

Annexure-VIII

5MW Grid Interactive Solar PV Power Project, Monarchak

Pre Bid Queries of prospective bidder and Clarifications/ Replies of NEEPCO

Sl no.	clause No.	NEEPCO Tender says	BHEL's Query	NEEPCO's Reply
1	Volume -2, Part -1, General technical information, Salient features, page 16 of 25,Sf. No. 3	PV module Type : Poly crystalline Max. power rating : 300 Wp	BHEL would like to offer modules made of mono crystalline cells of 240Wp or 290Wp. As the performance of these cells are filed proven for more years	Refer minutes of pre-bid meeting dtd 20-12-12
2	Volume -3 -Schedule of requirement, Section No. 2.01, Sl. No. 1	Supply of Solar PV Modules consist of around 9 Nos of 500 kWp capacity solar array - 9 Nos	9 Nos of 500kWp array comprises of 4.5MW instead of 5 MW which has to be clarified. In the case of inverters, 500kWp can be operated at555kWp PV array. In that case, 9 such inverters can be comprised to 5 MW. But clarity is needed in the case of 9 Nos of 500kWp Solar PV Array	Refer minutes of pre-bid meeting dtd 20-12-12
4	Valume-4, Tender drawings, Exhibit 6.1	Plant layout is given in PDF	PDF Drawing is not clear. Corresponding ACAD drawing shall be furnished. Then, the equipment placed in unit control rooms will be clearly visible.	Refer minutes of pre-bid meeting dtd 20-12-12

SI no.	clause No.	NEEPCO Tender says	BHEL's Query	NEEPCO's Reply
5	Volume-4, Tender drawings, SLD Final	9th 500KW inverter is connected to 1.25 MVA transformer	9th Inverter of 500kW is being connected to 1.25MVA transformer. In that case, transformer will be operating at 50% loading which affects efficiency. Hence, for that 9 th Inverter, it is suggested to employ 630kVA transformer. Kindly comment on its acceptability.	Refer minutes of pre-bid meeting dtd 20-12-12
6	Volume 2 part 3 Section -1, Civil Specs, S1. No. 12.01.00, Page 8 of 13	There will be four unit control rooms and one main control room. The main control room shall be adequate enough to accommodate one unit control room, switchyard control room, main control panel etc	Detailed ACAD details (instead of PDF) for the control room shall be furnished.	Refer minutes of pre-bid meeting dtd 20-12-12
7	Volume 2 part 2 Section -4, page 14 of 16, 11 k V switch gear cubicle, Sl. No. (f)	Class indoor/outdoor Outdoor	11 KV switch gear cubicle shall be mounted, indoor or outdoor as in Volume-3, Sl. No. 2.03, it was given that indoor switch gear and control panel. Hence it is requested to clarify outdoor or indoor	Refer minutes of pre-bid meeting dtd 20-12-12

SI no.	clause No.	NEEPCO Tender says	BHEL's Query	NEEPCO's Reply
8	Volume 3 Schedule of requirement, Section No. 2.04, Sl. No. 2	33kV 3- phase Isolator with mounting structure - 5 Nos	But in Volume-4,tender drawings, SLD final, it was shown that 6 Nos of 33 kV isolators are there. Please clarify.	Refer minutes of pre-bid meeting dtd 20-12-12
10	Volume -2 , part -2, section - 2, page 2 of 14, sl. No. 4.02	Inverters are connected in parallel to the common utility bus. Depending on the magnitude of the solar power generated, (which depends on solar radiation) sequentially inverters are switched ON automatically.	Is this means inverters have to work in master - slave configuration. If so, maximum 2 inverter scan be connected as master slave fashion and those two can be sequentially switched ON based on the solar radiation through out the day. Please confirm on this.	Refer minutes of pre-bid meeting dtd 20-12-12
11	Volume 2 Part 2, section -2, page 4 of 14, Sl.no. 5.05	Voltage range of inverters shall be of -20% to +15%	Generally, most of the inverter manufacturers will give the voltage tolerance of +10% to - 10%. This may please be considered.	Refer minutes of pre-bid meeting dtd 20-12-12
12	Volume 2 Part 2 , section -2, page 6 of 14, sl. No. 6 . 05 .	The PCU shall have provision for galvanic isolation	Does this mean PCU to have built-in isolation transformer?	Refer minutes of pre-bid meeting dtd 20-12-12
13	Volume -2 , part -2, section - 3, page 4 of 29, sl. No. 1.2 (12)	Neutral earthing: LV neutral shall be solidly earthed	If LV neutral of 11 kV transformer should be solidly earthed, then neutral grounding resistors (NGR) which were asked in same tender	Refer minutes of pre-bid meeting dtd 20-12-12

SI no.	clause No.	NEEPCO Tender says	BHEL's Query	NEEPCO's Reply
			document will not have any significance. Hence the same can be clarified.	
14	Volume 2 part 1, salient features Sl. No. 4	Tilt angle (slope) for PV module : 20 degrees	SPV plant performance will be maximum when the tilt of the structure is at latitude of the Site : i e 23 degrees instead of 20 degrees. This may pleased be considered.	Agreed
15	Volume 2 part 1 ,general technical information, page 2 of 25 ,sl.no 1.0	Annual Generation of 8.322 MU	According to energy generation simulations done by us,yearly energy generated by the 5 MW plant 23 deg tilt by considering NASA meteorological data, is arriving at 7.0 million units. This may please be considered.	Refer minutes of pre-bid meeting dtd 20-12-12
16	Volume -2, part -1, general technical information, page 14 of 25, sl. No. 22	Metronome irradiation data for Monachark	Given data not tallying with data from NASAas per annexure 3.1B This may please be clarified	Refer minutes of pre-bid meeting dtd 20-12-12
17	Volume - 2, part -2, section -4, page 3 of 16, sl. No. 102 (9)	HT switchgear shall have at least 2fully equipped spare feeders (one each for highest ize of motor/transformer) for any future requirement	This point may please be clairified regarding two spare feeders in in 11kV switch gear panel.	Refer minutes of pre-bid meeting dtd 20-12-12