# GOVERNMENT OF SRI LANKA MINISTRY OF POWER CEYLON ELECTRICITY BOARD

# REQUEST FOR PROPOSALS FOR SUPPLY OF ELECTRICAL POWER FROM PUBLIC AND PRIVATE SECTORS DURING PEAK HOURS (FROM 6:00 P.M. TO 10:00 P.M.)

Tender No. TR/EP/NCB/2022/001

CONTENTS

Bid data sheet

Volume I • instructions to proposers

Volume II • proposal letters & forms

Volume III • draft power purchase agreement

February 2022

#### CEYLON ELECTRICITY BOARD BID DATA SHEET

#### BIDS ARE INVITED FOR

Request for proposals for supply of electrical power from public and private sectors during peak hours (from 6:00 p.m. to 10:00 p.m.).

#### **BID NUMBER & THE NAME**

TR/EP/NCB/2022/001 – Supply of electrical power from public and private sectors during peak hours (from 6:00 p.m. to 10:00 p.m.).

#### BIDS SHALL BE ADDRESSED TO

Bids shall be addressed to the Chairman, Board Procurement Committee.

#### PLACE OF ACCEPTANCE OF BIDS

The Office of the Deputy General Manager (Energy Purchases)

Sixth Floor - Ceylon Electricity Board Head Office

Sir Chittamplam A. Gradiner Mawatha

Colombo 00200 - Sri Lanka

#### TIME & DATE OF THE CLOSING OF BIDDING

At 1000 hrs (Sri Lanka Local Time) on 28 February, 2022.

#### PLACE OF OPENING OF BIDS

The Office of the Deputy General Manager (Energy Purchases)

Sixth Floor - Ceylon Electricity Board Head Office

Sir Chittamplam A. Gradiner Mawatha

Colombo 00200 - Sri Lanka

#### BID SECURITY

Value of the Bid Security is **Sri Lankan Rupees One hundred thousand (LKR 100,000/=)** per MW of capacity offered. The Bid Security shall be valid for **Sixty (60)** days from the date of the Closing of Bidding.

#### OFFICER - IN - CHARGE OF THE PROCUREMENT UNIT

Additional General Manager (Transmission),

Ceylon Electricity Board

4th Floor, P.O. Box 540,

Sir Chittampalam A Gardiner Mawatha,

Colombo 00200 – Sri Lanka.

#### APPLICABLE PROCUREMENT COMMITTEE

**Board Procurement Committee** 

#### PLACE/S OF DELIVERY OF GOODS

N/A

#### DELIVERY SCHEDULE FOR IMPORTED GOODS

As set out in the Request for Proposal

#### OVERALL DELIVERY SCHEDULE FOR TOTAL GOODS & ASSOCIATED SERVICES

N/A

#### TIME & DATE OF SUBMISSION OF SAMPLES

N/A

#### VAT REGISTRATION NUMBER OF THE CEYLON ELECTRICITY BOARD

409000010-7000

# GOVERNMENT OF SRI LANKA MINISTRY OF POWER CEYLON ELECTRICITY BOARD

### REQUEST FOR PROPOSALS FOR SUPPLY OF ELECTRICAL POWER FROM PUBLIC AND PRIVATE SECTORS DURING PEAK HOURS (FROM 6:00 P.M. TO 10:00 P.M.)

Tender No. TR/EP/NCB/2022/001

Volume I • Instructions to Proposers

February 2022

Ceylon Electricity Board No. 50, Sir Chittampalam A. Gardiner Mawatha Colombo 00200 SRI LANKA



#### **Abbreviations**

CEB - Ceylon Electricity Board ITP - Instructions to Proposers

CPC - Ceylon Petroleum Corporation

GOSL - Government of Sri Lanka

LOI - Letter of Intent MP - Ministry of Power

TEC - Technical Evaluation Committee

RFP - Request for Proposal

PPA - Power Purchase Agreement
BPC - Board Procurement Committee

#### **CONTENTS •INSTRUCTIONS TO PROPOSERS**

1	INF	ORMATION TO PROPOSERS	3
	1.1	INTRODUCTION TO CEYLON ELECTRICITY BOARD	3
	1.2	SCOPE OF THE WORK	
	1.3	LOCATION	
	1.4	METERING	
	1.5	POWER SUPPLY	
	1.6	FUEL SUPPLY (IF APPLICABLE)	
	1.7	DISCLAIMER	
2		TRUCTIONS TO PROPOSERS	
	2.1	REQUESTS FOR CLARIFICATIONS	
	2.2	PREPARATION OF THE PROPOSAL	
	2.3	TECHNICAL AND COMMERCIAL DATA	
	2.3.1		, <u>/</u>
	2.3.2		
	2.4	TARIFF STRUCTURE	
	2.5	PAYMENTS	
	2.6	TERM OF THE POWER PURCHASE AGREEMENTS	
	2.7	FORMAT, SEALING, MARKING AND SUBMISSION OF PROPOSALS	
	2.8	VALIDITY OF THE PROPOSAL	
	2.9	CLOSING DATE AND LATE PROPOSALS	
	2.10	PROPOSAL OPENING	
	2.11	CONFIDENTIALITY	
	2.12	CORRECTION OF ERRORS	
	2.13	COST OF PREPARING THE PROPOSAL	
	2.14	SECURITY REQUIREMENTS	. 11
	2.14		. 11
	2.14		
	2.15	PROPOSER'S RESPONSIBILITIES	. 12
3	PRO	DJECT DESCRIPTION AND PERFORMANCE SPECIFICATIONS	.13
,	3.1	TECHNICAL INFORMATION	13
	3.2	POWER TRANSMISSION (IF NECESSARY)	
4		VIRONMENTAL CONSIDERATIONS	
4	4.1	ENVIRONMENTAL REQUIREMENTS (IF NECESSARY)	. 14
4	4.2	DISPOSAL OF SOLID AND LIQUID EFFLUENTS (IF NECESSARY)	. 14
4	4.3	CONTROL OF EMISSIONS (IF NECESSARY)	. 14
	4.4	ARCHAEOLOGICAL REQUIREMENTS (IF NECESSARY)	. 14
5	EXP	PERIENCE OF THE PROPOSER	.15
	5.1	QUALIFICATIONS OF THE PROPOSER	15
		•	
6	EV A	ALUATION AND AWARD	
(	6.1	OUTLINE OF EVALUATION PROCEDURE	. 16
(	6.2	RIGHT TO REJECT PROPOSALS	. 16
(	6.3	EVALUATION: RESPONSIVENESS	. 16
(	6.4	LETTER OF INTENT (LOI)	. 17
Αľ	NNEX	-A1: FORM OF PROPOSAL SECURITY	. 18
Αľ	NNEX	-A2: LETTER OF INTENT	.19
Αľ	NNEX	A3: FORM OF PERFORMANCE SECURITY	. 21

#### 1 INFORMATION TO PROPOSERS

#### 1.1 Introduction to Ceylon Electricity Board

Ceylon Electricity Board (CEB) is a body corporate established by the Act No.17 of 1969, having its head office at No. 50, Sir Chittampalam A. Gardiner Mawatha, Colombo 2, Sri Lanka.

CEB was established by GOSL for development and coordination of generation, transmission, distribution and sale of electricity in the country. The Ministry of Power is the government entity overseeing activities of CEB.

#### 1.2 Scope of the Work

CEB invites proposals (hereinafter referred to as "the Proposal") in the prescribed format for Supply electrical power (energy only) from Public and private sectors who are capable to supply electricity to national grid at least cost in compatible to electrical transmission/distribution network and can provide quick service of supply electricity using renewable and/or thermal electrical generating sources (However, the existing power plants which are already connected to the national grid and are operated under a power purchase agreement (PPA) with CEB, are not eligible under this scheme ) with their own fuel supply basis during the peak hours (from 06:00 p.m. to 10:00 p.m.) when there is a shortage of energy / generation capacity in the national grid for a duration of 50 days.

The main objective of this process is to enable the electrical generating sources in the country to meet the night peak when there is a shortage of energy / generating capacity in the system. In addition, those proposers who can supply renewable energy as firm power are also a target group. These power plants will be operated on dispatchable basis and payments will be made for the actual energy dispatched on the instructions of System Control Centre of CEB.

The source of energy shall be either thermal or renewable (firm) which can be dispatched to the national grid whenever requested by the CEB daily from 6:00 p.m. to 10:00 p.m. The technology employed shall be feasible, reliable and proven for generating electrical power. The proposed energy source can be an existing power plant or a new proposal.

The proposers in public sector or private sector who are registered organization/companies in Sri Lanka are allowed to submit the proposals. One proposer can submit only one proposal for a tender document purchase from CEB.

The basic technical specifications of the power plant such as capacity, technology and interconnection point with synchronizing facility etc. shall be specified in the prescribed format given under the Volume II of this document. All connections will be at the 415V AC, 11kV AC or 33kV AC voltage in compliance with Grid Code which specified the protection schemes proposed for the busbars, transformers, switchgears etc. including fire protection

shall be complied with applicable Grid Codes. Generating facility shall be provided with protection against internal faults as specified in the Grid Code.

Electrical protection of the Facility shall be coordinated to ensure that the generating facility will withstand and not trip for at least one second in the event of an external fault in the CEB system. If the external fault is not cleared by the CEB system within one second, the plant shall then isolate from the CEB system, and remain at "No Load" and thereafter be available for immediate reconnection and loading upon clearing the fault. Installation of earthing as per relevant standards shall be the responsibility of the proposer.

Supply, delivery, installation, testing, commissioning, operation and maintenance of power plants of specified capacities, including all auxiliary equipment and connections at the specified interconnection point, shall be the responsibility of the proposer.

Selection of Proposers will be based on the offered price rate per kWh and date of commercial operation offered.

Successful Proposers are required to enter into a power purchase agreement (hereinafter referred to as "the PPA") with CEB, draft of which is given in Volume III of this RFP. The term of the PPA shall end by after 50 Days from the commercial operation date. Commercial operation should be commenced within 30 days following the signing of the PPA. If Commercial operation has not commended within 30 days the PPA will automatically terminated or it will be decided by CEB.

The proposed generating plant and equipment installed at each premises (hereinafter referred to as "the Facility") shall include and responsible but not limited to, power generating plants; fuel supply, storage and treatment systems, auxiliary, battery system, water supply, liquid and solid waste disposal systems, environmental impact mitigatory measures, step up transformers, switchgear, control and protection systems, connection up to the Interconnection Point, and all other ancillary equipment.

