

Clarification and Amendment No – 01

Clarification and Amendment on the Tender Document of " Construction of 50 MWp (DC) Solar Photovoltaic Grid-Connected Power Plant at Rangunia, Chattagram, Bangladesh on Turn Key Basis"

Sl No	Section/Clause/Subject/Page No	Mentioned/Description in Tender Document	Tenderer's Query	BPDB's Clarification/Amendment on Tender Document
01	Section 5 Tender and Contract Forms Specifications Submission and Compliance Sheet (Form PG5A-4a) Page:171	Solar Photovoltaic Module Manufacturer: Lungi/Jinko/Canadian/Trina/JA/Hanwha Q Cells	We request to allow those pv module manufacturers who are Tier-1 rating and meets tender mentioned type test report and other technical requirements.	Solar Photovoltaic Module Manufacturer: Longi Solar Technology Co. Ltd, Jinko Solar Holding Co., Ltd, Canadian Solar Inc, Trina Solar Limited, JA Solar Holdings Co., Ltd, Hanwha Q Cells Co., Ltd, Risen Energy Co., Ltd, First Solar Inc., Astronergy Co Ltd (CHINT SOLAR), Suntech Power Holdings Co, Ltd
02	Section 6. Employer's Requirements 6.2.6 Civil and Building Works Control Room & Office Building of the Solar Plant: Page:238	The control room and office buildings----- • Control Room of innovative and appropriate design with at least 500 square meter (or suitable higher size required) for accommodating the inverters, control panels, etc and additional room/cabin/space for accommodating operating personnel, storage of spares, etc with a height of 5 meter shall be constructed. The bidder has to submit the proposed drawing of control room building along with the bid to the employer for approval. • Control Room---	The control room area don't need 500 square meter based on our experience, could be we design the control room based on the actual demands of the project?	The control room and office buildings----- • Control Room cum office buildings (two storied) of innovative and appropriate design with at least 500 square meter (or suitable higher size required) for accommodating the switchgear, control panels, storage of spares etc and room/cabin/space for accommodating operating and administrative personnel etc with a control room height of 5 meter shall be constructed. The bidder has to submit the proposed drawing of control room cum office building along with the bid to the employer for approval. • Control Room---
03	--	--	Pls provide a boundary map, contains topography (CAD version)	As per tender document
04	Section 6. Employer's Requirements 6.2.3.2 Module Mounting Structure Page: 199	(b) The PV module mounting frames and structures will be built with fixed tilt angle set in 23° and South orientation. The frames and leg assemblies of the array structures shall be made MS hot dip galvanized as per ASTM A123. Minimum thickness of galvanization should be at least 120 microns. All nuts & bolts, Fasteners shall be made of high quality stainless steel of SS3 04 grade and shall be protected against adverse climatic conditions. The minimum clearance between the lower edge of the modules and the developed ground level shall be 1000 mm and conform to standards.	1. Can the anticorrosive material of mounting structure be changed to magnesium aluminum zinc plating, because it has better anticorrosive performance and automatic repair function. 2. The corrosion protection thickness is 120um. Is the corrosion environment C5? 3. As for the height of the PV module above the ground, since there is no flood level report, we first respond to the RFP and consider 1000mm, and then adjust it after receiving the flood level report. 4. As for pile foundation, concrete foundation is used in the RFP. We first consider PHC pile foundation, which is buried at a depth of 4000mm.	As per tender document

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05	Section 6. Employer's Requirements 6.2.3.2 Module Mounting Structure Page: 199	(f) The bidder is advised to submit his offer for fixed tracking system of module mounting structures along with guaranteed energy output from the solar system.	The form of mounting structure is required to be fixed bracket, but the bidder is advised to quote according to fixed tracking structure, please verify the form of mounting structure.	As per tender document
06	Section 6. Employer's Requirements 6.2.3.8.5.4 DC & Auxiliary Power Supply and UPS Battery Page: 230	For the DC system, the Bidder shall supply Lead Acid type batteries designed according to Standard EUROBAT 15 with a life expectancy of 20 years or more.	Generally battery life cannot up to 20 years.	For the DC system, the Bidder shall supply Valve-Regulated Lead Acid (VRLA) batteries type batteries designed according to Standard EUROBAT 15 with a life expectancy of 10 years or more.
07	Section 6. Employer's Requirements 6.2.6 Civil and Building Works Page: 237	b. Foundation drawings & designs shall be submitted to employer for approval before starting the work. Foundation digging of Module Mounting Structure shall commence only after the proper leveling of the site.	Could you provide the topographic map and primary flood assessment report of the site, then we could be evaluate the amounts of the civil work.	As per tender document
08	Section 6. Employer's Requirements 6.2.6 Civil and Building Works Water & Arrangement for Modules Washing Page: 238	Water distribution System within the Plant area for cleaning the modules: Bore wells and Water source should be arranged by the Tenderer. The Tenderer should make necessary arrangements of booster pump and laying of network of GI pipe in each row of SPV Panels. ----- ----- over the roof of the control room with adequate capacity and all fittings including float valve, stop cock etc.	Due to the lack of Hongping report, the water source for water cleaning shall be self-drilled (100m depth, tentative estimate) or connected to the municipal water supply, and the distance between the municipal water supply is 500m temporarily.	As per tender document.
09	Section 6. Employer's Requirements 6.2.6 Civil and Building Works Page: 240	Site Boundary Wall The site boundary wall shall be installed around the power station as directed by the Engineer. The site boundary wall shall be of brick wall with RCC frame in accordance with KPI Standard and 2.40 m high and 0.25 m thickness.	Switch station is of solid wall type, could the fence of photovoltaic area be of chain link type?	As per tender document
10	Section 6. Employer's Requirements 6.2.14 Approval of Drawings and Specifications and Tests Witness Page 251	B. TESTS WITNESS: Test of Power Transformer xvi. Size of Copper Conductor for HT and LT Windings	Could the aluminum alloy winding transformer be used?	As per tender document
11	--	--	Design standards for mounting structure Could be we follow the ASCE 7-05 design, or should we follow the BNBC-2020 design?	As per tender document

