

Cochin Port Trust

(A Government of India Enterprise)

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Request for Selection (RfS) Document For

Selection of Solar Power Developers for "Site Survey, Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of 1.5MWp Grid Connected Floating Solar PV Project in the Backwaters near CoPT's walkway avenue between BOT junction and Kannangatt bridge at W/Island, Cochin Port Trust, Kerala including Operation & Maintenance (O & M) of the project for a period of 25 (Twenty Five) Years under RESCO Model (BOOT) after Operational Acceptance" under Competitive Bidding

RfS No. F2/T-8/Floating Solar- 1.5 MwP/2020-M
Dated 20/05/2020

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DISCLAIMER

- 1. Though adequate care has been taken while preparing the RfS document, the bidder(s) shall satisfy themselves that the document is complete in all respect. Intimation regarding any discrepancy shall be given to the office of Employer/ Owner immediately. If no intimation is received from any bidder within 20 (Twenty) days from the date of issuance of RfS documents, it shall be considered that the document is complete in all respect and has been received/ acknowledged by the bidder(s).
- 2. Cochin Port Trust (CoPT) reserves the right to modify, amend or supplement this document.
- 3. While this RfS document has been prepared in good faith, neither Cochin Port Trust nor their employees or advisors make any representation or warranty, express or implied, or accept any responsibility or liability, whatsoever, in respect of any statements or omissions herein, or the accuracy, completeness or reliability of information, and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of this document, even if any loss or damage is caused by any act or omission on their part.

Place: Kochi Date: 20/05/2020

SECTION - I

INVITATION FOR BIDS (IFB)

INVITATION FOR BIDS (IFB) FOR

Selection of solar power developers for "Site Survey, Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of 1.5MWp Grid Connected Floating Solar PV Project in the Backwaters near CoPT's walkway avenue between BOT junction and Kannangatt bridge at W/Island, Cochin Port Trust, Kerala including Operation & Maintenance (O & M) of the project for a period of 25 (Twenty Five) Years under RESCO Model (BOOT) after Operational Acceptance" Under competitive bidding

(SINGLE STAGE TWO ENVELOPE BIDDING) under e-Tendering

- 1.0 Cochin Port Trust, Cochin (hereinafter called "CoPT") is a Government of India Enterprise under the administrative control of the Ministry of Shipping (MoS). Cochin Port Trust propose to assist the Ministry for implementing and facilitating Green Port Initiative for development, and promotion of solar energy technologies in the country.
- As part of the Government of India's targets of achieving a cumulative capacity of 100 GW Solar PV installation by the year 2022, Cochin Port Trust (CoPT) wishes to invite proposals for setting up of grid connected Floating Solar Power Projects to be installed at in the Backwaters near CoPT's walkway avenue between BOT junction and Kannangatt bridge at W/Island, Cochin, Kerala on BOOT (Build Own Operate Transfer) / RESCO basis for an aggregate capacity of 1.5 MWp. Cochin Port Trust (CoPT) shall enter into Power Purchase Agreement (PPA) with the Successful Bidder(s)/ Developer(s) directly with provision of separate account selected based on this RfS for purchase of Solar Power for a period of 25 years based on the terms, conditions and provisions of the RfS.

OVERVIEW OF THE RfS

3.0 Solar Power Developer (hereafter referred to as SPDs) selected by CoPT based on this RfS, shall conduct "Site Survey, Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of 1.5 MWp Grid Connected Floating Solar PV Project in the Backwaters near CoPT's walkway avenue between BOT junction and Kannangatt bridge at W/Island, Cochin Port Trust, Kerala including Operation & Maintenance (O & M) of the project for a period of 25 (Twenty Five) Years under BOOT / RESCO Model after Operational Acceptance" in accordance with the provisions of this RfS document and standard Power Purchase Agreement (PPA). The standard PPA document shall be shortly uploaded and can be downloaded from CoPT's portal www.cochinport.gov.in

- 4.0 The Cochin Port Trust (CoPT) shall enter into PPA with selected SPD directly with provision of separate account for a period of 25 years from the date as per the provisions of PPA. The maximum tariff payable to the Project Developer is fixed at INR 3.97/kWh for 25 years. The Bidders will be free to avail fiscal incentives like Accelerated Depreciation, Concessional Customs and Excise Duties, Tax Holidays etc. as available for such projects. The same will not have any bearing on comparison of bids for selection. The price quoted by the bidder shall firm for the entire period of 25 years and no price variation shall be extended at any circumstances. Similarly taxes, duties as applicable shall also be borne by the developer only. As equal opportunity is being provided to all bidders at the time of tendering itself, it is up to the Bidders to consider various tax and other benefits / liabilities while quoting the price. No claim shall arise on CoPT for any liability if Bidders are not able to avail fiscal incentives and this will not have any bearing on the applicable tariff.
- 5.0 Bidders shall submit their bid by offering a single tariff, which shall be applicable for all the 25 years.
- 6.0 No transfer or selling of the plant to the third party is allowed during PPA period without the consent of CoPT and without remittance of necessary fees to CoPT as applicable. If the Project is transferred or sold to a third party during its tenure (after initial lock- in period of 01 year after commercial operation), CoPT will retain full rights to operationalize the PPA with the third party, which will be under full obligation to honour all the obligations and terms & conditions of the PPA.

SELECTION OF TECHNOLOGY & ELIGIBLE PROJECTS UNDER THIS RFS

The Projects to be selected under this RfS for aggregate capacity of 1.5 MWp to be installed in Backwaters near the CoPT's walk way between BOT junction and Kannangatt Bridge at W/Island, Cochin 3, Kerala, India, and to provide for deployment of Floating Solar PV Projects. The selection of solar PV modules would be technology agnostic to suit the floating solar projects where humidity levels are high and moisture ingress is more. The modules with suitable quality back sheets, glass to glass packed modules or any modules with suitable technology (anchoring/ mooring systems) shall be used. The floats, modules used shall have proven design and demonstrated performance.

GENERAL

8.0 The complete RfS Documents are available at COPT website www.cochinport.gov.in

e tender portal , https://www.tenderwizard.com/CPT as well as on Central Public Procurement Portal of Govt. of India, www.eprocure.gov.in, Interested bidders shall download the RfS Documents from the portal https://www.tenderwizard.com/COPT as per the provisions available therein.

9.0 Interested bidders have to necessarily register themselves on the portal https://www.tenderwizard.com/CPT through KEONICS, Banglore, to participate in the bidding under this invitation for bids. For submitting the e tender, the intending bidders are required to get registered their firm/ Consortium with e- tendering portal http://www.tenderwizard.com/CPT to have user ID and password which has to be obtained from the service provider M/s KEONICS, Bangalore by paying registration fee through online Payment using Credit/Debit Card/Net banking or DD in favour of "KSEDCL, Bangalore It shall be the sole responsibility of the interested bidders to get themselves registered at the aforesaid portal for which they are required to contact M/s KEONICS, Banglore to complete the registration formalities. The address of M/s KEONICS is mentioned hereunder

M/s KEONICS, Banglore, Karnataka, India

Contact No 9605557738

They may obtain further information regarding this IFB from the registered office of Cochin Port Trust at the address given on the Bid Information Sheet from 10:00 hours to 17:00 hours on all working days.

uploading proper of the bids on the portal https://www.tenderwizard.com/COPT (hereinafter referred to as the 'portal'), it shall be the sole responsibility of the bidders to apprise themselves adequately regarding all the relevant procedures and provisions as detailed in the portal as well as by contacting M/s KEONICS, Banglore directly, as and when required, for which contact details are also mentioned on the Bid Information Sheet. The Employer in no case shall be responsible for any issues related to timely or properly uploading/ submission of the bid in accordance with the relevant provisions of Section II - ITB of the Bidding Documents.

10.0 While submitting/ uploading the bids, the system through portal asks to key in the pass-phrase for encryption of the documents. The pass-phrase is required by Employer for opening the bids (Separate for both First Envelopes as well as Second Envelopes). The same may be submitted on the portal as per the provisions existing for submission of the pass-phrase and as per the details given in ITB.

In the event of not opening of the bid with the pass-phrase provided by the bidder, Employer on its discretion may give an option through the portal, to the bidder to open its bid as per provisions available on the portal. However, Employer shall not be responsible if bid could not be opened within reasonable time for what so ever reason. In such a case, the bid shall be sent unopened to 'Archive' on the portal and shall not be

considered at all any further.

- A Single Stage Two Envelope Bidding Procedure will be adopted and will proceed as detailed in the RfS Documents. Bidding will be conducted through the global competitive bidding procedures as per the provisions of ITB/ BDS and the contract shall be executed as per the provisions of the Contract. It shall be noted that the respective rights of the Employer and the Bidder/ SPD shall be governed by the RfS Documents/ Contract signed between the Employer and the SPD for the package.
- 12.0 Bidders should submit their bid proposal online complete in all aspect on or before last date and time of Bid Submission as mentioned on Portal of KEONICS (https://www.tenderwizard.com/CPT and as indicated in the Bid Information Sheet.
- Bidder shall submit bid proposal along with non-refundable Document Fees /Bid Processing Fees, Earnest Money Deposit (EMD) complete in all respect as per the Bid Information Sheet. Techno-Commercial bids will be opened as per the Bid Information Sheet in online presence of authorised representatives of bidders who wish to be present online. Bid proposals received without the prescribed Document Fees and/or, Bid Processing Fees and/or Earnest Money Deposit (EMD) may be considered as non-responsive. In the event of any date indicated is a declared Holiday, the next working day shall become operative for the respective purpose mentioned herein.
- 14.0 RfS documents which include Eligibility Criteria, Technical Specifications, various Conditions of Contract, Formats etc. can be downloaded from (https://www. www.tenderwizard.com/CPT) or Portal of KEONICS from CoPT website (http://www.cochinport.gov.in). It is mandatory to download official copy of RfS Document from Electronic Tender (ETS) **Portal** of **KEONICS** (https://www. www.tenderwizard.com/CPT) to participate in the Tender. Any amendment(s)/ corrigendum(s)/ clarification(s) with respect to this RfS shall be uploaded on KEONICS website. The Bidder should regularly check for any Amendment(s)/ Corrigendum(s)/ Clarification(s) on the above mentioned website. The same may also be uploaded on CoPT's website (http://www.cochinport.gov.in also. However, in case of any discrepancy, the information available on **KEONICS** website (https://www. www.tenderwizard.com/CPT shall prevail.
- 15.0 Incase the RfS provides provision for multiple bids by a common bidder, then separate EMD(s), Bid Processing Fees and Document Fees shall be furnished for all the bids as listed out in the RfS along with the response to RfS. Kindly refer the Clause of Bid Information Sheet for details. Bid processing fee / cost of tender document and EMD, if remitted through

DD shall be enclosed in a sealed envelope and shall be submitted in the office of Cochin Port Trust (offline) whose mailing address is mentioned in the Bid Information Sheet.

- 16.0 For multiple Projects, separate Performance Bank Guarantees shall be furnished against each Project being executed under this RfS by the SPD after issuance of Letter of Intent (LOI) by CoPT.
- 17.0 The detailed Qualifying Requirements (QR) are given in Section-III of the RfS.
- 18.0 CoPT shall conduct e-Reverse Auction (e-RA), if required or as per provisions of RfS documents. The decisions of CoPT are final in this regards and binding to all bidders.
- 19.0 The bidder have to execute an "Integrity Pact" (IP) as per the format available in CoPT's website www.cochinport.gov.in. Integrity pact shall cover entire activities of this tender from bidding stage to the completion of defect liability period during various phases of this tender. The Tenderer should sign and submit the "Integrity Pact" to be executed between the Tenderer and Cochin Port Trust along with the Tender in a separate envelope super scribing "Integrity Pact". Tenders not accompanied with IP will be rejected. The IP would be implemented through the following Independent External Monitor (IEM) for this tender.

Shri. P R Ravikumar, IRS (Retd.)
Akshath, No. 84, First Avenue,
Kumaranasan Nagar,
Elamkulam (PO)
Ernakulam, 682020
Email ID:- p r ravikuma@yahoo.com

20.0 CoPT reserves the right to cancel/ withdraw this invitation for bids without assigning any reason and shall bear no liability whatsoever consequent upon such a decision.

The bidder have to execute an "Integrity Pact" (IP) as per the format attached in this tender document. Integrity pact shall cover entire activities of this tender from bidding stage to the completion of entire contract period of 25 years period during various phases of this tender. The Tenderer should sign and submit the "Integrity Pact" to be executed between the Tenderer and Cochin Port Trust along with the Tender in a separate envelope super scribing "Integrity Pact". Tenders not accompanied with IP will be rejected. The IP would be implemented through the Independent External Monitor (IEM) for this tender.

INTERPRETATIONS

- 1. Words comprising the singular shall include the plural & vice versa.
- 2. An applicable law shall be construed as reference to such applicable law including its amendments or re-enactments from time to time.

- 3. A time of day shall save as otherwise provided in any agreement or document be construed as a reference to Indian Standard Time.
- 4. Different parts of this contract are to be taken as mutually explanatory and supplementary to each other and if there is any differentiation between or among the parts of this contract, they shall be interpreted in a harmonious manner so as to give effect to each part.
- 5. The table of contents and any headings or sub headings in the contract has been inserted for case of reference only & shall not affect the interpretation of this agreement.

BID INFORMATION SHEET

The brief details of the RfS are as under:

A	NAME OF WORK/ BRIEF SCOPE OF WORK/ JOB	Selection of Solar Power Developers for Site Survey, Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of 1.5MWp Grid Connected Floating Solar PV Project in the Backwaters near CoPT's walkway avenue between BOT junction and Kannangatt bridge at W/Island,	
		Cochin Port Trust, Kerala including Operation & Maintenance (O & M) of the project for a period of 25 (Twenty Five) Years under RESCO Model (BOOT) after Operational Acceptance	
В	RFS NO. & DATE	F2/T-8/ Floating Solar-1.5MWp/2020/M dated 0/05/2020	
С	TYPE OF BIDDING SYSTEM		
D	TYPE OF RFS/ TENDER Single stage 2 cover system		
Е	COMPLETION/ CONTRACT	As mentioned in RfS Documents [Reference Clause	
	PERIOD	No. 16.b, Section-II, Instructions to Bidders (ITB) of RfS]	
F	DOCUMENT FEE/ COST OF RFS DOCUMENT (NON-REFUNDABLE) / BID PROCESSING FEE	Amount: INR 10,500/ (Indian Rupees Ten Thousand five hundred Only) including GST. To be remitted either through NEFT/RTGS transfer in the account of FA&CAO, Cochin Port Trust or in the form of DD/ Pay Order, along with the response to RfS in favour of "FA&CAO Cochin Port Trust, Cochin payable at Cochin". The exemption shall be granted as per GFR 2017.	
G	BID PROCESSING FEE (NON- REFUNDABLE)	Not applicable	
Н	EARNEST MONEY DEPOSIT (EMD)	Amount: INR 13,50,000/- (Indian Rupees Thirteen Lacs Fifty Thousand only in the form of Bank DD drawn in favour of FA&CAO, Cochin Port Trust along with the Response to RfS. Exemption shall be granted as per GFR 2017	
I	PERFORMANCE BANK GUARANTEE	As per NIT on KEONICS portal	
J	DATE, TIME & VENUE OF PRE-BID MEETING	As per NIT on KEONICS portal	
K	OFFLINE AND ONLINE BID- SUBMISSION DEADLINE	As per NIT on KEONICS portal	
L	TECHNO- COMMERCIAL BID OPENING	Chief Mechanical Engineer, 1st Floor, New Administrative Building, Cochin Port Trust, Cochin 9. As per NIT on KEONICS portal	
М	PRICE BID OPENING	Will be informed to eligible bidders. Date and time shall be intimated through email.	
N	CONTACT DETAILS OF KEONICS	Karnataka State Electronics Development Corporation,	

0	NAME, DESIGNATION, ADDRESS AND OTHER DETAILS (FOR SUBMISSION OF RESPONSE TO RFS)	Banglore Ph No 080 49352000/ 9605557738 Contact person- Kerala- Shri. Jaleel Chief Mechanical Engineer, Cochin Port Trust, 1st floor, New Administrative Building, W/Island, Kochi -09 Tel. 0484-2666639, 2582300, 2582305 Fax:- 0484-2666639 Email: cme@cochinport.gov.in
P	DETAILS OF PERSONS TO BE CONTACTED IN CASE OF ANY ASSISTANCE REQUIRED	Sh. V. Thurai Pandian
Q	DETAILS OF PERSONS TO BE CONTACTED IN CASE OF ANY TECHNICAL ASSISTANCE REQUIRED	Same as above

Note:

- 1.0 Bids must be submitted strictly in accordance with Section-II, Instructions to Bidders (ITB) depending upon Type of Tender as mentioned at Clause no. (D) of Bid Information Sheet. The IFB is an integral and inseparable part of the RfS document.
- 2.0 Bidder(s) are advised to quote strictly as per terms and conditions of the RfS documents and not to stipulate any deviations/ exceptions.
- 3.0 Any bidder, who meets the Qualifying Requirement and wishes to quote against this RfS, may download the complete RfS document along with its amendment(s) if any from ETS Portal of KEONICS (https://www.tenderwizard.com/CPT) and/ or CoPT website (www.cochinport.gov.in) and submit their Bid complete in all respect as per terms & conditions of RfS Document on or before the due date of bid submission.
- 4.0 Clarification(s)/ Corrigendum(s) if any shall also be available on above referred websites.

Prospective Bidders are requested to remain updated for any notices/amendments/clarifications etc. to the RfS document through the websites https://www.tenderwizard.com/CPT. No separate notifications will be issued for such notices/amendments/clarifications etc. in the print media or individually. Intimation regarding notification on the above shall be updated on www.cochinport.gov.in and the details only will be available from https://www.www.tenderwizard.com/CPT

SECTION - II

INSTRUCTION TO BIDDERS (ITB)

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Preamble

This part (Section - II) of the RfS Documents provides the information necessary for bidders to prepare responsive bids, in accordance with the requirements of the Employer. It also provides information on bid submission and uploading the bid on portal

https://www.tenderwizard.com/CPT bid opening, evaluation and on contract award. This Section (Section II) contains provisions that are to be used unchanged unless consists of provisions that supplement, amend, or specify in detail, information or requirements included in RfS and that are specific to each procurement, states otherwise.

Bidders may note that the respective rights of the Employer/ Owner and Bidders/ Contractors shall be governed by the RfS Documents/ Contracts signed between the Employer/ Owner and the Contractor for the respective package(s). The provisions of RfS Documents shall always prevail over any other documents in case of contradiction.

Further in all matters arising out of the provisions of this Section - II and the RfS Documents, the laws of the Union of India shall be the governing laws and courts of Kochi shall have exclusive jurisdiction.

1 OBTAINING RfS DOCUMENTS

The RfS document can be downloaded from the website of KEONICS, Banglore (https://www.tenderwizard.com/CPT) A link of the same is also available at www.cochinport.gov.in

Note: Interested Bidders have to download the official copy of RfS & other documents after login into the KEONICS website by using the Login ID & Password provided by them during registration (Refer Annexure - D). The Bidder shall be eligible to submit/ upload the bid document only after logging into the KEONICS portal and downloading the official copy of RfS.

2 COST OF RfS DOCUMENTS & PROCESSING FEES

Prospective Bidders interested to participate in the bidding process are required to submit their Project proposals in response to this RfS document along with a non- refundable Bid Processing Fee / Cost of RfS Documents as mentioned in the Bid Information Sheet. A Bidding Company will be eligible to participate in the bidding process only on submission of Bid Processing Fee /

Cost of RfS Documents. The bids submitted without Cost of the RfS Document / Bid Processing Fee and/ or Earnest Money Deposit (EMD), shall not be considered for the bidding and such bids shall not be opened online by CoPT

The Bid Processing Fee / Cost of RfS and EMD are exempted for MSME Vendors registered under NSIC/ Udyog Aadhaar Category and as mentioned GFR 2017 only. In order to avail the exemption in Bid Processing Fee / Cost of RfS and EMD in case of consortium/ JV, all the members should be registered as MSME Vendors under NSIC/ Udyog Aadhaar Category only.

3 TOTAL CAPACITY OFFERED

Selection of Grid Connected Floating Solar Power Projects for total capacity of 1.5 MW (0.75MW Capacity each of 02 nos. of Packages) will be carried out through e-bidding. The Projects comprising of "Site Survey, Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of 1.5 MWp Grid Connected Floating Solar PV Project in the Backwaters near CoPT's walkway avenue between BOT junction and Kannangatt bridge at W/Island, Cochin Port Trust, Kerala including Operation & Maintenance (O & M) of the project for a period of 25 (Twenty Five) Years under RESCO Model (BOOT) after Operational Acceptance."

The interested Bidders are required to participate in the Request for Selection (RfS) for installation of Grid Connected Floating Solar Photovoltaic Power Plants on Build-Own- Operate-Transfer (B-O-O-T) basis / RESCO Model. The ownership of the project shall be transferred to Cochin Port Trust after completion of entire PPA period.

Projects shall be allocated in the configuration of 2 x 0.75 MW, i.e. each Package shall have a fixed capacity of 0.75 MW and a maximum of 02 such Packages shall be allotted under the RfS. Each Package shall be connected to the existing substation at A2 area / near IMU along W/Island – Kundannoor National Highway at 11 KV level.

The SPD will obtain connectivity of the project. The SPD shall provide the connectivity through transformers, 11 KV switch gears, metering equipments including meters (both solar meter and grid meter) etc and interconnect to the existing 11 KV line in the opposite side of the proposed project site complying with safety & other regulations issued by the Central Electricity Authority. The SPD shall quote the prices considering the cost for all above items. The metering will be done in the 11 KV side of the installation through grid mater and solar meter. The CoPT shall facilitate for obtaining connectivity in consultation with other statutory bodies. However the cost for getting the clearance from the statutory bodies shall be borne by the SPD.

The SPDs shall demonstrate the Contracted Capacity at the Interconnection Point, as defined in the Commissioning Procedure enclosed in Annexure-A

Project Configuation

The term "Project" shall have the meaning as defined in Section IV of the RfS, and shall refer to the cumulative Project capacity as quoted by/ awarded to the Bidder.

