

Clarifications to Queries raised during Pre-Bid Meeting

Selection of SPD for setting up of 15 MW Grid Connected Floating Solar PV Power Project at Nangal Pond, Near Village Neilla, District Bilaspur, Himachal Pradesh							
SEC/C&P/SPD/RfS/15MW/BBMB/072020							
Sl. No.	Tender Section	Page No.	Clause No	Description as per Tender Document	Queries	Category (Finance/Technical/Contractual)	Clarifications
1	INVITATION FOR BIDS	16	6	BBMB shall enter into PPA with successful SPDs for a period of 25 years from the date as per the provisions of PPA. The maximum levelised tariff payable to the Project Developer is fixed at INR 3.41/ kWh for 25 years. This shall be inclusive of all statutory taxes, duties, levies, cess applicable as on the last date of bid submission.	Please remove INR 3.41/ kWh Ceiling Limits, As per MNRE guidelines there should not be any ceiling Limits.	Technical	RFS conditions shall prevail.
2	DEFINITIONS OF TERMS	11	1.25	Pursuant to Article 4.2.6, all charges and losses related to Transmission of power from project up to Delivery Point (including but not limited to open access, transmission, wheeling, DSM, Scheduling, Reactive power charges (if applicable) etc.) as notified by the competent authority / regulator shall be borne by the SPD	If any Open Access charges are made applicable on the plant, the same shall be paid either by BBMB or can be reimbursed to FSPD from BBMB on monthly basis. Open access charges are generally reviewed annually by SERCs and may change from time to time. Therefore, request SECI & BBMB to immune Developers from the open access charges and payment on supply of energy based on the tariff discovered in the bidding process.	Technical	Refer Amendment 01
3	DEFINITIONS OF TERMS	11	1.25 beyond the Delivery Point all charges and losses as notified by the competent authority / regulator from time to time shall be borne by the BBMB. In case it is paid by BBMB, the same shall be recovered from the SPD (as applicable)	Any charges beyond the Delivery Point should not be imposed on FSPD.	Technical	Refer Amendment 01
4	DEFINITIONS OF TERMS	11	1.25	For interconnection with LILO connection and metering, the SPD shall abide by the relevant CERC Regulations, Grid Code and Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended and revised from time to time or orders passed thereunder by the appropriate commission or CEA.	Please provide Single Line Diagram (SLD) of LILO connection and metering scheme, for technical feasibility of connectivity. Also, kindly clarify if application of connectivity shall made by developer or BBMB? In case Developer is applicant, wheather any feasibility granted by BBMB would be acceptable to Himachal Transco? Further, if Developer is granted connectivity for the plant by Himachal Transco, what would be the mechanism under which BBMB shall built the LILO connection and draw the lines upto Floating Solar PV plant switchyard. Moreover, what would be the scope matrix between BBMB, HP Transco & HP Diacom for approval of drawing for LILO connectivity, protection systems and metering scheme for the plant including sealing of energy meters.	Technical	BBMB shall purchase power from FSPD through the PPA to be signed between BBMB and FSPD and BBMB shall enter into a separate agreement with STU (HPPTCL) for connectivity of the project. Please also refer sl. No. 1 of the Amendment 01.
5	ITB	31	9.1	The Power Procurer (BBMB) is required to obtain necessary clearances and permits as required for setting up the Floating Solar Power Project, including but not limited to the following:	Please provide the following to assess the technical feasibility of the site: A. Water Flow study report. B. Flood mapping report. C. Bathymetric survey. D. soil investigation report. E. Topo Survey. F. Shadow analysis.	Technical	As per the data shared by BBMB, 1. Normal Water flow rate of the proposed reservoir is 1 ft/sec (0.33 m/sec) and maximum water flow rate is 18 to 20 ft/sec (6 to 6.67 m/sec) during passing of design flood (3.25 lakh/cusec). As per the information available, the reservoir faced flood conditions in 1988 with 1,36,040 cusec on 26/9/1988. 2. Water wave height is less than 02 ft. 3. Bottom soil of Nangal Pond is having terrace gravel and river borne deposits with exposure of boulder conglomerates. 4. Boring can be done as water and land rights are with BBMB. Bidders are advised to conduct their own analysis for designing the power plant as per the scope mentioned in the RFS.