Synchronizing facilities for generating units shall be installed either at the Generating unit circuit breaker or at the generator transformer HV circuit breaker. After receiving CEB dispatch instruction plant shall be synchronized within the duration specified in the Volume II of this document.

The proposer shall obtain and remain in compliance with all governmental and other approvals, licenses, permits, and certificates necessary for the construction and operation of the power plant; specifically, the conducting of Environmental Impact Assessment (EIA) or Initial Environmental Examination (IEE) as applicable in terms of the National Environmental (Amended) Act, No. 47 of 1980 and any amendments thereto, and such other relevant acts and provincial statutes.

Testing, commissioning and operation of the Facility in according to prudent utility practices shall be the responsibility of the proposer.

#### 1.3 Location

Location shall be anywhere within the country. Cost of location / land shall be cost of proposer and by its own arrangements.

The proposer shall find / develop locations by itself for the establishment of the facilities to connected to the network.

#### 1.4 Metering

CEB will supply and install the standard calibrated metering equipment if not available at the facility on Proposer's own cost. In the case of, CEB does not have standard metering equipment, then proposer has to be supplied and install a standard metering equipment with calibration report issued by CEB or any laboratory agreed by both parties.

Metering equipment at the generating facility shall include MW/kW and MWh/kWh meters and recorders. Metering equipment shall have facility to read/download hourly energy amount. The metering equipment are allowed to install only at the generating facility premises or at the respective CEB grid substations.

Cost of maintain/calibration of the metering equipment shall borne by the proposer.

Energy meter at interconnection point shall have the accuracy class of 0.2 and related equipment which capable of recording downloadable hourly data to be used for measurement of electrical energy to determine CEB's payments to the Organization/Company under this Agreement.

Meter equipment shall be calibrated and sealing prior to Commercial Operation Date.

In the case of use existing metering equipment with having specification specified under this Section at interconnecting point, the metering equipment shall have calibration report within one year period to the Commercial Operation Date or if not shall be calibrated by CEB or any laboratory agreed by both parties and sealing prior to the Commercial Operation Date.

To verify the quantity of electrical energy delivered by the Organization/Company to CEB, the CEB and Organization/Company shall record in accordance with Exhibit D, the readings of the meters maintained under this section on a specific time of the day of the week, once in two weeks, or as mutually agreed between the Organization/Company and CEB.

(Please note that these meters/recorders shall meter, record, and transmit the data on the power/energy flow to the CEB system at the Interconnection Point.)

#### 1.5 Power Supply

The Proposer is also responsible for timely settlement of all utility bills, including monthly electricity bills. In the event of non-payment of monthly electricity bills due to the distribution utility, CEB reserves the right to deduct such dues from monthly invoices and remit such sums to the distribution utility. It is the responsibility of the proposer to obtain suitable electricity connection from local distribution utility for new service connection or if there is no connection presently available.

#### 1.6 Fuel Supply (if applicable)

The proposer is responsible for supply, transport, storage, filtering, treatment or conditioning of fuel and lubricating oil required for operation of the facility. The proposer should obtain fuel requirements of the operation of the facility. All payment to the fuel supplier shall be the responsibility of the proposer. CEB does not have any obligation for any shortfalls of fuel supply to the facility.

The proposer shall have its own fuel storage tanks sufficient to store fuel to allow at least 4 days, 4 hours each per days continuous operation of the Facility at full load.

#### 1.7 Disclaimer

- a. This RFP is provided to assist proposers in obtaining a general understanding of this work. Any information, estimates or opinions contained in this RFP are based on prevailing current expectations. While CEB has taken all reasonable care to ensure accuracy of the information provided in this RFP, CEB will assumes no responsibility for any loss or damage that may arise from errors or omissions thereof, and for interpretations or conclusions made by the proposer based on the data furnished by CEB;
- b. Proposers shall not rely on representations or undertakings of any government/CEB official or employees or their agents in relation to this work, other than those expressly provided for in this RFP. No verbal agreement or conversation with any officer, agent or employee of CEB at any time during submission and evaluation of proposals shall lead to any modifications or amendments of terms or obligations contained in the PPA;
- c. Proposers shall have no right to claim costs against a decision arising from the evaluation process;
- d. The Board Procurement Committee (BPC) reserves the right to accept or reject, or not to proceed with any or all of the proposals received. The BPC has the right to terminate this procurement after the receipt of proposals;
- e. No contractual or other obligation between CEB and the proposers shall arise as a result of issuing this RFP;
- f. CEB reserves the right to seek any further information it deems necessary from the proposers;
- g. CEB/BPC will not disclose any details regarding the evaluation process;

#### 2 INSTRUCTIONS TO PROPOSERS

#### 2.1 Requests for Clarifications

Proposers desiring any explanations or clarifications regarding this RFP may submit their written requests by facsimile, e-mail or by registered post to:

Deputy General Manager (Energy Purchases) Ceylon Electricity Board 6<sup>th</sup> Floor, Head Office 50, Sir Chittampalam A. Gardiner Mawatha Colombo 00200 Sri Lanka FAX:+94-11-2344774

E mail: dgmept@ceb.lk

Such requests shall be received no later than seven Days (excluding Saturday, Sunday and Public holidays) before the deadline for submitting proposals. Replies to such clarification requests will be made available by CEB to all proposers through email within four working days.

#### 2.2 Preparation of the Proposal

To prove compliance with all the requirements of RFP, it is mandatory to submit with the proposal duly completed Forms contained in Volume II of the RFP.

#### 2.3 Technical and Commercial Data

The Technical and Commercial data and other details furnished by the Proposer should demonstrate a firm knowledge of project requirements and understanding of the requisite tasks. The proposal should indicate the general approach or methodology planned for carrying out the services including detailed information where deemed relevant. The requested information shall be forwarded in the prescribed format included with this RFP.

The proposer shall forward the background and organisation of its firm and/or of its consortium partners in the prescribed format in Volume II of this RFP.

#### 2.3.1 Plant Capacity

During the term of the PPA, the proposer is expected to maintain the Declared Plant Capacity at the facility specified in the volume II, which shall be made available for the CEB to dispatch during 6:00 P.M. to 10:00 P.M.

#### 2.3.2 Documents required to be submitted

The proposer shall submit the following documents with their proposal. Failure to submit any one of these documents may result in the rejection of the Proposal.

- a. Duly completed Proposal Forms as given in Volume II of this RFP (Forms A-H);
- b. Duly completed form PCA 3 of the Public Contract Act, No 03 of 1987 if necessary;
- c. In case of the proposer's firm being a joint venture, the joint venture agreement and/or license that defines precisely the general conditions under which the joint

venture will function; the sponsoring member authorised to represent the joint venture; the shareholding of each member and the specific obligations of each member under the joint venture agreement, all of whom shall be jointly and severally liable for any or all obligations under the PPA.

- d. Proposal Security of Sri Lanka Rupees one hundred thousand per MW (LKR 100,000.00/ MW) conforming to the clause 2.14.1 "Proposal Security".
- e. The minimum Technical Information specified in Section 3 (This information shall be submitted in the same order along with the offer).
- f. Undertaking by the Proposer that facility is capable of supplying electricity during the term of the agreement.
- g. Undertaking by the proposer that the facility will be commence the Commercial Operation Date within 30 days following the signing of the PPA.
- h. Additional documents, if any, to support the proposal.

#### 2.4 Tariff Structure

The tariff structure will comprise only Energy Charge in rupees (LKR).

The proposer shall submit tariff rate in rupees (LKR) per kWh payable by CEB for the energy produced and supplied by the proposer at the metering point shall be calculated based on the energy delivered for such duration as follows,

Energy Charge in rupees (LKR) =  $E \times tariff rate$  (LKR/kWh) offered by proposer or negotiated tariff rate

Where, E is the energy delivered during particular period, expressed kWh at the Interconnection Point.

	Description		Rate
1.	Energy Charge Rate in LKR/kWh	ECR	
2.	Fuel Charge Rate LKR/kWh if applicable	FCR	
3.	Fuel Price in LKR/Liter considered for above rate if applicable	FPR	

#### Notes if applicable

- a. Calculated Energy Charge Rate for a day considered (ECRi)= (ECR-FCR)+(FCR/FPR)\*FPRi
- b. FPRi is the Fuel Price in LKR/Litter for day considered
- c. Energy Charge for a day considered (ECi) =  $Ei \times ECRi$

#### d. Ei is the Energy delivered for a day considered

Example

Description	Fuel Price in	Calculated	Delivered	Energy
	LKR/Liter for	Energy Charge	Energy (kWh)	Charge
	day considered	Rate in LKR	(Ei)	(LKR)
	(FPRi)	(ECRi)		(ECi)
Day 1				
Day 2				
Day 3				
Day 4				
Total				

#### 2.5 Payments

The payment shall be paid according to terms and conditions of the PPA. Tariff computations shall be made in Sri Lanka Rupees (LKR) only. Taxes and customs/import duties will not be paid by CEB.

#### 2.6 Term of the Power Purchase Agreements

The Term of the Power Purchase Agreement shall be a period of 50 days commencing from the Commercial Operation Date. Term may be extended by CEB if necessary.

#### 2.7 Format, Sealing, Marking and Submission of Proposals

The Proposal containing the Technical, Commercial and Financial Proposal (collectively referred to as "the Proposal") shall be delivered together in a sealed package, which shall contain four envelops marked "Original", "Copy 1", "Copy 2", "Copy3" and separate envelope marked "Proposal Security" as described in this clause shall be submitted in a separate envelope. One proposer can submit only one proposal for a tender document purchase from CEB.

The Proposal package shall indicate Tender No. TR/EP/NCB/2022/001 along with name and business address of the proposer. The name and address of the proposer printed on the package will allow return of the proposal unopened in the event of revision or withdrawal (prior to the closing date) or late delivery.

Proposal shall be signed by a person duly authorized to sign on behalf of the proposer. This authorization shall consist of a written confirmation by the directors of the organization or power of attorney certified by the Notarial Institution.

The Proposal containing all above marked packages ("Original", "Copy 1", "Copy 2", "Copy 3" and "Proposal Security") shall be delivered together in a sealed package to the following address before the closing time specified in clause 2.9.

Deputy General Manager (Energy Purchases)
Energy Purchases Branch, 6thFloor
Ceylon Electricity Board
No. 50, SirChittampalam A. Gardiner Mawatha
Colombo 00200
SRI LANKA

#### 2.8 Validity of the Proposal

Each Proposal shall constitute an offer that shall remain in force and valid for a period of thirty (30) Days following the bid closing date. During this period the proposed price shall remain unchanged. Withdrawal of proposal by the proposer after opening of proposals shall lead to forfeiture of the Proposal Security.