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12			<p>Since land is alluvial and soil quality is poor, pile foundation is proposed for water tank, sub-station and control buildings.</p> <p>Due to lack of geological prospecting data, prestressed pipe pile with diameter of 400 and length of 10m is proposed.</p>	As per tender document
13	Section 6. Employer's Requirements 6.2.6 Civil and Building Works Land development & Drainage Page: 237	<p>Since the highest flood level is 6m above MSL, the land development shall be made keeping in consideration of highest flood level. It is proposed that 3m wide dyke along the periphery of the site will be constructed to the elevation of 6.5m above MSL. The dyke height above ground elevation will vary from 4m to the river side (south) down to 2.5m to the leeward. The remaining area within the dyke may be developed by earth filling to make uniform elevation of 5m above MSL along east west line y=2484300 with uniform slope southward till an elevation of 4m above MSL along east-west line y=2483500 to allow natural drainage. Provision of adequate number of low lift pumps with adequate capacities shall be kept for normal draining and draining for unusual precipitations.</p>	<p>Due to the lack of geological exploration data, it is proposed to adopt reinforced concrete structure with the foundation buried depth of -0.3000m.</p>	As per tender document
14	Section 6. Employer's Requirements 6.2.3.8.1 Power Transformer (vii) 33 KV Switchgear Equipment Panel (a) Power Transformer Panel 9) Internal wiring Page 203	<p>a) Wire The internal wiring shall be made with PVC wire of 2.5 sq. mm copper stranded or larger, and solderless terminals shall be used for connection. The secondary circuit of C.T. and P.T. shall be wired with PVC wire 4.0 sq. mm (minimum) copper stranded.</p>	<p>The description of PT refers to medium voltage PT. According to the existing PV Transformer Station variable solution, there is no medium voltage PT, Will low voltage PT be configured?</p>	As per tender document
15	Section 6. Employer's Requirements 6.2.3.3 Grid Tied Inverter Page 200	<p>Warranty Product warranty for inverters should be at least 5 years. In addition it should be possible to buy an extended warranty up to 20 years.</p>	<p>According to feedback from several big suppliers, it is not possible to extend the warranty for 20 years, but only could extend for 10 years.</p>	Warranty Product warranty for inverters should be at least 5 years.
16	Section 6. Employer's Requirements 6.2.3.8.1 Power Transformer Page 201	<p>The transformers shall be designed and tested in accordance with IEC 76</p>	<p>IEC 76 does not have a transformer standard, is it IEC 60076?</p>	The transformers shall be designed and tested in accordance with IEC 60076