The Bidder may however, set up the cumulative Project capacity at a single location, or he may configure the "Project" as being sub-divided into a number of "Packages", being set up at multiple locations if required. Following points are to be noted in this regard:

- a) A "Package" under this RfS, shall refer to a cumulative installation of 1.5 MW, to be interconnected at a termination point as instructed by CoPT. It may be noted that the minimum capacity to be installed shall be1.5 MW under the RfS.
- b) The Project may consist of two number of Packages, each being in minimum 0.75 MWp. The minimum voltage level for each Package shall be 11kV.
- c) A single tariff shall be quoted by the Bidder for the entire Project, irrespective of the Project configuration.
- d) Power Purchase Agreements shall be signed separately for each Package, if required. The Bidders shall be responsible for obtaining Connectivity for each Package.
- e) The Bidders may modify the Project configuration subsequent to issuance of LOI until the deadline of Financial Closure, subject to the condition that the condition as per (d) above. CoPT shall not be responsible for any delay in obtaining revised Connectivity on account of change in Package location(s), which might lead to delay in achieving financial closure and in-turn, commissioning of the Project.
- f) The entire Project shall have a single Effective Date of the PPA and single milestones for achieving Financial Closure and Commissioning, irrespective of the configuration of the Packages.

4 **PROJECT LOCATIONS**

The Project(s) shall be located at water body near CoPT's walkway avenue, near to 11 KV substation at A2 area which is approx. 500 mtrs from the interconnection point. The SPD shall provide at his cost required 11 KV switch gears, transformers, cables etc for up linking solar power in the available 11 KV tapping pont as mentioned above. The project site is having

750 Mtrs long along the canal shore with 20 mtrs width towards water body.(Total area 15000 Sqmtr). The shore length is spread over in 2 segments on both sides of small culvert each having 375 Mtrs long on both sides.

A substantial portion of proposed location on either side of the culvert is covered through mangroves Further the water body area near to the reclamation wall is currently very shallow and slushy for about 100 Mtr. Hence the SPD may conduct a site survey before quoting the tender. The SPD need to bear the water body lease charges as per the estate rentals of CoPT with annual escalation @ 2 percent subject to change of rent periodically for every 5 years. The rate of water body as on 21/08/2016 was INR 15, 44,807/- per hectare per annum and it shall be paid directly to CoPT. The SPD shall sign lease agreement with the CoPT accordingly.

5 PROJECT SCOPE & TECHNOLOGY SELECTION

Under this RfS, the SPD shall set up Floating Solar Power Project(s) including the transmission / distribution network and necessary infrastructure up to the Interconnection/ Delivery Point in line with Clause No. 7, Section-II, ITB, at its own cost and in accordance to the provisions of this RfS document. All approvals, permits and clearances required for setting up of the Project (excluding Environmental Clearance) including those required from State Government and local bodies shall be in the scope of the SPD. All the expenses for obtaining such clearance shall be borne by the SPD only. However, the environmental clearance if any shall be in the scope of Cochin Port Trust

The SPD shall be required to follow the applicable rules regarding project registration with the State Nodal Agency, if required in line with the provisions of the applicable policies/ regulations of the State where the Projects/ Packages are being located. It shall be the responsibility of the SPD to remain updated about the applicable charges payable to the SNA under the respective State Solar Policy.

6 MAXIMUM ELIGIBILITY FOR PROJECT CAPACITY ALLOCATION FOR A BIDDER

Following conditions shall be applicable to the Bidders for submission of bids against this RfS:

- (i) A Bidder including its Parent, Affiliate or Ultimate Parent or any Group Company can submit only a single bid for the project in the prescribed formats as detailed Clause No. 20, Section-II, ITB, giving details of the Projects.
- (ii) The evaluation of bids shall be carried out as described in Section-V of

RfS. The methodology for allocation of Projects is elaborated in Section-V of RfS.

7 CONNECTIVITY WITH THE GRID

The Project should be designed for interconnection with the desired substation in accordance with the prevailing CERC regulations and state regulations in this regard. For interconnection with the grid and metering, the SPD shall abide by the applicable Grid Code, Grid Connectivity Standards, Regulations on Communication System, transmission of electric and other regulations (as amended from time to time) issued by Appropriate Commission and Central Electricity Authority (CEA) and any other statutory body(ies).

The maintenance of Transmission system up to the Inter-connection Point shall be the responsibility of the SPD.

The arrangement of connectivity can be made by the SPD through a dedicated transmission / distribution cable /line and 11 KV switch gears at his cost. The entire cost of transmission / distribution including cost of construction of line, wheeling charges, SLDC/ Scheduling charges, SOC, MOC maintenance, losses etc if require and any other charges from the Project upto the Interconnection Point will be borne by the SPD. The meters for the project at connecting substation shall be sealed by CTU/ STU/ DISCOM/ SLDC.

Reactive power charges as per CERC/ SERC regulations shall be payable by SPD as per provisions of PPA.

Metering arrangement of each project shall have to be adhered to in line with relevant clause of the PPA.

The Buying Utility (CoPT) will be responsible for all transmission charges and losses and any other charges as applicable under the respective regulations beyond Delivery Point and up to the drawl point.

Atleast 30 days prior to the proposed commissioning date, the SPD shall be required to submit prior the connectivity letter from State Transmission Utility (STU)/ Central Transmission Utility (CTU) / distribution utility as applicable, confirming technical feasibility of connectivity of the plant to the STU/ CTU / DU substation.

8 POWER GENERATION BY SOLAR POWER DEVELOPER

Criteria For Generation

The annual Capacity Utilization Factor of Solar PV project is as approved by the State Regulatory Commission at the time of signing of PPA. The CUF as per KSERC (RE & Net metering) Regulation 2020 is 19%. Thereafter, the CUF for the Project shall remain unchanged for the entire term of the PPA.

The declared annual CUF shall in no case be less than 17%, even if it declared by Regulator. SPD shall maintain generation so as to achieve annual CUF within + 10% and -10% of the declared value till the end of 25 years from COD. The lower limit will, however, be relaxable by CoPT to the extent of non-availability of grid for evacuation which is beyond the control of the SPD. The annual CUF will be calculated every year from 1st April of the year to 31st March next year. The CUF for the period between COD/commencing date upto 1st April (if any) and 31st March upto final closing date (if any) shall be calculated on pro-rata basis.

Shortfall In Generation

If for any Contract Year, it is found that the SPD has not been able to generate minimum energy corresponding to the value of annual CUF within the permissible lower limit of CUF declared in the PPA, on account of reasons solely attributable to the SPD, such shortfall in performance shall make the SPD liable to pay the compensation provided in the PPA (Power Purchase Agreement) as payable by Buying Utility(ies)/ DISCOMs /CoPT towards non-meeting of RPOs, if such compensation is ordered by the State Commission. This will, however, be relaxable—to the extent of grid non-availability for evacuation which is beyond the control of the SPD. This compensation shall be applied to the amount of shortfall in generation during the Contract Year. The amount of compensation shall be equal to the compensation payable (including RECs) by the buying utilities/ DISCOMs/ CoPT

However, this compensation shall not be applicable in events of Force Majeure identified under the PPA, affecting supply of solar power by SPD.

Excess Generation

Any excess generation over and above 10% of declared annual CUF will be purchased by CoPT at a fixed tariff of 90% (Ninety Percent) of the PPA tariff. While the SPD would be free to install DC solar field as per his design of required output, including his requirement of auxiliary consumption, he will not be allowed to sell any excess power to any other entity other than CoPT In case at any point of time, the peak of capacity reached is higher than the rated capacity and causes disturbance in the system at the point where power is injected, the SPD will have to forego the excess generation and reduce the output to the rated capacity to ensure compliance with grid requirement.

9 <u>CLEARANCES REQUIRED FROM THE STATE GOVERNMENT AND OTHER LOCAL BODIES</u>

The Solar Power Developers (SPDs) are required to obtain all the necessary approvals, clearances and permits (excluding Environmental Clearance and Connectivity Approval) as required for setting up the Solar Power Projects. All

the charges for obtaining such approvals, clearances and permits (excluding Environmental Clearance) shall be borne by the SPD only.

The clearances, as applicable for the Project, shall be required to be submitted to CoPT prior to commissioning of the Project. In case of any of the clearances being not applicable for the said Project, the SPD shall submit an undertaking in this regard, and it shall be deemed that the SPD has obtained all the necessary approvals, clearances and permits (excluding Environmental Clearance) for establishing and operating the Project. Any consequences contrary to the above shall be the responsibility of the SPD.

Any neglect or omission or failure on the part of the bidder in obtaining necessary clearances and reliable information upon the forgoing or any other matter affecting the bid shall not relieve him from any risks or liabilities or the entire responsibility for completion of the work in accordance with the bid

CoPT shall arrange the connectivity procedures / Protocol as per technical requirement issued by CEA from time to time. However SPD has to support and provide necessary materials, manpower and bear all the expenses in respect to get the connectivityl. CoPT shall obtain the environmental clearance at their own expenses if required.

10 EARNEST MONEY DEPOSIT (EMD)

The cost of tender document / bid processing fee of INR 10,500/- including GST and Earnest Money Deposit (EMD) of INR 13.50 Lakhs in the form of Gemand Draft drawn in the name of FA&CAO, Cochin Port Trust , shall be submitted by the Bidder along with their bid, failing which the bid shall be summarily rejected. The DD towards EMD have to be issued in the name of the Bidding Company.

The Cost of tender document & EMD is exempted for MSME Vendors registered under NSIC/ Udyog Aadhaar Category only. In order to avail the exemption in EMD in case of consortium/ JV, all the members should be registered as MSME Vendors under NSIC/ Udyog Aadhaar Category only.

11 PERFORMANCE BANK GUARANTEE (PBG)

Bidders selected by CoPT based on this RfS shall submit Performance Bank Guarantee for a value @ INR 67.50 Lakh within 21 days of issuance of Letter of Intent (LoI) or before signing of PPA, whichever is earlier. It may be noted that successful Bidders shall submit the Performance Bank Guarantee according to the Format 7.3 B for a value @ INR 67.50 Lakhs with a validity period from the date of submission of the PBG until 18 (Eighteen) months from the Effective Date of the PPA. On receipt and after successful verification of the total Performance Bank Guarantee in the acceptable form, the BG submitted

towards EMD shall be returned by CoPT to the successful Bidder. Non submission of PBG within the above timelines shall be treated as follows:

- a. Delay upto 01 month from due date of submission of PBG: Delay charges @ 1% of the PBG amount per month levied on per day basis shall be paid by the Bidder to CoPT in addition to the PBG amount.
- b. Delay beyond 01 month from the due date of submission of PBG: The EMD submitted by the Bidder shall be en-cashed by CoPT and the Project shall stand terminated.

For the purpose of calculation of the above delay charges, 'month' shall be considered as a period of 30 days.

The Bidder shall furnish the PBGs from any of the Banks listed at Schedule-2 of draft PPA to CoPT. PBGs issued by foreign branch of a bank from bank list given in Schedule- 2 of draft PPA is to be endorsed by the Indian branch of the same bank or State Bank of India (SBI).

The format of the Bank Guarantees prescribed in the Formats 7.3 B (PBG) shall be strictly adhered to and any deviation from the above Formats shall result in rejection of the PBG and consequently, the bid. In case of deviations in the formats of the Bank Guarantees, the corresponding PPA shall not be signed.

The successful Bidders of the Projects selected based on this RfS are required to sign PPA with Cochin Port Trust (CoPT) with provision of separate Escrow account within 01 (One) month after the issuance of LOI. In case, CoPT offers to execute the PPA with the Selected Bidder and if the Selected Bidder does not submit the requisite documents as per Clause No. 14, Section-II, Instructions to Bidders (ITB) or does not meet eligibility criteria upon submission of documents or does not execute the PPA within the stipulated time period, then the Bank Guarantee equivalent to the amount of the EMD shall be forfeited by CoPT from the Bank Guarantee available with CoPT (i.e. EMD or PBG) as liquidated damages not amounting to penalty, the selected Project(s) shall stand cancelled and the selected Bidder expressly waives off its rights and objections, if any, in that respect.

The Bank Guarantees have to be executed on non-judicial stamp paper of appropriate value as per Stamp Act relevant to the place of execution.

All expenditure towards execution of Bank Guarantees such as stamp duty etc. shall be borne by the Bidders.

In order to facilitate the Bidders to submit the Bank Guarantee as per the prescribed format and in line with the requirements, checklist at Annexure-B has been attached. Bidders are advised to take note of the above checklist while submitting the Bank Guarantees. After the bidding process is over, COPT

shall release the Bank Guarantees towards EMD of the unsuccessful bidders within 30 days after the issuance of LOI to the successful bidder(s). The PBG of successful bidders/ developers/ SPDs shall be returned to them, immediately after successful commissioning of their projects as per Terms of PPA, after taking into account any liquidated damages due to delays in commissioning as per Clause No. 16, Section-II, Instructions to Bidders (ITB) of RfS documents.

12 PRE CONTRACT INTEGRITY PACT

The bidder have to execute an "Integrity Pact" (IP) as per the format available in CoPT's website www.cochinport.gov.in., prepared in a non judicial stamp paper of Rs 200/-. Integrity pact shall cover entire activities of this tender from bidding stage to the completion of defect liability period during various phases of this tender. The Tenderer should sign and submit the "Integrity Pact" to be executed between the Tenderer and Cochin Port Trust along with the Tender in a separate envelope super scribing "Integrity Pact". Tenders not accompanied with IP will be rejected. The IP would be implemented through the following Independent External Monitor (IEM) for this tender.

Shri. P R Ravikumar, IRS (Retd.)
Akshath, No. 84, First Avenue,
Kumaranasan Nagar,
Elamkulam (PO)
Ernakulam, 682020
Email ID:- p r ravikuma@yahoo.com

13 FORFEITURE OF EMD

The EMD shall be forfeited by COPT in following cases:

If the Bidder withdraws or varies the bid after due date and time of bid submission and during the validity of bid;

In case, COPT offers to execute the PPA with the Selected Bidder and if the Selected Bidder does not submit the requisite documents as per Clause No. 14, Section-II, Instructions to Bidders (ITB) of RfS documents or does not execute the PPA within the stipulated time period;

If after issuance of LOI, it is found that the documents furnished by the Bidder as part of response to RfS are misleading or misrepresented in anyway;

If the Bidder fails to furnish required Performance Bank Guarantee in accordance with Clause No. 11, Section-II, Instructions to Bidders (ITB) of RfS document.

14 POWER PURCHASE AGREEMENT (PPA)

Cochin Port Trust (COPT) shall enter into Power Purchase Agreement (PPA) with Bidders with provision of separate Escrow account based on this RfS. A copy of standard Power Purchase Agreement (PPA) to be executed between COPT and the selected SPD will be made available on website of COPT

https://www.cochinport.gov.in The PPA shall be signed within 30 days from the date of issuance of LOI, if not extended by COPT (for e.g. If the LOI is dated 20.06.2020, then the last date of signing of PPA shall be 20.07.2020). PPA will be executed between COPT and selected bidder or its SPV, for the Project.

Note: Any changes in the location of the Project(s) awarded shall not be permitted. The PPAs shall be valid for a period of 25 years from the Scheduled Commissioning Date (SCD) of the Projects. However incase of any delay in commissioning of the project beyond 18 months from the effective date of PPA, the term of PPA shall be commenced w.e.f. end of 18th month onwards (Kindly refer clause no. 16.b for details).

The Performance Bank Guarantee as per Clasue 11 above, shall be submitted by the SPD prior to signing of PPA. Before signing of PPA with the selected Bidder, COPT will verify the documents furnished by the Bidder at the time of submission of response to RfS including the shareholding of the Project Company along with a copy of complete documentary evidence supported with the original documents. Bidders will be required to furnish the documentary evidence for meeting the RfS Qualification Requirement and financial requirements mentioned at Annexure to BDS respectively. At this stage, the Bidders shall be required to furnish the audited balance sheet of the previous month-end along with complete Bank Statement starting from day 1 of submission of response to RfS till date along with a copy of the documents submitted with ROC which became due during this period, along with all the relevant documents filed with MCA for allotment of Shares are required to be submitted at the time of signing of PPA. If at this stage it is found that the documents furnished by the Bidders are false/ misleading or misrepresented in any way then the provisions contained in this RfS will be applicable.

Power Sale Agreements (PSAs) are not applicable for this project

The SPDs will be free to reconfigure and repower their plants from time to time during the PPA duration. However, COPT will be obliged to buy power only within the Capacity Utilization Factor (CUF) range laid down in Power Purchase Agreement (PPA) as per guidelines.

Any extension of the PPA period beyond 25 years shall be through mutual Agreement between the Solar Power Developer and COPT.

15 FINANCIAL CLOSURE OR PROJECT FINANCING ARRANGEMENTS

The Project shall achieve Financial Closure within 06 (Six) months from the Effective Date of the Power Purchase Agreement (PPA) (for e.g. if Effective date of the PPA is 20.07.2018, then scheduled Financial Closure date shall be 20.01.2019). At this stage, the SPDs shall report tie-up of Financing Arrangements for the Projects. In this regard, the SPD shall submit a certificate from all financing agencies regarding the tie-up of funds indicated for the Project. Additionally, the SPD shall furnish documentary evidence towards the following: -

a. The orders placed/ agreements entered into, for supply of plants and

- equipment for the Project.
- b. Detailed Project Report for each Project.
- c. The details of all planned/ proposed Inverters and modules (manufacturer, model number, datasheet, all technical certificates as mentioned at Annexure-A along with the link of the certifying authority with ILAC member accredited lab/ NABL accredited lab) for the Project, at least 15 (Fifteen) days prior to the scheduled Financial Closure date.
- d. Lease Agreement signed between the SPD and Cochin Port Trust. The SPD(s) have to pay lease charges to CoPT for the required water body. CoPT shall sign the lease agreement with the SPD(s) accordingly upon payment of lease charges.
- e. Allotment letter and proof of remittance of lease rent etc. Change of delivery Point for the Projects within the project area is allowed prior to the deadline of Financial Closure, under prior intimation and approval by COPT at its sole discretion.
- f. Copies of all the clearances (including environmental clearance) required for successful execution of the project.

In case of delay in achieving financial closure due to delay not attributable to the SPD, subsequent extension will be given.

The SPD will have to submit the required documents to COPT at least 15 (Fifteen) days prior to the scheduled Financial Closure date. In case of delay in submission of documents mentioned above, COPT shall not be liable for delay in verification of documents and subsequent delay in Financial Closure.

In case the SPD submitted all the requisite documents to the concerned authority within 03 (Three) months from the date of execution of PPA and still awaits for clearance by the

Statutory authority, then the delay in obtaining the concerned statutory clearance shall not be attributable to the SPD. The SPD need to submit an undertaking stating the reason for delay along with copy of application and the Financial Closure can be done pending that statutory document. However, the SPD needs to submit the pending statutory clearance document prior to commissioning of the project.

16 **COMMISSIONING**

The Commissioning of the Projects shall be carried out by the SPDs in line with the procedure elaborated in draft PPA document (Commissioning Procedure at Annexure-A and Appendix-A-1 are for reference). COPT may authorize any individual or committee or organization to witness and validate the commissioning procedure at site. Prior to the commissioning and on completion of the project, necessary approval for the solar plant from statutory body such as CEA/ State electrical inspectorate etc shall be obtained by the SPD at its cost and risk. The Commissioning certificates shall be issued by

PART COMMISSIONING

Part commissioning of the Project shall be accepted by COPT subject to the condition that the minimum capacity for acceptance of first and subsequent part(s) commissioning shall be 0.0.5 MW, without prejudice to the imposition of penalty, in terms of the PPA on the part which is not commissioned. However, the SCD will not get altered due to part-commissioning. Irrespective of dates of part commissioning or full commissioning, the PPA will remain in force for a period of 25 (twenty-five) years from the SCD.

COMMISSIONING SCHEDULE AND LIQUIDATED DAMAGE FOR DELAY IN COMMISSIONING

The Project shall be commissioned within 8 (Eight) months from the date of signing of PPA In this regard, a duly constituted committee will physically inspect and certify successful commissioning of the Project. In case of failure to achieve this milestone, provisions of PPA as mentioned below shall apply: -

- a. **Delay upto six months from the SCD**: The total PBG amount shall be encashed on per day basis and proportionate to the balance capacity not commissioned. For example, in case of a Project of 50 MW capacity, if commissioning of 10 MW capacity is delayed by 18 days from the scheduled date, then the penalty shall be: PBG amount X (10/50) X (18/180).
- b. The maximum time period allowed for commissioning of the full Project Capacity with encashment of Performance Bank Guarantee shall be limited to 18 months from the Effective Date of the PPA. In case, the Commissioning of the Project is delayed beyond 18 months from the Effective Date of the PPA, the PPA shall be in force w.e.f. end of 18th month onwards without change in final closing period.

For the purpose of calculations for penalty, 'month' shall be considered consisting of 30 days.

Illustration of Liquidated Damages (LD) Calculations:

Consider a SPD has been selected for the implementation of a Project of capacity of 150 MW.

 Total Performance Bank Guarantee Amount furnished by the SPD-Rs 1000 Lakhs.

a) LD Conditions:

- In case of delay upto 6 Months from SCD: Entire PBG amount (i.e. INR 11,111.00 / MW/ Day) shall be encashed as Liquidated Damages for the first six months of delay, calculated on per day basis and proportionate to the capacity not commissioned.
- b) Consider that the Project commissioning (for e.g. Project capacity 150 MW) has been achieved in the following manner:

SI. No.	Commissione d Capacity (MW) as on SCD	Capacity remaining Un- commissione d (MW) as on SCD	Date of Commissioning of the respective part	Delay from the Scheduled Commissioni n g date (days)
1	100	50	Scheduled Commissionin g dat e	0
2	50	0	Scheduled Commissioning date + 150 Days	150

i) LD Calculation: In case of above commissioning schedule, for 100MW capacity commissioned within SCD (scenario 1) there will be no LD. For balance 50MW capacity (scenario 2), the LD calculation for encashment of PBG, shall be done as follows:

Total LD: (50 MW X 150days X INR 11,111.11/ MW/ Day) = INR 83,333,325/-

Based on the above schedule, total LD payable by the SPD shall be INR 83,333,325/-.

EARLY COMMISSIONING

The SPD shall be permitted for full commissioning as well as part commissioning of the Project even prior to the SCD. In cases of early part-commissioning, till the SCD, COPT may purchase the generation @ 75% (Seventy Five Percent) of the PPA tariff at its sole discretion. However, in case the entire capacity is commissioned prior to the scheduled commissioning date, COPT may purchase the generation at PPA Tariff. Further, early part/full commissioning of the Project and subsequent energy procurement from the

same shall be subject to the approval of COPT.