6	ITB	31	9.1.b	The BBMB shall also provide required land for the establishment of FSPV substation including Main control room, for the proposed project within two months of the effective date of the PPA	Please provide land location, cordinate, area including annuanl schedule of charge for land to be provided by BBMB for setting up of the plant and its substation. Also, kindly share the draft land use permission agreement for review by the bidders.	Technical	Kindly refere Land Lease Agreement which has been uploaded on 23/07/2020
7	ITB	31	9.1	The above activities, as applicable for the Project, shall be required to be completed prior to PPA being executed for the Project. In case of any of the clearances as indicated above being not applicable for the said Project, BBMB shall submit an undertaking to SECI in this regard.	Each of the activities under the scope of BBMB has to be tagged under a definite timeline from the issuance of LOA to the successful Bidder. In case of any of the clearances as indicated above being not provided by BBMB for the said Project within the time specified, than BBMB to give time extention for any such delay in FC & SCOD.	Contractual	The successful SPD shall sign the PPA with BBMB within 30 date from the LOI received from SECI. Refer PPA for more infromation.
8	Appendix - A1 Documents to be submitted to BBMB/SECI:	106	8	SPD shall ensure Connectivity to the grid from concerned Transmission Utility/ DISCOM. Connectivity report as per the Appendix - A3.	We request SECI to bring H.P. DISCOM, and H.P. Transco on board before further deliberations on this tender. MoM with H.P. DISCOM, and H.P. Transco can be signed to cover the following: A. Technical feasibility of connectivity (connectivity approval). B. Metering Scheme including sealing of meters. C. Applicability of open Access charge for the plant on the Developer.	Technical	Refer Amendment 01
9	CABLES AND CONNECTORS	102	7a	All cables and connectors to be used for installation of solar field must be of solar grade	DC cable will between SMU and inverter incase of Central inverter will be as per IS 7098. Please confirm.	Technical	Please refer Clause 7, Annexure A of the RfS.
10	SOW	97	2a	String Monitoring Unit (SMU) along with mounting structure	Inverter Level Monitoring shall be considered. String Monitoring is not considered. Please confirm if otherwise.	Technical	String level monitoring is required.
11		98	2a (ix)	Erection, commissioning and maintenance of dedicated Transmission line (LILO connection) from existing 66 kV HPSEB line upto 66 KV Gantry of Floating solar substation shall be in the scope of BBMB	Please confirm if 66kV LILO arrangement at FSPV Gantry shall be as per BBMB standard. Kindly share if applicable.	Technical	Refer Amendment 01
12				Erection, commissioning and maintenance of dedicated Transmission line (LILO connection) from existing 66 kV HPSEB line upto 66 KV Gantry of Floating solar substation shall be in the scope of BBMB	Kindly confirm on following requirements: a. Conventional CRP or BCU based CRP b. SAS required for 66kV or integration of switchyard signals into Plant SCADA is acceptable c. Line Differential/Line Distance applicable or not. d. PLCC applicable for 66kV or not. e. Distance from proposed gantry point to tower that shall be converted to LILO. f. Distance between two existing substation from which tower shall be converted into LILO.	Technical	This shall be as per prevailing CERC regulations, Indian Grid Code, CEA guidelines etc.,


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13				ABT meters with all necessary metering rated CTs and PTs at the Interconnecting Substation as per CEA Metering Regulation 2006 as amended time to time and state metering code	Main and Check ABT Meters are considered for the Project. Please confirm if any other are required.	Technical	Main, check and standby ABT meter should be considered.
14			7c	AC cable shall comply with the relevant IS code and should withstand the system current and voltage	Solar DC Cable, Main DC Cable and LV AC Cables of unarmoured Type are considered. MV AC Cables shall be of Armoured Type. Please confirm if acceptable.	Technical	As per Standards as described in RFS.
15			8a	Earthing System	Kindly confirm if actual system fault current for 1 second is acceptable for earthing design.	Technical	As per Standards as described in RFS.
16			9	Other Sub-Systems/Components	Please recommend if Aluminium Winding Transformer is acceptable.	Technical	No. Only Copper Winding Transformer shall be acceptable.