In the event of a Letter of Intent (LOI) not being issued during the validity period of the proposal, CEB may request each proposer by fax/email followed by letter at least 7 days prior to the expiration date an extension of the Proposal validity and the Proposal Security.

Any Proposer choosing not to extend its proposal validity may advise CEB accordingly in writing prior to the expiration of the original period. If this notice of withdrawal is not received by CEB prior to the expiration date of the original validity period following the issuance by CEB of a notice of extension, the proposal shall be considered to have been lapsed and thus withdrawn. In such event, the Proposal Security will be returned.

#### 2.9 Closing Date and Late Proposals

Proposals must be received by CEB at the address given in clause 2.7 before 10.00 a.m. Sri Lanka Standard Time on 28<sup>th</sup> February, 2022. Proposals received after this time shall not be accepted, regardless of the reasons for late submission, including circumstances outside the control of the Proposer.

#### 2.10 Proposal Opening

Envelope marked "Original" containing Technical, Commercial and Financial Proposals and the envelope containing the Proposal Security will be opened immediately following the closing of Proposals. Proposers or their authorised representatives may attend the opening of proposals at the address given in clause 2.7.

Proposer's name, along with the presence or absence of valid Proposal Security, tariff rate as per Form E and such other details CEB may consider appropriate will be announced at the time of opening of the Proposals.

#### 2.11 Confidentiality

CEB reserves the right to release information contained in the Proposals to its agents, consultants and advisers for the purposes of verifying and evaluating the Proposals. CEB or their agents, consultants and advisers will not be liable for any loss resulting from such disclosure before, during or after the Proposal handling process.

#### 2.12 Correction of Errors

To assist in the examination, evaluation and comparison of Proposals, CEB may at any time prior to the issue of the Letter of Intent (LOI) ask any Proposer for clarification of its Proposal, including breakdown of prices and tariff.

Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total cost that is obtained by multiplying the unit price and the quantity, the unit price shall prevail and the total cost will be corrected.

Where a Proposer wishes to correct other errors in relation to clarifications sought by CEB, which do not change price or tariff, CEB may accept such clarifications.

#### 2.13 Cost of preparing the Proposal

The Proposers shall bear all costs associated with preparation and submission of the Proposal, including those of any professional services. CEB will in no way be responsible or liable for such costs, regardless of the conduct or outcome of the selection process. All costs incurred by the Proposer in attending meetings, site visits, etc., should be borne by the Proposer.

#### 2.14 Security Requirements

To guarantee the faithful performance of its obligations under the PPA, the Proposer shall post the following security instruments.

#### 2.14.1 Proposal Security

The Proposers who are submitting proposals in response to this RFP are required to furnish a Proposal Security payable in Sri Lanka in the amount of Sri Lankan Rupees one hundred thousand per MW of capacity offered (LKR 100,000.00 per MW). This Proposal Security shall be in the form of a bank guarantee issued by a bank operating in Sri Lanka registered in Central Bank of Sri Lanka, substantially in the form specified in Annex-A1.

The Proposal Security of proposers whose proposals are not selected will be returned promptly upon issuance of the LOI to the successful Proposer.

The Proposal Security shall be valid for no less than sixty (60) Days from the closing date for submission of Proposals given in clause 2.9. In the event the date for the issuance of the LOI is extended by CEB and the Proposer agrees to such extension, the validity of the Proposal Security shall be extended to cover such additional period.

Proposers may forfeit the Proposal Security:

- a. If a Proposer withdraws its Proposal during the specified validity period after the closing date of the Proposals; or
- b. In the case of a successful Proposer, if it fails
  - i) to sign the acceptance of LOI, or
  - ii) to furnish the Performance Security within the stipulated period.

#### 2.14.2 Performance Security

Performance Security of Sri Lankan Rupees seven hundred thousand per MW of capacity offered (LKR 700,000 per MW) shall be submitted by the successful Proposer within five Days from LOI. This performance security shall be valid from the date of the issue of the LOI up to 30 days after the expiry of PPA. This security shall be in the form of a bank guarantee

substantially in the form specified in Annex-A3 issued by a bank operating in Sri Lanka registered in the Central Bank of Sri Lanka.

The Proposal Security of the successful Proposer will be returned upon its acceptance of the LOI, and on furnishing of the Performance Security,

The Proposer may forfeit the Performance Security:

- a. If it withdraws its Proposal during the validity period of the LOI;
- b. If it fails to comply with the requirements of the LOI; or
- c. Under specific provisions of the PPA.

#### 2.15 Proposer's Responsibilities

It will be construed as acknowledgement that the Proposer, by submitting its Proposal has inquired into and satisfied itself as to the nature and locations of the Facility in general and local conditions, equipment to be supplied or installed, and other matters which may affect the performance of the PPA under the Agreement and has formulated its assessment of facilities available and those it will have to supply.

The Proposer affirms by submitting its Proposal that it has examined carefully and is fully familiar with the work involved and accepts without any reservation the terms and conditions specified in this RFP.

The Proposer also affirms that it has familiarised itself with the laws and regulations of Sri Lanka including Labour/Occupational Safety, Financial, Environmental, and Industrial laws.

The failure or omission of any Proposer to receive or examine any form, document acquaint itself with conditions existing there shall in no way relieve it from any obligations with regard to its Proposal.

#### 3 PROJECT DESCRIPTION AND PERFORMANCE SPECIFICATIONS

#### 3.1 Technical Information

Proposer shall provide general technical information, to enable CEB to understand the operation of the Facilities. The following minimum data shall be provided.

- a. Full Facility generating Capacity (MW)
- b. Declared Plant Capacity at facility at the Interconnection Point;
- c. Make, Type and Model of each major generating unit of the Facility;
- d. Fuel type if applicable
- e. Synchronising devices
- f. Capability of providing islanding operation;
- g. Instrumentation, Control & Protection systems.
- h. Any other detail, the Proposer deems necessary.

#### 3.2 Power Transmission (if necessary)

The proposer shall design, supply, install, test, commission, operate and maintain the power transmission line/s at appropriate voltage level, including all associated equipment up to the Interconnection Point at the identified locations.

Proposer shall supply the following data related to the power transmission up to the Interconnection Point, along with its Proposal.

- a. Single line diagram up to the Interconnection Point showing all Circuit Breakers, Isolators, Current & Potential Transformers for Metering and Protection at the Facility end, Earthing Switches Lightning Arrestors, Transformers and Generators.
- b. Type and ratings of major electrical equipment including AC and DC equipment, MV and LV Switch Gear, Motors, Inverters / Converters, Batteries etc.
- c. Protection scheme proposed to be provided for the transmission line, feeders, bus bars, transformers, generators and other applicable switchgears etc., including fire protection. Protection Schemes may have interfacing with CEB equipment and these Protective schemes are subject to concurrence of CEB.

Any other detail, the Proposer may deem necessary.

#### 4 ENVIRONMENTAL CONSIDERATIONS

#### 4.1 Environmental Requirements (if necessary)

The Company is required to comply with National Environment Act No. 47 of 1980, National Environment (Protection & Quality) Regulations, No 1 of 1990, and to any amendments thereto, and also to any other applicable regulation or law. Within the scope of the PPA, the Proposer is required to assess environmental impacts of the Facility. Depending on the capacity of the proposed plant and its location, the Environmental Impact Assessment (EIA) or Initial Environmental Examination (IEE) shall be done in terms of the National Environmental Act No. 47 of 1980 and any amendments thereto, and such other relevant acts and Provincial Statutes. During the evaluation process, the Proposers whose Proposals are evaluated to be responsive will be required to furnish a duly completed preliminary environmental information questionnaire in respect of the Facility.

However, irrespective of the capacity of the plant, an Environmental Protection Licence shall be secured for the Facility from the Central Environmental Authority of Sri Lanka.

#### 4.2 Disposal of solid and liquid effluents (if necessary)

Proposer shall provide all information related to quantities, types, methods of neutralising of all liquid and solid effluents including sewerage. Method of disposal of all liquid and solid waste from the Facility including any fuel sludge and waste shall be clearly indicated in the Proposal. Any discharges into natural waterways shall conform to the relevant environmental standards.

#### 4.3 Control of Emissions (if necessary)

Quantities and rates of emissions of pollutants, including types of pollutants, methods of pollution control and type of pollution control equipment and other mitigatory measures proposed shall be indicated in the proposal. The guaranteed emission rates should also be indicated.

#### 4.4 Archaeological Requirements (if necessary)

In addition to the above requirements, the successful Proposers are required to comply with the requirements of the Antiquities Ordinance, as amended by Act No. 24, 1998 and regulations thereunder.

#### 5 EXPERIENCE OF THE PROPOSER

#### 5.1 Qualifications of the Proposer

#### 5.1.1 Qualifications of the Proposer

Proposers who wish to submit a Proposal may do either public sector or private sector who are registered organization/companies in Sri Lanka and who are capable to supply electricity (energy only) to national grid at least cost in compatible to electrical transmission/distribution network and can provide quick service of supply electricity using renewable and/or thermal electrical generating sources (However, the existing power plants which are already connected to the national grid and are operated under a power purchase agreement (PPA) with CEB, are not eligible under this scheme ) with their own fuel supply basis during the peak hours (from 06:00 p.m. to 10:00 p.m.) when there is a shortage of energy / generation capacity in the national grid.

#### 6 EVALUATION AND AWARD

#### 6.1 Outline of Evaluation Procedure

The evaluation process will be carried out in several stages: in the first stage, compliance of the Proposal with the procedures laid out in this RFP will be reviewed. The second stage of the evaluation process will examine the technical aspects of the Proposal, to verify whether the Facility proposed is technically capable of delivering the requirements of the PPA. Proposals that are determined to be compliant and capable will go through to the third stage, where the proposed tariff will be the governing criterion.

Selection of successful Proposer will be based on the tariff offered and the time taken for Commercial Operation Date of the Facility.

#### 6.2 Right to Reject Proposals

GOSL/CEB reserves the right to reject any Proposal submitted by a Proposer who has been disqualified based on fraudulent, suppressed or incomplete information.

GOSL/CEB or their representatives shall not be liable in the event of rejection of the proposals by GOSL/CEB, or failure to execute the PPA.