17 COMMERCIAL OPERATION DATE (COD)

Commercial Operation Date (COD) shall be the date on which the commissioning certificate is issued upon successful commissioning of the full capacity of the Project or the last part capacity of the Project, as the case may be. The 25-year tenure of PPA shall be as per the provisions of PPA. The following milestone dates may therefore be observed and may fall on separate dates:

- (a) Interconnection with Grid: This will be facilitated by the CoPT on the request of the SPD, and on submission of approval certificate from CEA and upon conducting harmonics tests successfully even if the project is only partially ready, to facilitate testing and allow flow of power generated into the grid to avoid wastage of Power.
- (b) <u>Commissioning of the Project</u>: This will be on a date, when the project meets the criteria defined for project commissioning. COPT may authorize any individual or committee or organization to declare the project commissioned on site.

Any energy produced and flowing into the grid before COD shall not be at the cost of COPT under this scheme and developers will be free to make short-term sale to any organization or individual. COPTmay agree to buy this power as a trader if they find it viable outside this RfS.

18 MINIMUM PAID UP SHARE CAPITAL TO BE HELD BY PROJECT PROMOTER

The Bidder shall provide complete information in their bid in reference to this RfS about the Promoters and upon issuance of Letter of Intent (LoI), the SPD shall indicate its shareholding in the company indicating the controlling shareholding before signing of PPA with COPT.

No change in the controlling shareholding of the Bidding Company or Bidding Consortium shall be permitted from the date of submission of response to RfS till the execution of the PPA. However, in case the Project is being set up by a listed Company, this condition will not be applicable.

In case of SPVs: The successful Bidder, if being a single company, shall ensure that its shareholding in the SPV/ Project Company executing the PPA, shall not fall below 51% at any time prior to 01 (one) year from the COD, except with the prior approval of COPT. In the event the successful bidder is a consortium, then the combined shareholding of the consortium members in the SPV/ Project Company executing the PPA, shall not fall below 51% at any time prior to 01 (one) year from COD, except with the prior approval of COPT. However, in case the Project is being set up by a listed Company, this condition will not be applicable.

In case of the successful Bidder itself executing the PPA, it shall ensure that its promotors shall not cede Control (Control shall mean the ownership, directly or indirectly, of more than 50% of the voting shares of such Company or right to appoint majority Directors), till 01 (one) year from the COD, except with the prior approval of COPT. However, in case the Project is being set up by a listed Company, this condition will not be applicable.

In case of companies having multiple promoters (but none of the shareholders having more than 50% of voting rights and paid up share capital), it shall be considered as a company under joint control. In such cases, the shareholding pattern in the company as submitted at the time of bidding, shall be maintained for a period of 01 (One) year after COD.

Any change in the shareholding after the expiry of 01 year from COD can be undertaken under intimation to COPT. Transfer of controlling shareholding of the company developing the project within the same group of companies will however be allowed after COD with the permission of COPT, subject to the condition that, the management control remains within the same group of companies.

In the event of Change in Shareholding/ Substitution of Promoters triggered by the Financial Institutions leading to signing of fresh PPA with a new entity, an amount of INR 10 Lakh per Transaction as Facilitation Fee (non-refundable) shall be remitted by the developer to COPT.

19 STRUCTURING OF THE BID SELECTION PROCESS

Single stage, double envelope bidding has been envisaged under this RfS. Bidders have to submit both Techno-Commercial Bid and Financial Bid (Tariff) together in response to this RfS online. The preparation of bid proposal has to be in the manner described in Clause No. 23, Section-II, Instructions to Bidders (ITB) of RfS

20 <u>INSTRUCTIONS TO BIDDERS FOR STRUCTURING OF BID PROPOSALS</u> IN RESPONSE TO RfS

The bidder including its Parent, Affiliate or Ultimate Parent or any Group Company shall submit a single response to RfS.

Detailed Instructions to be followed by the bidders for online submission of response to RfS are stated at Annexure - D and Annexure - E

Submission of bid proposals by Bidders in response to RfS shall be in the manner described below:

Covering Letter as per Format 7.1.

- 2. In case of a Bidding Consortium, a Power of Attorney in favour of the Lead Member issued by the other Members of the Consortium shall be provided in original as per format attached hereto as **Format 7.2.**
 - In the event any Member of the Bidding Consortium (other than Lead Member) is a foreign entity, it may submit Board Resolutions in place of Power of Attorney for the purpose of fulfilling the requirements under this clause. Provided that such Board Resolutions shall be supported by an unqualified opinion issued by the legal counsel of such foreign entity stating that the Board Resolutions are in compliance with the applicable laws of the respective jurisdictions of the issuing Company and the authorizations granted therein are true and valid.
- 3. Earnest Money Deposit (EMD) & Bid processing fee/ cost of tender document in DD Drawn in favour of FA&CAO, Cochin Port Trust.
- 4. Board Resolutions, as per prescribed formats enclosed as per **Format 7.4** duly certified by the Company Secretary or the Director of the relevant Bidder, as applicable to the Bidder and mentioned hereunder:
 - a. Board resolution from the Bidding Company or the Lead Member of the Consortium, as the case may be, in favour of the person signing the response to RfS and in the event of selection of the Projects and to sign the PPA with COPT. Additionally, Board Resolution from each of the Consortium Members in favour of the person signing Consortium Agreement shall also be submitted.
 - b. Board Resolution from the Bidding Company committing 100% (One Hundred Percent) of the equity requirement for the Project/ Board Resolutions from each of the Consortium Members together in aggregate committing to 100% (One Hundred Percent) of equity requirement for the Project (in case of Bidding Consortium); and
 - c. Board Resolutions from each of the Consortium Members and Lead Member contributing such additional amount over and above the percentage limit (specified for the Lead Member and other member in the Consortium Agreement) to the extent becoming necessary towards the total equity share in the Project Company, obligatory on the part of the Consortium pursuant to the terms and conditions in the Consortium Agreement.
- 5. In case of a Consortium, the Consortium Agreement between the Members in the Consortium as per **Format 7.5** along with Board resolution from each Member of the Consortium for participating in Consortium.
- 6. Format for Financial Requirements as per **Format 7.6** along with the certificate from practicing Chartered Accountant/ Statutory Auditors showing details of computation of the financial credentials of the Bidder.

- 7. A disclosure statement as per **Format 7.7** regarding participation of any related companies in the bidding process.
- 8. Format for Technical Criteria as per **Format 7.8** (to be filled out separately for each Project) in line with Clause No. 15, Section-II, Instructions to Bidders (ITB) of RfS.
- Declaration by the Bidding Company/ Lead Member of Bidding Consortium for the Proposed Technology Tie Up as per Format 7.9 (to be filled out separately for each Project).
- 10. Pre contract Integrity Pact as per the format available at CoPT, www.cochinport.gov.in / as per annexure in a non judicial stamp paper of Rs 200/- (Kerala)
- 11. Experience certificate substantiating the compliance of MQC regarding experience duly certified by notary Public.
- 12. Profile of the company, concurrent commitment etc
- 13. Integrity Pact as per annexure

14. Attachments

- a. Memorandum of Association, Article of Association needs to be attached along with the bid. The Bidder should also highlight the relevant provision which identifies the objects relating to Power/ Energy/ Renewable Energy/ Solar Power plant development.
 - ☐ In case, there is no mention of the above provisions in the MoA/ AoA of the bidding company, the same has to be amended and submitted prior to signing of PPA, if the Bidder is selected as Successful Bidder.
 - ☐ If the selected Bidder wishes to execute the project through a Special Purpose Vehicle (SPV), the MoA/ AoA of the SPV highlighting the relevant provision which highlights the objects relating to Power/ Energy/ Renewable Energy/ Solar Power plant development has to be submitted prior to signing of PPA.
- b. Certificate of Incorporation of Bidding Company/ all member companies of Bidding Consortium.
- c. A certificate of shareholding of the bidding company, its Parent and Ultimate Parent (if any) duly certified by a practicing Chartered Accountant/ Company Secretary as on a date within one week prior to the last date of bid submission, along with documents containing information about the promoters, and their shareholding in the Bidder (as on a date within one week prior to the last date of bid submission)

indicating the controlling shareholding at the stage of submission of response to RfS as per Clause No. 18, Section-II, Instructions to Bidders (ITB) of RfS. COPT reserves the right to seek additional information relating to shareholding in promoter companies, their parents/ ultimate parents and other group companies to satisfy themselves that RfS conditions have been complied with and the Bidder will ensure submission of the same within the required time lines.

d. Certified copies of annual audited accounts for the last financial year, i.e. FY 2016-17.

21 IMPORTANT NOTES AND INSTRUCTIONS TO BIDDERS

Wherever information has been sought in specified formats, the Bidders shall fill in the details as per the prescribed formats and shall refrain from any deviations and referring to any other document for providing any information required in the prescribed format.

The Bidders shall be shortlisted based on the declarations made by them in relevant schedules of RfS. The documents submitted online will be verified before signing of PPA in terms of Clause No. 14, Section-II, Instructions to Bidders, ITB of RfsIf the Bidder/ Member in a Bidding Consortium conceals any material information or makes a wrong statement or misrepresents facts or makes a misleading statement in its response to RfS, in any manner whatsoever, COPT reserves the right to reject such response to RfS and/ or cancel the Letter of Intent (LoI), if issued, and the Bank Guarantee provided up to that stage shall be encashed. Bidder shall be solely responsible for disqualification based on their declaration in the submission of response to RfS.

If the event specified at 21.3 is discovered after the Effective Date of PPA, consequences specified in PPA shall apply.

Response submitted by the Bidder shall become the property of the COPT and COPT shall have no obligation to return the same to the Bidder. However, the EMDs submitted by unsuccessful Bidders shall be returned as specified in Clause no. 11, Section-II, Instructions to Bidders (ITB) of RfS.

All documents of the response to RfS (including RfS and subsequent Amendments/ Clarifications/ Addenda, PPA and PSA) submitted online must be digitally signed by the person authorized by the Board as per Format 7.4.

The response to RfS shall be submitted as mentioned in Clause No. 20, Section-II, Instructions to Bidders (ITB) of RfS. No change or supplemental information to a response to RfS will be accepted after the scheduled date and

time of submission of response to RfS. However, COPT reserves the right to seek additional information from the Bidders, if found necessary, during the course of evaluation of the response to RfS.

The bidder shall make sure that the correct, valid and operative Pass-Phrase to decrypt the relevant Bid-part is submitted into the 'Time Locked Electronic Key Box (EKB)' after the deadline of Bid submission, and before the commencement of the Online Tender Opening Event (TOE) of Technical bid.

All the information should be submitted in English language only. In case of foreign bidders having documents in other than English language, then the documents shall be translated in English language by certified translator and submitted.

Bidders shall mention the name of the contact person and complete address and contact details of the Bidder in the covering letter.

Response to RfS that are incomplete, which do not substantially meet the requirements prescribed in this RfS, will be liable for rejection by COPT.

Response to RfS not submitted in the specified formats will be liable for rejection by COPT.

Bidders delaying in submission of additional information or clarifications sought will be liable for rejection.

Non-submission and/ or submission of incomplete data/ information required under the provisions of RfS shall not be construed as waiver on the part of COPT of the obligation of the Bidder to furnish the said data/ information unless the waiver is in writing.

Only Kochi Court shall have exclusive jurisdiction in all matters pertaining to this RfS.

22 NON-RESPONSIVE BID

The electronic response to RfS submitted by the bidder along with the documents submitted offline to COPT shall be scrutinized to establish "Responsiveness of the bid". Each bidder's response to RfS shall be checked for compliance with the submission requirements set forth in this RfS.

Any of the following conditions shall cause the Bid to be "Non-responsive": -

(a) Non-submission of Cost of RfS / Processing fee as mentioned in the Bid Information Sheet:

- (b) Non-submission of EMD in acceptable form along with RfS document.
- (c) Response to RfS not received by the due date and time of bid submission;
- (d) Non-submission of correct, valid and operative Pass-Phrase to decrypt either the Technical Bid Part or Financial Bid Part offline before due date and time of submission of bid: Deleted
- (e) Non-submission of the original documents mentioned at Clause No. 23.a I, Section- II, Instructions to Bidders (ITB) of RfS by due date and time of bid submission;
- (f) Any indication of tariff in any part of response to the RfS, other than in the financial bid:
- (g) Non submission of Integrity Pact as per prescribed format
- (h) Data filled in the Electronic Form of Financial Bid (Second Envelope), not in line with the instructions mentioned in the same electronic form;
- (i) In case it is found that the Bidding Company including Ultimate Parent Company/ Parent Company/ Affiliate/ Group Companies have submitted more than one response to this RfS, then all these bids submitted shall be treated as non-responsive and rejected.

23 METHOD OF SUBMISSION OF RESPONSE TO RfS BY THE BIDDER

DOCUMENTS TO BE SUBMITTED OFFLINE (IN ORIGINAL)

The Bidder has to submit the documents in original as part of Response to RfS to the address mentioned in Bid Information Sheet before the due date and time of bid submission.

Bidding Envelope: Super scribed as "Bidding Envelope containing (i) Covering Envelope –A & Covering Envelope –B at the top of the Envelope and "Name & Address of the Bidder" on the left hand side bottom must contain the following

- I. Covering Envelope-A: Super scribed as "Covering Envelope Containing Cost of RfS Document / Processing Fee, EMD, Covering Letter, must contain the following
 - DD/ Pay order/ UTR Receipt towards Cost of RfS Document / processing fee as mentioned in Bid Information Sheet.
 - EMD in the form of DD as mentioned in the Bid Information Sheet.
 One EMD may be submitted for the cumulative capacity quoted by the Bidder.

- Integrity pact in non judicial stamp of Rs 200/- in the prescribed format
- Covering Letter as per Format-7.1

II. Covering letter -B,

- Copy of certificate duly authroised by notary public substantiating the experience criteria as per MQC.
- Copy of all certificates certified by chartered accountant regarding the financial standing of the bidder for the last 3 financial years ending 31st March 2020, if not available ending 31st March of 2019 substantiating financial eligibility as per MQC.
- Power of Attorney as per Format 7.2 (if applicable),
- Board Resolution as per Format 7.4
- Consortium Agreement as per Format 7.5 (if applicable)
- Integrity pact in the prescribed format available in the CoPT's website. The integrity pact shall be prepared in stamp paper of Rs 200/ in Kerala state.

III. The cover A and B shall be put into another cover "Bidding envelope.

The bidding envelope shall contain the following sticker

Response to RfS for Selection of Solar Power Developers for Setting up of 1.0.5 MW (0.75MW x 02) Grid Connected Floating Solar Power Projects in backwaters at CoPT's walkway avenue between BOTbridge and Kannangat bridge at W/island, Cochin 3, Kerala, India		
Cumulative Capacity of the projects applied for	1.5 MW	
No. of Projects Bid for	One	
RfS Reference No.		
Submitted by	(Enter Full name and address of the Bidder)	
Authorized Signatory	(Signature of the Authorized Signatory) (Name of the Authorized Signatory) (Stamp of the Bidder)	
Bid Submitted to	The Chief Mechanical Engineer, Cochin Port Trust, 1 st Floor, New Administrative Building, Cochin 09, Kochi, Kerala, India E mail cme@cochinport.gov.in	

DOCUMENTS TO BE SUBMITTED ONLINE

Detailed instructions to be followed by the Bidders for online submission of response to RfS are stated as Annexure-D and E. The Bidders shall strictly follow the instructions mentioned in the electronic form in respective technical bid and financial bid while filling the form.

If the Bidder has submitted offline documents and fails to submit the online bid, then the same shall be treated as incomplete bid and Cost of RfS, Processing fee submitted shall be encashed and the EMD(s) shall

be returned.

All documents of the response to RfS shall be submitted on www.tenderwizard.com/COPT. which should contain the following:

I. <u>Technical Bid (First Envelope)</u>

The Bidder shall upload single technical bid containing the **scanned copy** of following documents duly signed and stamped on each page by the authorized person as mentioned below

- (a) Formats 7.1, 7.2 (if applicable), 7.3 A, 7.4, 7.5 (if applicable), 7.6, 7.7 (if applicable), 7.8, 7.9 as elaborated in Clause No. 20, Section-II, Instructions to Bidders (ITB).
- (b) All attachments elaborated in Clause No. 20, Section-II, Instructions to Bidders (ITB), under the sub-clause 10: Attachments, with proper file names.
- (c) All supporting documents regarding meeting the eligibility criteria. The bidder will have to fill the Electronic Form provided at the COPT portal as part of Technical Bid.

II. <u>Financial Bid (Second Envelope)</u>

Bidders shall submit the single Financial Bid containing the scanned copy of following document(s):

- (a) Covering letter as per Format-7.10 of this RfS document
- (b) Preliminary Estimate of Cost of Solar PV Project as per Format 7.11

Only single tariff bid for the Projects applied for, shall have to be filled online in the Electronic Form provided at website of M/s KEONICS, www.tenderwizard.com/cpt. The instructions mentioned in the Financial Bid Electronic Form have to be strictly followed without any deviation, else the bid shall be considered as non-responsive. Financial bid shall not be submitted OFF LINE at any circumstances. The bid with submission of single tariff financial bid off line shall be summarily rejected.

Important Note:

- (a) The Bidders shall not deviate from the naming and the numbering formats of envelops mentioned above, in any manner.
- (b) In each of the Envelopes, all the documents enclosed shall be indexed and flagged appropriately, with the index list indicating the name of the document against each flag.
- (c) All the Envelopes shall be properly sealed with the signature of the Authorized Signatory running across the sealing of the envelopes.

RfS for Selection of Solar Power Developers for Setting up of 1.5 MW GRID Connected Floating Solar Power Projects at Cochin Port Backwaters

24 NOTICE BOARD FOR DISPLAY

The selected SPD will have to put a notice board (at least 180cm x 120cm) at its project site main entrance prominently displaying the following message before declaration of COD

1.5 MWp Grid Connected Floating Solar Power Project under RESCO model for 25 years
Constructed and operated by (Name of SPD)

Under RfS for setting up of 1.50 MwP (2x0.75) grid connected floating solar power project under RESCO (BOOT) model for 2 years.

Project implemented by Cochin Port Trust

At W/Island, Kochi, Kerala

for such costs, regardless of the conduct or outcome of the bid process

27 CLARIFICATIONS/ PRE-BID MEETING/ ENQUIRIES/ AMENDMENTS

Clarifications/ Doubts, if any, on RfS document may be emailed and/ or submitted through COPT portal.

COPT will make effort to respond to the same in the Pre-Bid Meeting to be held as mentioned in the Bid Information Sheet. A compiled list of such questionnaire and COPT's response will be uploaded in the website www.tenderwizard.com/COPT & www.cochinport.gov.in

No separate reply/ intimation will be given for the above, elsewhere.

A Pre-Bid Meeting shall be held as mentioned in the Bid Information Sheet (Venue to be notified later on COPT's website).

Enquiries/ Clarifications may be sought by the Bidder from

Name of the Authorized Person of COPT:	Contact Details:
Shri V. ThuraiPandian, Chief Mechanical Engineer, Cochin Port Trust, Cochin 9	Phone (Off): 0484-2666639, 0484-2582300 E-mail: cme@cochinport.gov.in
Smt. Latha G Menon SE (Ele)	Phone (Off): 0484-2582351, 0484-2582352, Email: lathamenon@cochinport.gov.in

Shri. D. Ajith Kumar	Phone (Off): 0484-2582352,
Executive Engineer (Ele)	Email: ajithkumar@cochinport.gov.in

28 RIGHT OF COPT TO REJECT A BID

COPT reserves the right to reject any or all of the responses to RfS or cancel the RfS or annul the bidding process for any project at any stage without assigning any reasons whatsoever and without thereby any liability.

29 POST AWARD COMPLIANCES

Timely completion of all the milestones i.e. signing of PPA, meeting Financial Closure Requirements/ Conditions Subsequent (PPA), Commissioning etc. will be the sole responsibility of SPD. COPT shall not be liable for issuing any intimations/ reminders to SPDs for timely completion of milestones and/ or submission of compliance documents.

Any checklist shared with SPD by COPT for compliance of above mentioned milestones to be considered for the purpose of facilitation only. Any additional documents required as per the conditions of Guidelines, RfS and PPA must be timely submitted by the SPD.

30 OWNERSHIP OF THE PLANT AFTER 25 YEARS

The The Ownership of the installation including the water body shall be vested with Cochin Port Trust and SPD will be as lessee only during contract period and it shall be transferred to Cochin Port Trust after 25 years.

SECTION - III

QUALIFYING REQUIREMENTS FOR BIDDERS (QR)

Short listing of Bidders will be based on meeting the following Criteria:

A GENERAL ELIGIBILITY CRITERIA

1. General

- The Bidder should be either a body incorporated in India under the Companies Act, 1956 or 2013 including any amendment thereto and engaged in the business of Solar Power.
- A copy of certificate of incorporation shall be furnished along with the bid in support of above.

2. Technical Eligibility Criteria

The tenderers should have the experience of having successfully completed similar works during last 7 (seven) years ending on 31/03/2020, at least either:

a. Three (3) similar completed works, each single contract costing not less than Rs. 2.70 crore (or installed 0.60 Mwp)

OR

b. Two (2) similar completed works, each single contract costing not less that Rs. 3.38 Cr (or installed 0.75 Mwp)/-

OR

 c. One (1) similar completed work costing not less than Rs. 5.40 Cr (or installed 1.20Mwp)

Note:- Similar works means "Supply, Installation, Testing, Commissioning of Solar Power Plants in a single contract or cumulative contracts during the last 7 years ending 30/04/2020"

The list of projects commissioned during last 7 years ending 30/04/2020 , indicating whether the project is grid connected, along with a copy of the Commissioning certificate and Work order/ Contract Agreement/ from the Client/Owner shall be submitted in support of the claim.

3. Financial Eligibility Criteria

Average Financial turnover of the tenderer during the last 3 financial years ending 31st March 2019, shall not be less than Rs 2.03Cr The bidder would be required to submit annual audited accounts for the last 3 years financial year, up to FY 2019-20, if not available the last year's account the bidder shall submit the annual accounts of consecutive 3 years up to 2018-19, along with net worth, annual turnover etc from a practicing Chartered Accountant/ Statutory. For meeting the above financial eligibility criteria, if the data is provided by the Bidder in USD, equivalent Indian Rupees of Net Worth and other financial parameters will be calculated by the Bidder using Reserve Bank of India's reference rates prevailing on the date of closing of the accounts for the respective financial year.