17		98	2	Bathy and Survey works	Request client to share the following Details for Assessment: a) Geotechnical Report of Under Water area. b) Geotechnical Report of Ground Area. c) Bathymetry Survey of Underwater Area. d) Topographical Report of Surrounding Area including Hills. e) Reservoir Water Test Report f) Reference Irradiation Data g) Water Level Variance Data for the Reservoir.	Technical	a) Reservoir Water Test Report: Attached, refer Amendment 01. b) Reference Irradiation Data: Any authentic resource may be referred. c) Water Level Variance Data for the Reservoir..... Minimum reservoir level EL. 1137.60' and maximum reservoir level EL.1154.00'. However normally operation level various from EL.1147' to EL.1152'. Bidders are advised to conduct their own analysis for designing the power plant as per the scope mentioned in the RFS.
18	PV module	99	Annexure A.3	Further, PV Modules should have been included in the ALMM list as per MNRE Approved Models and Manufacturers of Solar Photovoltaic Modules (Requirements for Compulsory Registration) Order, 2019.	a) Approved List of Models and Manufacturers (ALMM) is currently not implemented. Request to clarify whether the same shall be applicable for this project. b) ALMM restricts the Module Suppliers with suitable credentials for Floating Solar Plants. c) With the requirement of ALMM and Glass-Glass type module (with laminators with heating plates on both sides) greatly restricts the Module Suppliers (only 1 supplier will qualify)	Technical	Extant GoI orders with respect to ALMM shall apply. Tender Conditions prevail
19	Land Area	3 of 124 31 of 124	a) Reservoir	1. Selection of Project Developers for Setting up a 15 MW Grid-Connected Floating Solar PV Power Plant at Nangal Pond, Near village Neilla, District Bilaspur, Himachal Pradesh. The Power Procurer (BBMB) is required to obtain necessary clearances and permits as required for setting up the Floating Solar Power Project, including but not limited to the following: b) The BBMB shall also provide required land for the establishment of FSPV substation including Main control room, for the proposed project within two months of the effective date of the PPA	a) Request client to share the Land Boundary available for Installation of Ground Mounted Equipment (Inverters, Transformers, Switchyard etc.)	Technical	Land Lease Agreement uploaded on 23/07/2020 for the project may be referred.
20	Generation Requirement	26 of 124	8.1 CRITERIA FOR GENERATION	The Bidders will declare the annual CUF of the Project at the time of submission of response to RFS, and the SPDs will be allowed to revise the same once within first year of COD. 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 21%.	a) The Point of Measurement of the CUF is considered at the 66kV Power Transformer End of the Solar Plant. Please clarify if otherwise. b) Min. CUF of 21% is requested, however Solar PV Modules experience a Year on Year degradation. Please consider degradation for the project cycle.	Technical	CUF measurement shall be done at the ABT Meter installed at the Plant Switchyard (66 kV Power Transformer) end from where power is off-taken by BBMB. For variation in CUF, please refer Clause 08 of the RFS.
21	Section III of RFS	25	7.2 (m)	SPD shall also submit an undertaking to BBMB that no grant / subsidy shall be availed from the Government against this project.	(1) Is there a specific format for the mentioned undertaking. Kindly provide. (2) What stage is this Undertaking to be provided by Bidder.	Contractual	Undertaking shall be provided at the time of signing of PPA.
22	Section III of RFS	28	8.4 (b)	Where, Average Generation per hour during the Contract Year (kWh) = Total generation in the Contract Year (kWh) ÷ Total hours of generation in the Contract Year.	Since the grid-unavailability period is from 8am to 6pm, it is suggested that the computation of Average Generation per hour during Contract Year (kWh) = Total generation in the Contract Year (during 8am to 6pm) / Total hours of generation in the Contract Year (during 8am to 6pm). Kindly consider.	Technical	RFS / PPA clause shall prevail.
23	Section III of RFS	30	8.4 (d)	Water Body Usage An uninterrupted operation of Floating Solar Power Plant (FSPV) shall be achieved by maintaining the Minimum Water level (minimum 2 meter) in reservoir to enable the plant in the floating conditions during the Term of the PPA.	(1) What is the Minimum and Maximum Water level at the project location? (2) The Project Location is Downstream of Bhakra Dam. Please confirm whether there will be any deluge/water discharge from the Dam towards the Project Location.	Technical	Minimum reservoir level EL. 1137.60' and maximum reservoir level EL.1154.00'. However normally operation level various from EL.1147' to EL.1152' Water discharge from the Bhakra dam is controlled as per BBMB. Normal Water flow rate of the proposed reservoir is 1 ft/sec (0.33 m/sec) and maximum water flow rate is 18 to 20 ft/sec (6 to 6.67 m/sec) during passing of design flood (3.25 lakh/cusec). As per the information available, the reservoir faced flood conditions in 1988 with 1,36,040 cusec on 26/9/1988. Water wave height is generally less than 02 ft.
