The Financial Proposal contains a memorandum from all intended subscribers of equity committing them to:
 - the full amount of the Required Equity, being no less than 20% of the Project's total capital requirements;
 - disbursement of equity in accordance with PPA requirements.
- The Financing Plan proposes a financing structure based on fixed interest rates, adequate interest rate protection (hedging) and a debt service coverage ratio in all years of the Operational Period.
- The lead member of the Bidder shall retain at least twenty six percent [26%] of the equity capital in the Company for a minimum of [5] years from Commercial Operation Date.
- Technical and financial requirements

SECTION B: GENERAL QUALIFICATIONS OF THE BIDDER

(i) GENERAL INFORMATION

1. **Name of Bidder:** _____
(if the Bidder is a consortium give the
Names of all the members of the consortium)
2. **Date of Submission:** _____
3. **Country of incorporation, if applicable:** _____
4. **Year of incorporation, if applicable:** _____
5. **Type of organisation of Bidder:** _____
(e.g. company / joint venture / partnership)
6. **Bidder's representatives for purposes of this Proposal:**
Authorised signatories: * _____
Addressee for communications: _____
7. **Bidder's contact address:** _____
_____ fax no: _____
telex no: _____
8. Attach
(i) The consortium Agreement among the members of the consortium in the case of the Bidder is a consortium.
(ii) Powers of attorney authorising the signatory to sign on behalf of the Bidder.

(ii) LEGAL ENTITIES COMPRISING THE BIDDER

1. The table below shall be completed in respect of each individual legal entity comprising the Bidder. Information provided shall include information about the entity making up the Bidder, their experience and intended role in the Project.
2. Audited Financial statements for each of the last three years shall be included for each entity. Financial statements to include certified profit and loss account, balance sheet and funds statement.

NAME OF THE MEMBER COMPANIES <small>Notes 1, 2, 3</small>	COUNTRY OF ORIGIN/ POSTAL ADDRESS OF THE HEAD OFFICE <small>(incl phone & fax no.)</small>	ROLE OF THE MEMBER IN THIS PROJECT	% EQUITY CONTRIBUTION <small>Note 4</small>	YEARS OF EXPERIENCE & TYPE OF WORK UNDERTAKEN <small>Note 5</small>	The NAME AND THE DESIGNATION OF THE REPRESENTATIVE FOR THE COMPANY FOR THIS PROJECT.
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- 1 The Memorandum and Articles of Association, Joint Venture Agreement, pre-bid agreement or other relevant agreement shall be attached hereto, as appropriate.
- 2 Attach certified copy of Board's resolution authorising its representatives to file the Proposal, if applicable
- 3 Brochures, leaflets, annual reports, etc. describing each member (or relevant parent/affiliates) shall be attached.
- 4 Attach memorandum of commitment of members to provide the required equity
- 5 State the main activity or business of each member (or parent/affiliate), i.e. construction, design, project management, utility operations, finance etc.

(iii) BIDDER’S BOARDS OF DIRECTORS

1. The Bidder shall provide the names of the members of the Boards of Directors for each party making up the Bidder’s group and their relevant parents and affiliates.
2. In respect of each member of the Bidder, a certified true copy of the Board’s resolution shall be attached authorising its representatives to participate in the submission of the Proposal.

LEAD MEMBER OF BIDDER:

Name :	Function :
<u>Members of the Board</u> <u>Chief Executive Officer</u>	

MEMBER NO. 2:

Name :	Function :
<u>Members of the Board</u> <u>Chief Executive Officer</u>	

MEMBER NO. 3: (etc.)

(iv) FINANCIAL CAPABILITY OF THE BIDDER

This Section shall be filled in accordance with the provisions given in the Clause 4.3 of the Volume I of this RFP Document.

Net Worth of the Company

Members of the Consortium/Bidder	Net Worth in US\$ million / LKR million		
	Year 1	Year 2	Year 3

Audited accounts should be provided.

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Part I(b): TECHNICAL PROPOSAL FORMS – SOLAR PARK FACILITY

SECTION B1: QUALIFICATIONS OF THE BIDDER

(i) BIDDER’S COMPLETED SOLAR PV PROJECTS

Relevant projects completed by each member of the Bidder companies (for last 15 years) to be provided in the following format:

Certified Copies of Certificates of Final Acceptance of each project shall be attached. Use additional sheets for additional information.

NAME AND ADDRESS OF THE CLIENT (including phone no.)	NAME OF PROJECT (Note 1)	TOTAL PROJECT COST	DATE COMPLETED	COMPLETED ON TIME (Note 2)	SHORT PROJECT DESCRIPTION	MEMBER COMPANY ROLE IN THE PROJECT (Note 3)	VALUE OF BIDDER’S CONTRIBUTION
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- Notes:**
1. State if project failed to achieve completion or to enter commercial operation.
 2. If the project did not achieve its scheduled completion date (as extended), give the period by which it was late.
 3. For instance: owner, operator, contractor, supplier, lender. If more than one role, give all roles.

In the case of the Bidder does not have any experience in development of independent solar PV power plant projects, provide the agreement as per the clause 4.2.(i) of the Volume 1 of the RFP

(ii) BIDDER’S ON-GOING SOLAR PV PROJECTS

List of all relevant on-going projects each member of the Bidder or their relevant parents or affiliated companies is engaged in:

NAME AND ADDRESS OF THE CLIENT (including phone no.)	NAME AND VALUE OF THE PROJECT	DATE OF COMMENCEMENT	SHORT PROJECT DESCRIPTION	EXPECTED DATE OF COMPLETION (Note 1)	% COMPLETION TO DATE (Note 2)	ROLE OR RESPONSIBILITY IN PROJECT	VALUE OF MEMBER’S CONTRIBUTION (Note 3)
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- NOTES:**
- 1 Give the date of completion of the phase in which the member is involved. Where this involvement spans more than one phase (e.g. development, construction, operation), give the completion dates of each phase.
 2. % completion for construction involvement to be expressed in % physical completion. For involvement in project operation, describe completion on the basis of the % of the period of the operating concession completed.
 3. Value of contribution to reflect consortium share or equity involvement. Value to be clarified according to role in the project (owner, lender, contractor, operator, etc.)