For currency other than USD, Bidders shall convert such currency into USD

as per the exchange rates certified by their banker prevailing on the relevant date and used for such conversion.

- 4. The cost of tender document / processing fee and Bind Bond (EMD) shall be remitted as per the Instruction to Bidders (ITB) of SBD.
- 5. The cost of tender document / processing charge, once remitted, will not be refunded under any circumstances.
- 6. The Chief Mechanical Engineer of Cochin Port Trust reserves the right to reject / cancel / postpone /annul any one or all tenders at any stage of the tender, which will be binding on all bidders.
- 7. All correspondence with regard to the above shall be to the following address. (By Post/In Person)
 - a. Name of bid documentation issuance officer: V. Thuraipandian
 - b. Designation of the officer: Chief Mechanical Engineer
 - c. Address: Office of the Chief Mechanical Engineer, 1st floor, Main administrative building, Cochin Port Trust, Cochin 9.
 - d. Telephone- 0091 484 2666639, 04842582300, 2582301, 2582305
 - e. Fax: 0091 484 2666639
 - f. E mail ID- cme@cochinport.gov.in
- 8. The bidder have to execute an "Integrity Pact" (IP) as per the format attached in this tender document. Integrity pact shall cover entire activities of this tender from bidding stage to the completion of entire contract period of 25 years period during various phases of this tender. The Tenderer should sign and submit the "Integrity Pact" to be executed between the Tenderer and Cochin Port Trust along with the Tender in a separate envelope super scribing "Integrity Pact". Tenders not accompanied with IP will be rejected. The IP would be implemented through the Independent External Monitor (IEM) for this tender. The contact details of the IEM is as below

Shri. P R Ravikumar, IRS (Retd.) Akshath, No. 84, First Avenue, Kumaranasan Nagar, Elamkulam (PO) Ernakulam, 682020

SECTION - IV

DEFINITIONS OF TERMS

"ACT" or "ELECTRICITY ACT, 2003" shall mean the Electricity Act, 2003 and include any modifications, amendments and substitution from time to time:

"AFFILIATE" shall mean a Company that, directly or indirectly,

- i. controls, or
- ii. is controlled by, or
- iii. is under common control with, a Company developing a Project or a Member in a Consortium developing the Project and control means ownership, directly or indirectly, of more than 50% (fifty percent) of the voting shares of such Company or right to appoint majority Directors;

"APPROPRIATE COMMISSION" shall mean as defined in the PPA;

"BIDDER" shall mean Bidding Company (including a foreign company) or a Bidding Consortium submitting the Bid. Any reference to the Bidder includes Bidding Company/ Bidding Consortium, Member of a Bidding Consortium including its successors, executors and permitted assigns and Lead Member of the Bidding Consortium jointly and severally, as the context may require; foreign companies participating in the bidding process shall be registered as companies as per the rules of their country of origin;

"BIDDING CONSORTIUM" or "CONSORTIUM" shall refer to a group of Companies that have collectively submitted the response in accordance with the provisions of this RfS under a Consortium Agreement;

"BLOCK" shall mean a minimum capacity to be installed at a single location, which shall be not less than 0.75 MW. The Blocks shall be configured in line with Clause 3.3 of Section-II (ITB) of the RfS;

"CAPACITY UTILIZATION FACTOR (CUF)" shall have the same meaning as provided in CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2009 as amended from time to time;

"CHARTERED ACCOUNTANT" shall mean a person practising in India or a firm whereof all the partners practicing in India as a Chartered Accountant(s) within the meaning of the Chartered Accountants Act, 1949.

For Bidders incorporated in countries other than India, "Chartered Accountant" shall mean a person or a firm practicing in the respective country and designated/ registered under the corresponding Statutes/ laws of the respective country;

- "COMPANY" shall mean a body corporate incorporated in India under the Companies Act, 1956 or the Companies Act, 2013, as applicable;
- "COMMERCIAL OPERATION DATE (COD)" shall mean the date as defined in Clause no. 17, Section-II, Instructions to Bidders (ITB) of RfS;
- "CONTRACTED CAPACITY" shall mean the AC capacity in MW contracted with COPT for supply by the SPD to COPT at the Delivery Point from the Solar Power Project;
- "CONTRACT YEAR" shall mean the period beginning from the Effective Date and ending on the immediately succeeding 31st March and thereafter each period of 12 months beginning on 1st April and ending on 31st March provided that:
 - (a) in the financial year in which the Scheduled Commissioning Date would occur, the Contract Year shall end on the date immediately before the Scheduled Commissioning Date and a new Contract Year shall commence once again from the Scheduled Commissioning Date and end on the immediately succeeding 31St March, and thereafter each period of 12 (Twelve) Months commencing on 1St April and ending on 31St March, and
 - (b) provided further that the last Contract Year of this Agreement shall end on the last day of the Term of this Agreement;
- "CONTROL" shall mean the ownership, directly or indirectly, of more than 50% (fifty percent) of the voting shares of such Company or right to appoint majority Directors;
- "CONTROLLING SHAREHOLDING" shall mean more than 50% of the voting rights and paid up share capital in the Company/ Consortium;
- "CENTRAL TRANSMISSION UTILITY (CTU)" shall mean the Central Transmission Utility as defined in sub-section (10) of section 2 of the Electricity Act 2003;
- "DAY" shall mean calendar day;
- "EFFECTIVE DATE" shall mean the date as on 180th day from the date of issuance of Letter of Intent (LOI), which shall be indicated in the Power Purchase Agreement (PPA) executed by both the parties;
- "EQUITY" shall mean Net Worth as defined in Companies Act, 2013;

"FINANCIAL CLOSURE" or "PROJECT FINANCING ARRANGEMENTS" means arrangement of necessary funds by the Solar Power Developer either by way of commitment of funds by the Company from its internal resources and/or tie up of funds through a bank/ financial institution by way of sanction a loan or letter agreeing to finance. For details kindly refer clause no. 15, Section-II (ITB);

"FLOATING SOLAR" means a floating solar array or floating solar farm, refers to an array of photovoltaic panels on a structure that floats on a body of water, typically a reservoir or lake;

"GUIDELINES" shall mean the "Guidelines for Tariff Based Competitive Bidding Process for Procurement of Power from Grid Connected Solar PV Power Projects" issued by the Ministry of Power vide Resolution dated 03.08.2017;

"LEAD MEMBER OF THE BIDDING CONSORTIUM" or "LEAD MEMBER": There shall be only one Lead Member, having the shareholding of not less 51% in the Bidding Consortium.

"GROUP COMPANY" of a Company means

- (a) a Company which, directly or indirectly, holds 10% (Ten Percent) or more of the share capital of the Company or;
- (b) a Company in which the Company, directly or indirectly, holds 10% (Ten Percent) or more of the share capital of such Company or;
- (c) a Company in which the Company, directly or indirectly, has the power to direct or cause to be directed the management and policies of such Company whether through the ownership of securities or agreement or any other arrangement or otherwise or;
- (d) a Company which, directly or indirectly, has the power to direct or cause to be directed the management and policies of the Company whether through the ownership of securities or agreement or any other arrangement or otherwise or:
- (e) a Company which is under common control with the Company, and control means ownership by one Company of at least 10% (Ten Percent) of the share capital of the other Company or power to direct or cause to be directed the management and policies of such Company whether through the ownership of securities or agreement or any other arrangement or otherwise;

Provided that a financial institution, scheduled bank, foreign institutional investor, Non- Banking Financial Company, and any mutual fund shall not be deemed to be Group Company, and its shareholding and the power to direct or cause to be directed the management and policies of a Company shall not be considered for the purposes of this definition unless it is the Project Company or a Member of the Consortium developing the Project;

- "INTER-CONNECTION POINT/ DELIVERY/ METERING POINT" shall mean the point at 11kV or above. , where the power from the Solar Power Projects is injected into the identified termination point (including the dedicated transmission line connecting the solar power Projects with the substation systems such as UG cables, switch gears, metering panels etc) as specified in the RfS document. Metering shall be done at this interconnection point where the power is injected into. For interconnection with grid and metering, the SPDs shall abide by the relevant CERC/ SERC Regulations, Grid Code and Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended and revised from time to time.
- "JOINT CONTROL" shall mean a situation where a company has multiple promoters (but none of the shareholders has more than 50% of voting rights and paid up share capital);

Note: The shareholding of the Lead member in the Project Company (Special Purpose Vehicle) cannot be changed till 01 (One) year after the Commercial Operation Date (COD) of the Project;

- "LETTER OF INTENT" or "LoI" shall mean the letter issued by Cochin Port Trust (COPT) to the selected Bidder for award of the Project;
- "LIMITED LIABILITY PARTNERSHIP" or "LLP" shall mean a Company governed by Limited Liability Partnership Act 2008 or as amended;
- "LLC" shall mean Limited Liability Company;
- "MEMBER IN A BIDDING CONSORTIUM" or "MEMBER" shall mean each Company in a Bidding Consortium. In case of a Technology Partner being a member in the Consortium, it has to be a Company;
- "MONTH" shall mean calendar month;
- "NET-WORTH" means the Net-Worth as defined section 2 of the company Act, 2013;
- "PAID-UP SHARE CAPITAL" shall mean the paid-up share capital as defined in Section 2 of the Company Act, 2013;
- "PARENT" shall mean a Company, which holds not more than 50% voting rights and paid up share capital, either directly or indirectly in the Project Company or a Member in a Consortium developing the Project;
- "POOLING SUBSTATION/ POOLING POINT" shall mean a point where more than one Solar PV Project may connect to a common Transmission System. Multiple Projects can be connected to a pooling substation from where common

transmission system shall be constructed and maintained by the SPD(s) to get connected to the substation. The voltage level for such common line shall be 11 kV. Further, the metering of the pooled power shall be done at the injection point, i.e. the substation. Sub-meters shall be installed at the pooling substation for metering and forecasting and scheduling of individual Projects. The losses in the common transmission system up to the injection point shall be apportioned to the individual Projects for the purpose of billing;

"PGCIL" means Power Grid Corporation of India Limited;

"PPA" shall mean the Power Purchase Agreement signed between the SPD and COPT with provision of separate Escrow account according to the terms and conditions of the standard PPA enclosed with this RfS:

"PACKAGE" shall mean cumulative installation of 1.50 MW, to be interconnected at a single point. A Project may be divided into 02 Packages by the Bidder and shall be configured in line with Clause 3.3 of Section-II (ITB) of the RfS;

"POWER PROJECT" or "FLOATING SOLAR POWER PROJECT" or "PROJECT" shall mean the solar power generation facility having separate points of injection into the grid at Inter-connection/ Delivery/ Metering Point, or in case of sharing of transmission lines by separate injection at Pooling Point and having a separate boundary, control systems and metering. As illustrated in Clause no. 3.3 of Section II (ITB) of the RfS, a Project may comprise of 2 packages each of 0.75 MwP with separate meters. However the injection point to the grid is a single point where power from 2 sources shall be synchronized to a single unit and connected to CoPT's grid through a common grid meter and CT/PT units. The payment shall made based on the energy shown in the common grid meter. The Project and/ or Package(s) shall include all units and auxiliaries such as water supply, treatment or storage facilities, bay(s) for transmission system in the switchyard, dedicated transmission line up to the Delivery Point and all the other assets, buildings/ structures, equipment, plant and machinery, facilities and related assets required for the efficient and economic operation of the power generation facility, whether completed or at any stage of development and construction or intended to be developed and constructed for the purpose of supply of power to COPT:

"PROJECT CAPACITY" shall mean the maximum AC capacity at the delivery point that can be scheduled on which the Power Purchase Agreement shall be signed;

"PROJECT COMMISSIONING": The Project will be considered as commissioned if all equipment as per rated project capacity has been installed and energy has flown into grid, in line with the Commissioning

procedures defined in the RfS/ PPA;

"PROJECT DEVELOPER" or "DEVELOPER" or "SOLAR POWER DEVELOPER (SPD)" shall mean the Bidding Company or a Bidding Consortium participating in the bid and having been selected and allocated a project capacity by COPT (through a competitive bidding process), including the SPV formed by the selected bidder/ consortium for the purpose of setting up of project and signing of PPA with COPT;

"RfS DOCUMENT" shall mean the bidding document issued by COPT including all attachments, clarifications and amendments thereof vide RfS No. COPT/1.5 MW FLOATING SOLAR/TD/2020

"COPT" shall mean Cochin Port Trust;

"SELECTED BIDDER" or "SUCCESSFUL BIDDER" shall mean the Bidder selected pursuant to this RfS to set up the Project and supply electrical output as per the terms of PPA;

"SOLAR PV PROJECT" shall mean the Solar Photo Voltaic Power Project that uses sunlight for direct conversion into electricity through Photo Voltaic Technology;

"STATE TRANSMISSION UTILITY" or "STU" shall mean the Board or the Government Company notified by the respective State Government under Sub-Section I of Section 39 of the Electricity Act, 2003;

"TOE" shall mean Tender Opening Event.

"ULTIMATE PARENT" shall mean a Company, which owns more than 50% (Fifty Percent) voting rights and paid up share capital, either directly or indirectly in the Parent and Affiliates;

"COPT" shall mean Cochin Port Trust;

"KSEBL" shall mean Kerala State Electricity Board Limited;

"CERC" Means Central Electricity Regulatory Commission

"KSERC" Means Kerala State Electricity Regulatory Commission

"WEEK" shall mean calendar week;

SECTION - V

BID EVALUATION AND SELECTION OF PROJECTS

1 BID EVALUATION

Bid evaluation will be carried out considering the information furnished by Bidders as per provisions specified in Section-II, Instructions to Bidders (ITB) of this RfS. The detailed evaluation procedure and selection of bidders are described in subsequent clauses in this Section.

2 TECHNO-COMMERCIAL EVALUATION OF BIDDERS

FIRST ENVELOPE (TECHNICAL BID) EVALUATION (STEP - 1)

The first envelope (Technical Bid submitted online) of only those bidders will be opened by COPT whose required documents as mentioned at Clause No. 23, Section-II, Instructions to Bidders (ITB) of this RfS are received at the office of COPT on or before the due date and time of bid submission.

Documents (as mentioned in the previous clause) received after the bid submission deadline specified in the Bid Information Sheet shall be rejected and returned unopened, if super- scribed properly with address, to the Bidder.

The Techno Commercial Bid submitted by Bidders shall be scrutinized to establish responsiveness to the requirements laid down in the RfS subject to fulfillment of Clause No. 22, Section-II, Instructions to Bidders (ITB) of this RfS., Any of the following may cause the Bid to be considered "Non- responsive", at the sole discretion of Cochin Port Trust:

- a) Bids that are incomplete, i.e. not accompanied by any of the applicable formats inter alia covering letter, power of attorney supported by a board resolution, applicable undertakings, valid Bid Bond (EMD), Cost of tender document (Processing fee) etc.;
- b) Bid not signed by authorized signatory and/ or stamped in the manner indicated in this RFP;
- c) Material inconsistencies in the information/ documents submitted by the Bidder, affecting the Eligibility Criteria;
- d) Information not submitted in the formats specified in this RFP;
- e) Bid being conditional in nature;
- f) Bid not received by the Bid Deadline;
- g) Bid having Conflict of Interest;
- h) More than one Member of a Bidding Company using the credentials of the same Parent Company /Affiliate;
- i) Bidder delaying in submission of additional information or clarifications sought by Cochin Port Trust as applicable;
- j) Bidder makes any misrepresentation.

Each Bid shall be checked for compliance with the submission requirements set forth in this RfS before the evaluation of Bidder's fulfillment of Eligibility Criteria is taken up. During the examination of the bids, COPT may seek clarifications/ additional documents to

the documents submitted etc. from the Bidders if required to satisfy themselves for meeting the eligibility conditions by the Bidders. Bidders shall be required to respond to any clarifications/ additional documents sought by COPT within 07 (Seven) Days from the date of such intimation from COPT. All correspondence in this regard shall be made through email/ COPT portal only. It shall be the responsibility of the Bidder to ensure that the email id of the authorized signatory of the Bidder is functional. The Bidder may provide an additional email id of the authorized signatory in the covering letter. No reminders in this case shall be sent. It shall be the sole responsibility of the Bidders to remove all the discrepancies and furnish additional

SECOND ENVELOPE (FINANCIAL BID) EVALUATION (STEP - 2)

Price Bid of the Qualified Bidders shall be opened ON LINE in presence of the representatives of such Qualified Bidders, who wish to be present, on a date as may be intimated by Cochin Port Trust to the Bidders through Cochin Port Trust website www.cochinport.gov.in; www.tenderwizard.com/cpt or through Email. The evaluation of Price Bid shall be carried out based on the information furnished in price bids submitted ON LINE. The Price Bid submitted by the Bidders shall be scrutinized to ensure conformity with the RfS. Any Bid not meeting any of the requirements of this RfS may cause the Bid to be considered "Non-responsive" at the sole decision of the Cochin Port Trust. The Price bids shall be evaluated for RESCO as follows:

The tariff quoted shall be evaluated as follows;

- a. The tariff shall be evaluated on levellized tariff basis quoted for the capacity.
- b. Since the maximum allowable levellized tariff for 25 years in this part is Rs 3.97 per Kwh of levelized tariff for 25 years. So bidder submitting bid above the maximum allowable rate shall be rejected.

All Bidders with same tariff shall be eligible for reverse auction, if CoPT desires to do so. The decision of the CoPT whether to go for reverse auction is final and no claim whatsoever shall be admitted in this regard from the bidders.

3 REVERSE AUCTION (STEP - 3)

The reverse auction for the cumulative Project capacity shall be conducted through https://www.tenderwizard.com/COPT on the day as intimated by COPT to the eligible Bidders. The bidders who quotes same tariff will be called for reverse action if required through ON LINE and based on the lowest quote offered by the bidder will be considered for the award of work.

At least one week prior to reverse auction, an advance intimation regarding the date and time of the reverse auction will be sent by e-mail to the Bidders who have quoted same tariff in the price bid.

During the 15 minutes prior to start of reverse auction process, the respective tariff of the Bidder shall be displayed on its window.

The minimum decrement value for tariff shall be INR 0.01 per kWh. The Bidder can mention its revised discounted tariff which has to be at least 01 (One) Paisa less than its current tariff.

Bidders can only quote any value lower than their previous quoted tariff taking into consideration the minimum decrement value mentioned in the previous clause. However, at any stage, increase in tariff will not be permissible. Bidders can improve their ranking by quoting the tariff lower than their last quoted tariff.

During reverse auction, the Bidder shall not have the option of changing the total Project capacity while quoting tariff during reverse auction

In the Bidder's bidding window, the following information can be viewed by the Bidder:

- a. Its tariff as the initial start price and there after last quoted tariff along with the Project capacity for which the Bidder is qualified.
- b. The list of all the Bidders with their following details: Pseudo Identity, last quoted tariff and project capacity

The initial auction period will be of 01 (One) Hour with a provision of auto extension by 15 (fifteen) Minutes from the scheduled/ extended closing time if any Bidder becomes eligible to the win a project capacity from the total capacity being auctioned, in last eight minutes of auction period or extended auction period. If no such valid bid is received during last 15 minutes of auction period or extended auction period, then the reverse auction process will get closed.

4 SELECTION OF SUCCESSFUL BIDDERS

The Bidders shall be selected based on the lowest quote in the price bid, ie those who have quoted lowest tariff in the price bid, then he will be declared as L1 bidder and shall be selected for award of work. If the same tariff is quoted by more than 1 bidder, then those bidders shall be called for e reverse auction process and lowest tariff offered by the bidder in the reverse auction will selected for award of work. If again same L1 tariff is offered in reverse auction also, then project capacity will be shared equally and selected the bidders as below.

Number of bidder with equal quotes	Tariff (Rs./kWh)	Project Capacity Awarded (MW)
Bidder A quoted L1	₹ 3.30	0.50
Bidder B quoted L1	₹ 3.30	0.50
Bidder C quoted L1	₹ 3.30	0.50
Total capacity	1.5 MW	

SECTION - VI

OTHER PROVISIONS

1 ROLE OF STATE NODAL AGENCIES

It is envisaged that the CoPT shall arrange project implementation team, with project coordinator who will provide necessary support to facilitate the required approvals and sanctions in a time bound manner so as to achieve commissioning of the Projects within the scheduled Timeline. This may include facilitation in the following areas:

- Coordination among various State and Central agencies for speedy implementation of projects
- Support during commissioning of projects and issue of commissioning certificates.
- The cost involved for getting approvals, statutory clearance etc shall be borne by the SPD

2 ROLE OF STU

It is envisaged that the State Transmission Company will provide transmission system to facilitate the evacuation of power from the Projects which may include the following:

- i) Upon application of LTA/Connectivity as per CERC Regulations, STU
- ii) Support during commissioning of projects

3 INTELLECTUAL PROPERTY/ COPYRIGHT AND PATENT

- The copyright in all drawings, documents and other materials containing data and information furnished to the Employer by the Contractor herein shall remain vested in the Contractor or, if they are furnished to the Employer directly or through the Contractor by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party. The Employer shall however be free to reproduce all drawings, documents, specification and other material furnished to the Employer for the purpose of the contract including, if required, for operation and maintenance of the facilities.
- ii) The Contractor shall indemnify the Employer against third party claims of infringement of patent, trademark or industrial design rights arising from use of goods or any part thereof in India.
- iii) Any IPR related issue should be taken cared by the SPD. COPT is not responsible for any violation.
- iv) The technology to be used for anchoring the power plant shall not violate the IPR of any other company.