#### 6.3 Evaluation: Responsiveness

At the first stage of evaluation of the Proposals, the Technical Evaluation Committee (TEC) will determine the substantial responsiveness of each proposal to the RFP. TEC will examine the Proposals to determine whether they are complete, whether the required Proposal Security has been furnished, whether the documents have been properly signed, whether all annexes and supporting documents as required in the RFP are furnished and whether the Proposals are generally in order. A Proposal may be disqualified and excluded from further consideration for any valid reason including but not limited to, the reasons listed below:

- a. Failure to submit under the required package or envelope as described in clause 2.7 above.
- b. Receipt by CEB of a Proposal after the Closing Time.
- c. Failure to submit supporting documentation or any other clarification or any documents requested by TEC/BPC within the required time frame.
- d. Failure to provide the Proposal Security.
- e. Failure to complete any of the Proposal Forms.
- f. Willful misrepresentations in the Proposal.
- g. Illegal conduct or attempts to influence the GOSL, BPC, CEB or TEC.
- h. Determination by BPC that the Proposer is likely to be unable to fulfill the terms or conditions of the Proposals.
- i. Failure to submit any item of information required in this RFP.
- j. Failure to submit duly completed PCA 3 form of the Public Contract Act No 3 of 1987 if necessary.
- k. Any other documents requested in this RFP and Forms as given in Volume II.

The second stage evaluation will then be conducted on the basis of satisfactory responses to

the information requirements set out in the RFP and the proposal forms. The evaluation will be based on the technical and other information provided in the Proposal. The Proposals will be judged on the following criteria:

#### 1. Technical Information

Compliance with the Minimum Technical Information as per Clause 3

#### 2. Timely Completion

Undertaking by the Proposer that the Facility will be commence the Commercial Operation Date on or before the 30 dates following the signing of PPA.

Non-compliance with any one of the above criteria may disqualify the Proposer from the next stages of evaluation. All Proposals, which have passed the first two stages of the evaluation process will proceed to the third stage.

The Proposers would thereafter be ranked in the order of the lowest Tariff offered. CEB would then call upon such parties to provide any clarifications that the CEB may deem necessary in respect to their Proposals.

The selected Proposer will be chosen on the basis of the lowest Total Evaluated Cost of Tariff, the ability to commence the Commercial Operation Date on or before the 30 dates following the signing of PPA and location of the facility with the objective of obtaining the optimum economic advantage to CEB.

LOI will be issued to the selected Proposer who will be required to execute the PPA to achieving the milestones set out in the LOI.

Total aggregated capacity to be connected to the national gird from this bid shall be decided by the CEB.

#### 6.4 Letter of Intent (LOI)

The Proposer who is issued with LOI will be required to execute the PPA within the time frame indicated in the LOI. There shall be no negotiations with the Proposer on the PPA after the issue of the LOI. Upon signing of the PPA, Proposal Securities of the unsuccessful Proposers will be returned, and such Proposers will be informed of the identity of the successful Proposer, the Tariff offered by that Proposer and their position in the rank order of Tariff. Should the successful Proposer fail to submit the Performance Security or execute the PPA within the timeframe specified in the LOI, CEB in its absolute discretion may issue the LOI to the next ranked Proposer.

### Annex-A1: Form of Proposal Security

PROPOSAL SECURITI		
power from public and private s	of of Proposer") wishes to submit Prosectors during peak hours (from 6 MW generating facility at	:00 p.m. to 10:00 p.m.) ha <mark>v</mark> ing
and obliged to furnish a Pro-	ne Instructions to Proposers docu posal Security along with its I terms of the Instructions to Prop	Proposal to ensure the due
<u>=</u>	of the Proposer, we gistered office at roposal security.	
	lertake and are bound and obling and without demur any sum of st demand.	
Electricity Board and shall be acfailed and/or neglected to perform Proposers document. For all put	I be in writing and signed by the companied by a statement to the orm its obligations or abide by the urposes connected with and related inclusive proof that the amount seems of the seems	e effect that the Proposer has the terms of the Instructions to ing to this Proposal Security,
All payments hereunder shall b of the Ceylon Electricity Board.	oe made in Sri Lanka by cheque o	r bank draft drawn in favour
to and including the xx <sup>th</sup> xxxx, 2 <i>Proposals</i> ) and thereafter shall b	valid and binding and shall remain 2022 (should be a date, 60 days, from a null and void and of no force of the in respect of any demand made	n the closing date for submitting or effect (whether the original
	posal Security has been signed b	
2022.		
Authorised Signatory	Authorised 9	Signatory
Name: Designation:	Name: Designation	:

#### **Annex-A2: Letter of Intent**

#### LETTER OF INTENT

- This Letter is issued by Ceylon Electricity Board (CEB)
- 2. This letter,
  - 2.1 constitutes a statement of intention only; and
  - does not (nor is it intended to), in any way create any enforceable rights or obligations whatsoever against MOP, CEB or any of its agencies or instrumentalities.

#### 4. Conditions

- 4.1 The organization/company shall furnish within 5 Days of this Letter of Intent a Performance Security to the value of Rs. ..... in the form set out in the this RFP document. The Performance Security shall be valid until 30 days after the expiry date of the Power Purchase Agreement.
- 4.2 The organization shall enter into the Power Purchase Agreement on or before ......2022.
- 4.3 The organization shall comply with the provisions of the Guideline/Instruction to Proposers.
- 5. In the event the Performance Security is not furnished by the organization/company within 5 Days of this Letter of Intent, this letter of intent will automatically lapse, the Proposal Security shall be forfeited and the organization/company shall not have any claims in respect of compensation, damages or any other loss whatsoever against the CEB.
- 6. The Proposal Security shall be released upon the submission of the Performance Security.
- 7. The Proposal Security shall be forfeited in the event of the organization failing to comply with paragraphs 4.2 and 4.3 of this letter.
- CEB shall not incur any liability whatsoever, in fulfilment or non-fulfilment of any one or more of the provisions contained in this letter or in the event of the failure of the work.
- 9. The organization shall not engage in any illegal conduct or other activity which influences or tends to influence MOP, CEB or its other agencies, personnel, or representatives in the finalisation of the Power Purchase Agreement.

10. All notices and other communications required hereunder shall be in writing (and shall be deemed given upon receipt) and sent by registered post mail to the following addresses.

If to CEB

Deputy General Manager (Energy Purchases) Ceylon Electricity Board 6<sup>th</sup> Floor,50, Sir Chittampalam A. Gardiner Mawatha Colombo 00200 SRI LANKA FAX:+94-11-2344774

Name:

Designation:

#### Annex A3: Form of Performance Security PERFORMANCE SECURITY **WHEREAS** of а organization/company incorporated in Sri Lanka (hereinafter called and referred to as the "Organization/Company") has submitted a proposal for supply of electrical power from public and private sectors during peak hours (from 6:00 p.m. to 10:00 p.m.) in ......(address) having Declared Plant Capacity of ......MW AND WHEREAS the proposal submitted by the Organization/Company has been successful. WHEREAS in terms of the Instructions to Proposers document the Organization/Company is bound and obliged to furnish a Performance Security to secure the due performance of the Organization/Company in terms of the document. AND WHEREAS at the request of the Organization/Company, we of registered office commercial bank having its at are agreeable to and desirous of giving such a Performance Security; WE HEREBY irrevocably undertake and are bound and obliged to pay to the Ceylon Electricity Board unconditionally and without demur any sum of money not exceeding a sum of Rs. .....on their first demand. Every demand hereunder shall be in writing and signed by the General Manager, Ceylon Electricity Board and shall be accompanied by a statement to the effect that the Organization/Company has failed and/or neglected to perform its obligations or abide by the terms of the proposal. For all purposes connected with and relating to this Performance Security, every such demand shall be conclusive proof that the amount so demanded is lawfully due under this Performance Security. All payments hereunder shall be made in Sri Lankan Rupees by cheque or bank draft drawn in favour of the Ceylon Electricity Board. This Performance Security shall be valid and binding and shall remain in full force and effect force or effect (whether the original hereof is returned or not) except in respect of any demand made on or before the aforesaid \_ IN WITNESS whereof this Performance Security has been signed by the Authorised Signatories of the aforesaid \_\_\_\_\_\_ on this \_\_\_\_\_ 2022. **Authorised Signatory Authorised Signatory**

Name:

Designation:

## GOVERNMENT OF SRI LANKA MINISTRY OF POWER CEYLON ELECTRICITY BOARD

### REQUEST FOR PROPOSALS FOR SUPPLY OF ELECTRICAL POWER FROM PUBLIC AND PRIVATE SECTORS DURING PEAK HOURS (FROM 6:00 P.M. TO 10:00 P.M.)

Tender No. TR/EP/NCB/2022/001

February 2022

Volume III - Draft Power Purchase Agreement

# POWER PURCHASE AGREEMENT BETWEEN

### **CEYLON ELECTRICITY BOARD**

#### **AND**

### [NAME OF THE ORGANIZATION/COMPANY]

# SUPPLY OF ELECTRICAL POWER FROM PUBLIC AND PRIVATE SECTORS DURING PEAK HOURS (FROM 6:00 P.M. TO 10:00 P.M.)

......Address of the location
......MW

(Date) of ..... 2022

#### POWER PURCHASE AGREEMENT

This AGREEMENT (the "Agreement") is made and entered into at Colombo on the ....... day of the month of ....... two thousand twenty two BY AND BETWEEN

- (1) Ceylon Electricity Board, a body corporate established under the Ceylon Electricity Board Act No. 17 of 1969 (as amended) and having its principal place of business at No. 50, Sir Chittampalam A. Gardiner Mawatha, Colombo 2, Sri Lanka (hereinafter referred to as "CEB", which term or expression as herein used shall, unless repugnant to the context, mean and include the said Ceylon Electricity Board and its successors and permitted assigns) of the ONE PART; and
- (2) [name of organization/company] an organization/company duly incorporated under the laws of Sri Lanka and having its registered office and principal place of business at [official address of organization/Company] (hereinafter referred to as "the Company", which term or expression as herein used shall, unless repugnant to the context, mean and include the said [name of organization/company], its successors and permitted assigns) of the OTHER PART.

#### **WITNESSETH**

WHEREAS, CEB wishes to purchase from the Company electrical energy to supplement its electricity generation capacity;

Supply electrical power (energy only) from public and private sectors who are capable to supply electricity to national grid at least cost in compatible to electrical transmission/distribution network and can provide quick service of supply electricity using thermal and/or renewable electrical generating sources (However, the existing power plants which are already connected to the national grid and are operated under a power purchase agreement (PPA) with CEB, are not eligible under this scheme ) with their own fuel supply basis during the peak hours (from 06:00 p.m. to 10:00 p.m.) when there is a shortage of energy / generation capacity in the national grid.