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17	Section 5 Tender and Contract Forms Specifications Submission and Compliance Sheet (Form PG5A-4a) Appendix 3: Power Transformer Page: 173	H.T WINDING 4.Tap Changer +2x2.5%, 0, -2x2.5% of rated kV & all fully rated capacity. Tap Changer shall be on load type	--	H.T WINDING 4. Tap Changer +5% to -5% in step of 2.5% of rated kV & all fully rated capacity.
18	Section 6. Employer's Requirements 6.2.3.8.2 MV Cable & Accessories (33 kV Power Cable) (2) Insulation Page 215	The insulation The extrusion process shall ensure that the insulation is homogenous and The single core 33 kV XLPE Copper conductor power cable and other necessary items for the completion of the cable system.	Could be aluminum alloy cable be used for the project? And the section designed will meet the load capacity requirements, maybe less than 500mm ² based on the calculation.	As per tender document
19	Section 6. Employer's Requirements 6.2.3.8.1 Power Transformer Page 201	(A) Power Transformer Three phase, oil immersed, self-air cooled (ONAN), suitable for stepping up the inverter output voltage to 33 kV with on load tap changer having uniform insulation. The on load tap changer shall be provided on the high tension winding, and their ratio shall be as follows: 33 kV ($\pm 1.25\% \times 5$)	--	(A) Power Transformer Three phase, oil immersed, self-air cooled (ONAN), suitable for stepping up the inverter output voltage to 33 kV with off load tap changer having uniform insulation. The off load tap changer shall be provided on the high tension winding, and their ratio shall be as follows: 33 kV ($\pm 5\%$ in step of 2.5%)
	Section 6. Employer's Requirements 6.2.3.8.1 Power Transformer 2. Requirement for Characteristics and Construction 2.1 Power Transformers 2.1.1 Requirement for Characteristics Page 204	On Load Tap Changer The on load tap changer shall be provided on neutral side of 33 kV winding and shall be designed to meet the requirement of IEC 76. Provisions shall be made for padlocking in any tap position. The site is prone to erosion at the river side. Thus river banks protection becomes of importance. Concrete blocks will be used to prevent river bank from erosion. The river bank protection will be done by concrete block of 300mmx300mmx300mm and side Protection can be done by concrete block of 300mmx300mmx150mm upto 1500m along the shore.	We know through a lot of project experience that OLTC function is not configured for PV area transformer station, only no-load voltage regulation function is configured. For OLTC, only for the main transformer of the Substation, this requirement is required. Please inform us whether no-load voltage regulation is acceptable?	Off Load Tap Changer The off load tap changer shall be provided on neutral side of 33 kV winding and shall be designed to meet the requirement of IEC 60076 . Provisions shall be made for padlocking in any tap position.
20	Section 6. Employer's Requirements 6.2.6 Civil and Building Works River Bank Protection Page: 237	The site is prone to erosion at the river side. Thus river banks protection becomes of importance. Concrete blocks will be used to prevent river bank from erosion. The river bank protection will be done by concrete block of 300mmx300mmx300mm and side Protection can be done by concrete block of 300mmx300mmx150mm upto 1500m along the shore.	Due to lack of relevant riparian information, shore height is estimated at 3.5m	As per tender document
21	Section 6. Employer's Requirements 6.2.6 Civil and Building Works Land development & Drainage	Since the highest flood level is 6m above MSL, the land development shall be made keeping in consideration of highest flood level. It is proposed that 3m wide dyke along the periphery of the site	Please provide a boundary of the dyke or the length of the dyke	As per tender document

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	Page: 237	will be constructed to the elevation of 6.5m above MSL. The dyke height above ground elevation will vary from 4m to the river side (south) down to 2.5m to the leeward. The remaining area within the dyke may be developed by earth filling to make uniform elevation of 5m above MSL along east west line y=2484300 with uniform slope southward till an elevation of 4m above MSL along east-west line y=2483500 to allow natural drainage. Provision of adequate number of low lift pumps with adequate capacities shall be kept for normal draining and draining for unusual precipitations.		
22	Section 5 Tender and Contract Forms Specifications Submission and Compliance Sheet (Form PG5A-4a) Appendix 2: Grid Tied Inverter Page:172	INPUT 7 Max start up Input Voltage: 200V Maximum input Voltage: To be mentioned Minimum No of Independent MPP input: 4 Nos	--	INPUT 7 Startup Input Voltage: $\geq 200V$ Maximum Input Voltage: 1500 Minimum No of Independent MPP input: 4 Nos
23	--	--	Please provide site boundary line, soil investigation report, topographic study report, flood study report, historical tidal water level data and wind speed data	As per tender document
24	Section 6. Employer's Requirements 6.2.15.5.8 Definition of the Yield at the Operational Acceptance Test Page 256-257	G_{LOAC} = guarantee level provided by the Contractor (minimum value of 95%) [%]	Please clarify whether G_{LOAC} is one of the Performance Guarantee parameter	As per tender document
25	Section 6. Employer's Requirements 6.2.15.5.9 Operational Acceptance Test Calculation Page 257	Plant Rejection will apply if the Y_{meter} of the Operational Acceptance Test is below the Minimum Acceptance Criteria as specified in Appendix 8 of Section 9 of the Tender Documents (90% of Yadj).	Please clarify Appendix 8 of Section 9 of the Tender Documents, which is not found	Plant Rejection will apply if the Y_{meter} of the Operational Acceptance Test is below the Minimum Acceptance Criteria as specified in Appendix 8 of the Tender Documents (90% of Yadj).
26	Section 6. Employer's Requirements 6.2.17 Performance Guarantee Page 261	The bidder is required to propose a PV Plant with a capacity ≥ 50 MWp and performance ratio (PR) $\geq 80\%$ at the time of commissioning regardless the month the Plant is commissioned. This is a Technical Mandatory Requirement subject of rejection if not compliant.	Please clarify on the test procedures of PR at the time of commissioning/Operational Acceptance, which is missing. (rather, $Y_{meter} \geq Y_{OAC}$ is proposed in current Document)	As per tender document