SECTION - VII

SAMPLE FORMS & FORMATS FOR BID SUBMISSION

FORMATS FOR BID SUBMISSION

The following formats are required to be submitted as part of the RfS. These formats are designed to demonstrate the Bidder's compliance with the Qualification Requirements set forth in Section - III and other submission requirements specified in the RfS

- i) Format of Covering Letter (Format 7.1)
- ii) Format for Power of Attorney (Format 7.2)
- iii) Format for Earnest Money Deposit (EMD) (Format 7.3 A)
- iv) Format for Performance Bank Guarantee (PBG) (Format 7.3B)
- v) Format for Board Resolutions (Format 7.4)
- vi) Format for Consortium Agreement (Format 7.5)
- vii) Format for Financial Requirement (Format 7.6)
- viii) Format for Disclosure (Format 7.7)
- ix) Format for Technical Criteria (Format 7.8)
- x) Format for Proposed Technology Tie-up (Format 7.9)
- xi) Format for submission of Financial Bid (Format 7.10)
- xii) Format for Preliminary Estimate of Cost of Solar PV Project (Format 7.11)
- xiii) Technical Requirements for Grid Connected Solar PV Projects (Annexure A)
- xiv) Check List for Bank Guarantees (Annexure-B)
- xv) List of Banks (Annexure-C)
- xvi) Special Instructions to Bidders for e-Tendering and Reverse Auction (Annexure-D)
- xvii) Terms & Conditions of Reverse Auction (Annexure-E)
- xviii) Integrity pact (Annexure F as per CoPT format available in the website)

COVERING LETTER

(The Covering Letter should be submitted on the Letter Head of the Bidding Company/ Lead Member of Consortium)

Ref.No	Date:
From:	_(Insert name and address of Bidding Company/ Lead Member of Consortium)
Tel.#: Fax#:	
E-mail address#	
To The Chief Mechar Cochin Port Trust	nical Engineer
Selection	to RfS No. COPT/1.5 MW FLOATING SOLAR/TD/2020 for of Solar Power Developers for Setting up of 1.5 MW Grid Floating Solar Power Projects at Backwaters of Cochin Port Trust
Dear Sir/ Madam,	
understood in det	ned [insert name of the 'Bidder'] having read, examined and ail the RfS including Qualification Requirements in particular, terms the standard PPA for supply of power for 25 years to COPT, hereby se to RfS.
We confirm that	in response to the aforesaid RfS. neither we nor any of our

Ultimate Parent Company/ Parent Company/ Affiliate/ Group Company has submitted response to RfS other than this response to RfS, directly or indirectly, in response to the aforesaid RfS (as mentioned in Format 7.7 under Disclosure). We also confirm that we including our Ultimate Parent Company/ Parent Company/ Affiliate/ Group Companies directly or indirectly have not submitted response to RfS for more than cumulative capacity of 1.5 MW, including this response to RfS. We are submitting RfS for the development of following Solar PV Project(s): -

Project No.	Capacity (MW)	Location of Project	Interconnection Point Details	Proposed CUF	Project Preference [*]

*The preferences of the Projects shall be considered only for the last successful bidder whose total quoted capacity is more than the balance capacity. In this case, allocation will be done as described in Clause 4.3 of Section V of the RfS.

(Note: The Bidder must ensure the project capacity mentioned should be more than or equal to 0.75 MW and less than or equal to 1.5 MW for each project. Delete/ Insert rows as applicable)

- 2. Earnest Money Deposit (EMD): (Please read Clause No. 10, Section-II, ITB carefully before filling)

We have enclosed EMD of INR (Insert Amount), in the form of Bank Guarantee no........... [Insert bank guarantee number] dated [Insert date of bank guarantee] as per Format 7.3A from [Insert name of bank providing bank guarantee] and valid up to in terms of Clause No. 10, Section-II, ITB of this RfS. The total capacity of the Solar PV Project offered by us is MW [Insert cumulative capacity proposed].

3. We hereby declare that in the event our Project(s) get selected and we are not able to submit Bank Guarantee of the requisite value(s) towards PBG within due time as mentioned in Clause No. 11, Section-II, ITB of this RfS on issue of LoI by COPT for the selected Projects and/ or we are not able to sign PPA within the prescribed timelines with COPT for the selected Projects, COPT shall have the right to encash the EMD submitted by us and return the balance amount (if any) for the value of EMD pertaining to unsuccessful capacity.

- 4. We have submitted our response to RfS strictly as per Section VII (Sample Forms and Formats) of this RfS, without any deviations, conditions and without mentioning any assumptions or notes in the said Formats.
- 5. We hereby declare that during the selection process, in the event our bid happens to be the last bid in the list of successful bids and COPT offers a capacity which is less than our quoted capacity due to overall bid capacity limit, we shall accept such offered capacity.

6. Acceptance:

We hereby unconditionally and irrevocably agree and accept that the decision made by COPT in respect of any matter regarding or arising out of the RfS shall be binding on us. We hereby expressly waive and withdraw any deviations and all claims in respect of this process.

7. Familiarity with Relevant Indian Laws & Regulations: -

We confirm that we have studied the provisions of the relevant Indian Laws and Regulations as required to enable us to submit this response to RfS and execute the PPA, in the event of our selection as Successful Bidder.

- 8. In case of our selection as the Successful bidder under the scheme and the project being executed by a Special Purpose Vehicle (SPV) incorporated by us which shall be our 100% subsidiary, we shall infuse necessary equity to the requirements of RfS. Further we will submit a Board Resolution prior to signing of PPA with COPT, committing total equity infusion in the SPV as per the provisions of RfS.
- 9. We hereby undertake that in the event of our project being selected under the RfS, we shall be solely responsible for getting the connectivity prior to commissioning of the Project. In the event of delay in commissioning with the grid of CTU beyond 06 months, the provisions of the RfS/ relevant articles of PPA shall be applied on such projects. Further, the project shall not be considered as commissioned unless the connectivity with CTU grid is established.
- 10. We are submitting our response to the RfS with formats duly signed as desired by you in the RfS online for your consideration.
- 11. It is confirmed that our response to the RfS is consistent with all the requirements of submission as stated in the RfS, including all clarifications and amendments and subsequent communications from COPT.
- 12. The information submitted in our response to the RfS is correct to the best of our knowledge and understanding. We would be solely responsible for any errors or omissions in our response to the RfS.

13.	(Insert date i	in dd/m	nm/yyyy) for acceptance [i.e. a period of 240 (Two Hundred
	Forty) Days 1	rrom tn	e last date of submission of response to RfS].
14.	Contact Pers	son	
	Details of the	e repre	sentative to be contacted by COPT are furnished
	as under: Na	ame	
	Designation	:	
	Company	:	
	Address	:	
	Phone Nos.	:	
	Mobile Nos.	:	
	Fax Nos.	:	
	E-mail addre	ess	:
15.	which to the Further, all the Bid are true selection as	e best the core and a Succe	rade any statement nor provided any information in this Bid of our knowledge is materially inaccurate or misleading infirmations, declarations and representations made in our accurate. In case this is found to be incorrect after our essful Bidder, we agree that the same would be treated as a refault under PPA and consequent provisions of PPA shall
20 We re	Thanking you		ay of,

Name, Designation, Seal and Signature of Authorized Person in whose name Power of Attorney/ Board Resolution/ Declaration.

PROFORMA OF POWER- OF-ATTORNEY/LETTER OF AUTHORITY

(To be submitted on Non-judicial Stamp Paper of appropriate value)

То

The Chief Mechanical Engineer, Cochin Port Trust, Cochin 682009.

Kerala, India.	
Dear Sir,	
We	
do hereby confirm that Mr./Ms./Messrs [INSERT ADDRESS], whose signature is given below, is /are authorized to represent us to bid, r conclude the agreement on our behalf with you against Tender for "Selection of Solar Power Site Survey, Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection Commissioning of 1.5MWp Grid Connected Floating Solar PV Project in the Backwaters walkway avenue between BOT junction and Kannangatt bridge at W/Island, Cochin Port including Operation & Maintenance (O & M) of the project for a period of 25 (Twenty Five) RESCO Model (BOOT) after Operational Acceptance"	negotiate and er Developers n, Testing & near CoPT's Trust, Kerala
(Tender No. F2/T-8/ Floating Solar-1.5MWp/2020/M dated 0/05/2020).	
We confirm that we shall be bound by all and whatsoever our said agents shall commit.	
Signature of the authorized person:	
Name & Designation :	
Yours faithfull	ly,
Signature, name and seal of the certifying authorit	ty

FORMAT FOR POWER OF ATTORNEY

(Applicable Only incase of Consortiums)

(To be provided by each of the other members of the Consortium in favor of the Lead Member)

(To be stamped in accordance with Stamp Act, the Non-Judicial Stamp Paper of Appropriate Value)

KNOW ALL MEN BY THESE PRESENTS THAT M/s having its registered office athaving its
registered office at
constitute, nominate and appoint M/sa company incorporated under the
laws ofand having its Registered/ Head Office atas
our duly constituted lawful Attorney (hereinafter called as Lead Member) to exercise all or any of the powers for and on behalf of the Consortium in regard to submission of the response to RfS No
We also authorize the said Lead Member to undertake the following acts:
 To submit on behalf of Consortium Members response to RfS. To do any other act or submit any information and document related to the above response to RfS Bid.
It is expressly understood that in the event of the Consortium being selected as Successful Bidder, this Power of Attorney shall remain valid, binding and irrevocable until the Bidding Consortium achieves execution of PPA.
We as the Member of the Consortium agree and undertake to ratify and confirm all whatsoever the said Attorney/ Lead Member has done on behalf of the Consortium Members pursuant to this Power of Attorney and the same shall bind us and deemed to have been done by us.
IN WITNESSWHEREOF M/s, as the Member of the
Consortium have executed these presents on this day of under the Common Sea of our company.

For and on behalf of Consortium Member
M/s
(Signature of person authorized by the board) (Name
Designatio n Place:
Date:)
Accepted
(Signature, Name, Designation and Address
of the person authorized by the board of the Lead Member)
Attested
(Signature of the executant)
(Signature & stamp of Notary of the place of execution)
Place: Date:

Lead Member in the Consortium shall have the controlling shareholding in the Company as defined in Section-IV, Definition of Terms of the RfS.

FORMAT FOR EARNEST MONEY DEPOSIT (EMD)

(To be stamped in accordance with Stamp Act, the Non-Judicial Stamp Paper of Appropriate Value)

Reference:Bank Guarantee No.:
In consideration of the [Insert name of the Bidder] (hereinafter referred to as 'Bidder') submitting the response to RfS inter alia for selection of the Project/ Projects of the cumulative capacity ofMW [Insert cumulative Project capacity proposed] for supply of power there from on long term basis, in response to the RfS Nodatedissued by Cochin Port Trust (hereinafter referred to as COPT) and COPT considering such response to the RfS of [insert the name of the Bidder] as per the terms of the RfS, the[insert name & address of bank] hereby agrees unequivocally, irrevocably and unconditionally to pay to COPT at [Insert Name of the Place from the address of COPT] forthwith on demand in writing from COPT or any Officer authorized by it in this behalf, any amount upto and not exceeding Rupees[Insert amount not less than that derived on the basis of Rs. 8 Lakhs per MW of cumulative capacity proposed], only, on behalf of M/s[Insert name of the Bidder].
This guarantee shall be valid and binding on this Bank up to and including [insert date of validity in accordance with Clause No. 10, Section-II, ITB of this RfS] and shall not be terminable by notice or any change in the constitution of the Bank or the term of contract or by any other reasons whatsoever and our liability hereunder shall not be impaired or discharged by any extension of time or variations or alternations made, given, or agreed with or without our knowledge or consent, by or between parties to the respective agreement.
Our liability under this Guarantee is restricted to INR(Indian Rupees only). Our Guarantee shall remain in force until [insert date of validity in accordance with Clause No. 10, Section-II, ITB of this RfS]. COPT shall be entitled to invoke this Guarantee till [insert date of validity in accordance with Clause No. 10, Section-II, ITB of this RfS].
The Guarantor Bank hereby agrees and acknowledges that the COPT shall have a right to invoke this BANK GUARANTEE in part or in full, as it may deem fit.
The Guarantor Bank hereby expressly agrees that it shall not require any proof in addition to the written demand by COPT, made in any format, raised at the above mentioned address of the Guarantor Bank, in order to make the said payment to COPT. The Guarantor Bank shall make payment hereunder on first demand without
restriction or conditions and notwithstanding any objection by [Insert name of

the Bidder] and/ or any other person. The Guarantor Bank shall not require COPT to justify the invocation of this BANK GUARANTEE, nor shall the Guarantor Bank have any recourse against COPT in respect of any payment made hereunder.

This BANK GUARANTEE shall be interpreted in accordance with the laws of India and the courts at New Delhi shall have exclusive jurisdiction.

The Guarantor Bank represents that this BANK GUARANTEE has been established in such form and with such content that it is fully enforceable in accordance with its terms as against the Guarantor Bank in the manner provided herein.

This BANK GUARANTEE shall not be affected in any manner by reason of merger, amalgamation, restructuring or any other change in the constitution of the Guarantor Bank.

This BANK GUARANTEE shall be a primary obligation of the Guarantor Bank and accordingly COPT shall not be obliged before enforcing this BANK GUARANTEE to take any action in any court or arbitral proceedings against the Bidder, to make any claim against or any demand on the Bidder or to give any notice to the Bidder or to enforce any security held by COPT or to exercise, levy or enforce any distress, diligence or other process against the Bidder.

The Guarantor Bank acknowledges that this BANK GUARANTEE is not personal to COPT and may be assigned, in whole or in part, (whether absolutely or by way of security) by COPT to any entity to whom COPT is entitled to assign its rights and obligations under the PPA.

Notwithstanding anything contained hereinabove, our liability under this Guarantee is
restricted to INR(Indian RupeesOnly) and it shall
remain in force until[Date to be inserted on
the basis of Clause No. 10, Section-II, ITB of this RfS].
We are liable to pay the guaranteed amount or any part thereof under this Bank
Guarantee only if COPT serves upon us a written claim or demand.
Signature:
Name:
Power of Attorney No.:
For
[Insert Name and Address of the Bank]
Contact Details of the
Bank: E-mail ID of the
Bank:
Banker's Stamp and Full Address. Dated this day of . 20

-

PROFORMA OF IRREVOCABLE BANK GUARANTEE FOR PERFORMANCE OF GUARANTEE

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to Kerala)

In consideration of the [Insert name of the Bidder] (hereinafter referred to as selected Successful Bidder(SB)) submitting the response to RfS for the capacity of
This guarantee shall be valid and binding on this Bank up to and including[insert date of validity]. and shall not be terminable by notice or any change in the constitution of the Bank or the term of contract or by any other reasons whatsoever and our liability hereunder shall not be impaired or discharged by any extension of time or variations or alternations made, given, or agreed with or without our knowledge or consent, by or between parties to the respective agreement.
Our liability under this Guarantee is restricted to Rs. (Rs.only) Our Guarantee shall remain in force until[insert date of validity) COPTshall be entitled to invoke this Guarantee till_ [Insert date which is 30 days after the date in the preceding sentence].

The Guarantor Bank hereby expressly agrees that it shall not require any proof in addition to the written demand Cochin Port Trust, made in any format, raised at the above mentioned address of the Guarantor Bank, in order to make the said payment to Cochin Port Trust.

The Guarantor Bank shall make payment hereunder on first demand without restriction or conditions and notwithstanding any objection by ------[Insert name of the Successful Bidder(SB)/Project Company as applicable] and/or any other person. The Guarantor Bank shall not require COPTto justify the invocation of this BANK GUARANTEE, nor shall the Guarantor Bank have any recourse against COPT in respect of any payment made hereunder.

This BANK GUARANTEE shall be interpreted in accordance with the laws of India and the courts at Ernakulam shall have exclusive jurisdiction.

The Guarantor Bank represents that this BANK GUARANTEE has been established in such form and with such content that it is fully enforceable in accordance with its terms as against the Guarantor Bank in the manner provided herein.

This BANK GUARANTEE shall not be affected in any manner by reason of merger, amalgamation, restructuring or any other change in the constitution of the Guarantor Bank.

This BANK GUARANTEE shall be a primary obligation of the Guarantor Bank and accordingly COPTshall not be obliged before enforcing this BANK GUARANTEE to take any action in any court or

arbitral proceedings against the Successful Bidder(SB) / Project Company, to make any claim against or any demand on the Successful Bidder(SB)/ Project Company or to give any notice to the Successful Bidder(SB)/ Project Company or to enforce any security held by COPTor to exercise, levy or enforce any distress, diligence or other process against the Successful Bidder(SB)/ Project Company.
Notwithstanding anything contained hereinabove, our liability under this Guarantee is restricted to Rs. (Rs only) and it shall remain in force until
Signature _
Name
Power of Attorney No.
Email ID
For
[Insert Name of the Bank] Banker's Stamp and Full Address. Dated this day of , 20
Witness: 1Signature
Name Address
2 Signature Name and Address

FORMAT FOR BOARD RESOLUTIONS

The Board, after discussion, at the duly convened Meeting on [Insert date], with the consent of all the Directors present and in compliance of the provisions of the Companies Act, 1956 or Companies Act 2013, as applicable, passed the following Resolution:

2. FURTHER RESOLVED THAT pursuant to the provisions of the Companies Act, 1956 or Companies Act, 2013, as applicable and compliance thereof and as permitted under the Memorandum and Articles of Association of the Company, approval of the Board be and is hereby accorded to invest total equity in the Project. (To be provided by the Bidding Company)

[Note: In the event the Bidder is a Bidding Consortium, in place of the above resolution at SI. No. 2, the following resolutions are to be provided]

FURTHER RESOLVED THAT pursuant to the provisions of the Companies Act, 1956 or Companies Act, 2013, as applicable and compliance thereof and as permitted under the Memorandum and Articles of Association of the Company, approval of the Board be and is hereby accorded to invest (-----%) equity [Insert the % equity commitment as specified in Consortium Agreement] in the Project. (To be provided by each Member of the Bidding Consortium including Lead Member such that total equity is 100%)

FURTHER RESOLVED THAT approval of the Board be and is hereby accorded to participate in consortium with M/s [Insert—the—name—of—other—Members—in—the Consortium] and Mr/

Ms....., be and is hereby authorized to execute the Consortium Agreement. (To be provided by each Member of the Bidding Consortium including Lead Member)

And

FURTHER RESOLVED THAT approval of the Board be and is hereby accorded to contribute such additional amount over and above the percentage limit (specified for the Lead Member in the Consortium Agreement) to the extent becoming necessary

3. NOT USED

Cal	rtific	d 1	Crit	a C	onv
001	-	, u	т	5	$\sigma_{\mathbf{p},\mathbf{y}}$

(Signature, Name and Stamp of Company Secretary) Notes:

- 1) This certified true copy should be submitted on the letterhead of the Company, signed by the Company Secretary/ Director.
- 2) The contents of the format may be suitably re-worded indicating the identity of the entity passing the resolution.
- 3) This format may be modified only to the limited extent required to comply with the local regulations and laws applicable to a foreign entity submitting this resolution. For example, reference to Companies Act, 1956 or Companies Act, 2013 as applicable may be suitably modified to refer to the law applicable to the entity submitting the resolution. However, in such case, the foreign entity shall submit an unqualified opinion issued by the legal counsel of such foreign entity, stating that the Board resolutions are in compliance with the applicable laws of the respective jurisdictions of the issuing Company and the authorizations granted therein are true and valid.

Certified True Copy

(Signature, Name and Stamp of Company Secretary) Notes:

1) This certified true copy should be submitted on the letterhead of the Company, signed by the Company Secretary/ Director.

- 2) The contents of the format may be suitably re-worded indicating the identity of the entity passing the resolution.
- This format may be modified only to the limited extent required to comply with the local regulations and laws applicable to a foreign entity submitting this resolution. For example, reference to Companies Act, 1956 or Companies Act, 2013 as applicable may be suitably modified to refer to the law applicable to the entity submitting the resolution. However, in such case, the foreign entity shall submit an unqualified opinion issued by the legal counsel of such foreign entity, stating that the Board resolutions are in compliance with the applicable laws of the respective jurisdictions of the issuing Company and the authorizations granted therein are true and valid

FORMAT FOR CONSORTIUM AGREEMENT

(To be stamped in accordance with Stamp Act, the Non-Judicial Stamp Paper of Appropriate Value)

Appropriate value)
THIS Consortium Agreement ("Agreement") executed on this Day ofbetween M/s
[Insert name of Lead Member] a Company incorporated under the
laws ofand having its Registered Office
at(hereinafter called the " Member-1 ", which
expression shall include its successors, executors and permitted assigns) and M/s
a Company incorporated under the laws of
and having its Registered Office at
(hereinafter called the " Member-2 ", which expression shall include its successors, executors and permitted assigns), M/sa Company incorporated under the laws ofand having its Registered Office at
(hereinafter called the " Member-n ", which expression shall include its successors, executors and permitted assigns), [The Bidding Consortium should list the details of all the Consortium Members] for the purpose of submitting response to RfS and execution of Power Purchase Agreement (in case of award), against RfS Nodated_issued_by_Cochin
Port Trust (COPT) a Company incorporated under the Companies Act, 2013, and
having its Registered Office at D-3, 1 st Floor, Wing-A, Prius Platinum Building, District Centre, Saket, New Delhi-110017
WHEREAS, each Member individually shall be referred to as the "Member" and all of the Members shall be collectively referred to as the "Members" in this Agreement.
WHEREAS COPT desires to purchase Power under the said RfS.
WHEREAS, COPT had invited response to RfS vide its Request for Selection (RfS) dated

WHEREAS the RfS stipulates that in case response to RfS is being submitted by a Bidding Consortium, the Members of the Consortium will have to submit a legally enforceable Consortium Agreement in a format specified by COPT wherein the Consortium Members have to commit equity investment of a specific percentage for the Project.

NOW THEREFORE, THIS AGREEMENT WITNESSTH AS UNDER:

In consideration of the above premises and agreements all the Members in this Bidding Consortium do hereby mutually agree as follows:

- 1. We, the Members of the Consortium and Members to the Agreement do hereby unequivocally agree that Member-1 (M/s____), shall act as the Lead Member as defined in the RfS for self and agent for and on behalf of Member-2, -----, Member-n and to submit the response to the RfS.
- 2. The Lead Member is hereby authorized by the Members of the Consortium and Members to the Agreement to bind the Consortium and receive instructions for and on their behalf.
- 3. Notwithstanding anything contrary contained in this Agreement, the Lead Member shall always be liable for the equity investment obligations of all the Consortium Members i.e. for both its own liability as well as the liability of other Members.
- 4. The Lead Member shall be liable and responsible for ensuring the individual and collective commitment of each of the Members of the Consortium in discharging all of their respective equity obligations. Each Member further undertakes to be individually liable for the performance of its part of the obligations without in any way limiting the scope of collective liability envisaged in this Agreement.
- 5. Subject to the terms of this Agreement, the share of each Member of the Consortium in the issued equity share capital of the Project Company is/shall be in the following proportion:

Name	Percentage
Member	
1	
Member	
2	
Member	
n	
Total	100%

We acknowledge that after the execution of PPA, the controlling shareholding (having not less than 51% of the voting rights and paid up share capital) in the Project Company developing the Project shall be maintained for a period of 01 (One) Year after commencement of supply of power.