(iii) TURNKEY CONTRACTOR'S EXPERIENCE

For the proposed each EPC contractor, provide the following:

1. Name and Address of the Proposed EPC Contractor(s):*
2. Years of experience:
3. Type of main business: **
4. Provide the following details of the EPC Contractor's experience.
 - (I) Name and Address of the Client.
 - (II) Name of the Project
 - (III) Short Description of the Project.
 - (IV) Dates of commencement and completion and no of years in operation
 - (V) Completion on Time***
 - (VI) Total Project Cost
 - (VII) % value of turnkey contractor's contribution
 - (VIII) Nature of financing****

* Attach Expression of Interest for the supply of the Turnkey Contractor services

** Literature/Brochures/technical magazines describing the business/facilities/organisation shall be attached

*** If the project did not achieve its scheduled completion date (as extended), give the period by which it was late. Attach authentic Certificate of Final Acceptance of each project.

**** Commercial loan, export credit, bond floatation, etc.

(iv) O&M CONTRACTOR’S EXPERIENCE

For the O&M contractor (or each contractor, as the case may be), provide the following:

- 1 Name and Address of the O & M Contractor: *
- 2 Number of years of experience as an O & M Contractor:
- 3 Provide the following details of the O&M Contractor’s experience

NAME AND ADDRESS OF THE CLIENT	NAME OF PROJECT	SHORT DESCRIPTION OF PROJECT **	DATE OF COMMENCEMENT	DURATION OF THE CONTRACT

* Literature/brochures/technical magazines describing business/facilities of the contractor shall be attached, as well as an Expression of Interest for the supply of O & M services.

** Authentic certificates of achieved performance duly issued by owners or clients of the works described above shall be attached

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(v) CIVIL CONTRACTOR’S EXPERIENCE

For the civil contractor (or, if more than one contractor is proposed, then for each contractor), provide the following:

1. Name and Address of the civil contractor: *
2. Number of years of experience as a civil contractor:
3. Provide the following details of the civil contractor’s experience:

NAME AND ADDRESS OF THE CLIENT	NAME OF THE PROJECT **	SHORT DESCRIPT. OF THE PROJECT	ROLE IN THE PROJECT	DATE COMMENCED	DATE COMPLETED	COMPLETED ON TIME?	TOTAL PROJECT CONTRACT COST	% VALUE OF CONTRACT
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* Literature/brochures/technical magazines describing the business/facilities/organisation of manufacturer shall be attached as well as an Expression of Interest for the supply of the civil contractors services.

** Authentic certificates of final acceptance duly issued by owners or clients of the works described above shall be attached.

(vi) FOREIGN EQUIPMENT OR MATERIAL SUPPLIERS

List the non-Sri Lankan equipment or material suppliers from whom firm commitments to supply equipment and materials will be made:

NAME OF THE FIRM	EXPECTED PROCUREMENTS

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(vii) LOCAL CONTRACTORS AND SUPPLIERS

List the Sri Lankan contractors or local suppliers of equipment or materials from whom firm commitments to supply services, equipment and materials will be made:

NAME OF THE FIRM	EXPECTED PROCUREMENTS

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SECTION C1: PROJECT MILESTONES SCHEDULE

(i) Project Proponent's Project Milestone Schedule

The Project Proponent shall provide a detailed Project Milestones Schedule which supports and confirms the Project Schedule starting from execution of the Project Agreements.

The Project Proponent's detailed Project Milestones Schedule shall be a time-scaled critical path network programme that has been analysed in terms of time and resources. The Project Milestones Schedule shall clearly demonstrate the timing and sequence in which the Project Proponent intends carrying out the Project activities including financing, design, permits and approvals, procurement, construction, commissioning and operation. The Project Milestones Schedule shall provide sufficient detail to demonstrate competence in the development of projects similar to the Project, as well as a sound knowledge of procedures and prevailing conditions in Sri Lanka.

A breakdown of activities in the Project Milestones Schedule will be provided with a description of each activity that permits clear identification of the portion of the work included under the activity. The breakdown will provide the following, as appropriate:

- Breakdown of the Preliminary Obligations Period, Construction, the Operational Period into constituent activities to the extent necessary to establish a clear sequence and timing of activities from the execution of the Project Agreements through to full commercial operation;
- Activities breakdown that will clearly demarcate financing, design, procurement, erection, commissioning and operations phases;
- Scheduled start, scheduled finish and duration of each activity with critical path clearly indicating critical activities;
- The identity and duration of all external interface events, i.e. an activity which must be done before or after, as the case may be, some activity by another person.
- Any float and/or dependencies between activities,

The Bidder shall outline its project controls strategies and shall explain how timely remedial actions will be initiated to correct programme delays.

The Project Milestones Schedule shall be prepared in Microsoft Project format. The Project Proponent shall state other project management tools and software it proposes to use.

(ii) Milestone Dates

The Project Milestones Schedule shall indicate the dates by which the following will be achieved:

- the milestone dates listed in Table C1;
- other key dates including placement of major orders, execution of site establishment works, plant manufacture, shipping, erection and commissioning activities.

The Project Proponent shall provide milestone dates for all milestones specified in Table C1. Any item not applicable to the Project must be so marked with a brief explanation as to why it is not applicable. This list is intended not to be exhaustive but rather to include appropriate milestones to allow the Government to evaluate proposals. Bidder shall identify and all appropriate activities and milestones necessary for the completion of its Facility whether or not they are included in Table C1. This includes the identification and acquisition of all necessary permits.

Table C1: Milestone Schedule

<u>Milestone</u>	<u>Start Date</u>	<u>Completion Date</u>
Financing		
Issue Project Information Memorandum	_____	_____
Financial close	_____	_____
Permits		
Generation license	_____	_____
BOI Agreement	_____	_____
Local authority permits and licenses	_____	_____
Consent under the Fire Regulations	_____	_____
Central Bank approval	_____	_____
Engineering and Procurement		
Preliminary	_____	_____
Detailed Design	_____	_____
Award turnkey contract	_____	_____
Solicit and award major plant subcontracts	_____	_____
Solicit and award major civil subcontract	_____	_____
Solicit and award O&M subcontract	_____	_____
Major Plant Delivery / Erection		
Solar PV panels	_____	_____
Inverters	_____	_____
Mounting structures	_____	_____
33 kV collection network accessories	_____	_____
Construction		
Mobilisation / Site establishment	_____	_____
Foundations	_____	_____
Electrical interconnection	_____	_____
Commissioning		
Pre-synchronisation tests	_____	_____
Demonstration tests	_____	_____
Reliability tests	_____	_____
Performance tests	_____	_____
Pre-synchronisation tests	_____	_____
Demonstration tests	_____	_____
Reliability tests	_____	_____
Performance tests	_____	_____
Operation		
Commercial Operation date	_____	_____

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SECTION D1: TECHNICAL DATA

(i) PREAMBLE

The Company shall provide the following basic technical information for the proposed Project:

1. Concept design description of the Project including supporting facilities and Site infrastructure. The description shall explain the basis on which the design conforms to Minimum Functional Specification requirement that the design operating life of the Project measured from COD is no less than twenty years.
2. Country of manufacture for the following major components:
 - Solar PV Panels
 - Inverters
 - Single axis tracking mounting structure
 - Control System
 - MV and LV Switchgear
 - Step up transformers
 - Auxiliary transformers
3. Listing of the Codes and Standards to be used in design, manufacturing, construction, performance testing, and quality control for civil, electrical, mechanical, and controls and instrumentation works of the Project.
4. Description of provisions made for SCADA systems.
5. Drawings such as:
 - Conceptual station layout drawings
 - Single line electrical diagrams of collector system
6. Terms of Reference for Studies, technical in nature, to be conducted. The Bidder shall list the studies he intends to conduct in accordance with the present RFP requirements and shall add to such list all other studies he intends to conduct for the proper functioning of the Project.
7. Description of the operation and maintenance plan and details of the Computerised Maintenance / Asset Management System (CMMS).
8. Evidence that the proposed design of the Project and the plant and components to be incorporated in it employ only proven technology in accordance with the requirements of the Minimum Functional Specification. The Bidder shall identify in its Proposal any features of the design or proposed plant or components that have not seen satisfactory commercial service over a period of sufficient duration to prove the technology.
9. A description of the redundancies included in the design of the Project to minimise the number and effect of Forced Outages and ensure Target Availability is achieved. The Bidder shall identify in its Proposal any features of the design that do not meet the redundancy requirements of the Minimum Functional Specifications

(ii) **PLANT AVAILABILITY**

TABLE D1: MINIMUM MONTHLY OUTPUT AND MAXIMUM MONTHLY OUTPUT

The Bidder shall complete the following table for the MINIMUM MONTHLY OUTPUT:

MINIMUM MONTHLY OUTPUT (MWh)												
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
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16												
17												
18												
19												
20												

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The Bidder shall complete the following table for the MAXIMUM MONTHLY OUTPUT:

MAXIMUM MONTHLY OUTPUT (MWh)												
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1												
2												
3												
4												
5												
6												
7												
8												
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19												
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(iii) TECHNICAL DATA OF SOLAR PV SYSTEM

No	Item	Units	Requirement	Tendered
A	SOLAR PV MODULE			
	General			
A.01	Manufacturer/Product Name			
A.02	Country of Origin			
A.03	Country of Manufacture			
A.04	Make			
A.05	Model No.			
A.06	Total Area required	Ha		
	Dimensions and Weight/Panel			
A.07	Width/Height/Depth (W/H/D)	mm		
A.08	Weight approximately	Kg		
	Product Compliances and Standards			
A.09	Applicable Standard (latest)		Valid certificates of compliance from ISO/IEC 17025 accredited laboratory/s for IEC 61215 ED2 IEC 61730 -1&2 IEC 61701, IEC 62716, IEC 62759, IEC 62804, IEC 62782, IEC 60068-2-68, IEC 61853	
A.10	Quality Management		ISO 9001 : 2008 or equivalent	
A.11	Place of Testing			
	Solar PV System Data			
A.12	No. of Solar PV Modules			
A.13	Total Panel Capacity (P_{total})	W_p		
A.14	Total System Rated Power (P_{rated})	MW		
A.15	Maximum String Voltage of Solar PV Array (V_{max})	V		
	Solar PV Module Electrical Characteristics			
A.16	Rating of a Solar Module (P_{max}) at STC	W_p		
A.17	Electrical Conversion Efficiency of Solar PV Module			
A.18	Module Power Tolerance	W		
A.19	Maximum Power Voltage of a Module (V_{mp})	V		
A.20	Maximum Power Current of a Module (I_{mp})	A		
A.21	Open Circuit Voltage (V_{oc})	V		
A.22	Short Circuit Current (I_{sc})	A		
A.23	Operational Temperature Range	$^{\circ}C$		

A.24	Nominal Operating Cell Temperature (NOCT)	°C		
A.25	Performance degradation profile			
A.26	Maximum Series Fuse Rating	A		
A.27	Power temperature co-efficient	%/o/C		
A.28	Open circuit voltage co-efficient	%/oC		
	Solar PV Module Mechanical Characteristics			
A.29	Module Architecture			
A.30	Cell Type			
A.31	Output Cables			
A.32	Junction Box			
A.33	Junction Box Ingress Protection			
A.34	Frame			
A.35	Front Glass			
A.36	Number of bypass diodes			
	Safety and Protection Measures			
A.37	High voltage safety measures for fire, electrical hazards and automatic shutdown at a fault			
	Warranty			
A.38	Material warranty			
A.39	Performance warranty			
B	PV INVERTER			
	General			
B.1	Manufacturer's Name			
B.2	Country of Origin			
B.3	Country of Manufacture			
B.4	Make			
B.5	Model No.			
B.6	No. of Inverters			
	Input (DC)			
B.7	Maximum input power ($P_{PV, max}$)	W		
B.8	DC voltage range, mpp ($U_{DC, mpp}$)	V		
B.9	Maximum DC voltage ($U_{max(DC)}$)	V		
B.10	Maximum DC current ($I_{max(DC)}$)	A		
B.11	Max. DC short-circuit current	A		
B.12	Number of independent MPP inputs			
B.13	Number of protected DC inputs			
	Output (AC)			
B.14	Nominal power ($P_{N(AC)}$)	W		
B.15	Maximum output power	MW,AC		
B.16	Nominal AC current ($I_{N(AC)}$)	A		
B.17	Nominal output voltage ($U_{N(AC)}$)	A		
B.18	Output frequency	Hz		
B.19	Harmonic distortion, current at rated power			
B.20	Power factor			
	Efficiency			
B.21	Maximum (without Aux. Power)	%		
B.22	European Efficiency	%		
	Power consumption			
B.23	Own consumption in operation	W		