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27	Section 6. Employer's Requirements 6.2.15.6.3 Annual Performance Review Calculation Page 258	<i>PR^A measured</i>	Please clarify how to determine/calculate <i>PR^A measured</i>	As per tender document
28	Section 6. Employer's Requirements 6.2.1 Introduction Page 197	Climate Data of the proposed Site	Please provide average number of thunderstorm days in a year	As per tender document
29	Section 6. Employer's Requirements 6.2.2 PV plant design concept Page 197	The PV module mounting frames and structures will be built with fixed tilt angle set in 23° and South orientation. Modules mounting structures foundation should be RCC foundation columns made with cement concrete as per design based on site soil condition.	Conflicting requirement provided Considering the impact of high wind speed according to BNBC, is the bidder allowed to proposed different/smaller tilt angles, for example 10°?	As per tender document
30	Section 6. Employer's Requirements 6.2.3.2 Module Mounting Structure Page 199	(g) The tilt angle for the mounting structure shall be calculated as per the site latitude. Depending on the actual site location modules alignment and tilt angle shall have to be calculated to provide the maximum annual energy output.		DELETED
31	Section 6. Employer's Requirements 6.2.3.8.1 Power Transformer 2. Requirement for Characteristics and Construction 2.1 Power Transformers 2.1.1 Requirement for Characteristics Page 204	The on load tap changer shall be provided on the high tension winding, and their ratio shall be as follows: 33 kV (±1.25% x 5)	Conflicting requirement provided Bidder proposes the following: 33kV (±2.5% x2). Is it acceptable?	The off load tap changer shall be provided on the high tension winding, and their ratio shall be as follows: 33 kV (±5% in step of 2.5%)
	Section 5 Tender and Contract Forms Specifications Submission and Compliance Sheet (Form PG5A-4a) Appendix 3: Power Transformer Page: 173	H.T WINDING 4. Tap Changer +2x2.5%, 0, -2x2.5% of rated kV & all fully rated capacity. Tap Changer shall be on load type		H.T WINDING 4. Tap Changer +5% to -5% in step of 2.5% of rated kV & all fully rated capacity.
32	Section 6. Employer's Requirements 6.2.3.8.1 Power Transformer 2.2 Auxiliary Transformer/Station Transformer 2.2.1 Requirement for Characteristics Page 207	The off load tap changer shall be provided on the high tension winding, and their ratio shall be as follows: +1x2.5%, 0, -3x2.5% of rated kV & at fully rated capacity.	Is it acceptable to use: +5.0 %, x2.5%, 0, -2.5%, -2.5% of rated kV & all fully rated capacity.	As per tender document

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33	Section 6. Employer's Requirements 6.2.3.8.2 Power Evacuation Page 208	The contractor shall construct the 33 kV power evacuation line including 2 (two) bay at Chandroghona 132/33 kV sub-station to evacuate the power produced in the solar park.....	Please provide the conceptual line route. Please confirm that the land acquisition and associated compensation related to power evacuation lines are responsibilities of the Employer.	As per tender document
34	Section 6. Employer's Requirements 6.2.3.8.3 LV/MV Cable & Accessories Page 214-215	e. All wires used on the LT side shall conform to IS and should be appropriate voltage grade. Only Copper conductor wires of reputed make shall be used.	Is it acceptable to use aluminum conductor wires instead?	As per tender document
35	Section 6. Employer's Requirements 6.2.3.8.3.2 MV Cable & Accessories (33 kV Power Cable) Page 215	(1) The cable shall be stranded annealed copper conductor. The constructionconductor shall comply with latest IEC standard,	(1) The cable shall be stranded annealed copper conductor. ... The copper conductor shall comply with latest IEC standard, Is it acceptable to use aluminum conductor wires instead	As per tender document
36	Section 5 Tender and Contract Forms Section 6. Employer's Requirements	--	Any preference or mandatory shortlist for the Tariff Meter manufacturers? Please Provide.	As per tender document
37	Section 6. Employer's Requirements 6.2.3.8.4 SCADA Page 216	Remote signal exchange and related works including RTU for signal exchange with BPDB and NLDC. All necessary interconnection & integration shall be done by the tenderer as per existing guideline of PGCB. Communication for monitoring and control with BPDB and NLDC. All necessary interconnection & integration shall be done by the tenderer as per existing guideline of PGCB.	Does the scope of tender include the supply of dispatching equipment or communication equipment? If yes, please clarify are there any preference of manufacturers? Please also elaborate on the technical requirements.	As per tender document
38	Section 5 Tender and Contract Forms Section 6. Employer's Requirements	--	Is there any preference for protection system manufacturer? Please clarify whether protection system at the connection sub-station is the scope of the tender?	As per tender document
39	Section 6. Employer's Requirements 6.2.15.6.3 Annual Performance Review Calculation Page 258	The $PR_{measured}$ will be corrected with the actual ambient temperature, which may deviate from the assumptions of a typical meteorological year as the basis of the PVsyst simulations (reference values).	Please provide the data of a typical meteorological year	As per tender document
40	Section 3. General Conditions of Contract	39.2 Within seven (7) days after receipt of the notice from the Contractor under GCC Sub-Clause 39.1, the Employer shall supply the operating and	Operating and maintenance personnel shall be included in Appendix 6. Scope of Works and Supply by the Employer	As per tender document