6. The Lead Member, on behalf of the Consortium, shall inter alia undertake full responsibility for liaising with Lenders or through internal accruals and

mobilizing debt resources for the Project, and ensuring that the Seller achieves Financial Closure in terms of the PPA.

- 7. In case of any breach of any equity investment commitment by any of the Consortium Members, the Lead Member shall be liable for the consequences thereof.
- 8. Except as specified in the Agreement, it is agreed that sharing of responsibilities as aforesaid and equity investment obligations thereto shall not in any way be a limitation of responsibility of the Lead Member under these presents.
- 9. It is further specifically agreed that the financial liability for equity contribution of the Lead Member shall not be limited in any way so as to restrict or limit its liabilities. The Lead Member shall be liable irrespective of its scope of work or financial commitments.
- 10. This Agreement shall be construed and interpreted in accordance with the Laws of India and courts at New Delhi alone shall have the exclusive jurisdiction in all matters relating thereto and arising thereunder.
- 11. It is hereby further agreed that in case of being selected as the Successful Bidder, the Members do hereby agree that they shall furnish the Performance Guarantee in favour of COPT in terms of the RfS.
- 12. It is further expressly agreed that the Agreement shall be irrevocable and shall form an integral part of the Power Purchase Agreement (PPA) and shall remain valid until the expiration or early termination of the PPA in terms thereof, unless expressly agreed to the contrary by COPT/COPT.
- 13. The Lead Member is authorized and shall be fully responsible for the accuracy and veracity of the representations and information submitted by the Members respectively from time to time in the response to RfS.
- 14. It is hereby expressly understood between the Members that no Member at any given point of time, may assign or delegate its rights, duties or obligations under the PPA except with prior written consent of COPT/COPT.

15. This Agreement

- has been duly executed and delivered on behalf of each Member hereto and constitutes the legal, valid, binding and enforceable obligation of each such Member;
- b) sets forth the entire understanding of the Members hereto with respect to the subject matter hereof; and
- c) may not be amended or modified except in writing signed by each of the Members and with prior written consent of COPT/COPT.

16. All the terms used in capitals in this Agreement but not defined herein shall have the meaning as per the RfS and PPA.

IN WITNESS WHEREOF, the Members have, through their authorized representatives, executed these present on the Day, Month and Year first mentioned above.

For M/s [M	ember 1]
(Signature, Name & Designati	ion of the person authorized vide Board Resolution Dated
) Witnesses:	
1) Signature	2) Signature
	Name:
Name: Address:	Address:
For M/s [Me	ember 2]
(Signature, Name & Designati	ion of the person authorized vide Board Resolution Dated
Witnesses:	
1) Signature	2) Signature
Name:	Name:
Address:	Address:
For M/s[Member n]	
(Signature, Name & Designation person authorized vide Boat Dated)	
Witnesses:	
1) Signature	
Name:	
Address:	
(2) Signature	-
Name:	
Address:	

FORMAT FOR FINANCIAL CAPABLITY

(To be submitted on the letterhead of Bidding Company)

To.

Cochin Port Trust W/Island Kochi-682009

Dear Sir,

a. We submit our Bid(s) for the total capacity of kW (Insert total offered capacity in kW and submit details of our Financial Eligibility Criteria

We certify that the Financially Evaluated Entity (ies) had an Annual Turnover as follows:

The maximum Annual turnover of RupeesCrore per MW in any one of the last 3 financial years preceding the Bid Deadline subject to the condition that the Bidder should at least have completed one financial year .

OR

Net worth of Rs......Crore computed as per instructions provided in Clause 2.4.3. (Strike Out whichever Is Not Applicable)

Financial eligibility criteria

Name of	Relationship	Financial	Year of	***Total	Net worth
Financially	with Bidding	year	Incorporation	Maximum	as per
Evaluated	Company**		of the	Annual	Clause
Entity*			Bidding	Turnover	2.4.3 (in Rs.
			company	(Rs. Crore)	Crore)

^{*} The Financially Evaluated Entity may be the Bidding Company itself.

^{**} The column for "Relationship with Bidding Company" is to be filled only in case financial capability of Parent Company and/or Affiliate has been used for meeting Qualification Requirements.

^{***} Bidder shall furnish maximum annual turnover in any of the last three financial years.

(Signature and stamp (on each page) of Authorized Signatory of Bidding Company. Name:
Date:
Place:
(Signature and stamp (on each page) of Chartered Accountant/Statutory Auditors of Bidding Company.
Name: Date:

Notes:

..... Place:

.....

Yours faithfully

Audited consolidated annual accounts of the Bidder may also be used for the purpose of financial criteria provided the Bidder has at least 26% equity in each company whose accounts are merged in the audited consolidated accounts and provided further that the financial capability of such companies (of which accounts are being merged in the consolidated accounts) shall not be considered again for the purpose of evaluation of the Bid.

FORMAT FOR DISCLOSURE

(This should be submitted on the Letter Head of the Bidding Company/ Each Member of the Consortium)

DISCLOSURE

Ref.No	Date:
From:	(Insert name and address of Bidding Company)
Tel.#: Fax#: E-mail ad	ddress#
	chin Port Trust Island
So Sto Flo jun & M	sponse to RfS No. COPT/1.5 MW FLOATING SOLAR/TD/2020 for Selection of lar Power Developers Site Survey, Design, Engineering, Manufacture, Supply, orage, Civil work, Erection, Testing & Commissioning of 1.5MWp Grid Connected ating Solar PV Project in the Backwaters near CoPT's walkway avenue between BOT ction and Kannangatt bridge at W/Island, Cochin Port Trust, Kerala including Operation Maintenance (O & M) of the project for a period of 25 (Twenty Five) Years under RESCO del (BOOT) after Operational Acceptance
Dear Sir	/ Madam,
process Group C	by declare and confirm that only we are participating in the RfS Selection for the RfS Noand that our Parent, Affiliate or Ultimate Parent or any ompany with which we have direct or indirect relationship are not separately ting in this selection process.
any stag has been guarante	er declare that the above statement is true & correct. We are aware that if at e it is found to be incorrect, our response to RfS will be rejected and if Lol issued or PPA has been signed, the same will be cancelled and the bank ses will be encashed and recoveries will be effected for the payments done. e
Thankin We rema	
Yours fa	
Name, D	Designation, Seal and Signature of Authorized Person in whose name Power ey/ Board Resolution/ Declaration.

FORMAT FOR TECHNICAL CRITERIA

(This should be submitted on the Letter Head of the Bidding Company/ Lead Member of Consortium)

Ref.No.		Date:
From:	_(Insert name and address of Bidding Company)	
Tel.#: Fax#:		
E-mail address#		
То		
Cochin Port Trust		
W/Island		

Sub: Response to RfS No. COPT/1.5 MW FLOATING SOLAR/TD/2020 for Selection of Solar Power Developers Site Survey, Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of 1.5MWp Grid Connected Floating Solar PV Project in the Backwaters near CoPT's walkway avenue between BOT junction and Kannangatt bridge at W/Island, Cochin Port Trust, Kerala including Operation & Maintenance (O & M) of the project for a period of 25 (Twenty Five) Years under RESCO Model (BOOT) after Operational Acceptance

Dear Sir/ Madam,

We hereby undertake to certify in line with Clause No. 15, Section-II, ITB under the title "Financial Closure" that the following details shall also be furnished within 06 (Six) months of effective date of the PPA.

- 1.0 Evidence of achieving complete tie-up of the Project Cost through internal accruals or through a Financing Agency.
 - Evidence of clear possession of the required water body for the Project along with following documentary evidence: -
 - Ownership or lease hold rights (as per Clause 15, Section-II, ITB) in the name of the Solar Power Developer and possession of 100% of the area of location required for the Project.
 - ii) Certificate by the concerned and competent revenue/ registration authority for the acquisition/ ownership/ right to use/ vesting of the area in the name of the Solar Power Developer.

- iii) Sworn affidavit/ any other agreement from the authorized signatory of the SPD listing the details of the location and certifying that total area required for the Project is under clear possession of the SPD.
- iv) A certified English translation from an approved translator in case above documents are in languages other than English and Hindi.

•	•	ng the above conditions shall constitute sufficient rmance Bank Guarantee.
Dated the	_day of	_, 20
Thanking you, We remain,		
Yours faithfully,		

Name, Designation, Seal and Signature of Authorized Person in whose name Power of Attorney/ Board Resolution/ Declaration.

DECLARATION BY THE BIDDER FOR THE PROPOSED TECHNOLOGY TIE-UP UNDER PART-B

1	Name of Bidding Company/ Lead Member of Bidding Consortium	
2	Name of the Technology Partner (if any)	
3	Project Location	
4	Capacity Proposed	 MW
5	Technology Proposed to be adopted for the Project	
6	Estimated Annual Generation of Electrical Energy	kWh
7	Brief about the Proposed Technology	
	Crystalline Silicon Solar Cells and Modules	
	Concentrator PV Modules	
	Thin Film Modules	
	Any Other Technology	

_day of

Name, Designation, Seal and Signature of Authorized Person in whose name Power of Attorney/ Board Resolution/ Declaration.

FORMAT FOR SUBMISSION OF FINANCIAL BID

(The Covering Letter should be submitted on the Letter Head of the Bidding Company/ Lead Member of Consortium)

Ref.No			Date:
From: Consortium)	_(Insert name and add	dress of Bidding Company/ L	ead Member of
Consortium			
Tel.#:			
Fax#:			
E-mail address#			
To Chief Mechanical Cochin Port Trust W/Island	•		
Selection of Manufacture, 1.5MWp Grid CoPT's walky W/Island, Co of the project	Solar Power Develop , Supply, Storage, Civ d Connected Floating way avenue between ochin Port Trust, Keral	MW FLOATING SOLAR/TI pers Site Survey, Design, E ril work, Erection, Testing & G Solar PV Project in the Back BOT junction and Kannang a including Operation & Ma wenty Five) Years under RES	Engineering, Commissioning of kwaters near latt bridge at intenance (O & M)
Dear Sir/ Madam,			
I/ We.	(Insert	Name of the Bidder)	enclose
herewith the Fina	ancial Proposal for	selection of my/ our	r firm for
capacity of_MW in	India as Bidder for the	he above.	
Hundred and Fort to RfS such furthe	ty) days from the due	nain valid for a period of e date of submission of the outually agreed upon.	•
Thanking you, We			
rema			
in,			
Your			

Name, Designation, Seal and Signature of Authorized Person in whose name Power of Attorney/ Board Resolution/ Declaration.

Notes:

- 1. There can be only one tariff for each project. If the bidder quotes two tariffs or combination thereof for a project, then the bid shall be considered as non-responsive.
- 2. If the bidder submits the financial bid in the Electronic Form at COPT portal not in line with the instructions mentioned therein, then the bid shall be considered as non-responsive.
- 3. Tariff requirement shall be quoted as a fixed amount in Indian Rupees only. Conditional proposal shall be summarily rejected.
- 4. In the event of any discrepancy between the values entered in figures and in words, the values entered in words shall be considered.
- 5. Tariff should be in Indian Rupee up to two places of decimals only.

PRELIMINARY ESTIMATE OF COST OF FLOATING SOLAR POWER PROJECT

Project Capacity:M

Sr. No.	Particulars	Estimated Cost (in Lakh INR) (in figures)	Estimated Cost (in Lakh INR) (in words)
1.	PV Modules		
2.	Area Cost/water body cost		
3.	Civil and General Works		
4.	Mounting Structures		
5.	Power Conditioning Unit		
6.	Evacuation Cost up to Inter- connecting point (Cables and Transformers)		
7.	Preliminary and Pre-Operative Expenses including IDC and Contingency		
8.	Others (Please specify)		
9.	Total Project Cost		

Dated the	day of	, 20
Thanking you,		
We remain,		
Yours faithfully,		

Name, Designation, Seal and Signature of Authorized Person in whose name Power of Attorney/ Board Resolution/ Declaration.

COCHIN PORT TRUST

Selection of Solar Power Developers Site Survey, Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of 1.5MWp Grid Connected Floating Solar PV Project in the Backwaters near CoPT's walkway avenue between BOT junction and Kannangatt bridge at W/Island, Cochin Port Trust, Kerala including Operation & Maintenance (O & M) of the project for a period of 25 (Twenty Five) Years under RESCO Model (BOOT) after Operational Acceptance

ORGANIZATION DETAILS

S. No.	Particulars	Details
1.	Name of the Company	
2.	Registered Office Address	
3.	Telephone, Telex, Fax No	
4.	E-mail	
5.	Web site	
6.	Authorized Contact Person(s) with name, designation Address and Mobile Phone No., E-mail address/ Fax No. to whom all references shall be made	
7.	Year of Incorporation	
8.	Bidding company PAN Number	
9.	Bidding company TAN Number	
10.	Have the bidder/Company ever been debarred By any Govt. Dept. / Undertaking for undertaking any work.	
11.	Reference of any document information attached by the Bidder other than specified in the RFP.	
12.	Whether the Bidder wishes to form a Project Company for execution of work	Yes/No/May be
13.	Bidding company is listed in India	Yes/No
14.	Details of the Ownership structure (Details of persons owning 10% or more of the Total Paid up equity of the Bidding Company in the Format as below	
15.	Bid Bond Bank guarantee No	
16.	Validity of Bid Bond	
17.	 Banker E-mail ID, FAX No of the banker Correspondence address & Pin Code 	

(Signature of Authorized Signatory) With Seal

COCHIN PORT TRUST

Selection of Solar Power Developers Site Survey, Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of 1.5MWp Grid Connected Floating Solar PV Project in the Backwaters near CoPT's walkway avenue between BOT junction and Kannangatt bridge at W/Island, Cochin Port Trust, Kerala including Operation & Maintenance (O & M) of the project for a period of 25 (Twenty Five) Years under RESCO Model (BOOT) after Operational Acceptance

Tenderer shall furnish Details of "eligibility works experience" as per Minimum Eligible Criteria (MEC) of Instruction to Tenderer and certificates in the following format (Client Certificates/work completion certificates or any other documentary evidences with respect to the eligibility work)

ELIGIBLE ASSIGNMENT DETAILS FOR MQC

Assignment Number:

Description	Bidder to fill up the details here
Name and Address of the Client	
Title of the Eligible Assignment	
Date of completion of the Eligible Assignment	
Project Completion Cost	
Reference No. of the enclosed Client Completion Certificate/ Documentary Evidence for having successfully completed the Eligible assignment	
Name, telephone no, telefax no and email address of the client's representative	
Description and Scope of Work	

Instructions:

- i) Bidders are expected to provide information in respect of Eligible Assignments in this Section. The assignments cited must comply with the Minimum eligibility of the Instructions to Tenderers".
- ii) A separate sheet should be filled for each of the eligible assignments.
- iii) The details are to be supplemented by documentary proof from the respective client /owner for having carried out such assignment duly certified by clients/ owner.
- iv) The works indicated in this Annexure- 4 will be only being considered for evaluation. Mere submission of work completion certificate will not be considered as Eligible Assignments
- v) Original or notary certified copy of completion certificates of each work issued by the owner/ the responsible officers of the owner under whom he has executed such contracts shall be attached. The certificate shall invariably contain the following among other things.
 - a) Details of work involved specifying the nature of work
 - b) The completion cost of the work and

- c) Date of commencement; and
- d) Date of completion of the work.
- vi) If the experience in similar works is as a member of joint venture, notary attested copy of joint venture agreement in this respect shall be attached.
- vii) If the experience in similar works is as a subcontractor, notary attested copy(s) of approval issued by the Employer(s) authorizing as a sub-contractor; in proof of the claim of the tenderer as a sub-contractor shall be attached.
- viii) If the experience in similar work is in works executed in private sectors/organisations, the TDS certificate along with notary attested copy(s) work order and completion certificate.
- ix) The tenderer is also obliged to produce the original of the certified copy(s) on request by the department.

Signature (Authorised Signatory)

Format 7.14

COCHIN PORT TRUST

Selection of Solar Power Developers Site Survey, Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of 1.5MWp Grid Connected Floating Solar PV Project in the Backwaters near CoPT's walkway avenue between BOT junction and Kannangatt bridge at W/Island, Cochin Port Trust, Kerala including Operation & Maintenance (O & M) of the project for a period of 25 (Twenty Five) Years under RESCO Model (BOOT) after Operational Acceptance

DETAILS OF PAST EXPERIENCE OF CONTRACTORS FOR SIMILAR WORKS

		Owner's Complete		Dui	ration of Con	tract	Details of work	Reference No. & Date of letter
SI. No.	Name & Location of Project	address including	Value of Contract	Commen- cement date	Scheduled completion date	Actual completion date	including major	of intent & completion certificate enclosed
1	2	3	4	5	6	7	8	9

Note: Bidder to enclose completion certificate issued by owner, certified by a Notary public or equivalent certifying authority.

SIGNATURE OF TENDERER

Certificate of Relationship of Parent Company or Affiliate with the Bidding Company.

To,
Cochin Port Trust W/Island Kochi-682009
Dear Sir,
Sub: Bid for Implementation of Grid connected Roof Top Solar PV System at Cochin Por Trust Pradesh
We hereby certify that M/s,M/s,M/s,M/sare the Affiliate(s) /Parent Company of the Bidding Company as per the definition of Affiliate/Paren Company as provided in this RFS and based on details of equity holding as on seven (7) days prior to the Bid Deadline.
The details of equity holding of the Affiliate/Parent Company/Bidding Company or vice vers

The details of equity holding of the Affiliate/Parent Company/Bidding Company or vice versa as on seven (7) days prior to the Bid Deadline are given as below:

Name of Bidding Company/ applicant company	Name of the Affiliate of the Bidding company/ Applicant company/ Name of the Parent Company of the Bidding Company	Name of the Company having common control on the Affiliate and the Bidding Company	Percentage of Equity Holding of Parent Company in the Bidding Company/ Applicant company

^{*}Strike out whichever is not applicable.

(Insert Name and Signature of Statutory Auditor or practicing Company Secretary of the Bidder)

Format 7.16

Undertaking from the Financially Evaluated Entity or its Parent Company/ Ultimate Parent Company

(On the Letter Head of the Financially Evaluated Entity or its Parent Company/Ultimate Parent Company)

Name:
Full Address:
Telephone No.:
E-mail address:
Fax/No.:
T -
To,
Cochin Port Trust
W/Island
Kochi-682009
Dear Sir,
We refer to the RFP Nodatedfor "Implementation of Grid connected Roof Top Solar PV System at Cochin Port Trust Pradesh"
"We have carefully read and examined in detail the RFP, including in particular, Clauseof the RFP, regarding submission of an undertaking, as per the prescribed Format of the RFP.
We confirm that M/s(Insert name of Bidding Company/) has been authorized by us to use our Technical and or financial capability for meeting the Technical and or Financial Eligibility as specified in Clauseof the RFP referred to above.
We have also noted the amount of the Performance Guarantee required to be submitted as per Clauseof the RFP the(Insert the name of the Bidding Company in the event of it being selected as the Successful Bidder".
In view of the above, we hereby undertake to you and confirm that in the event of failure of

(Insert name of the Bidding Company) to submit the Performance Guarantee in full or in part at any stage, as specified in the RFP, we shall submit the Performance Guarantee not submitted by(Insert name of the Bidding Company)".
We have attached hereto certified true copy of the Board Resolution Whereby the Board of Directors of our Company has approved issue of this Undertaking by the Company.
All the terms used herein but not defined, shall have the meaning as ascribed to the said terms under the RFP.
Signature of Managing Director/Authorised signatory
Common seal ofhas been affixed in my/our presence pursuant to Board of Director's Resolution dated
WITNESS
(Signature) Name Designation
(Signature)
Name
Designation

COCHIN PORT TRUST

Selection of Solar Power Developers Site Survey, Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of 1.5MWp Grid Connected Floating Solar PV Project in the Backwaters near CoPT's walkway avenue between BOT junction and Kannangatt bridge at W/Island, Cochin Port Trust, Kerala including Operation & Maintenance (O & M) of the project for a period of 25 (Twenty Five) Years under RESCO Model (BOOT) after Operational Acceptance

DETAILS OF PROPOSED APPROACH & METHODOLOGY

Bidder shall furnish a detailed method statement (Technical Note) for carrying out of the works, along with a construction programme [Preferably in MS project / Primavera] showing sequence of operation and the time frame for various segments of temporary and permanent works.

Signature (Authorised Signatory)

COCHIN PORT TRUST

Selection of Solar Power Developers Site Survey, Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of 1.5MWp Grid Connected Floating Solar PV Project in the Backwaters near CoPT's walkway avenue between BOT junction and Kannangatt bridge at W/Island, Cochin Port Trust, Kerala including Operation & Maintenance (O & M) of the project for a period of 25 (Twenty Five) Years under RESCO Model (BOOT) after Operational Acceptance

DECLARATION

We M/s (Name & address of the bidder) hereby declare that:-

- All details regarding construction plant, temporary work and personnel for site organisation considered necessary and sufficient for the work have been furnished in the Annexure 7 and that such plant, temporary works and personnel for site organisation will be available at the site till the completion of the respective work.
- 2. No conditions are incorporated in the financial bid. In case any conditions are specified in the financial bid, the tender will be rejected summarily without making any further reference to the bidder.
- 3. We have not made any payment or illegal gratification to any persons/ authority connected with the bid process so as to influence the bid process and have not committed any offence under PC Act in connection with the bid.
- 4. We disclose with that we have * made / not made payments or propose to be made to any intermediaries (agents) etc in connection with the bid.
- 5. We do hereby confirm that no changes have been made in the tender document downloaded and submitted by us for the above bid. Port Tender document will be treated as authentic tender and if any discrepancy is noticed at any stage between the Port's tender document and the one submitted by the tenderer, the Port's document shall prevail.

Signature (Authorised Signatory)

* Note: Delete whichever is not applicable.