B.24	Standby operation consumption	W		
B.25	External auxiliary voltage	V		
	Dimensions and weight			
B.26	Width/Height/Depth, mm (W/H/D)	mm		
B.27	Weight approximately	kg		
	Environmental Limits			
B.28	Degree of protection			
B.29	Ambient temp. range (nominal ratings)	°C		
B.30	Relative humidity, not condensing			
B.31	Maximum noise level			
B.32	DC disconnection device			
B.33	AC disconnection device			
B.34	DC overvoltage protection (surge protection)			
B.35	AC overvoltage protection (surge protection)			
	Protection			
B.36	Ground fault monitoring			
B.37	Grid monitoring			
B.38	Frequency			
B.39	Voltage			
B.40	Anti-islanding			
B.41	DC reverse polarity			
B.42	AC and DC short circuit and over current			
B.43	AC and DC over voltage and temperature			
	User interface and communications			
B.44	Local user interface			
B.45	Analog inputs/outputs			
B.46	Digital inputs/relay outputs			
B.47	Fieldbus connectivity			
B.48	Support for web server interconnection			
	Grid support and grid functions			
B.49	Low Voltage Ride Through	Yes		
B.50	Reactive Power Compensation	Yes		
	Standard Compliance			
B.51	Applicable Standard (latest)		Valid certificates of compliance from ISO/IEC 17025 accredited laboratory/s for IEC 62109-2010 (Part 1 & Part 2) IEC 62116:2014 IEC 61683:1999 IEC 62891 IEC 62116 IEC 60255-27 IEC 60088 – 2	

			IEC 61000	
C	Grid Code Requirements as per the clauses in Addendum: Grid Connection Requirement for Solar PV Power Plants (Annex D of Volume I)			
C.1	On line Data Provision	Yes	A detailed simulation model of the SPGF to be used in PSS/E format capable of representing its transient and dynamic behavior under both small and large disturbance conditions	
C.2	Webserver	Yes		
C.3	Inverter protection	Yes		
C.4	Backup protection	Yes		
C.5	Frequency requirement	Yes	Frequency range within which continuous operation is guaranteed. Time based capabilities for frequencies lower and above the limits where continuous operation is guaranteed	
C.6	Voltage requirement	Yes	voltage range within which continuous operation is guaranteed. Time based capabilities for voltages lower and above the limits where continuous operation is guaranteed	
C.7	Power Factor and reactive power support	Yes	<u>Limits on lagging and leading power factors within which the rated output can be guaranteed</u> <u>P-Q capability curve</u>	
C.8	NVD protection	Yes		
C.9	Low voltage ride through (LVRT)	Yes	Curve showing the tolerable drop in voltage, settling time to resume normal output	
C.10	Harmonics as per IEEE 519	Yes		
C.11	Flicker as per IEC 61000-3-7	Yes		
C.12	Direct Communication link	Yes		

C.13	Output Control (Ramp Rate)	Yes	Ramp rate (% of rated output per minute)	
	Single Axis Tracker			
D.1	Row & Array Tracker		Both, Uses Optimal 3D back tracking	
D.2	Compatibility with Robotic Module Cleaning System		Capable to jumps 60 cm between motor gap	
D.3	Slope Tolerance in N-S direction		Upto 14% N-S slope tolerance	
D.4	Bushing life		25 years	
D.5	Structure Materials		Hot deep Galvanised (HDG) with Zinc thickness 85 micron	
D.6	Motion Damper		25 years Warranty	
D.7	Locking & Drive System in a row		Single motor, Slew drive	
D.8	Installation		Easy installation and accessibility	
D.9	PV module support (Purlin size)		Full length as per the module size	
D.10	Modules		All commercially available modules supported	
D.11	Stow Angle		Low stow angle ensuring high stability in high speed winds	
D.12	Origin (Manufacturing)			
D.13	Serviceability and uptime			
D.14	After Sales service in Sri Lanka			
D.15	Replacement of Spares			
D.16	Hidden O & M Charges			
D.17	Design & Patents			
D.18	Design Centre			
D.19	Maximum wind speed during operation		16 m/s with 3s gust at 10m.	
D.20	Maximum wind speed at stall condition		47 m/s with 3s gust at 10m.	
D.21	Boundary Layer Wind Tunnel		To be tested and certified in static and full aeroelastic wind tunnels by CPP	
D.22	Wind stability to prevent micro cracks/ snail trail (Fluttering assessment in 3D wind tunnel test)		As per CPP	
D.23	Bankability certification		DNV-GL/ Black & Veatch or equivalent	

(iv) LIST OF INVESTIGATIONS AND STUDIES

The Bidder shall complete the following table and include all required Investigations and Studies for the Solar Park Facility and Transmission Facility (add more lines as required).

Required Investigation or Study	Sub-contractor	Date to be undertaken

(v) PERMITS MATRIX

The Bidder shall complete the following table and include known Permits Consents or Approvals required for the Solar Park Facility and Transmission Facility (add more lines as required).

Permit, Consent or Approval	Responsible Party	Date to be obtained

(vi) PROJECT COMPANY GENERATION MODEL REPORT

The Bidder shall provide their generation model report (in the form of a PVsyst Report or similar), including at a minimum the following items:

- System and Project Summary
- Input Parameter list
- System Loss Assumptions
- Weather File details, including monthly irradiance amounts and temperature averages
- Result details including monthly electrical output at the Interconnection Point and monthly system PR values
- List or diagram of annual loss percentages
- P50 – P90 analysis

(vii) PROJECT COMPANY FINANCIAL MODEL

[to insert from the Proposal, and which shall include at a minimum the following items:

- Capital costs (including breakdown for major equipment)
- Financing costs
- Equity and debt portions
- Operating costs
- NPV and IRR projections over project life

- Assumed discount rate
- Depreciation rate used
- Residual Price
- Any termination payment amounts
- other financial assumptions]

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SECTION E1: BIDDER'S ORGANISATIONAL, STAFFING AND QA PLAN

1. General

The Project Proponent shall submit a plan setting out its proposed organisational arrangements. The Project Proponent's plan will describe the Company's proposals with respect to, amongst others:

1. The organisational structure of the Company;
2. The staffing policies and personnel deployments to build, operate and administer the Project, and
3. Quality management systems that would be implemented to give confidence to the Government, CEB, investors, lenders and other parties that the Solar Park Facility will be built, operated and managed to the standards required by them.

2. Organisational Plan

In respect of each of the Preliminary Obligations Period, Construction Period and the Operational Period, the Project Proponent shall submit separate and detailed organisation charts showing its home office management organisation (off-shore), its Sri Lankan and Site organisation (in-country) and the interfaces between them. The organisation chart shall designate for each period the following:

- authorised representative(s) of the Project Company and the limits of the authorisations;
- organisational units and their responsibilities;
- key personnel, their functional responsibilities and reporting paths;
- Project Company's interface arrangements with relevant Government Agencies.

3. Staffing Plan

In respect of the Construction Period, the Bidder shall describe the staff that will be employed to carry out the following functions:

- project preparation and financing;
- formation and administration of procurement and construction contracts;
- project controls functions including overseeing procurement and construction activities to ensure time, quality and cost objectives are achieved.