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	39. Completion of the Facilities Page 79	maintenance personnel specified in the Appendix to the Contract Agreement titled Scope of Works and Supply by the Employer for Pre Commissioning of the Facilities or any part thereof. Pursuant to the Appendix to the Contract Agreement titled Scope of Works and Supply by the Employer, the Employer shall also provide, within the said seven (7) day period, the raw materials, utilities, lubricants, chemicals, catalysts, facilities, services and other matters required for Pre Commissioning of the Facilities or any part thereof.		
41	Appendix 6 - Scope of Works and Supply by the Employer Page 134	Personnel		
42	Appendix 6 - Scope of Works and Supply by the Employer Page 134	Facilities	Site Evacuation line shall be included in the facilities to be supplied by the Employer. Please confirm.	As per tender document
43	Section 4. Particular Conditions of Contract GCC 1.1(t) Page 108	The Effective Date upon which the period until the - - - - - (a) - - - - - (b) - - - - - (c) - - - - - (d) L/C shall be opened in favor of the Contractor. - - - - - which it is responsible as soon as practicable.	Condition shall be modified as: (d) L/C has been opened in favor of the Contractor. Please confirm.	The Effective Date upon which the period until the - - - - - (a) - - - - - (b) - - - - - (c) - - - - - (d) L/C has been opened in favor of the Contractor. - - - - - which it is responsible as soon as practicable.
44	Section 4. Particular Conditions of Contract GCC 63.1 Page 117	LD (Liquidated Damages) for the Delay of Turnkey Works 0.1 % (Zero point one percent) of the Contract Price per day of delay for the whole work of Construction of 50MWp (DC) Solar Photovoltaic Grid Connected Power Plant, BPDB, Rangunia, Chattagram, Bangladesh on Turnkey Basis.	The penalty is excessive. Bidder proposes to modify it to; 0.1 % (Zero point one percent) of the Contract Price per day of delayed work ---- Please agree.	As per tender document
45	Appendix 1. Terms and Procedures of Payment A) Terms of Payment Page 121	Advance payment is not permitted.	At least 10% advance payment shall be made available to Contractor. Please agree.	As per tender document

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46	Section - 2. Tender Data Sheet ITT 24.2(r) Page 50	7. Guarantee/Warranty certificate from the tenderer of the offered System/Equipment/items/spares including turnkey work and its satisfactory performance during warranty period [24 (twenty four) months from the date of issuing Operational Acceptance Certificate (OAC)];	The tenderer understand that most of the Guarantee/Warranty certificates will be actually issued by equipment manufacturers instead of the Tenderer. Please clarify	As per tender document
47	Appendix 1. Terms & procedures of payment (A) Terms of payment Page 121	Advance payment is not Permitted	Advance payment shall be provided. The Contractor can provide equivalent advance payment guarantee.	As per tender document
48	Appendix 1. Terms & procedures of payment Page 121	Note: No interest will be applicable for delayed payment.	The maximum payment period of the owner is 45 days, EPC Contractor could not be accepted that there is no deferred payment of interest.	As per tender document
49	Appendix 2. price adjustment-not applicable Page 127	Price adjustment is not applicable.	Suggest that prices shall be adjusted during the performance of the contract to reflect changes occurring in the cost of labour and material components.	As per tender document
50	Section 4 Particular conditions GCC 42.2 Page 114	The Defects liability / warranty shall cover the following : The Contractor warrants that each item of equipment/ materials ----- The Contractor shall extend the provisions of this warranty to cover all repaired and replacement parts furnished under the Defects liability/ warranty provisions for a period of 24 (twenty four) months of operation from the date of repair, replacement, commissioning thereof. ----- Defects Liability Period to cover all repaired and replacement parts furnished under the Defects Liability Period.	Add: However, such period shall not extend beyond 4 years following issuance of Operational Acceptance Certificate (OAC) by BPDB.	As per tender document