Format 7.19

DETAILS OF THE PARTY OPTING FOR REFUND OF EMD THROUGH E-PAYMENT SYSTEM

Name of the Party :

Bank A/c No :

Account type : (Savings / Current / Overdraft)

Bank Name :

Branch :

IFSC Code Number : (11 digit code)

Centre (Location) :

FAX No. :

E-Mail ID : (For forwarding information of remittance)

Mobile No :

Signature (Authorised Signatory)

FORMAT FOR FURNISHING BANK INFORMATION FOR e-PAYMENT

1	Name and full address of the beneficiary	
2	Credit Account No. (Should be full 14 digit)	
3	Account Type (SB or CA or OD)	
4	Name of the Bank	
5	Branch (Full address with telephone No.)	
6	MICR code (Should be 9 digit)	
7	Telephone/Mobile/Fax No. of the beneficiary	Telephone:
	Solicinolary	Mobile :
		Fax :
8	Cancelled Cheque	

Signature with seal (Authorised Signatory)

TECHNICAL SPECIFICATION OF GRID CONNECTED FLOATING SOLAR PV POWER SYSTEM AND VARIOUS OTHER COMPONENTS

All components of the Floating Solar PV plant shall be in accordance with technical specifications given in relevant IS/ IEC Standards. The design and commissioning also shall be as per latest IS/ IEC/ BIS standards. The following are some of the technical measures required to ensure quality of the major components used in grid connected solar power Projects.

1. SITE DETAILS AND SITE ASSESSMENT

- 1. The 1.5 MW Floating Solar Power Plant shall be installed at the Backwaters near CoPT's walkway avenue between BOT junction and Kannangatt bridge at W/Island, Cochin Port Trust, Kerala
- 2. Bidder shall carry out the detailed site survey, study the bathymetric chart of the water body, shall apprise himself regarding information such water properties, depth of reservoir, variation in the depth of water reservoir, water flow rate, climatic conditions, requirement statutory approvals etc., before submitting the bid. Claims and objections due to ignorance of site condition will not be considered after submission of the bid.
- 3. Bidder shall fully acquaint himself as to all conditions and matters, which may in any way affect the work or the cost thereof. The bidder shall be deemed to have independently obtained all necessary information for the purpose of preparing the bid and his bid as accepted shall be deemed to have taken in to account all contingencies as may arise due to such information or lack of the same.
- 4. Bidder shall be deemed to have visited and carefully examine the site and surroundings to have satisfied himself about the nature of all existing facilities, infrastructure available for transport and communications and the access to the site for developing Solar PV project.
- 5. Bidder is deemed to have acquainted himself of government taxes, laws structure, regulations, levies and other charges relating to the tendered work at site.

2. FLOATING SOLAR SYSTEM

SYSTEM DESCRIPTION:

A Grid Connected Floating Solar Photovoltaic (FSPV) System shall consist of mainly the following components but not limited to any other components and accessories:

- i) Solar panels
- ii) Floating system
- iii) Module mounting structure
- iv) Mooring and anchoring system
- v) Junction boxes
- vi) Power conditioning unit (PCU)
- vii) Metering system
- viii) Earthing system
- ix) Cable and other accessories
- A. The design of Floating system shall be certified and approved by the employer / Third Party agency for safety and strength of the system before placing order by the selected agency to its sub vendors.
- B. The floating system shall be designed in such a way that it shall appropriately incorporate sizing of walking platforms for regular maintenance and inspection.
- C. Appropriate anchoring/ mooring system shall be designed to keep the floating platforms in position in order to adopt waves, wind and water level variations of the location.
- D. Suitable anchoring and mooring system shall be designed for maximum water level variation of water body.

3. PV MODULE

Standards and Codes

Photovoltaic Modules shall comply with the specified latest edition of IEC/ equivalent BEC standards as specified below: -

Standard	Descriptio
	n
IEC 61215-1 Ed. 1.0	Terrestrial photovoltaic (PV) modules - Design qualification
	and type approval - Part 1: Test requirements
IEC 61215-1-1 Ed.	Terrestrial photovoltaic (PV) modules - Design qualification
1.0	and type approval - Part 1-1: Special requirements for
	testing of crystalline silicon photovoltaic (PV) modules
IEC 61730-1Ed. 2.0	Photovoltaic (PV) module safety qualification - Part 1:
	Requirements for construction
IEC 61730-2 Ed.2	Photovoltaic (PV) module safety qualification - Part 2:
	Requirements for testing
IEC 61701 Ed.2	Salt mist corrosion testing of photovoltaic (PV)
	modules (Applicable for coastal and marine
	environment)
IEC 62716 Ed.1	Photovoltaic (PV) modules - Ammonia corrosion testing
IEC TS 62804-1	Photovoltaic (PV) modules - Test methods for the detection
Ed.1	of potential-induced degradation - Part 1: Crystalline silicon
Approved make	As per MNRE's / SECI's approved list

4. FLOATING DEVICE

The SPD shall follow the below mentioned standard not limited to any other standard applied from time to time.

Standards and Codes

SI. No.	Standards	Description
1.	ASTM D1693 (or equivalent ISO Standards)	Test for Environmental Stress Cracking of HDPE
2.	ISO16770	Stress cracking resistance of HDPE
3.	IS 15410:2003 or equivalent BS 6920:2014	Test for drinking water compatibility, Material safe for drinking water

4.	RoHS directive 2002/ 95/EC	Test for Restriction of Hazardous Substances
5.	ASTM D790 (or equivalent ISO Standards)	Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials
6.	ISO 178	Plastics Determination of flexural properties
7.	ASTM D638, ISO 527	Standard Test Method for Tensile Properties of Plastics
8.	ASTM D695, ISO 604	Standard Test Method for Compressive Strength Properties of Plastics
9.	ISO16770	Full Notch Creep Test (FNCT)
10.	ASTM D2565 (or equivalent ISO Standards)	Standard Practice for Xenon-Arc Exposure of Plastic intended for outdoor Applications
11.	ASTM D4329(or equivalent ISO Standards)	Standard Practice for fluorescent ultraviolet (UV) lamp apparatus exposure of plastics
12.	ASTM G7/G7M-11(or equivalent ISO Standards)	Standard Practice for atmospheric environmental exposure testing of non-metallic
13.	ASTM D1693-15 (or equivalent ISO Standards)	Standard Test Method for Environmental stress cracking of Ethylene plastics
14.	ASTM D5397-07(2012)	Standard Test Method for Environmental stress crack resistance of polyolefin geomembrane
15.	IS 15410:2003 or equivalent BS6920	Containers for Packaging of natural mineral water and package drinking water

The floatation device should be manufactured from appropriate thermoplastic with UV stabilizer such that the life of floatation device shall be able to sustain for a minimum period of 25 years without any discoloration.

Float system should be designed to withstand the maximum wind speed of the location and shall be able to withstand the weight of O&M Personal, carrying Tools, the forces of nature such as wind/water flow etc.

The material used for floatation device shall be chemically resistant to acid, lye, petrol and mineral oil and also partially resistant to benzene does not contaminate the water of the reservoir.

The floatation device, when installed in the raw water body, shall not restrict the process of gas exchange across the air water interface. In order to facilitate this, the design of the floatation device shall be such that appropriate voids and shall form an integral part of the floatation device design.

The floatation device shall have minimum strength at ambient temperature of the

site location or minimum range of (+) 50 to (-) 10 deg C, while it shall be designed to have safety factor of minimum 1.15 on extreme conditions.

The floating system shall be tested for aerodynamic design by subjecting to wind tunnel test imposed from all wind directions on real scale and real angle.

PV fixation system shall be of proven design and subjected to Mechanical test to withstand unit failure conditions under static and fatigue conditions for wind speeds to withstand the maximum wind speed of the area.

5. ANCHORING / MOORING SYSTEM

- 1. The minimum Life of the Anchoring system shall be 25 years
- 2. The Anchors shall be sturdy enough to withstand wind speed at that location
- 3. Anchoring system shall be able to withstand the depth/level variation of water level
- 4. The Anchoring system should be able to withstand the nature forces such wind/ water flow
- 5. The materials used in the anchoring system shall not contaminate the water of the river or affect the aquatic ecosystem.
- 6. The anchoring system should withstand the extreme weather conditions
- 7. The design of anchoring system shall be certified by an accredited national/international labs to fulfill the above conditions.

6. POWER CONDITIONERS/ INVERTERS

The Power Conditioners/ Inverters of the SPV power plants must conform to the latest edition of IEC/ equivalent BIS Standards as specified below:

Efficiency Measurements	IEC 61683	
Environmental Testing	IEC 60068-2/ IEC 62093	
Electromagnetic	IEC 61000-6-2, IEC 61000-6-4 & othe relevant	
Compatibility	parts of	
(EMC)	IEC 61000	
Electrical Safety	IEC 62103/ 62109-1&2	
Protection against	IEEE1547/IEC Standards 62116/ UL1741	
Islanding of Grid	Or equivalent BIS	
LVRT Compliance	As per the latest CERC Guidelines/ Order/	
EVICE Compliance	Regulations	
	Relevant CERC Regulations (including LVRT	
Grid Connectivity	Compliance) and Grid Code as amended and	
	revised from time to time.	
	Nominal/ Rated output power of the inverter (if	
Rated capacity	different power ratings are mentioned at different	
rated capacity	temperatures, then power rating at 50 ⁰ C shall be	
	considered) in kW will be considered as inverter	
	rated capacity.	

Approved makes	As per MNRE / SECI list of approved make	

7. CABLES AND CONNECTORS

All cables and connectors to be used for installation of solar field must be of solar grade which can withstand harsh environment conditions for 25 years and voltages as per latest IEC standards. It is recommended that the Cables of 600-1800 Volts DC for outdoor installations should comply with the BS/ EN EN50618/ TUV 2pfg 1169/08/07 for service life expectancy of 25 years.

Wherever the cables pass through water, the marine grade cables shall be used. Cables should have adequate protection system to withstand the adverse environmental condition of the site.

8. Earthing

Standards and Codes

Earthing system shall comply with latest revisions and amendments of the relevant IEC standards and IS codes. In particular, Earthing system shall comply with the following standards and codes.

Standard/Code	Description			
IS 3043	Code of Practice for Earthing			
IEEE 80	80 IEEE Guide for Safety in AC Substation Grounding			
IEEE 142	IEEE Recommended Practice for Grounding of Industrial and Commercial Power			
	Systems			
Indian Electricity Rules				

9. OTHER SUB-SYSTEMS/ COMPONENTS

Other subsystems/ components used in the SPV Power Plants (Cables, Connectors, Junction Boxes and Surge Protection Devices etc.) must also conform to the relevant international/national Standards for Electrical Safety besides that for Quality required for ensuring Expected Service Life and Weather Resistance.

10. POWER EVACUATION SYSTEM

The generated solar power form FSPV power project shall be evacuated through the termination point opposite side NH (about 500 mtrs from mid way of solar array). The injection point is at 11 KV system comprising of 2 nos step up transformers, RMU, 2 sets of solar meters and 1 set of grid meter at interconnection point. The location of the interconnection point may get changed depends on the site conditions or requirement of better evacuation of power. The selected SPD shall lay additional tie line if required from proposed evacuation point to main substation at M/Halt or at 110 KV substation (which is nearly 2 to 3 KM away from project site including termination systems such as RMUs, switch gears etc at the cost of SPD.

The cost of electricity required for backup power for inverter, auxiliaries required for the project shall also borne by the SPD at his cost and risk.

11. AUTHORIZED TEST CENTRES

The PV modules/ Power Conditioners deployed in the Power Plants must have valid test certificates for their qualification as per above specified IEC/ BIS Standards by one of the NABL Accredited Test Centres in India. In case of module types/ equipment for which such Test facilities may not exist in India at present, test certificates from reputed ILAC Member body accredited Labs abroad will be acceptable.

12. WARRANTY

- PV modules must be warranted with linear degradation rate of power output except for first year and shall guarantee 80% of the initial rated power output at the end of 25 years.
- The modules shall be warranted for minimum of 10 years against all material/ manufacturing defects and workmanship.
- The mechanical structures, electrical works and overall workmanship of the grid solar power plants must be warranted for a minimum of 5 years.
- The Inverters/ PCUs installed in the solar power plant must have a warranty for 5 years.
- The Floats should be Warranted for atleast twenty five years.
- The Anchoring System should be warranted for atleast twenty five years.

13. PERFORMANCE MONITORING

As part of the performance monitoring, the following shall be carried out:

- a. The SPD shall maintain the list of Module IDs along with performance characteristic data for each module. This data shall be submitted to COPT
- b. The SPDs must install necessary equipment to continuously measure solar radiation on module plane, ambient temperature, wind speed and other weather parameters and simultaneously measure the generation of DC power as well as AC power generated from the plant. They will be required to submit this data to COPT on line and/ or through a report on regular basis every month for the entire duration of PPA.

- c. All data shall be made available as mentioned above for the entire duration of the PPA.
- d. The plant SCADA should be Open Platform Communications (OPC) compliant with standard DNP3 and Modbus control interfaces over TCP/ IP having the provision to add protocol converters to implement custom and secure communications protocol standard for providing real time online data (including but not limited to irradiance, plant generation (instantaneous/ daily/ monthly/ yearly), Daily Peak Generation, temperature, wind speed etc.) to COPT
- e. Fibre Optic Ethernet Ring network (Managed type Ethernet switches in each Control Room) should be provided between MCR & Inverter Control Rooms.
- f. Web-based monitoring should be available, which should not be machine dependent. The web-based monitoring should provide the same screens as available in the plant. Also, it should be possible to download reports from a remote web-client in PDF or Excel format.

14. SAFE DISPOSAL OF SOLAR PV MODULES

The SPD will ensure that all Solar PV modules, floats, and other components from their plant after their 'end of life' (when they become defective/ non-operational/ non-repairable) are disposed in accordance with the "e-waste (Management and Handling) Rules, 2011" notified by the Government and as revised and amended from time to time.

15. STATUTORY APPROVALS

Any neglect or omission or failure on the part of the bidder in obtaining necessary clearances and reliable information upon the forgoing or any other matter affecting the bid shall not relieve him from any risks or liabilities or the entire responsibility for completion of the work in accordance with the bid.

16. RIGHT OF INSPECTION

- A. COPT reserve the right to inspect the components before dispatch for site. COPT at its own discretion will visit the premises for inspection.
- B. COPT, reserve the right to witness Third party test been performed by accredited testing laboratory in India.
- C. Joint inspections and testing may be done by COPT at the SPDs floating system manufacturer's workshop on regular basis for quality assurance and testing.
- D. SPD shall provide access to COPT for monitoring the performance of Floating system due to contract period.

E. The SPDs shall provide access to COPT for installing any additional monitoring equipment to facilitate on-line transfer of data.

17. SUBMISSION DETAILS

- A. The SPD shall provide/ submit, free of cost to COPT all the Detailed Engineering Document with detailed specification, schematic drawing, circuit drawing, cable routing plans and test results, manuals for all deliverable items, Operation, Maintenance & Safety Instruction Manual and other information about the project, Bill of material, data etc
- B. The SPDs shall submit all the access to COPT/ KSEBL/ COPT or their authorized representatives for installing any additional monitoring equipment to facilitate on-line transfer of data.

Appendix - A1

COMMISSIONING PROCEDURE

(This is for Reference Only; The Commissioning Procedure will be guided by as per PPA)

- i) The plant shall be commissioned only on getting statutory approval for energization by CEA or its subordinate offices.
- ii) At the time of commissioning, the Commissioning Committee shall verify compliance of technical parameter of the Project as per Annexure A of the RfS document.
- spDs shall give to COPT at least 60 (Sixty) Days advance preliminary written notice and at least 30 (Thirty) Days advance final written notice, of the date on which it intends to synchronize the Power Project to the Grid System. The SPD shall be solely responsible for any delay or non-receipt of the notice by the concerned agencies, which may in turn affect the Commissioning Schedule of the Project.
- iv) A Solar PV Project will be considered as commissioned if all equipment as per rated project capacity has been installed and energy has flown into the grid.
- v) SPD shall ensure that the equipment up to the rated Capacity has been installed and completed in all respects before the Schedule Commissioning Date. The same shall be verified by the Committee during their visit to the Project and documented as per prescribed format.

Documents to be submitted to COPT:

The SPD will have to submit the following documents (duly signed and stamped by authorized signatory) well in advance prior to the scheduled commissioning date. The SPD shall also have to submit the hardcopies to COPT if asked by COPT for verification/cross check.

1. Covering Letter

- Board Resolution for Authorized Signatory.
- 3. Invoice(s) of the Major Equipment(s) (including but not limited to modules, Inverters/ PCUs, Weather Monitoring Stations/ DC Cables and for all the equipment as available on COPT CPM portal).
- 4. All supporting documents towards meeting the technical compliance along with datasheet/ warranty certificates/ contract agreement etc. as mentioned in Annexure-A (if some documents already verified by MNRE appointed committee prior to Financial Closure, may not be required which shall be updated on CPM portal)
- 5. Installation report duly signed by the authorized signatory as per Appendix A2.
- 6. Plant Layout clearly mentioning the details of rows and number of modules in each row.
- 7. Electrical Inspector report along with all annexures/ attachments. It would be the responsibility of the SPD to collect the certificate.
- 8. SPD shall ensure Connectivity to the grid from concerned CTU/ STU/ Transmission Utility/ DISCOM, if required. Connectivity report as per the Appendix A3.
- Synchronization Certificate as per prescribed format issued by respective CTU/ STU/ Transmission Utility/ DISCOM for ascertaining injection of power into grid as per Appendix - A4.
- 10. Harmonics tests certificate from NABL accredited lab or from KSEBL certifying that the harmonics are under the prescribed limits.
- 11. Supporting document for "Consent to Operate"
- 12. Snap Shots of the Plant from various angles shall be taken for covering installation of important components of the solar power plant and made part of Installation Report.
- 13. Reading of all the inverters (instantaneous and total generation) along with its serial number of a particular date.
- 14. Relevant document from SLDC/ RLDC acknowledging successful data communication between plant end and SLDC/ RLDC if required.
- 15. After the submission/ upload of the documents by SPD, COPT shall verify the documents and intimate/ reply with remarks. In case any additional supporting/ revised documents are asked by COPT, the same have to be submitted/ uploaded by the SPD.
- Only after all the required documents are verified by COPT, the SPD shall have to submit/ update on the portal the proposed commissioning date along with commissioning order issued by State Nodal Agency or COPT, if required.
- 17. After the proposed commissioning date along with commissioning order is submitted/ updated on the portal, the commissioning committee formed as per MNRE guidelines shall visit the site within 07 working days to verify the technical compliance on site as per the information submitted by the SPD. In case the committee finds discrepancy/ deviation from the information submitted by the SPD during on site verification, the committee shall schedule its next visit only on the next available date as per the availability of all the committee members.
- 18. SPD shall have to submit/ upload the as-built drawing after the commissioning

- prior to the COD.
- 19. SPD shall have to push the required plant related data to COPT designated server in suitable formats for accessible. Additionally, SPD shall also provide the login details/ SCADA login to COPT for online real time data monitoring prior to COD.
- Early Commissioning of a Solar Project prior to the scheduled commissioning date is permitted on acceptance of power by COPT. In order to facilitate this, SPDs shall inform COPT well in advance the date on which it intends to synchronize the Power Project to the Grid System. The SPD shall be required to give an advance notice of at least 90 days prior to the proposed commissioning date.
- 21. Joint Meter Reading (JMR) shall be taken at Delivery Point and Pooling Substation (if applicable)/ plant premise at the time of connectivity of the Project with Grid. This shall include information of respective meters installed at delivery/ interconnection point and pooling substation/plant premises.
- 22. SPD is permitted to schedule the Commissioning of the Project in full or part as per the commissioning procedure elaborated in Clause No. 16, Section-II, ITB of RfS Documents.
- 23. Solar Power Developers would be required to plan commissioning/ synchronization with grid at least 10 (Ten) Days ahead of the last permissible date for commissioning in accordance with MNRE guidelines. If not done so, whole responsibility for not meeting the deadline for commissioning on account of inability of the Committee to visit the project site for commissioning rests solely on the developer.

Note: The commissioning procedure may change subject to any guidelines from MNRE.

INSTALLATION REPORT

(To be provided by SPD and to be submitted at least 10 days prior to Commissioning Date which shall be verified by Commissioning Committee)

	Capacity of the Project (MW)		
Sr. No.	Capacity already commissioned (MW)		
	Capacity proposed to be commissioned (MW)		
l.	Technology used I. (Mono/ Multi Crystalline/ Thin Film/ Others; please specify along with capacity of each type)		
II.	Rating of each module (Wp)		
III.	Angle from horizontal at which array is installed		
IV.	Number of modules installed of each type		
V.	Source(s) of the cells installed of each type		
VI.	Source(s) of the Modules installed of each type		
VII.	Number of PCUs/ Inverters installed		
VIII.	II. Source of the PCUs/ Inverters (Name of supplier with address)		
IX.	Rating of PCUs/ Inverters		
X.	Date of Installation of Full Capacity (as per Capacity proposed to be Commissioned)		
	PV Arrays		
	PCUs/ Inverters		
	Transformers		

SAMPLE CONNECTIVITY REPORT

(To be provided by concerned CTU/ STU/ Transmission Utility/ DISCOM)

This is in compliance to the office order of the -----, DISCOM, <Place> issued vide office order <No.><dated>, the committee constituted vide said order has completed the work for commissioning of <kV> Bay & Metering Equipment to interconnect the <MW> Solar Power Generation Plant (having

The details of Solar Power Plant are as under

S. No	Name of Solar Power Develope r & Location	Capacity Mentione d in PP A	Connectivity	Details of Solar Power Plant (Transformer, Inverter, Modules, Switchgear)
1	<m s=""> <village> <tehsil> <district.< td=""><td><> MW</td><td>Metering Detail at Delivery Point (<village>) S.No. of <kv> CT i) <r- phase=""> ii) <y-phase> iii) <b- phase=""> S.No. of < kV> PT i) <r- phase=""> ii) <y-phase> iii) <b phase=""> S.No. of Check <abt meter=""> S.No. of Standby <abt meter=""> Metering Equipment installed at Receiving end on dated: <> 132 kV GSS, <>, <>, (<distt.>)</distt.></abt></abt></y-phase></r-></b-></y-phase></r-></kv></village></td><td>A) Transformer <make type:=""> <sr. no.=""> B) Inverters <make type:=""> <sr. no.=""> C) Modules <make:> <w>, < W > <total: nos.=""> D) Switchgear Panels <make type:=""> <sr. no.=""> Protection Provided: Under/Over voltage, Over current & Earth fault.</sr.></make></total:></w></make:></sr.></make></sr.></make></td></district.<></tehsil></village></m>	<> MW	Metering Detail at Delivery Point (<village>) S.No. of <kv> CT i) <r- phase=""> ii) <y-phase> iii) <b- phase=""> S.No. of < kV> PT i) <r- phase=""> ii) <y-phase> iii) <b phase=""> S.No. of Check <abt meter=""> S.No. of Standby <abt meter=""> Metering Equipment installed at Receiving end on dated: <> 132 kV GSS, <>, <>, (<distt.>)</distt.></abt></abt></y-phase></r-></b-></y-phase></r-></kv></village>	A) Transformer <make type:=""> <sr. no.=""> B) Inverters <make type:=""> <sr. no.=""> C) Modules <make:> <w>, < W > <total: nos.=""> D) Switchgear Panels <make type:=""> <sr. no.=""> Protection Provided: Under/Over voltage, Over current & Earth fault.</sr.></make></total:></w></make:></sr.></make></sr.></make>

The Commissioning date of various equipment is as under:

```
<kV> line from --- to ----, completed on date ----.
Line Bay at < kV > GSS, ----- charged for ---- on ----.
<kV> line chargedfrom -----to------ on date --.
```

Main & check metering commissioned on (initial record of Main/Check meters at the time of Commissioning is to be taken and enclosed) Complete system commissioned on date------

The Joint Inspection Report of metering arrangement & copy of permission of Electrical Inspector is enclosed herewith.