In respect of the Operational Period, the Project Proponent shall submit an O&M staffing plan that describes the proposed management and staffing of the Project. Maintenance staffing shall be provided based on a schedule of the routine maintenance and major overhauls over the Term.

4. Total Quality Management Plan

The Bidder shall describe the Project Company's Quality Assurance Plan. The Quality Assurance Plan shall meet the requirements of ISO 9001:2000 and cover all activities as required to comply with the Company's obligations under the Project Agreements.

PART I(c): TECHNICAL PROPOSAL FORMS - TRANSMISSION FACILITY

SECTION B2: QUALIFICATIONS OF THE BIDDER

(i) BIDDER’S EXPERIENCE IN DEVELOPMENT OF 132 kV TRANSMISSION LINES

Relevant projects completed by each member of the Bidder companies (for last 15 years) to be provided in the following format:

Certified Copies of Certificates of Final Acceptance of each project shall be attached. Use additional sheets for additional information.

NAME AND ADDRESS OF THE CLIENT (including phone no.)	NAME OF PROJECT (Note 1)	TOTAL PROJECT COST	DATE COMPLETED	COMPLETED ON TIME (Note 2)	SHORT PROJECT DESCRIPTION	MEMBER COMPANY ROLE IN THE PROJECT (Note 3)	VALUE OF BIDDER’S CONTRIBUTION

- Notes:**
1. State if project failed to achieve completion or to enter commercial operation.
 2. If the project did not achieve its scheduled completion date (as extended), give the period by which it was late.
 3. For instance: owner, operator, contractor, supplier, lender. If more than one role, give all roles.

In the case of the Bidder does not have any experience in development of 132 kV transmission line projects, provide the agreement as per the clause 4.2.(i) of the Volume 1 of the RFP

(ii) BIDDER’S EXPERIENCE IN DEVELOPMENT OF 33/132 kV GRID SUBSTATIONS

Relevant projects completed by each member of the Bidder companies (for last 15 years) to be provided in the following format:

Certified Copies of Certificates of Final Acceptance of each project shall be attached. Use additional sheets for additional information.

NAME AND ADDRESS OF THE CLIENT (including phone no.)	NAME OF PROJECT (Note 1)	TOTAL PROJECT COST	DATE COMPLETED	COMPLETED ON TIME (Note 2)	SHORT PROJECT DESCRIPTION	MEMBER COMPANY ROLE IN THE PROJECT (Note 3)	VALUE OF BIDDER’S CONTRIBUTION

- Notes:**
1. State if project failed to achieve completion or to enter commercial operation.
 2. If the project did not achieve its scheduled completion date (as extended), give the period by which it was late
 3. For instance: owner, operator, contractor, supplier, lender. If more than one role, give all roles.

In the case of the Bidder does not have any experience in development of 33/132kV grid sub-station projects, provide the agreement as per the clause 4.2.(i) of the Volume 1 of the RFP

(iii) BIDDER’S ON-GOING TRANSMISSION PROJECTS

List of all relevant on-going projects each member of the Bidder or their relevant parents or affiliated companies is engaged in:

NAME AND ADDRESS OF THE CLIENT (including phone no.)	NAME AND VALUE OF THE PROJECT	DATE OF COMMENCEMENT	SHORT PROJECT DESCRIPTION	EXPECTED DATE OF COMPLETION (Note 1)	% COMPLETION TO DATE (Note 2)	ROLE OR RESPONSIBILITY IN PROJECT	VALUE OF MEMBER’S CONTRIBUTION (Note 3)
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- NOTES:**
1. Give the date of completion of the phase in which the member is involved. Where this involvement spans more than one phase (e.g. development, construction, operation), give the completion dates of each phase.
 2. % completion for construction involvement to be expressed in % physical completion. For involvement in project operation, describe completion on the basis of the % of the period of the operating concession completed.
 3. Value of contribution to reflect consortium share or equity involvement. Value to be clarified according to role in the project (owner, lender, contractor, operator, etc.)

(iv) **TURNKEY CONTRACTOR'S EXPERIENCE**

For the proposed each EPC contractor, provide the following:

1. Name and Address of the Proposed EPC Contractor(s):*
2. Years of experience:
3. Type of main business: **
4. Provide the following details of the EPC Contractor's experience.
 - (I) Name and Address of the Client.
 - (II) Name of the Project
 - (III) Short Description of the Project.
 - (IV) Dates of commencement and completion and no of years in operation
 - (V) Completion on Time***
 - (VI) Total Project Cost
 - (VII) % value of turnkey contractor's contribution
 - (VIII) Nature of financing****

* Attach Expression of Interest for the supply of the Turnkey Contractor services

** Literature/Brochures/technical magazines describing the business/facilities/organisation shall be attached

*** If the project did not achieve its scheduled completion date (as extended), give the period by which it was late. Attach authentic Certificate of Final Acceptance of each project.

**** Commercial loan, export credit, bond floatation, etc.

(v) CIVIL CONTRACTOR’S EXPERIENCE

For the civil contractor (or, if more than one contractor is proposed, then for each contractor), provide the following:

1. Name and Address of the civil contractor: *
2. Number of years of experience as a civil contractor:
3. Provide the following details of the civil contractor’s experience:

NAME AND ADDRESS OF THE CLIENT	NAME OF THE PROJECT **	SHORT DESCRIPT. OF THE PROJECT	ROLE IN THE PROJECT	DATE COMMENCED	DATE COMPLETED	COMPLETED ON TIME?	TOTAL PROJECT CONTRACT COST	% VALUE OF CONTRACT
<p style="color: orange; font-size: 2em; opacity: 0.5; transform: rotate(-45deg);">Information Copy - Not for Bidding</p>								

* Literature/brochures/technical magazines describing the business/facilities/organisation of manufacturer shall be attached as well as an Expression of Interest for the supply of the civil contractors services.

** Authentic certificates of final acceptance duly issued by owners or clients of the works described above shall be attached.

(vi) FOREIGN EQUIPMENT OR MATERIAL SUPPLIERS

List the non-Sri Lankan equipment or material suppliers from whom firm commitments to supply equipment and materials will be made:

NAME OF THE FIRM	EXPECTED PROCUREMENTS

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(vii) LOCAL CONTRACTORS AND SUPPLIERS

List the Sri Lankan contractors or local suppliers of equipment or materials from whom firm commitments to supply services, equipment and materials will be made:

NAME OF THE FIRM	EXPECTED PROCUREMENTS

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SECTION C2: PROJECT MILESTONES SCHEDULE

(i) Project Proponent's Project Milestone Schedule

The Project Proponent shall provide a detailed Project Milestones Schedule which supports and confirms the Project Schedule starting from execution of the Project Agreements.