AND WHEREAS the Company/organization has proposed to provide [capacity] of Declared Plant Capacity at locations and in capacities stated in Section 10 of this Agreement, and from which to generate and supply electrical energy in conformity with Prudent Utility Practices during the period commencing from the Commercial Operation Date for each Facility connected to the respective Interconnecting Point stated in Section 10 of this Agreement ......2022 up to and including the End Date for each such Facility as defined in Section 1 of this Agreement.....2022;

AND WHEREAS CEB has accepted the said proposal with the approval of its Board for the Company/organization to generate and sell and CEB to purchase electrical energy so generated during the said period for each Facility under the terms and conditions stated herein.

NOW THEREFORE the Parties to this Agreement, which includes Schedules 1 to 8 and Exhibits A to C attached hereto, have agreed as follows:

#### 1. Definitions

"Declared Plant Capacity": shall have the meaning as set forth in section 10 of

this Agreement

"Billing Period" means a period of one Month or any period agreed

by both parties.

"Commercial Operation" means the generation of electrical energy by the

Facility on after the Commercial Operation Date.

"Day" means a 24-hour period beginning immediately after and ending at 12.00 midnight Sri Lanka time. "Dispatch" means the right of CEB to issue instructions to the Organization/Company from its System Control Center or regional utility provider to commence, increase, decrease or cease the supply of net electrical output under this Agreement, subject to the obligations of CEB under this Agreement and having regard to the Dispatch Schedule and **Prudent Utility Practices** "Due Date" shall have the meaning as set forth in Section 13.2 of this Agreement. "End Date" means the date occurring at the completion of 50 Days commencing from Commercial Operation Date if not extended. "Engineer." means the independent engineer appointed by the Organization/Company to witness and certify the Commissioning and Testing of the Facility as set forth in Schedule 6 of this Agreement "Facility" means generating facility, equipment installed specified connections at necessary for generation and transmission of electrical energy up to the Interconnection Point at the 400V, 11kV, 33kV isolator as described in the First Schedule "Commercial Operation Date means the day occurring immediately after the day on which the Facility is tested and accepted by the Engineer and certified by the Organization/Company in accordance with section 8 and the Sixth Schedule of this Agreement and shall be the date as set forth in section 10 of this Agreement or date CEB declared as Commercial Operation Date. "Force Majeure" shall have the meaning as set forth in Section 18 of this Agreement "Fuel" means the fuel used for the purpose of generating

electrical energy by the Facility if applicable.

"Interconnection Point"

"Month"

"Prudent Utility Practice"

"Party"

"Parties"

"Performance Security"

"Prime Rate":

means the last 400V, 11kV, 33 kV connection stud/s of the Facility depicted as "T" in Exhibit A for locations listed in Section 10 of this Agreement.

means one calendar month

means accepted international practices, standards and engineering and operational considerations including manufacturer's recommendations generally followed in the operation and maintenance of facilities similar to the Facility shall mean CEB or the Organization/Company shall means CEB and the Organization/Company means the performance security no........ dated [date] issued by [name of bank]

shall have the following meaning

- (a) For amounts denominated in United Stated Dollars, on any Day, the rate per annum which is publicly announced from time to time as its prime rate by Citibank N.A., New York, or any other bank mutually acceptable to the Parties and in force on such date. For the purposes of this Agreement, a change in any such rate shall be effective on or from the date on which it is announced or, if such announcement provides for such change to come into effect on a later date, on and from such later date.
- (b) For amounts denominated in Sri Lanka Rupees, the weighted average Prime Lending Rate as announced from time to time by the Central Bank of Sri Lanka and in force on such date. For the purposes of this Agreement, a change in any such rate shall be effective on and from the date on which it is announced or, if such announcement provides for such change to come into effect on a later date, on and from such later date.

means the period starting from the Commercial Operation Date to the End Date

#### 2. Conditions Precedent

Term"

- 2.1 The respective obligations of each Party under this Agreement shall be subject to the satisfaction or waiver of the following conditions ("Conditions Precedent"):
  - (a) The Organization/Company having been granted the Approvals listed in Exhibit B.

- (b) No statute, rule, regulation, executive order, decree or injunction shall have been enacted, entered, promulgated or enforced by any court, governmental entity or any other party, which prohibits any Party from entering into this Agreement.
- (c) Each Party shall have delivered to the other copies of applicable resolutions adopted by its board of directors or similar governing body authorizing the execution, delivery and performance of this Agreement, certified by the Secretary of the Party.
- (d) Implementation plan of the work shall have been notified to CEB.

#### 2.2 Failure to satisfy the Conditions Precedent

The failure of either Party to fulfil any of the Conditions Precedent above by the commence of the commercial operation date as defined in this document, automatic Termination of this Agreement without any liability whatsoever to either Party, or it will be decided by CEB, provided however that the Parties may agree to an extension of this Agreement for an additional period of 15 Days from such date, and provided further that in either case this Agreement may be extended for an additional period not exceeding one Month due to Force Majeure. If any Condition Precedent herein is not fulfilled or waived at the end of such extended period, this Agreement shall Terminate automatically without any liability whatsoever to either Party.

#### 2.3 Delivery of Certificates

Upon the satisfaction and waiver of any of the Conditions Precedent described in section 2.1, the Parties shall jointly certify that the Conditions Precedent have been fulfilled or waived to their satisfaction.

#### 3. Period of Supply / Term

- 3.1 50 Days from the commence of Commercial Operation Date of the Facility as shown in Section 10 of this Agreement.
- 3.2 The period of supply of electrical energy by the Organization/Company and the purchase of electrical energy by CEB under this Agreement shall be until the End Date from the Commercial Operation Date.
- 3.3 Extending the End Date shall be at the discretion of CEB and be mutually agreed to by both Parties. In the event of CEB desiring to extend the End Date, CEB shall inform the Organization/Company 15 Days prior to the End Date of its intention to do so. The Organization/Company may agree to comply or disagree without obligation.

#### 4. Duties, Taxes, and Permissions.

Duties and Taxes and customs/import duties will not be paid by CEB.

5.	Location	and the	Interconnection	Voltage

5.1	Address of the Location of the Generating Facility as follows;			
5.2	Cost of location / land shall be cost of proposer and by its own arrangements.			
5.3	Interconnection Voltage is(V)			

- 5.4 The Organization/Company will install its facility and associated equipment including synchronize equipment at location specified in Section 5 of this Agreement, including connection at the facilities at voltage specified in Section 5 at the interconnection point. The distribution/transmission specifications at the Interconnection Points shall be according to the Second Schedule of this Agreement.
- 5.5 Land development and site preparation including access roads and installation of earthing as per relevant standards shall be the responsibility of the Organization/Company.
- 5.6 It is the responsibility of the Organization/Company to obtain suitable electricity connection from the local distribution utility at the site for construction, testing, commissioning and operation of the Facility if applicable. The Organization/Company is responsible for timely settlement of all utility bills, including monthly electricity bills. In the event of non-payment of monthly electricity bills due to the distribution utility by the Organization/Company, CEB reserves the right to deduct such dues from monthly invoices and remit such sums to the distribution utility.

#### 6. Supply of Fuel, Lubricating Oil and Water (if applicable)

- 6.1 The proposer is responsible for supply, transport, storage, filtering, treatment or conditioning of fuel and lubricating oil required for operation of the facility. The proposer should obtain and maintain adequate fuel requirements of the operation of the facility. All payment to the fuel supplier shall be the responsibility of the proposer. CEB does not have any obligation for any shortfalls of fuel supply to the facility.
  - The proposer shall have its own fuel storage tanks sufficient to store fuel to allow at least 4 days, 4 hours each per days continuous operation of the Facility at full load.
- 6.2 The Company shall arrange the fuel supply through a reputed wholesale suppliers to deliver Fuel to the Facility in time.
- 6.3 The Company shall procure its lubricating oil requirements.
- 6.5 The Company shall obtain its water requirements.

#### 7. Metering and Measurement

- 7.1 CEB will supply and install the standard calibrated metering equipment if not available at the facility on Proposer's own cost. In the case of, CEB does not have standard metering equipment, then proposer has to be supplied and install a standard metering equipment with calibration report issued by CEB or any laboratory agreed by both parties.
- 7.2 Metering equipment at the generating facility shall include MW/kW and MWh/kWh meters and—recorders. Metering equipment shall have facility to read/download hourly energy amount. The metering equipment are allowed to install only at the generating facility premises or at the respective CEB grid substations.
- 7.3 Cost of maintain/calibration of the metering equipment shall borne by the proposer.
- 7.4 Energy meter at interconnection point shall have the accuracy class of 0.2 and related equipment which capable of recording downloadable hourly data to be used for measurement of electrical energy to determine CEB's payments to the Organization/Company under this Agreement.

- 7.5 Meter equipment shall be calibrated and sealing prior to Commercial Operation Date.
- 7.6 In the case of use existing metering equipment with having specification specified under Section 7 at interconnecting point, the metering equipment shall have calibration report within one year period to the Commercial Operation Date or if not shall be calibrated by CEB or any laboratory agreed by both parties and sealing prior to the Commercial Operation Date.
- 7.7 To verify the quantity of electrical energy delivered by the Organization/Company to CEB, the CEB and Organization/Company shall record in accordance with Exhibit C, the readings of the meters maintained under section 7 on a specific time of the day of the week, once in two weeks, or as mutually agreed between the Organization/Company and CEB.

(Please note that these meters/recorders shall meter, record, and transmit the data on the power/energy flow to the CEB system at the Interconnection Point.)

#### 8. Testing and Commissioning

- 8.1 Organization/Company shall commission the Facility in the presence of the Engineer and CEB carry out tests in accordance with the 6<sup>th</sup> Schedule of this Agreement if necessary.
- 8.2 After testing the Facility as applicable, the Engineer shall certify that the Facility is capable of operation and synchronize to the National Grid.
- 8.3 The procedures and the program for testing of the Facility is set forth in the 6th Schedule of this Agreement. The Organization/Company shall provide CEB with the results of relevant certifications carried out by the Organization/Company and certified by the Engineer under this Agreement if necessary.

#### 9. Validity of the Performance Security

9.1 The Company shall ensure that the Performance Security shall remain valid until 30 days after End Date.

#### 10. Declared Plant Capacity, and Commercial Operation Date

10.1 Organization/Company shall made available Declared Plant Capacity as specified in the Volume II for CEB to dispatch. The Facility shall commence the Commercial Operation Date within 30 days following the signing of the PPA.