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51	Section 5 Tender and Contract Forms Specifications Submission and Compliance Sheet (Form PG5A-4a) Page:171	Solar Photovoltaic Module Manufacturer: Lungi/Jinko/Canadian/Trina/JA/ Hanwha Q Cells Grid Tied Inverter Manufacturer: SMA/Huawei/sungrow/Fronius/ABB/Solar Edge Pyranometer and Data Logger Manufacturer: Kipp & Zonen/Hukseflux	Are these equipment's manufacturers mentioned in the table is short-listed manufacturers? Do these manufacturers only need to provide Manufacturer Authorization letter? Or the bidder can choose the manufacturers beyond this list? Please give the clarification.	Solar Photovoltaic Module Manufacturer: Longi Solar Technology Co., Ltd, Jinko Solar Holding Co., Ltd, Canadian Solar Inc, Trina Solar Limited, JA Solar Holdings Co., Ltd, Hanwha Q Cells Co., Ltd, Risen Energy Co., Ltd, First Solar Inc., Astronergy Co Ltd (CHINT SOLAR), Suntech Power Holdings Co, Ltd As per tender document As per tender document
52	Section 6. Employer's Requirements 6.2.6 Civil and Building Works Page:237	Jetty Jetty to be provided with minimum capacity of 50 tons for off-loading cargoes.	We have tender working experience for the same project location back in 2018-19 which was floated on BOO basis. On that project jetty was required due to access limitation through road transport. During our recent site visit we have seen the main approach road position which is sufficient for transporting complete project equipment. Should we avoid jetty scope for our estimation?	DELETED
53	Section 6. Employer's Requirements 6.2.3.8.2 Power Evacuation Page: 208 ACSR Grosbeak type. The distance of the transmission line from the vicinity of the project area is approximately 5 kilometer. The generated power evacuation	It seems transmission line distance will be around 10-11 km from project location to Chandroghona 132/33kV Sub-Station ACSR Grosbeak type. The distance of the transmission line from the vicinity of the project area is approximately 8.0 kilometer. The generated power evacuation
54	Section 6. Employer's Requirements Clause 6.2.3.2- Module Mounting Structure Page:199	(b) The PV module mounting frames and structures will be built with fixed tilt angle set in 23° and South orientation. The frames and leg assemblies of the array structures shall be made MS hot dip galvanized as per ASTM A123. Minimum thickness of galvanization should be at least 120 microns. All nuts & bolts, Fasteners shall be made of high quality stainless steel of SS3 04 grade and shall be protected against adverse climatic conditions. The minimum clearance between the lower edge of the modules and the developed ground level shall be 1000 mm and conform to standards. (g) The tilt angle for the mounting structure shall be calculated as per the site latitude. Depending on the actual site location modules alignment and tilt angle shall have to be calculated to provide the maximum annual energy output.	Based on our preliminary angle optimization analysis, we found that optimum tilt angle will be between 13 degree to 14 degree in consideration of 4 meter pitch. Should we submit complete Tilt angle optimization analysis and follow the angle resulting from simulation or we will follow fixed 23 degree?	As per tender document
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55	Section 6. Employer's Requirements 6.2.6 Civil and Building Works Land development & Drainage Page: 237	Since the highest flood level is 6m above MSL, the land development shall be made keeping in consideration of highest flood level. It is proposed that 3m wide dyke along the periphery of the site will be constructed to the elevation of 6.5m above MSL. The dyke height above ground elevation will vary from 4m to the river side (south) down to 2.5m to the leeward. The remaining area within the dyke may be developed by earth filling to make uniform elevation of 5m above MSL along east west line y=2484300 with uniform slope southward till an elevation of 4m above MSL along east-west line y=2483500 to allow natural drainage. Provision of adequate number of low lift pumps with adequate capacities shall be kept for normal draining and draining for unusual precipitations.	Without topographic study report, flood study report, it is not possible to assess the suitability or adequacy of the land development and drainage plan as proposed in the left column The employer is requested to confirm that highest flood level is 6 m above MSL and that Employer will take responsibility for the accuracy and associated risk of this data. Further please clarify the source of anti-seepage soil materials for the embankment.	As per tender document
56	Section 6. Employer's Requirements 6.2.6 Civil and Building Works Page:237	Jetty Jetty to be provided with minimum capacity of 50 tons for off- loading cargoes.	Bidder is allowed to use other means to access the site and in such case, the proposed new Jetty is not mandatory scope of work Please confirm	DELETED
57	Section 6. Employer's Requirements 6.2.3.8.2 Power Evacuation Page: 208ACSR Grosbeak type. The distance of the transmission line from the vicinity of the project area is approximately 5 kilometer. The generated power evacuation	The direct point to point distance measures at 7.7km so the actual line route will be even longer than 7.7 km. Please clarify the distance for bidding purpose. ACSR Grosbeak type. The distance of the transmission line from the vicinity of the project area is approximately 8.0 kilometer . The generated power evacuation
58	Section 5. Tender and Contract Forms Price Schedule for Plant and Service (Form PG5A-3)Schedules of Rates and Prices Schedule No. 1 - Plant and Mandatory Spare Parts Supplied from Abroad Page: 154	Schedule No. 1 - Plant and Mandatory Spare Parts Supplied from Abroad 1..... 2.... . . 5. Power Evacuation line (33 kV) including bay extension of Chandroghona 132/33 kV Sub-station 5km		Schedule No. 1 - Plant and Mandatory Spare Parts Supplied from Abroad 1..... 2.... . . 5. Power Evacuation line (33 kV) including bay extension of Chandroghona 132/33 kV Sub-station 8.0 km
59	Section 6. Employer's Requirements 6.2.3.8.2 Power Evacuation Page: 208	The contractor shall construct the 33 kV power evacuation line including 2 (two) bay at Chandroghona 132/33 kV sub-station to evacuate the power produced in the solar park	Please clarify whether the interconnection equipment for Chandroghona 132/33kV sub-station is included in the scope of this tender or not.	As per tender document