The Project Proponent's detailed Project Milestones Schedule shall be a time-scaled critical path network programme that has been analysed in terms of time and resources. The Project Milestones Schedule shall clearly demonstrate the timing and sequence in which the Project Proponent intends carrying out the Project activities including financing, design, permits and approvals, procurement, construction, commissioning and operation. The Project Milestones Schedule shall provide sufficient detail to demonstrate competence in the development of projects similar to the Project, as well as a sound knowledge of procedures and prevailing conditions in Sri Lanka.

A breakdown of activities in the Project Milestones Schedule will be provided with a description of each activity that permits clear identification of the portion of the work included under the activity. The breakdown will provide the following, as appropriate:

- Breakdown of the Preliminary Obligations Period, Construction, the Operational Period into constituent activities to the extent necessary to establish a clear sequence and timing of activities from the execution of the Project Agreements through to full commercial operation;
- Activities breakdown that will clearly demarcate financing, design, procurement, erection, commissioning and operations phases;
- Scheduled start, scheduled finish and duration of each activity with critical path clearly indicating critical activities;
- The identity and duration of all external interface events, i.e. an activity which must be done before or after, as the case may be, some activity by another person.
- Any float and/or dependencies between activities,

The Bidder shall outline its project controls strategies and shall explain how timely remedial actions will be initiated to correct programme delays.

The Project Milestones Schedule shall be prepared in Microsoft Project format. The Project Proponent shall state other project management tools and software it proposes to use.

(ii) Milestone Dates

The Project Milestones Schedule shall indicate the dates by which the following will be achieved:

- the milestone dates listed in the Table;
- other key dates including placement of major orders, execution of site establishment works, plant manufacture, shipping, erection and commissioning activities.

The Project Proponent shall provide milestone dates for all milestones specified in Table C1. Any item not applicable to the Project must be so marked with a brief explanation as to why it is not applicable. This list is intended not to be exhaustive but rather to include appropriate milestones to allow the Government to evaluate proposals. Bidder's shall identify and all appropriate activities and milestones necessary for the completion of its Project whether or not they are included in Table C1. This includes the identification and acquisition of all necessary permits.

Table C2: Milestone Schedule

<u>Milestone</u>	<u>Start Date</u>	<u>Completion Date</u>
Financing		
Issue Project Information Memorandum	_____	_____
Financial close	_____	_____
Permits		
Generation license	_____	_____
BOI Agreement	_____	_____
Local authority permits and licenses	_____	_____
Consent under the Fire Regulations	_____	_____
Central Bank approval	_____	_____
Engineering and Procurement		
Preliminary	_____	_____
Detailed Design	_____	_____
Award turnkey contract	_____	_____
Solicit and award major plant subcontracts	_____	_____
Solicit and award major civil subcontract	_____	_____
Solicit and award O&M subcontract	_____	_____
Major Plant Delivery / Erection		
To be completed once CEB input received	_____	_____
	_____	_____
	_____	_____
Construction		
To be completed once CEB input received	_____	_____
	_____	_____
	_____	_____
Commissioning		
Pre-synchronisation tests	_____	_____
Demonstration tests	_____	_____
Reliability tests	_____	_____
Performance tests	_____	_____
Pre-synchronisation tests	_____	_____
Demonstration tests	_____	_____
Reliability tests	_____	_____
Performance tests	_____	_____
Operation		
Commercial Operation date	_____	_____

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SECTION D2: TECHNICAL DATA

The Company shall provide the following basic technical information for the proposed Project:

Please refer Appendix – 1- of Volume II : Manufacturers Technical Particulars and Guarantees;

- Appendix 1-A: Transmission Line
- Appendix 1-B: Grid Substations

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SECTION E2: BIDDER'S ORGANISATIONAL, STAFFING AND QA PLAN

1. General

The Project Proponent shall submit a plan setting out its proposed organisational arrangements. The Project Proponent's plan will describe the Company's proposals with respect to, amongst others:

- i. The organisational structure of the Company;
- ii. The staffing policies and personnel deployments to build, commission and transfer the Solar Park Facility, and
- iii. Quality management systems that would be implemented to give confidence to the Government, CEB, investors, lenders and other parties that the Solar Park Facility will be built and commissioned to the standards required by them.

2. Organisational Plan

In respect of each of the Preliminary Obligations Period and Construction Period the Project Proponent shall submit separate and detailed organisation charts showing its home office management organisation (off-shore), its Sri Lankan and Site organisation (in-country) and the interfaces between them. The organisation chart shall designate for each period the following:

- authorised representative(s) of the Company and the limits of the authorisations;
- organisational units and their responsibilities;
- key personnel, their functional responsibilities and reporting paths;
- the Company's interface arrangements with relevant Government Agencies.

3. Staffing Plan

In respect of the Construction Period, the Bidder shall describe the staff that will be employed to carry out the following functions:

- project preparation and financing;
- formation and administration of procurement and construction contracts;
- project controls functions including overseeing procurement and construction activities to ensure time, quality and cost objectives are achieved.

4. Total Quality Management Plan

The Bidder shall describe the Company's Quality Assurance Plan. The Quality Assurance Plan shall meet the requirements of ISO 9001:2000 and cover all activities as required to comply with the Company's obligations under the Project Agreements.

PART II: FINANCIAL PROPOSAL FORMS

PART II(a): FINANCIAL PROPOSAL - GENERAL

SECTION G: FINANCIAL PROPOSAL LETTER

FINANCIAL PROPOSAL LETTER FOR DEVELOPMENT OF 100 MW AC SOLAR PV POWER PLANT ON BUILD OWN AND OPERATE (BOO) BASIS AND CONSTRUCTION OF 132 kV TRANSMISSION FACILITY ON TURNKEY BASIS

To : Cabinet Appointed Negotiation Committee
From: [Bidder]

In response to the, “REQUEST FOR PROPOSALS FOR DEVELOPMENT OF 100 MW AC SOLAR PV POWER PLANT ON BUILD OWN AND OPERATE (BOO) BASIS AND CONSTRUCTION OF 132 kV TRANSMISSION LINE FACILITY ON TURNKEY BASIS” and in accordance with the Instructions to Bidders, the undersigned hereby proposes to Ceylon Electricity Board, an agency of the Government of the Democratic Socialist Republic of Sri Lanka (the Government), to finance, design, procure, construct, test, commission, operate and maintain a Solar PV power generation facility, “Solar Park” at Siyambalanduwa on a Build-Own-Operate- basis, and to finance, design, procure, construct, test, commission and transfer 132 kV overhead transmission line (estimated length: 27 km), from the Siyambalanduwa project site to the CEB grid sub-station in Monaragala, 33/132 kV step-up transformer and necessary upgrading of Monaragala grid substation, Siyambalanduwa sub-station, “Transmission Facility”, in accordance with the provisions of the Project Agreements (included as part this RFP).