	Location	of	the	Declared Plant	Commercial	Existing
	Facility (A	ddre	ess)	Capacity (MW)	Operation Date	Electricity
						Connection
						Account No
						(If applicable)

		, 2022	
1			
			•

#### 11. Tariff

The tariff structure will comprise only Energy Charge in rupees (LKR).

The proposer shall submit tariff rate in rupees (LKR) per kWh payable by CEB for the energy produced and supplied by the proposer at the metering point shall be calculated based on the energy delivered for such duration as follows,

Energy Charge in rupees (LKR) =  $E \times tariff \text{ rate } (LKR/kWh) \text{ offered by proposer or negotiated tariff rate}$ 

Where, E is the energy delivered during particular period, expressed kWh at the Interconnection Point.

The Company shall submit a list of fuel deliveries to Facility certified by the fuel supplier including prices of all fuel supply during the Billing Period if applicable.

#### 12. Billing Calculation

The Company/organization shall submit invoices to CEB in the format as set out in the 4th Schedule of this document for the amount of energy delivered, metered and accepted by the CEB for the Billing Period at the end of such period for settlement. The amounts payable shall be determined as follows,

	Description		Rate
1.	Energy Charge Rate in LKR/kWh	ECR	
2.	Fuel Charge Rate LKR/kWh if applicable	FCR	
3.	Fuel Price in LKR/Liter considered for above rate if applicable	FPR	

#### Notes if applicable

- a. Calculated Energy Charge Rate for a day considered (ECRi)= (ECR-FCR)+(FCR/FPR)\*FPRi
- b. FPRi is the Fuel Price in LKR/Liter for day considered
- c. Energy Charge for a day considered (ECi) = Ei x ECRi
- d. Ei is the Energy delivered for a day considered

#### Example

Description	Fuel Price in	Calculated	Delivered	Energy
	LKR/Liter for	Energy Charge	Energy (kWh)	Charge (LKR)
	day considered	Rate in LKR	(Ei)	(ECi)
	(FPRi)	(ECRi)		
Day 1				
Day 2				
Day 3				
Day 4				
Total				

#### 13. Payment

- 13.1 Payment of invoices shall commence from the commencing Commercial Operation Date.
- 13.2 Invoices shall be paid by CEB within 45 Days from the date of receipt of invoice ("Due Date") by CEB. All sums payable by CEB to the Organization/Company in Sri Lanka Rupee under this Agreement will be paid to the Organization's/Company's nominated Bank Account as set out in the Eighth Schedule of this Agreement.
- 13.3 If CEB disputes whole of part of the amount specified in any invoice, it shall inform the Organization/Company in writing within seven days of the receipt of such invoice, and shall pay any undisputed amount on or before the Due Date. If the dispute is not resolved by the Due Date, the dispute should be resolved within 14 days of the Due Date, or such dispute should be submitted for resolution under Section 15 hereunder. Any sum owing to either CEB or the Organization/Company as the case may be, shall be paid accordingly.

#### 14. Conciliation; Expert Resolution

- 14..1 Parties agree that in the event of any dispute or difference between them arising out of or in connection with this Agreement (or any Schedule or Exhibit hereto), including breach, validity or interpretation of any of the provisions herein, duly authorized representatives of the Parties shall meet in an effort to resolve such dispute by discussion between them during a 15-Day period (the "Conciliation Period") commencing on the date of one Party's written notice to the other Party of such dispute arising.
- 14.2 If agreement cannot be reached during the Conciliation Period, and the Parties do not agree to proceed immediately under Section 15, then the Parties shall refer the Dispute to a mutually agreeable Expert with experience in similar undertakings involving utilities, power generation or related fields (the "Expert"). If the Parties have not mutually agreed upon an Expert within 10 Days after expiry of the Conciliation Period, then either Party may request that the Ceylon Chamber of Commerce to appoint such Expert within 7 Days of such request.
- 14.3 During a 30 Day period commencing after the later of the expiration of the Conciliation Period or the appointment of the Expert, as the case may be, two (02) persons from each Party who

are knowledgeable about the dispute shall meet with the Expert to answer questions and provide any information requested by the Expert for purposes of resolving the Dispute. Within 45 Days after the later of the expiration of the Conciliation Period or the appointment of Expert, as the case may be, the Expert shall issue a decision which shall be binding on the Parties hereto, except where either Party rejects such decision within seven (07) Days of the communication thereof. Where such decision is rejected as aforesaid or where any Dispute is not settled or resolved at the end of such 45 Day period under this section 14, then the Dispute shall be exclusively settled under the provisions of section15. Provided however, the above shall not be construed to preclude in any manner whatsoever the right of either Party to obtain from a Court of competent jurisdiction such interim relief as is appropriate in the circumstances.

14.4 Each Party shall share equally the costs of the Expert.

#### 15. Arbitration

If during the continuance of this Agreement or at any time within one year from the termination of this Agreement, any dispute, difference or question which may arise between the Organization/Company and CEB in regard to this Agreement shall be resolved in accordance with the provisions of the Sri Lanka Arbitration Act No. 11 of 1995, as amended from time to time. The rules of arbitration shall be those of the United Nations Commission on International Trade Law (UNITRAL) and the language of arbitration shall be English. The Arbitration shall be held in Colombo, Sri Lanka, unless any other location is agreed mutually by the Parties.

#### 16. Late Payments

If any amount payable by CEB or the Company under this Agreement is not paid on or before the Due Date, by CEB or the Company, as the case may be, the Party delaying the payment shall pay the other Party interest thereon for any payment due at the prime rate, prevailing on the Due Date plus two per cent from the Due Date until the date of actual payment.

#### 17. Implementation, operation Expenses and Insurance

The Organization/Company shall ensure that Implementation, operation expenses/insurance are as described in the 5<sup>th</sup> Schedule of this Agreement shall be borne by Organization/Company.

#### 18. Force Majeure

- 18.1 Neither party to this Agreement shall be liable to the other Party for breach of contract due to any failure to fulfil any obligation set out in this contract in so far as the failure to fulfil such obligation, in whole or in part, is due to events or circumstances beyond such parties reasonable control and which the party affected could not have prevented or overcome with reasonable diligence and foresight and Prudent Utility Practice. Subject to the foregoing force majeure shall include but not limited to strike, lockout, riot, civil commotion, insurrections, act of war (whether local or national), natural calamity, fire, flood, storm, tempest, earth quake, volcanic eruption of or by reason of compliance with any order or request of any national airport or port, transportation, local or other authority.
- 18.2 Force Majeure shall not include a lack of funds/fuel or any failure to pay any amounts or charges due and payable under this Agreement.

- 18.3 The Party invoking Force Majeure shall:
  - (i) notify the other Party within three days in writing, by fax, or Email of the nature of the Force Majeure and the extent to which the Force Majeure suspends the affected Party's obligations under this Agreement, and
  - (ii) resume performance of its obligations as soon as possible once the Force Majeure conditions no longer exist.

#### 19. Termination

- 19.1 In the event of the Organization/Company failing to comply with section 2.1 of this Agreement within 14 days from the Commercial Operation Date subject to section 2.2, it shall terminate forthwith.
- 19.2 In the event of either party failing to comply with any of its obligations under this Agreement and if such failure is not remedied within 14 days of the receipt by the defaulting party of written notice from the other party to remedy the breach then this agreement shall immediately terminate.
- 19. 3 This Agreement shall terminate on the End Date unless extended in terms of section 3.3.
- Any termination of this Agreement pursuant to this section shall be without prejudice to any other rights or remedies either party may be entitled to hereunder or at law and shall not affect any accrued rights or liabilities of either party nor the coming into or continuance in force of any provision hereof which is expressly or by implication intended to come into or continue in force on or after such termination.
- 19.5 This Agreement shall terminate if an event of Force Majeure as described under section 18 occurs for an uninterrupted period of 30 days.
- 19.6 In the event of any termination of this Agreement by either party the Organization/Company shall be entitled to dismantle and expatriate the Facility.

#### 20. Governing Law; Language

- 20.1 This Agreement and all rights under this Agreement and the annexes hereto shall be governed by, construed and enforced in accordance with the laws of Sri Lanka.
- 20.2 This Agreement has been executed by the Parties in English, which shall be the operative language of this Agreement.

#### 21. Miscellaneous

21.1 Representations and Warranties

Each Party represents and warrants to the other that:

- (a) It is duly incorporated and organized under the Laws of Sri Lanka and has full power and authority, corporate or otherwise, to enter into and perform its obligations and to conduct its business as presently or as proposed to be conducted.
- (b) Entry into and performance of this Agreement does not violate any provision of any law statute, rule, regulation, judgment, writ, injunction, decree or order applicable to such Party;
- (c) The execution, delivery and performance of this Agreement does not conflict with such Party's memorandum or articles of association or similar organisation documents or conflict or result

- in breach or termination of any provision of, or constitute a breach under, any mortgage, loan, contract or other undertaking binding on such Party;
- (d) No suit, action or arbitration or legal, administrative or other proceeding is pending against such Party that would affect the validity or enforceability of this Agreement or the ability of such Party to fulfil its obligations under this Agreement.
- (e) This Agreement has been duly authorised, executed and delivered by it, and constitutes a legal, valid and binding obligation of such Party, enforceable in accordance with its terms; and
- (f) In carrying out their obligations and duties under this Agreement each Party shall have an implied obligation of good faith.
- 21.2 Assignment and Transfers of Interest
- (a) CEB may not sell, assign or otherwise transfer all or part of its rights, benefits or obligations under this Agreement without the Organization's/Company's prior written consent, such consent not to be unreasonably withheld or delayed, provided that, upon thirty Days' prior notice from CEB to the Organization/Company, CEB may assign or transfer all or part of its rights, benefits or obligations under this Agreement without the Organization's/Company's prior consent in the event of:
  - (i) the restructuring of CEB's assets; or
  - (ii) the changing of CEB's ownership; or
  - (iii) the merger or consolidation of CEB with any other entity; or
  - (iv) CEB's conversion into a company organised and incorporated under the Companies Act pursuant to any privatisation, restructuring or similar process implemented pursuant to the Laws of Sri Lanka,

Provided that the surviving entity to which the assignment or transfer is made assumes and becomes fully liable to perform CEB's obligations under this Agreement.