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SL No	Section/Clause/ Subject/Page No	Mentioned/Description in Tender Document	Tenderer's Query	BPDB's Clarification/Amendment on Tender Document
60	Section 6. Employer's Requirements 6.2.3.8.2 Power Evacuation Page: 208	The contractor shall construct the 33 kV power evacuation line including 2 (two) bay at Chandroghona 132/33 kV sub-station to evacuate the power produced in the solar park	Please provide conceptual line route. Please confirm that the land acquisition and associated compensation related to power evacuation lines are responsibilities of the Employer.	As per tender document
61	Section 6. Employer's Requirements 6.1. Scope of Supply of Plant and Installation Services by the Contractor Page: 193	The work shall be carried out in accordance with the conditions of this document, and shall include followings: 1. The design, manufacture and supply of the Grid Tied Solar Power Plant. 2..... . . 8. Construction of Dyke and River Bank Protection 9. Construction of Jetty . . 15. Supply of communication facilities etc.	We must build Dyke and Jetty, or we can build them according to the design need.	The work shall be carried out in accordance with the conditions of this document, and shall include followings: 1. The design, manufacture and supply of the Grid Tied Solar Power Plant. 2..... . . 8. Construction of Dyke and River Bank Protection 9. DELETED . . 15. Supply of communication facilities etc.
62	Section 6. Employer's Requirements 6.2 Specification 6.2.1 Introduction Page: 195-196at Chattagram District in Bangladesh.BPDB will provide 149.259 Acres land for this project at Rangunia, Chattagram. solar energy. The power generated from the SPV Power Plant will be stepped up to the required voltage level and then the power will be evacuated at 33kV voltage level of Chandroghona 132/33kV Grid Sub-station. on turnkey basis.	Whether boundary map or topographic survey map can be provided. Please provide the location of Chandroghona 132/33 kV sub-station.	As per tender document
63	Section 6. Employer's Requirements Clause 6.2.3.2- Module Mounting Structure Page:199	(b) The PV module mounting frames and structures will be built with fixed tilt angle set in 23° and South orientation..... (g) The tilt angle for the mounting structure shall be calculated as per the site latitude. Depending on the actual site location modules alignment and tilt angle shall have to be calculated to provide the maximum annual energy output.	The tracking system of module mounting can't be fixed tilt angle. So please clarify it. The failure rate of tracking system of module mounting will be higher than the fixed module mounting structure, so we must use the tracking system in this project or we can use it according to the design need.	As per tender document DELETED
64	Section 5. Tender and Contract Forms Section 6. Employer's Requirements	---	Please clarify whether we offer PV Module Washing System in our technical and financial offer.	As per tender document