Bid Tariff	Years 1-20
USD Cents/kWh (maximum 2 decimals)	

Transmission Annuity Payment (Once in every 6 months)	Years 1-10 (20 payments)
USD (maximum 2 decimals)	

The undersigned agrees that this proposal shall remain open for acceptance and shall remain irrevocable for a period 150 days from the Closing Date given in the RFP, and it shall remain binding upon the undersigned and may be accepted at any time before the expiration of that period. The undersigned certifies that it has examined and is fully familiar with all the provisions of the RFP, the Project Agreements and any addenda thereto; has carefully reviewed the accuracy of all statements in the RFP and attachments thereto and, by careful examination of the RFP, the Project Agreements and any addenda thereto, is satisfied as to the nature and location of all the works, the general and local conditions under which the Project will be undertaken and all other matters which can in any way affect the Facility or the cost thereof. The undersigned hereby agrees that the Government or its representatives will not be responsible for any errors or omissions on the part of the undersigned in preparing this Proposal.

The Bidder has appointed a Financial Advisor that is experienced in advising on project financed power stations in Asia. We have made available to the financial advisor all information known to the Bidder that could reasonably be considered to be relevant to the Project’s financing. We have furnished the financial advisor with all information that it has sought from the Bidder in connection with its financial advisory assignment. The

Bidder hereby represents and warrants that all information provided to the Financial Advisor was true, complete and accurate at the time it was given.

The Financial Advisor has assisted in the development of the financing plan set out in Section J and we have not deviated from that plan. The Financial Advisor has also advised us of the changes to the Project Agreements that would be required for those agreements to be acceptable to prudent but experienced project finance lenders (with particular reference to those banks set out in Section H). Those variations have been addressed either by amendments made to the draft Project Agreements through issue of addenda or by notification of deviations in the Form provided as Section H of the Bidder's Financial Proposal.

Prior to the signing of the Project Agreements, the undersigned shall provide the CEB with a Preliminary Obligations Bond of the RFP to the value of USD 3.4 million or equivalent LKR.

Attached hereto and by this reference incorporated herein and made a part of this proposal are the data required for "FINANCIAL PROPOSAL".

In addition to the required data, the undersigned encloses the following additional information.

.....
.....
.....

The undersigned also acknowledges receipt, understanding, and full consideration of the following addenda to the RFP:

Addenda Nos: _____

Home Office:

_____ (PO Box or Street No.)
_____ (State and Country)
_____ (Telephone No.) _____ (Telex No.)
_____ (Fax No.)

Attention: _____ (Name and capacity of authorised representative for Bidder)

Address in Sri Lanka (if applicable):

_____ (PO Box or Street No.)
_____ (State and Country)
_____ (Telephone No.) _____ (Telex No.)
(Fax No)

Signature: _____

In the Capacity of: _____ (Title)
duly authorised to sign proposal for and on behalf of

Bidder: _____ (Name)

Dated: _____ at _____

[Letterhead of Financial Advisor]
DEVELOPMENT OF 100 MW SOLAR PV POWER PLANT ON BUILD OWN AND OPERATE (BOO) BASIS AND CONSTRUCTION OF 132 kV TRANSMISSION FACILITY ON TURNKEY BASIS

To : Cabinet Appointed Negotiation Committee

From: [Bidder's Financial Advisor]

In response to the RFP Document no. [] entitled "REQUEST FOR PROPOSALS FOR DEVELOPMENT OF 100 MW AC SOLAR PV POWER PLANT ON BUILD OWN AND OPERATE (BOO) BASIS AND CONSTRUCTION OF 132 kV TRANSMISSION FACILITY ON TURNKEY BASIS" and in accordance with the Instructions to Bidders, the undersigned hereby proposes to Ceylon Electricity Board, an agency of the Government of the Democratic Socialist Republic of Sri Lanka (the Government), to finance, design, procure, construct, test, commission, operate and maintain a Solar PV power generation facility, "Solar Park" at Siyambalanduwa on a Build-Own-Operate- basis, and to finance, design, procure, construct, test, commission and handover 132 kV overhead transmission line (estimated length: 27 km), from the Siyambalanduwa project site to the CEB grid sub-station in Monaragala, 33kV/132kV step-up transformer and necessary upgrading of Monaragala grid substation, Siyambalanduwa sub-station, "Transmission Facility", in accordance with the provisions of the Project Agreements (included as part this RFP).and in accordance with the Instructions to Bidders, the undersigned advises that we have been appointed by [] (the "Bidder") to provide financial advice in respect of the Bidder's Financial Proposal.

The undersigned certifies that we have examined and are fully familiar with all of the provisions of the RFP, the Project Agreements and any addenda thereto (in so far as they relate to the financing of the Project); and is satisfied as to all matters that relate to the financing of the Project (in so far as they can be reasonably known at this stage in the Project's development). The undersigned hereby acknowledges that it is aware that the Government and the CEB will be relying, inter alia, on our advice in determining whether the Bidder will be successful.

We are satisfied that we have had sufficient information and made sufficient enquiries to be able to assist the Bidder's development of a financing plan for the Project that is achievable under current market conditions. We have been assured by our client that all information it has provided was true, complete and accurate at the time it was given.

We have also reviewed the Project Agreements and discussed the variations to those agreements that we believe are necessary in order for the agreements to be acceptable to prudent but experienced project finance lenders (with particular reference to those banks set out in Section J). To the best of our understanding those variations have been addressed to our satisfaction either by amendments made to the draft Project Agreements through issue of addenda or by notification of deviations in the Form provided as Section H of the Bidder's Financial Proposal.

Accordingly, we endorse the financing plan contained in the Bidder's Financial Proposal without further reservation.

Yours Sincerely,

For and on Behalf of

[Name of Financial Advisor]

Name of Authorised Signatory

PART II(b): FINANCIAL PROPOSAL – SOLAR PARK FACILITY

SECTION H1: DEVIATIONS TO THE PROJECT AGREEMENTS

The bidder shall complete the following tables taking care to ensure to include ALL proposed deviations to the project documents are detailed, explained and reasoned.