- (b) The Organization/Company may not sell, assign or otherwise transfer all or any of its rights, benefits or obligations hereunder without CEB's prior written consent.
- (c) The Organization/Company shall give CEB 30 Days' notice in writing of any pending change of control or management of the Organization/Company, or where 25% or more of the outstanding and issued share capital of the Company is acquired by any single third party after the date hereof (by a single transaction or a series of related transactions); provided however, where CEB objects to such transfer of shares or any change of control or management of the Organization/Company on reasonable grounds such transfer of shares or change of control or management of the Organization/Company shall not be permitted by the Organization/Company.

#### 21.3 Entire Agreement

This Agreement and the Schedules and Exhibits attached hereto, constitute the entire agreement and supersede all prior agreements and understandings, both written and oral, between the Parties with respect to the subject matter hereof.

#### 21.4 Notices and Other Documentation

All notices, invoices and other communications or documentation hereunder shall be in writing (and shall be deemed given upon receipt) if delivered personally by courier (which is confirmed) or mailed by registered mail to the Parties at the following addresses (or at such other address for a Party as shall be specified by like notice):

(a) If to CEB:

General Manager Ceylon Electricity Board 50 Sir Chittampalam A Gardiner Mawatha Colombo 02 Sri Lanka.

Fax: 94 11 232 3935 e-mail: gm@ceb.lk

(c) If to the Organization/Company, to: [name and address of the Organization/Company]

With copy to:

[Name and address of of Director/Authorized Person]

#### 21.5 Severability

If any clause, provision or section of this Agreement is rendered invalid by any court of competent jurisdiction, the invalidity of such article, provision or section shall not affect any of the remaining provisions of this Agreement; provided only where such remaining clause, provision or section is entirely independent of the clause, provision or section that is rendered invalid.

#### 21.6 Amendment and Waiver

This Agreement may be amended, modified or superseded and any of the terms hereof may be waived, only by a written instrument executed by both Parties or, in the case of waiver, by the Party waiving compliance. The failure of either Party to require performances of any provision of this Agreement shall not affect the right at a later time to enforce such provision. No waiver by either Party of any condition or of any breach of any term of this Agreement shall be construed as a further or continuing waiver of any such condition or breach or as waiver of any other condition or of any breach of any other term.

#### 21.7 Counterparts

This Agreement is executed in two or more counterparts, each of which shall be considered one and the same agreement.

#### 21.8 Publicity

The following provisions shall apply to confidentiality and publicity:

- (a) each Party shall keep confidential and shall not disclose to any third Party any information provided by the other Party in connection with the negotiation or performance of this Agreement without the prior consent of the other Party which may not be unreasonably withheld or delayed, provided that this restriction shall not apply:
  - (i) to any information which at the time of disclosure is in the public domain or thereafter become part of the public domain other than as a consequence of a breach by either Party of its obligations under this section 21.8; or
  - (ii) to disclosure of information as required by law or to any government department or any governmental or regulatory agency having jurisdiction or by lawful subpoena or other process or to the extent required by the applicable rules or regulations of any recognised stock exchange or securities regulatory body;

(b) neither Party shall issue or cause the publication of any press release or other public announcement in relation to the Facility or this Agreement without the consent of the other Party, and such consent shall not to be unreasonably withheld.

# 21.9 Several Obligations

Except as otherwise set forth herein, the duties, obligations and liabilities of the Parties hereto are intended to be several and not joint or collective and nothing contained in this Agreement shall be construed to create an association, trust, partnership or joint venture amongst the Parties hereto and each Party shall be liable individually and severally for its own obligations under this Agreement.

IN WITNESS WHEREOF, the said parties hereto have set their respective hands hereunto and to two other of the same tenor and date as these presents at Colombo, Sri Lanka on the date at the beginning hereof mentioned.

For and on behalf of

#### CEYLON ELECTRICITY BOARD

Ву	Ву
Name:	Name:
Title: Member	Title: Member
For and on behalf of [Organization/Company]	
By:	By
Name:	Name:
Title:	Title:
WITNESSES	
Ву	By
Name:	Name:
Title:	Title :

# FIRST SCHEDULE

# **DESCRIPTION OF THE FACILITY**

Part A	<ul> <li>Plant Characteristics</li> </ul>		
1	Functional specifications of the plant		
	Power Factor Site ambient temperature of Site atmospheric pressure Relative Humidity	- - -	0.80 lagging 30°C 1.008 bar 90%
Numb	er of Generator units in the Facility:[Pl $\epsilon$	ease spe	ecify including capacities of each unit]
2	Basic design data of the Facility (fill only a	pplical	ole data)
A. 1. 2. 3. 4.	Technology Technology (Thermal/type of Renewable/E Battery Capacity (if applicable) Fuel Type (if applicable) Capacity of each unit at ambient conditions	Battery)	kWm
5.	Speed of the prime mover		rpm
6.	No. of cylinders and strokes	1	cylinders/ stroke
В.	Generator		
		•	
1	MVA capacity		MVA
2	Rated voltage		kV (rms) 50 Hz
3 4	Rated frequency Power Factor	0.8	3011Z
5	Operating voltage	0.0	kV
6	Stator winding connection	Star	
7	Efficiency at rated capacity, voltage and p.f		%
8	Short circuit current		X I <sub>n</sub> for 10 seconds
9	Insulation class/Temperature rise		[please specify]
10			[Please Specify]
11	Standard	IEC 34	
PQ dia of ope Second Interco	ternator voltage and frequency variation during am is depicted in Annex A to this First Schrating within the normal operating limits and Schedule. The Facility shall also be capable onnection Point.  Generator Switchgear (fill only applicable)	nedule and the of tole	(if applicable). The Facility shall be capable short-term tolerance limits set out in the rating CEB power system fault levels at the
1	Rated voltage	,	kV rms
2	Symmetrical interrupting capacity at rated		
3			
4	One second short circuit current withstand	ing cap	acitykA
5	Three second symmetrical breaking curren	-	
6	Basic insulation level (BIL)		kV
7	Control voltage		VDC

#### D. Protection Schemes (if applicable)

Earth fault protection

Differential protection

Over Voltage Protection

Reverse Power Protection

Over current and short circuit protection

Loss of excitation protection

#### E. Step-up Transformer (fill only applicable data)

- 1 Rated Capacity ONAF/ONAN .....MVA/.....MVA
- 2 Rated voltage ...../.....± .....%V
- 3 Tap changer ......on 33 kV side
- 4 Operating voltage kV(rms) at 50 Hz frequency .....%
- 5 Frequency 50Hz
- 6 Impedance voltage .....%
- 7 Connection .......
- 8 Standard IEC 60076

#### F. Meters

- 1 Type Precision Accuracy Type Poly-phase Energy Meters
- 2 Standard IEC 60687
- 3 Current rating 1 A
- 4 Accuracy class 0.2/0.5
- 5 Measurement range 20 100% of rated current
- 6 Burden 3.2 VA
- 7 Rated voltage .........../ $\sqrt{3}$  V
- 8 Measure range 90 to 110 % of the rated voltage

The Meters shall be capable of constantly recording and storing remotely downloadable data of the power delivered by the Facility over any period of time in kW.

#### Part B • Interconnection Point

[Please specify the proposed interconnection between the transformer (if applicable) at the Facility and the Interconnection Point]

#### **SECOND SCHEDULE**

#### **NETWORK SPECIFICATION**

# 1. Voltage and Frequency Limitations.

# Normal operation limits

#### Voltage

Nominal 400V, 11kV, 33 kV

Variation ±6%

#### Frequency

Variation

Nominal 50 Hz

#### **Short-term variations**

Voltage +6% (-10% up to 5 sec.)

Machine characteristics to IEC 34-1

# **Under-frequency operation**

+1%

Under-frequency feeder relay setting will be set by CEB at 47.5 Hz for instantaneous operation.

Machine under-frequency shall be set by the Company at 47 Hz delayed in excess of 3 sec to trip.

#### 3. Current Transformers

Standard

IEC 61869

Transformer cores

- (i) Class 5P20, Ratio: 80 / 1A for over current and earth fault protection.
- (ii) Class 0.2P20, Ratio: 80 / 1A for metering

# 4. Voltage Transformers

1 Standard IEC 61869

2 Maximum Ratio error ± 1 % (as per IEC 61869)

Maximum phase angle error 40 Min/1.2 Centi radians (as per IEC 61869)

4 Voltage Ratio 400, 11000, 33000  $/\sqrt{3}$ : 110/ $\sqrt{3}$ : 110/ $\sqrt{3}$ : 110/ $\sqrt{3}$  V

5 Accuracy Class 0.2P20

# 5. Circuit Breaker

Type .....

**Electrical Characteristics** 

1	Rated Voltage	kV rms	
2	Symmetrical interrupting capacity at rate	d voltagekA	
3	50 Hz rated continuous current, rms	A	
4	Short time current carrying capability	(25) kA 1 sec	
5	Break time 50 Hz basis	(53) ms	
6	Insulation levels, (BIL)	(170) kV	
7	Control voltage	(110) VDC	

#### THIRD SCHEDULE

#### **DISPATCH PROCEDURES**

#### 1 MEASUREMENT OF ENERGY SUPPLIED

The electrical energy will be measured at the Metering Point, at the Interconnection Point.

#### 2 DISPATCH SCHEDULE

The System Control Centre of the CEB or reginal utility provider shall dispatch plants in each Facility according to the requirements of the CEB system up to Declared Plant Capacity from 6:00 P.M. to 10:00 P.M..

CEB shall not dispatch any Facility in a manner that will cause the Organization/Company to operate the Facility in violation of Prudent Utility Practices. The Organization/Company shall declare available plant capacities of each Facility on daily basis before 12.00 midnight of previous Day and any revisions to such availability declarations shall be promptly notified to CEB.

All verbal instructions will be confirmed in writing.

#### 3 NORMAL OPERATION

The Facility is in normal operation when it is operating within frequency, voltage as set forth in the Second Schedule.

#### **4 COMMUNICATION**

Organization/Company shall be equipped with its own communication facility for communication between the Facility and the System Control Centre, Regional Utility provider.

# FOURTH SCHEDULE SAMPLE INVOICES

[Organization/Company address]

nvoice No :		Date		
	Metered sales kWh		Rate	Amount in Rs
Power Purchase Agreement Dated;at				
Energy Charge		- 0		
Total			5	
Total Due	0,			
Gignature]	*C			
 Name and Address of the Orgo	nization/Company]			[Name]

#### FIFTH SCHEDULE

#### IMPLEMENTATION & OPERATIONAL EXPENSES, INSURANCE & OBLIGATION

1. In accordance with the provisions of the aforesaid RFP the Organization/Company shall arrange, at its own expense for implementation, operation and maintain the facility including transport, any insurance, workmanship, damagers, and operation and maintain (not limited to).