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SL No	Section/Clause/Subject/Page No	Mentioned/Description in Tender Document	Tenderer's Query	BPDB's Clarification/Amendment on Tender Document
65	Section 6. Employer's Requirements	---	Is copper core used for all in this project. If the technical requirements are met, whether aluminum cable can be used.	As per tender document
66	Section 6. Employer's Requirements 6.1 Scope of Supply of Plant and Installation Services by the Contractor Page: 193	The work shall be carried out in accordance with the conditions of this document, and shall include the following: 1. The design, manufacture and supply of the Grid Tied Solar Power Plant. 2..... 6. Construction of 33kV double circuit power evacuation facility including bay extension of Chandroghona 132/33kV Sub-station 15. Supply of communication facilities etc.	Please provide the Basic information of Chandroghona 132/33kV Sun-Station, including but not limited to single line drawing, layout drawing, etc.	As per tender document
67	Section 6. Employer's Requirements 6.2.6 Civil and Building Works Control Room & Office Building of the Solar Plant: Page:238	The control room and office buildings----- • Control Room of innovative and appropriate design with at least 500 square meter (or suitable higher size required) for accommodating the inverters, control panels, etc and additional room/cabin/space for accommodating operating personnel, storage of spares, etc with a height of 5 meter shall be constructed. The bidder has to submit the proposed drawing of control room building along with the bid to the employer for approval. Control Room---	Please clarify whether Control Room & Office Building is one building Please clarify whether the Electrical Rooms can be in the same building as the control room?	The control room and office buildings----- • Control Room cum office buildings (two storied) of innovative and appropriate design with at least 500 square meter (or suitable higher size required) for accommodating the switchgear, control panels, storage of spares etc and room/cabin/space for accommodating operating and administrative personnel etc with a control room height of 5 meter shall be constructed. The bidder has to submit the proposed drawing of control room cum office building along with the bid to the employer for approval. • Control Room-----
68	Section 5. Tender and Contract Forms Section 6. Employer's Requirements	--	The land acquisition, demolition work and expenses of the photovoltaic factory area including docks and dams belong to owner or the contractor.	As per tender document
69	Section 5. Tender and Contract Forms Section 6. Employer's Requirements	--	The land acquisition, demolition work and expenses of the 33kV transmission line belong to the owner or the contractor	As per tender document
70	Section 5. Tender and Contract Forms Section 6. Employer's Requirements	--	The land acquisition, relocation work and expenses for expanding the 33kV interval of the substation on the opposite side belong to the owner or the contractor.	As per tender document

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SL No	Section/Clause/Subject/Page No	Mentioned/Description in Tender Document	Tenderer's Query	BPDB's Clarification/Amendment on Tender Document
71	Section 5. Tender and Contract Forms Section 6. Employer's Requirements	--	Has the access system scheme been approved by PCGB? The coordination work of connecting to the substation on the opposite side belongs to the owner or the contractor?	As per tender document
72	Section 5. Tender and Contract Forms Section 6. Employer's Requirements	--	Whether the project EIA report has been approved by the government is not within the scope of the contractor's work?	BPDB has taken necessary steps to approve EIA report from DoE.
73	Section 5. Tender and Contract Forms Section 6. Employer's Requirements	--	Whether the acquisition of construction permits and other licences belongs to the owner or the contractor.	As per tender document
74	Section 5. Tender and Contract Forms Section 6. Employer's Requirements	--	Whether the construction of the wharf and flood embankment still needs to be approved by the local department, and whether the scope of the work belongs to the owner or the contractor.	As per tender document
75	Section - 2. Tender Data Sheet ITT 14.1(b) Page: 48	Tenders will only be considered from individual firm or joint venture, consortium or association (JVCA) who are actually engaged and experienced in Design, Supply, Installation, Testing and Commissioning of Grid Tied Solar Power Plant project described herein. (i) The Tenderer and/or member(s) of JVCA shall successfully completed at least 02 (two) contracts of Design, Supply, Installation, Testing and Commissioning of Ground Mounted Grid Tied Solar Power Plant having minimum capacity of 20.0 MWp or higher each within last 10 (ten) calendar years from the date of Tender Notice. One of the 02 (two) contracts must be executed outside Tenderer's country. (ii) In support	Tenders will only be considered from individual firm or joint venture, consortium or association (JVCA) who are actually engaged and experienced in Design, Supply, Installation, Testing and Commissioning of Grid Tied Solar Power Plant project described herein. (i) The Tenderer and/or member(s) of JVCA shall successfully completed at least 01 (one) contracts of Design, Supply, Installation, Testing and Commissioning of Ground Mounted Grid Tied Solar Power Plant having minimum capacity of 20.0 MWp or higher within last 10 (ten) calendar years from the date of Tender Notice. (ii) In support	Tenders will only be considered from individual firm or joint venture, consortium or association (JVCA) who are actually engaged and experienced in Design, Supply, Installation, Testing and Commissioning of Grid Tied Solar Power Plant project described herein. (i) The Tenderer and/or member(s) of JVCA shall successfully completed at least 01 (one) contracts of Design, Supply, Installation, Testing and Commissioning of Ground Mounted Grid Tied Solar Power Plant having minimum capacity of 20.0 MWp or higher within last 10 (ten) calendar years from the date of Tender Notice. (ii) In support
76	Section - 2. Tender Data Sheet ITT 27.4 Page: 51	(ii) In support For non-compliance of above requirements, the Tender shall be considered non-responsive Name of the foreign currency: US Dollar/ Freely convertible international currency and Bangladesh Taka.	For non-compliance of above requirements, the Tender shall be considered non-responsive 1. Tender's bidding currency will only be in Bangladeshi Taka, as this is a completely GoB-funded tender 2. Domestic Price preference as per PPR 2008 is to apply in this tender	For non-compliance of above requirements, the Tender shall be considered non-responsive As per tender document

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