(i) DEVIATIONS TO DRAFT POWER PURCHASE AGREEMENT

Clause / Schedule	Deviation	Reasons for the Deviations
	<p>NOTE: Each proposed deviation shall be described and explained. The Bidder shall also specify in “mark-up” form the precise wording of the amendment it proposes to the relevant Project Agreement.</p>	<p>Note: Appropriate reasons for each deviation proposed by the proponent shall be provided</p>

The Bidder confirms its acceptance of, and willingness to execute, the draft Power Purchase Agreement without amendment save only the non-material deviations noted in the above form:

Signature: _____ Dated: _____

duly authorised to sign proposal for and on behalf of
 Bidder: _____ (Name)

(ii) DRAFT LEASE

Clause / Schedule	Deviations	Reasons for the Deviation
	<p>NOTE: Each proposed deviation shall be described and explained. The Bidder shall also specify in “mark-up” form the precise wording of the amendment it proposes to the relevant Project Agreement.</p>	<p>NOTE: Note: Appropriate reasons for each deviation proposed by the proponent shall be provided</p>

The Bidder confirms its acceptance of, and willingness to execute, the draft Lease without amendment save only the non-material deviations noted in the above form:

Signature: _____ Dated: _____

duly authorised to sign proposal for and on behalf of

Bidder: _____ (Name)

(iii) DEVIATIONS TO DRAFT IMPLEMENTATION AGREEMENT

Clause / Schedule	Deviations	Reasons for the Deviation
	<p>NOTE: Each proposed deviation shall be described and explained. The Bidder shall also specify in “mark-up” form the precise wording of the amendment it proposes to the relevant Project Agreement.</p>	<p>NOTE: Note: Appropriate reasons for each deviation proposed by the proponent shall be provided</p>

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The Bidder confirms its acceptance of, and willingness to execute, the draft Implementation Agreement without amendment save only the non-material deviations noted in the above form:

Signature: _____ Dated: _____

duly authorised to sign proposal for and on behalf of

Bidder: _____ (Name)

(iv) DEVIATIONS TO OTHER PROJECT AGREEMENTS

Document / Clause / Schedule	Deviations	Reasons for the Deviation
	<p>NOTE: Each proposed deviation shall be described and explained. The Bidder shall also specify in “mark-up” form the precise wording of the amendment it proposes to the relevant Project Agreement.</p>	<p>Note: Appropriate reasons for each deviation proposed by the proponent shall be provided</p>

The Bidder confirms its acceptance of, and willingness to execute, the draft Implementation Agreement without amendment save only the non-material deviations noted in the above form:

Signature: _____ Dated: _____

duly authorised to sign proposal for and on behalf of

Bidder: _____ (Name)

SECTION I1: FINANCIAL DATA – SOLAR PARK FACILITY

The Project Proponent shall complete the following tables, adding additional lines where required.

Indicative Plant Capex prices

<i>Plant Capacities</i>	<i>DC System Capacity (MWp)</i>	
	<i>AC System Capacity (MW)</i>	
Indicative EPC Cost Breakdown USD	Modules	
	Inverters	
	Mount System	
	Transformers	
	SCADA	
	Cabling & Protection	
	Grid Connection	
	System Design	
	Financing costs	
	Shipping & Logistics	
	Installation Project Management	
	System Cost (Total of above items)	
	\$/Wdc System Cost	

Indicative Spare Parts prices

Item Description	Quantity	Unit Price	Total Cost (USD)	Comments
Total Spares Cost				

Indicative Operation and Maintenance prices

Task / Item Description	Total Cost (USD)	Comments
Total O&M cost:		

Indicative Financing Costs

Financing Cost	Total Cost (USD)	Comments
Total Finance costs:		

Financial Model

The Project Proponent shall provide its financial model which will include, at a minimum, the following items:

- Capital costs (including breakdown for major equipment)
- Financing costs
- Equity and debt portions
- Operating costs
- NPV and IRR projections over project life
- Assumed discount rate
- Depreciation rate used
- Residual Price
- Any termination payment amounts on a quarterly basis
- other financial assumptions

SECTION J1: FINANCIAL PLAN

The Project Proponent shall provide a detailed project plan outlining the financing plan up until financial close.

The plan shall include:

- the project tasks and timing
- any information required to undertake these tasks
- the intended financial institutions the project proponent intends to engage
- necessary approvals and timing
- any other information potentially impacting cost and timing

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PART II(c): FINANCIAL PROPOSAL FORMS – TRANSMISSION FACILITY

SECTION H2: Deviations to the Project Agreements

The bidder shall complete the following tables taking care to ensure to include ALL proposed deviations to the project documents are detailed, explained and reasoned.

1. RFP, CONTRACT FOR DEVELOPMENT OF TRANSMISSION FACILITY

Clause / Schedule	Deviations	Reasons for the Deviation
	<p>NOTE: Each proposed deviation shall be described and explained The Bidder shall also specify in “mark-up” form the precise wording of the amendment it proposes to the relevant Project Agreement.</p>	<p>Note: Appropriate reasons for each deviation proposed by the proponent shall be provided</p>

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The Bidder confirms its acceptance of, and willingness to execute, the draft Implementation Agreement without amendment save only the non-material deviations noted in the above form:

Signature: _____ Dated : _____

duly authorised to sign proposal for and on behalf of

Bidder: _____ (Name)

SECTION I2: FINANCIAL DATA

VOLUME II : PROPOSAL LETTERS AND FORMS

PART II (c): FINANCIAL PROPOSAL FORMS – TRANSMISSION FACILITY

The project proponent shall complete the following tables, adding additional line where required.

Pease refer Appendix – 2 of Volume II.

- Appendix 2-A: Transmission Line
- Appendix 2-B: Grid Substations

SECTION I2: Financial Data (Transmission Facility)

The project proponent shall complete the following tables, adding additional lines where required.

Indicative Plant Capex prices

Indicative EPC Cost Breakdown USD	Materials	
	Other	
	System Design	
	Shipping & Logistics	
	Installation & Project Management	
	System Cost (Total of above items)	

Indicative Finance and Other Costs

Financing / Other Cost	Total Cost (USD)	Comments
Total Finance costs:		

SECTION J2: FINANCING PLAN

The project proponent shall provide a detailed project plan outlining the financing plan up until financial close. The plan shall include:

- the project tasks and timing
- any information required to undertake these tasks
- the intended financial institutions the project proponent intends to engage
- necessary approvals and timing
- any other information potentially impacting cost and timing

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