Appendix - A4

SAMPLE SYNCHRONIZATION CERTIFICATE

It is certified that MW (Capacity) Floating Solar Photovoltaic Power Project of M/s ,
Village Tehsil/ Taluka, District was Grid connected on (Date) at
Hrs.
It is further certified that the Project was synchronized and supply of power into the grid from the Project connected on (Date) at Hrs. The above certificate is issued on the basis of MRI record.

NB:

- (i) The above certificate shall be issued by concerned CTU/ STU/ Transmission Utility/ DISCOMs
- (ii) Copy of duly signed MRI is to be enclosed.

SAMPLE PART COMMISSIONING/ FULL COMMISSIONING CERTIFICATE OF FLOATING SOLAR POWER PROJECT

This is to certify that <M/s> having its registered office at - has successfully commissioned Capacity < MW > out of total <MW> installed Capacity on (Date) of their Solar PV Power Generation Project at Village -----, Tehsil/ Taluka ------ & Dist. -----

The Commissioning Certificate has been issued on the basis of the following documents enclosed:

- (i) Installation Report including Snap shots of the Project from various angles
- (ii) Electrical Inspector Report
- (iii) Connectivity Report
- (iv) Synchronization Certificate including MRI record

NB: To be issued by as mentioned in Clause No. 16, Section-II, ITB of RfS Documents-

CHECK LIST FOR BANK GUARANTEES

SI. no.	Details of Checks	Yes/ No
1.	Is the BG on non-judicial Stamp paper of appropriate value, as per applicable Stamp Act of the place of execution	
2.	Whether date, purpose of purchase of stamp paper and name of the purchaser are indicated on the back of Stamp Paper under the Signature of Stamp vendor? (The date of purchase of stamp paper should be not later than the date of execution of BG and the stamp paper should be purchased either in the name of the executing Bank or the party on whose behalf the BG has been issued.	
3.	In case of BGs from Banks abroad, has the BG been executed on Letter Head of the Bank endorsed by the Indian branch of the same bank or SBI, India?	
4.	Has the executing Officer of BG indicated his name, designation and Power of Attorney No./ Signing Power no. on the BG?	
5.	Is each page of BG duly signed/ initialed by executant and whether stamp of Bank is affixed thereon? Whether the last page is signed with full particulars including two witnesses under seal of Bank as required in the prescribed proforma?	
6.	Do the Bank Guarantees compare verbatim with the Proforma prescribed in the Bid Documents?	
7.	Are the factual details such as Bid Document No./ Specification No./ LOI No. (if applicable)/ Amount of BG and Validity of BG correctly mentioned in the BG	
8.	Whether overwriting/ cutting, if any, on the BG have been properly authenticated under signature & seal of executant?	
9.	Whether the BG has been issued by a Bank in line with the provisions of Bidding documents?	
10.	In case BG has been issued by a Bank other than those specified in Bidding Document, is the BG confirmed by a Bank in India acceptable as per Bidding documents?	

Notes:

- 1. The Stamp Paper should be in the name of the Executing Bank and of appropriate value.
- 2. The Performance Bank Guarantee shall be executed by any of the Bank from the List of Banks enclosed.

LIST OF BANKS

1. SCHEDULED COMMERCIAL	
BANKS	3. FOREIGN BANKS
SBI AND ASSOCIATES	24. A B BANK
1. State Bank of India	25. SHINHAN BANK
	26. CTBC BANK Co. Ltd.
NATIONALISED BANKS	27. MIZUHO BANK, Ltd.
1. Allahabad Bank	28. Krung Thai Bank Public Company Ltd.
2. Andhra Bank	29. Antwerp Diamond Bank N.V
3. Bank of India	30. Australia And New Zealand Banking Group Limited
4. Bank of Maharashtra	31. Sumitomo Mitsui Banking Corporation
5. Canara Bank	32. American Express Banking Corporation
6. Central Bank of India	33. CommonWealth Bank of Australia
7. Corporation Bank	34. Credit Suisse A.G
8. Dena Bank	35. FirstRand Bank Ltd.
9. Indian Bank	36. Industrial And Commercial Bank of China Ltd.
10. Indian Overseas Bank	37. JSC VTB Bank
11. Oriental Bank of Commerce	38. National Australia Bank
12. Punjab National Bank	39. Rabobank International
13. Punjab & Sind Bank	40. Sberbank
14. Syndicate Bank	41. USB AG
15. Union Bank of India	42. United Overseas Bank Ltd.
16. United Bank of India	43. Westpac Banking Corporation
17. UCO Bank	44. Woori Bank
18. Vijaya Bank	45. Doha Bank Qsc
19. Bank of Baroda	4. SCHEDULED PRIVATE BANKS
2. OTHER PUBLIC SECTOR BANKS	1. Federal Bank Ltd.
1. IDBI Bank Ltd.	2. ING Vysya Bank Ltd.
3. FOREIGN BANKS	3. Axis Bank Ltd.
1. Bank of America NA	4. ICICI Bank Ltd.

2. Bank of Tokyo Mitsubishi UFJ Ltd.	5. HDFC Bank Ltd.
3. BNP Paribas	6. Yes Bank Ltd.
4. Calyon Bank	7. Kotak Mahindra Bank
5. Citi Bank N.A.	8. IndusInd Bank Ltd.
6. Deutsche Bank A.G	9. Karur Vysya Bank
7. The HongKong and Shanghai	10. Catholic Syrian Bank
Banking Corpn. Ltd.	
8. Standard Chartered Bank	11. City Union Bank
9. SocieteGenerale	12. Dhanlaxmi Bank. Ltd
10. Barclays Bank	13. Jammu & Kashmir Bank Ltd
11. Royal Bank of Scotland	14. Karnataka Bank Ltd
12. Bank of Nova Scotia	15. Laxmi Vilas Bank Ltd
13. Development Bank of Singapore	16. Nainital Bank Ltd
(DBS Bank Ltd.)	
14. Crédit Agricole Corporate and Investment Bank	17. Ratnakar Bank Ltd
15. Abu Dhabi Commercial Bank Ltd	18. South Indian bank Ltd
16. Bank of Bahrain & Kuwait B.S.C	19. Tamilnadu Mercantile Bank Ltd
17. Mashreq Bank p.s.c	20. DCB Bank Ltd
18. HSBC Bank Oman S.A.O.G	21. IDFC Bank
19. Sonali Bank Ltd.	
20. J. P. Morgan Chase Bank, National	
Association	
21. State Bank of Mauritius Ltd.	
22. BANK of CEYLON	
23. BANK INTERNASIONAL INDONESIA	

SPECIAL INSTRUCTIONS TO BIDDERS FOR e-TENDERING AND REVERSE AUCTION

GENERAL

The Special Instructions (for e-Tendering) supplement 'Instructions to Bidders', as given in these Rfs Documents. Submission of Online Bids is mandatory for this RfS.

e-Tendering is a new methodology for conducting Public Procurement in a transparent and secured manner. Now, the Government of India has made e-Tendering mandatory. Suppliers/ Vendors will be the biggest beneficiaries of this new system of procurement. For conducting electronic tendering, Cochin Port Trust (COPT) has decided to use the e tender portal www.tenderwizard.com/copt through KEONICS, a Government of India Undertaking.

Benefits to Suppliers are outlined on the Home-page of the portal.

<u>INSTRUCTIONS</u>

Tender Bidding Methodology:

- 1. View Notice Inviting Tender (NIT) on e tender portal
- 2. Download Tender Documents from e tender portal
- Clarification to Tender Documents
 - a) Query to COPT (Optional)
 - b) View response to queries posted by COPT
- Bid-Submission on e tender portal
- Respond to COPT Post-TOE queries
- 6. 'e-Reverse Auction' if necessary. Participate in reverse auction if invited

Some Bidding Related Information for this Tender (Sealed Bid)

The entire bid-submission would be online on e tender portal (unless	specified for
Offline Submissions). Broad outline of submissions are as follows:	

Submission of Bid-Parts
Envelope I (Technical-Bid)
Envelope II (Financial-Bid)
Submission of digitally signed copy of Tender Documents/Addendum

In addition to the above, the bidders are required to submit certain documents physically offline also as per Clause No. 23.a, Section-II, ITB of RfS Documents, failing which the technical bids will not be opened.

Note:

- 1. The Bidder should also upload the scanned copies of all the above mentioned original documents as Bid-Annexures during Online Bid-Submission.
- 2. In case of any discrepancy between the values mentioned in figures and in words, the value mentioned in words will prevail.
- 3. Submit your bids well in advance of tender submission deadline on ETS (There could be last minute problems due to internet timeout, breakdown, et al)

ADDITIONAL DO'S AND DON'TS FOR BIDDERS PARTICIPATING IN e-REVERSE AUCTION

- 1. Get your organization's concerned executives trained for e-ReverseAuction related processes on ETS well in advance of the start of e-ReverseAuction.
- For responding to any particular e-ReverseAuction, the e-ReverseAuction (ie its Reverse Auction Search Code or RASC) has to be obtained to the authorized person assigned by the bidder
- 3. It is important for each bidder to thoroughly read the 'rules and related criterion' for the e- ReverseAuction as defined by the Buyer organization.
- 4. It is important to digitally-sign your 'Final bid' after the end of e-ReverseAuction bidding event.

Minimum Requirements at Bidder's End

- Computer System with good configuration (Min PIV, 1 GB RAM, Windows 7 and above)
- Broadband connectivity
- Microsoft Internet Explorer 7.0 or above
- Digital Certificate(s)

TERMS & CONDITIONS OF REVERSE AUCTION (If same price is quoted by more than 1 bidder in the ON LINE price bids)

After opening of Financial bids and short-listing of bidders based on the tariff and total capacity of project of qualified Project(s), COPT shall resort to "REVERSE AUCTION PROCEDURE" if required. Reverse Auction shall be conducted as per methodology specified in Section-V and other provisions of Reverse Auction in RfS Documents and their subsequent Addenda/ Amendments/ Clarifications. Bidders in their own interest, are advised to go through the documents in entirety. The Terms & Conditions and Business Rules mentioned hereunder are in brief and may not give completer explanations. Further these are supplementary in nature.

- 1. Bidders shall ensure online submission of their 'Bid Price' within the auction period.
- Bidders shall ensure to take all necessary training and assistance before commencement of reverse auction to the interested bidders on chargeable basis to be paid directly to COPT.
- 3. Business rules for Reverse Auction like event date, time, bid decrement, extension etc. shall be intimated later on, for compliance.
- 4. Bidders should acquaint themselves of the 'Business Rules of Reverse Auction', which is enclosed separately in the RfS document.
- If the Bidder or any of his representatives are found to be involved in Price manipulation/ cartel formation of any kind, directly or indirectly by communicating with other bidders, action as per extant COPT guidelines, shall be initiated by COPT
- 6. The Bidder shall not divulge either his Bids or any other exclusive details of COPT to any other party.
- 7. Period of validity of Prices received through Reverse Auction shall be same as that of the period of validity of bids offered.
- 8. Bidders should also note that:
 - a) Although extension time is '8' minutes, there is a time lag between the actual placing the bid on the local computer of the bidder and the refreshing of the data on to the server for the visibility to the Owner. Considering the processing time for data exchange and the possible network congestion, bidders must avoid the last minute hosting of the Financial Bid during reverse auction.

- b) Participating bidder will agree to non-disclosure of trade information regarding the purchase, identity of COPT, bid process, bid technology, bid documentation and bid details.
- c) It is brought to the attention of the bidders that the bid event will lead to the final price of bidders only.
- d) Technical and other non-commercial queries, Order finalization and post order activities such issue of LOI, signing of PPA etc. (not impacting price) etc can only be routed to the COPT contact personnel indicated in the RfS document.
- e) LOI shall be placed outside the COPT e-portal & further processing of the LOI shall also be outside the system.
- f) In case of any problem faced by the bidder during Reverse Auction and for all Bidding process related queries, bidders are advised to contact the persons of M/s KEONICS indicated in Annexure - D of the RfS document.
- g) Bidders are advised to visit the auction page and login into the system well in advance to identify/ rectify the problems to avoid last minute hitches.
- h) COPT will not be responsible for any PC configuration/ software /hardware related issues, telephone line glitches and breakdown/ slow speed in internet connection of PC at Bidder's end.
- For access to the Reverse Auction site, the following URL is to be used: https://www.tenderwizard.com/COPT
- 10. No queries shall be entertained while Reverse Auction is in progress.

BUSINESS RULES OF REVERSE AUCTION

Reverse Auction shall be conducted as per methodology specified in Section - V and other provisions of Reverse Auction in RfS documents and their subsequent Amendments/ Clarifications/ Addenda. Bidders, in their own interest, are advised to go through the documents in entirety.

The following would be parameters for e-Reverse Auction:

SI.	Paramete	Value
No.	r	
1.	Date and Time of Reverse-Auction	To be intimated Later to
'.	Bidding Event	Eligible Bidders
2.	Duration of Reverse-Auction Bidding	1 Hour
	Event	
	Automatic extension of the 'Reverse-	
3.	Auction closing Time', if last bid received	Voc
J 3.	is within a 'Predefined Time-Duration'	Yes
	before the 'Reverse-Auction Closing	

Time'	

3.1	Pre-defined Time-Duration	15 minutes
3.2	Automatic extension Time-Duration	15 minutes
3.3	Maximum number of Auto-Extension	Unlimited Extension
5.	Entity-Start-Price	Tariff quoted by the bidders in
J.	Entity-Start-Frice	Financial Bid (Second envelope)

Online Reverse Auction shall be conducted by COPT on pre-specified date and time, while the bidders shall be quoting from their own offices/ place of their choice. Internet connectivity shall have to be ensured by bidders themselves.

During the Reverse Auction, any requests for extension of time will not be considered by COPT. Bidders are therefore requested to make all the necessary arrangements/ alternatives whatever required so that they are able to participate in the Reverse Auction successfully. Failure of power or loss of connectivity at the premises of bidders during the Reverse Auction cannot be the cause for not participating in the Reverse Auction. COPT shall not be responsible for such eventualities.

Bidders are advised to get fully trained and clear all their doubts such as refreshing of Screen, capacity/ no. of projects being auctioned, auction rules etc.

COPT reserves the right to cancel/ reschedule/ extend the Reverse Auction process/ tender at any time, before ordering, without assigning any reason.

COPT shall not have any liability to bidders for any interruption or delay in access to the auction website irrespective of the cause. In such cases, the decision of COPT shall be binding on the bidders.

Other terms and conditions shall be as per bidder's techno-commercial offers and as per the RfS document and other correspondences, if any, till date.

Date: 24 / 07 / 2018.

Guide lines issued by Govt. of Kerala for the installation of Energy Solar system

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File No. B2 - 13958 / 2017 / CEI Thiruvananthapuram,

CIRCULAR

Subject: Installation of Solar Energy System - guide lines issued – regarding

Reference: 1. Circular No.B4-1750/14/CEI dated 09/01/2015.

- 2. Circular No. B4-1750/14/CEI dated 10/05/2016.
- 3. Letter No.B2-4335/16/CEI dated 10.05.2016.
- 4. Minutes of "Solar connect-distributed power generation through grid connected rooftop solar power plant programme stakeholders meeting" convened by the Additional Chief Secretary, Power department on 02/11/2016.

For the effective implementation of Kerala Solar Energy Policy, 2013 the following guide lines are issued.

A. Guidelines for scrutiny / inspection of Solar Energy System

- The minimum qualification for carrying out the installation work of a solar energy system shall be a B-Class Contractor licensee and depending up on the capacity of installation, eligible contractors can carry out the work.
- 2. Verify whether the inverter is grid tied or not.
- 3. Inverter capacity shall be selected based on the solar PV generation, so that maximum generation can be utilized.
- 4. Solar PV module details such as number of modules, wattage, number of cells, voltage, current etc. shall be verified.
- 5. It has to be verified whether PV module shall be MNRE approved or not. If MNRE approved, their certificate of approval shall be verified. Otherwise certificate from MNRE approved lab shall be obtained.
- 6. It shall be verified that harmonics are within specified limit for grid tied systems.
- 7. Solar inverter details and its specifications shall be verified.
- 8. In the grid System, ensure that there is no back feeding to the grid when grid supply is off and anti islanding protection shall be ensured. Certificate from the manufacturer shall be obtained.
- 9. The adequacy of cable size for solar PV system shall be verified and ensured.

- 10. It shall be ensured that energy meter is provided for recording the solar energy generated.
- 11. If it is grid tied, it shall be ensured that Bi-directional meter (Net meter) is provided at the interconnection point to record the import and export of energy.
- 12. Solar panel supporting structures, inverter neutral, body etc. shall be earthed as per standards.
- 13. Breakers having adequate rating and surge protection device (SPD) shall be provided in the array junction box.
- 14. It shall be ensured that whether indicating meters are provided in DC and AC DBs.
- 15. Battery and inverter shall be segregated properly with fire proof partition.
- 16. If the proposed installation is having a DG set, reverse power relay shall be provided to avoid back feeding to DG set, if necessary.
- 17. While issuing sanction for energisation for Solar Energy System, following conditions are to be included in addition to normal conditions.
 - a) Consent from licensee shall be obtained (In case of grid tied system).
 - b) The whole installation should be in conformity with Central Electricity Authority (Technical Standards for connectivity of the distributed generation resources) Regulations, 2013 and Kerala State Electricity Regulatory Commission (Grid interactive distributed solar energy system) Regulations, 2014.

B. Important extracts of Central Electricity Authority (Technical Standards for connectivity of the distributed generation resources) Regulation, 2013(For information only)

- **5.11**(1) Harmonic current injections from a generating station shall not exceed the limits specified in IEEE 519
- 5.11(2) The distributed generating resource shall not inject direct current greater than 0.5 % of the full rated output at the interconnection point
- 5.11(3) The distributed generating resource shall not introduce flicker beyond the limits specified in IEC 61000
- 7. The equipment of the generating station shall meet the following requirements.
 - (a) Circuit breakers or other interrupting equipment shall be suitable for their intended application with the capability of interrupting the max available fault current expected at their location.
 - (b) Distributed generation resource and associated equipment shall be designed so that the failure of any single device or component shall not potentially compromise the safety and reliability of the electricity system.
 - (c) Paralleling device of distributed generation resource shall be capable of withstanding 220 % of the nominal voltage at the interconnection point.
- 8. Every time the generating station is synchronised to the electricity system, it shall not cause voltage fluctuation greater than ± 5 % at the point of connection 9. Provide a manually operated isolating switch between the distributed generation resource and the electricity system which shall meet following requirements.
 - (a) Allow visible verification that separation has been accomplished.
 - (b) Include indicators to clearly show open and closed positions.
 - (c) Be capable of being reached quickly and conveniently 24 hrs a day by licensee's personnel without requiring clearance from the applicant.
 - (d) Be capable of being locked in the open position.
 - (e) May not be rated for load break nor may have features of over current protection
 - (f) Be located at a height of at least 2.44 m above the ground level

C. Important extracts of Kerala State Electricity Regulatory Commission (Grid interactive distributed solar energy system) Regulation, 2014 (For information only)

4(2)(c) The solar energy system installed by the consumer shall be connected with interlocking system and

- operated safely in parallel with the distribution system of the licensee.
- 8(b) The interconnection of the solar energy system with the distribution system of the licensee conforms to the relevant provisions of the Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010
- 8(c) The net meter and solar meter installed conform to the standards, specifications and accuracy class as provided in the Central Electricity Authority (Installation & Operation of Meters) Regulation, 2006.
- 9(1) The net meter shall be installed at the interconnection point of the eligible consumer with the network of the distribution licensee.
- 9(2) Solar meter shall be installed at the delivery point of the solar energy system to measure the solar electricity generated.
- 9(4) The meters shall be tested, installed and sealed.
- The eligible consumer shall comply with the specifications and standards and install grid tied inverter, manually operated isolating switch and associated equipment with sufficient safe guards to prevent injection of electricity from his solar energy system to the distribution system of the licensee when the distribution system is de-energised.
- 13(12) The eligible consumer shall obtain from the Electrical Inspector necessary sanction for commissioning the solar energy system and produce the sanction to the distribution licensee. D. Work distribution for the Scrutiny of Scheme and inspection of Solar Energy System.
 - 1. For installations above 10kW and up to and including 200kW, prior scheme approval and sanction for energisation orders shall be obtained from the District office concerned.
 - 2. For the scrutiny and inspection, the check list given in the annexure shall be followed.
 - 3. For all installations other than item(2) above, scheme approval and sanction for energisation orders shall be obtained from Chief Electrical Inspector.
 - 4. The following tests shall be conducted at the time of inspection:
 - a. PV Module: Irradiance measurement, angle of inclination, temperature of the PV module and VI characteristics using PV Array Tester.
 - b. Solar Inverter: Efficiency, input voltage, output voltage, power, THD, DC injection flicker etc. and anti-islanding protection.

Sd/- Chief Electrical Inspector Govt. of Kerala