Also following minimum insurance coverage (if necessary).

- (a) Property All Risks insurance against all risks which are normally and can reasonably be insured for damage to the Facility in an amount not less than the full replacement cost of the Facility.
- (b) Third Party Liability insurance to cover legal liability for injury and or death to third party persons or damage to third party property caused by the construction of the Facility.
- (c) Workmen's Compensation and Employers' Liability insurance as required under applicable Laws of Sri Lanka.
- (d) Consequential Loss insurance to provide an indemnity to the Company following indemnifiable loss or damage under the Property All Risks insurance (as described in paragraph 1(b) above) in respect of certain of the Company's costs for a period of at least 6 months.
- (e) Directors' and Officers' Liability insurance to provide cover in respect of personal liability of the Company's directors and officers arising out of the business and operations of the Company to the extent such coverage can normally and reasonably be obtained.
- 2. The Organization/Company shall at its own expense keep the Facility may insured against all risks which are normally and can reasonably be insured including Property All Risks, Machinery Breakdown, Business Interruption, Third Party Liability and Directors' and Officers' Liability. In addition, Workmen's Compensation and Employer Liability insurance as required under applicable Laws of Sri Lanka will be obtained.
- 3. CEB is not responsible to any issues, conflict, damage, loss (not limited to) arising through third parity or due to not insured or related to land, fuel supply, water supply, environmental, personal, approval, workmanship, machinery, breakdown, interruption (not limited to).

#### SIXTH SCHEDULE

#### **COMMISSIONING AND TESTING**

Testing of the Facility shall be carried out if necessary, in accordance with the procedures set forth below. CEB shall have the right to attend and observe those tests identified below which have a potential safety or operational impact on CEB's system, and may participate in performance of these tests.

Power generating facility and their appurtenant equipment shall be tested and commissioned according to manufactures standards and calculated according to the latest edition of applicable IEC, BS and ISO Standards.

#### **Part A:** Commissioning Tests

#### **GENERAL**

Commissioning tests shall be performed during start-up operations to ensure that the generating facility will perform in conformance with the specified requirements set forth below and that all the designated functions of the equipment referenced are proven. Only after successful completion of these tests will the generating facility be considered to be successfully commissioned.

During all Commissioning tests the Organization/Company's start -up and operating personnel shall be present and shall be responsible for the operation of the units.

The Organization/Company shall provide a report to CEB if requested that the Plant Commercial Operations Tests have been successfully completed. The report will include the results of tests conducted to verify:

#### 1. Auxiliaries:

- A. The safe operation of all auxiliaries in accordance with their respective design specifications and manufacturer's recommendations;
- B. That the mechanical and electrical protective devices function properly at their correct settings, that interlocks, pressure relief devices, and over current devices operate properly; and
- C those standby auxiliaries automatically start up on loss of power to running auxiliaries (except separators).

#### 2. Synchronizing Checks

Before synchronizing and running in parallel with the CEB system, the Organization/Company will carry out all tests on controls and safety systems to ensure it is safe to do so and will follow agreed procedures during synchronizing and parallel running.

Tests reasonably required to assure safe synchronization of the generating facility and each generator may be witnessed by CEB who shall be satisfied that all the instruments associated with the synchronizing operation are functioning correctly.

The generating facility will be synchronized with CEB's at ......[400V/11kV/33kV (as applicable)] through the generating facility's 400V/11kV/33kV (as applicable) internal control and switchboard systems.

### 3. Electrical Protective Devices

All electrical protective systems, circuits, devices and instruments shall be tested on Site if necessary to demonstrate settings and proper functioning.

#### 4. Mechanical Protective Devices

Tests on over speed trip and other mechanical protective devices shall be carried out if necessary to prove the effectiveness of their operation.

#### **Part B: Performance Tests**

#### 1. <u>AVR droop</u>

With the generator breaker open, by using increase control the voltage will be raised to + 10% and by using voltage decrease control the voltage will be lowered to - 10% (if applicable).

#### 2. Governor operation

While in kW-control mode operation and the sets running in parallel with the grid, higher kW set point to be set to 100%, and the lower kW set point to be set to 5%, checking of ramp function during load changes (if applicable).

Checking of speed droop operation will be done as follows. Switch from kW-control mode to droop control mode at 90% load. Increase/decrease load to see that system follows, then switch back from droop control to kW control (if applicable).

Load rejection test at generator breaker by opening of the generator breaker at 100% load (if applicable).

#### 3. Reactive capacity - leading / lagging

Active power (P) will be set to 100%. P.f. will be set to 0.8 (lagging) and to 0.95 (leading) (if applicable).

#### 4. Full load generation test

Sets will be run parallel with grid at full load during 1 h (P=100%, Q will be set to a suitable level, dependant of the grid voltage), subject to the available generation capacity (if applicable).

### 5. <u>Loading rates</u>

Loading rate can be checked during governor operation test. Loading rate for the total plant set shall be ........ MW/sec and same for unloading (if applicable).

#### 6. Start-up time

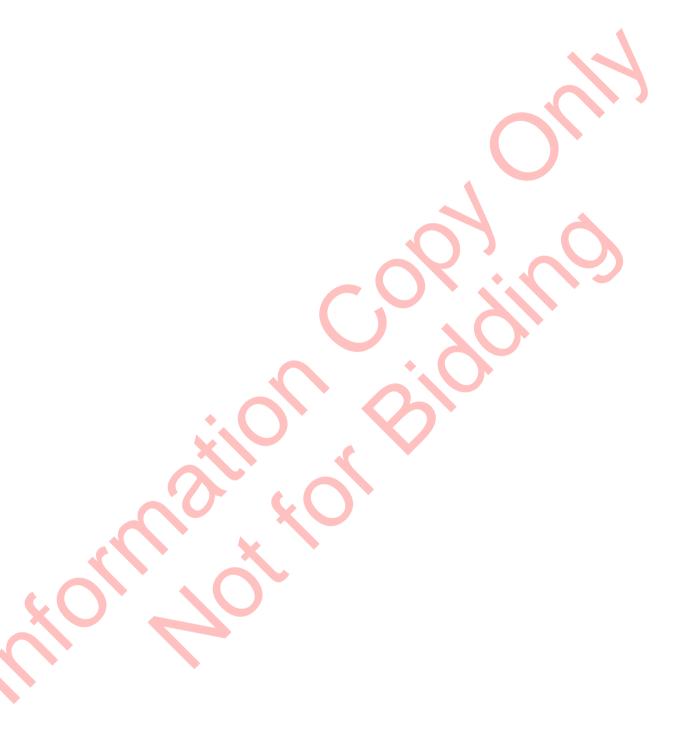
Start-up time test shall be carried out on each preheated generating set. Full speed, to be reached in less than 120 seconds (if applicable).

Full load time test to be carried out on a preheated set. Time from synchronising of the generating set until full load shall be less than 300 seconds (if applicable).

# **SEVENTH SCHEDULE**

# LIQUIDATED DAMAGES PAYABLE BY THE COMPANY

1. Not Applicable



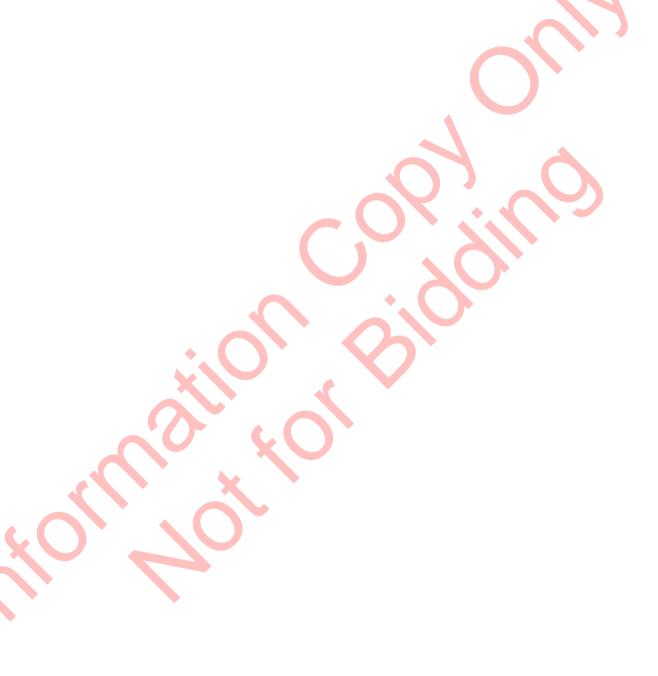
# EIGHTH SCHEDULE DETAILS OF BANK ACCOUNTS OF THE COMPANY

[Organization/Company to provide]

Refer section 13 of this PPA

# EXHIBIT A SINGLE LINE DIAGRAM

[Organization/Company to provide]



#### **EXHIBIT B**

#### APPROVALS TO BE OBTAINED BEFORE THE COMMERCIAL OPERATION

- 1 The Environmental Protection License if necessary.
- 2 Any other Approvals required for the Facility from any authority of necessary.
- 3 Issuance of visas and work permits for foreign personnel properly employed in connection with the work by the Company/organization for the period such personnel are so employed (CEB is not liable for issuing undertaking for any visas and work permits/permits for foreign personnel and properties).

#### **EXHIBIT C**

#### FORM OF WEEKLY REPORT

# A. Facility Name:

#### B. WEEK

From 6:00 P.M. of [date] to 10:00 P.M. of.[date]

# C. DAILY NET ELECTRICAL ENERGY DISPATCHED

**B1** from 6:00 P.M of [*date*] to 10:00 P.M. of [*date*]

Main Meter (Serial #) reading at 6:00 P.M of [current day] : kWh
Main Meter (Serial #) reading at 10:00 P.M. of [current day] : kWh

Total kWh exported (Main Meter)

If Back Up meter available : kWh
Back Up Meter (Serial #) reading at 6:00 P.M of [current day] : kWh
Back Up Meter (Serial #) reading at 10:00 P.M. of [current day] : kWh
Total kWh exported (Back Up Meter) : kWh

#### B2 ~ B7

[Information in B1 above shall repeated for all Days in the weekly period]

# 1) PRODUCTION REPORT

Day	Date Dispatch kWh	Remarks *
1		
2		
3		
4		
5		
6		
7		

# 2) CERTIFICATION

We the undersigned duly authorized representatives of the Organization/Company and CEB jointly and severally certify that the above report and readings / data appear are true, correct and accurate.

Signature Signature

CEB Authorised Representative Organization/Company Authorised

Representative

Name Name Date