24	Section III of RFS	30	8.4 Notes	Note: Notwithstanding anything mentioned above, the provisions of Clause 8.4 of the RFS shall be applicable subject to the acceptance of the same by the respective Buying Utility in the Power Sale Agreement.	(1) Kindly provide the copy of Power Purchase Agreement. (2) Kindly provide copy of Power Sale Agreement between BBMB and respective buying Utilities.	Contractual	Kindly refer PPA uploaded on 23/07/2020

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25	Section III of RFS	31	9.2	SPD shall only be given the "right to use" of the land/reservoir for this project and BBMB shall coordinate with the respective authorities and arrange for the same in favor of SPD.	We understand that SPD shall be given 'right ot use" of the land/reservoir for this project on free of charge basis for 27 Years from date of PPA. Kindly clarify.	Contractual	Ok
26	Section III of RFS	36	14.7 (b)	The BBMB shall also provide required land for the establishment of FSPV substation including Main control room, for the proposed project within two months of the effective date of the PPA	Whether BBMB has identified / marked required Land for establishment of FSPV substation including Main control room for this proposed project. If identified, kindly share land area boundary available for Installation of Ground Mounted Equipment (Inverters, Transformers, Switchyard etc.)	Technical	Yes, Kindly refer Land Lease Agreement uploaded on 23/07/2020
28	Section VII of RFS	99	3	PV Modules shall be Glass-Glass type with minimum glass thickness of 2 mm on each side. The Module shall be laminated using a laminator with symmetrical structure, i.e. heating plates on both sides.	Module with backsheet to be allowed (Tedlar backsheet). Tedlar Backsheet are suitable for Floating Solar Plants, and confirmation from Module Manufacturer can be provided.	Technical	Tender and Conditions of the RFS shall prevail
29	Reservoir and land arrangements:	31	14.7	b) The BBMB shall also provide required land for the establishment of FSPV substation including Main control room, for the proposed project within two months of the effective date of the PPA	We request you to provide co-ordinates for the FSPV substation & distance between FSPV to substation at the bidding stage.	Technical	Dhar Pachingal, Himachal Pradesh, India Lat: 31.41583819, Lng: 76.39890993  http://maps.google.com/maps?&z=10&q=31.41583819+76.39890993(Pool+Location)&mrt=yp
30	SUCCESS CHARGES	34	12	Successful Bidder shall have to pay INR 2,0,25,00,00/ + 18% GST to SECI towards administrative overheads, liaising with State, DISCOM/ STU (as per project requirements), pre-commissioning and commissioning expense.	The applicable success charges is very high as compare to the other IPP project tenders released by the SECI. We request you to reduced the success charges amount to INR 1.00 Lakh/ MW + 18% GST.	Contractual	RFS clause shall prevail.
31	POWER PURCHASE AGREEMENT (PPA)	35	14	BBMB (Himachal Pradesh) shall enter into Power Purchase Agreement (PPA) with Bidders selected based on this RfS.	We request you to please share the credit rating documents of BBMB.	Technical	Annual Reports of BBMB may be reffered.
32	1. Site Details and Site Assessment	96	96	a) Bidder shall carry out the detailed site survey including bathymetric study, water body characteristics, geo-technical investigations (on shore/off shore) etc. and shall apprise himself regarding information such as water properties (such as TDS content etc.), depth of reservoir (Full Reservoir Level (FRL), Minimum Drawdown level (MDDL), Dead Storage level etc.), variation in the depth of water reservoir, water flow rate / current, climatic conditions, requirement of statutory approvals etc., before submitting the bid.	The cost involved to carry out the required survey is very high and the company doesn't allow to invest to much money before winning the tender. Hence we request you to please share the tentative survey report for bidding purpose and amend this clause as below: Bidder must do the detailed site survey before signing of PPA.	Technical	The details as available with SECI have been provided. Bidders are advised to conduct their own analysis for designing the power plant as per the scope mentioned in the RFS.