

Amendment - 1

SECI/C&P/TD/2020/LEH/20S/20B

Design, Engineering, Supply, Construction, Erection, Testing, Commissioning and O&M of 20 MW (AC) Solar PV Power Plant (50 MWp DC) with 20 MW / 50 MWh Battery Energy Storage System at Phyang, Leh, UT of Ladakh, India

Sl. No.	Section	Page No.	Clause	Original Version	Amendment
1	VII-C Special Technical Specifications	3 of 8	6.1	(vii) Probability Factor or Risk Coefficient, $k_1 = 1$; (viii) Terrain Roughness and Height Factor, $k_2 = 1.05$	(vii) Probability Factor or Risk Coefficient, $k_1 = 0.92$; (viii) Terrain Roughness and Height Factor, $k_2 = 1.0$
2	VII-C Special Technical Specifications	7 of 8	6.4.1	The MCR and LCR buildings shall be made of a RCC framed structure with plinth and shallow foundations. The roof of the structure shall employ mono/dual sloped gable RCC roof system	MCR building shall be made of a RCC framed structure with plinth and shallow foundations as per Plan and Elevation Drawings and finishing details provided in this section. ICR/LCR shall be provided as open installation (Refer Cl 16.2.2; Section VII-B of Tender).
3	VII-C Special Technical Specifications	6, 7 of 8	6.3.11	(i) The ratio of maximum permissible stress to the yield stress of steel shall be limited to 0.85 % of F_y for all purposes of structural design. Accordingly, term ' F_y ' shall be replaced by '0.85 F_y ' while referring IS:801 or IS:800 in structural design. (ii) The design of the structure shall be done using Working Stress Method (WSD) and no increase shall be allowed in permissible stresses except for combinations with Temperature load where it may be increased by 25%.	(i) In addition to various partial safety factors as prescribed by IS: 456, IS: 801 and/or IS: 800, a factor of safety of 1.17 shall be applied to the characteristic strength of steel for all purposes of structural design. Accordingly, in other words, the term ' F_y ' shall be replaced with '0.85 F_y ' while referring to IS: 456, IS: 801 and/or IS: 800. (ii) The design of the structure shall be done using Working Stress Method (WSD) and no increase shall be allowed in permissible stresses except for combinations with Temperature load where it may be increased by 33%.
4	VII-B Technical Specifications	111 of 182	10.10.2	For estimation of design wind loads on purlins (Table 8 of IS 875- Part 3), WL (downward) and WL (upward) on modules (laid in the profile of mono slope canopy) shall be applied such that the center of pressure should be at (0.3 x length of canopy) from windward end (for simplicity, the wind load distribution may be taken as triangular with max. value at windward end). Solidity ratio (ϕ) shall be taken as 0.5.	For estimation of design wind loads on purlins (Table 8 of IS 875- Part 3), WL (downward) and WL (upward) on modules (laid in the profile of mono slope canopy) shall be applied such that the center of pressure should be at (0.3 x length of canopy) from windward end (for simplicity, the wind load distribution may be taken as triangular with max. value at windward end). Solidity ratio (ϕ) shall be taken as 0. Apart from this distribution, any other distribution of wind load based on wind tunnel studies may be followed subject to the approval of the employer.
5	VII-B Technical Specifications	117 of 182	13.7	Aluminum-Zinc Alloy metallic coated steel strip or sheet of grade YS350 and minimum coating class AZ200 conforming to IS 15961 : 2012 may also be used for fabrication of purlin sections. In such a case, all the sections of the base metal exposed after cutting of members and punching of holes shall be provided with sprayed aluminum and zinc coating conforming to IS 5905.	Clause void.
6	VII-B Technical Specifications	140 of 182	35.10	Module cleaning procedure and pressure requirement at discharge point shall be as per the recommendation of PV module manufacturer. However, discharge pressure at outlet shall not be less than 50kg/cm ² (5 MPa)	Void. Please refer S. No. 24 of this Amendment.
7	VII-C Special Technical Specifications	8 of 8	6.7	Internal road carriageway shall be constituted by interlocked concrete paver blocks of M60 grade laid over well compacted and cleaned natural ground compacted for a depth of 300 mm and brought to desired gradient.	As an alternative to the road sections specified under Cl. 6.3, Section VII-B, Technical Specifications, Internal road carriageway may also be constituted by interlocked concrete paver blocks of M60 grade, minimum 65 mm thick, laid over well compacted and cleaned natural ground compacted for a depth of 300 mm and brought to desired gradient.
8	VII-C Special Technical Specifications		7	New Clause	Diversion boundary drain shall be provided along the higher elevation plant boundary edge to ward off the entry of outside runoff into the plant. Drain size shall be 500 mm (depth) x 500 mm (bottom width). Existing drainage paths in the plant area shall be kept free of any installation and shall be developed into drain of size 400 mm (depth) x 400 mm (bottom width). Road side drain shall be provided wherever required (for eg. where the drainage path is transverse to the road), to avoid flow of rain water over the roads. Culverts at these roads and Nalla crossings shall be provided. All the drains shall be unlined and shall have trapezoidal section with side slope of 2V:1H.
9	VII-C Special Technical Specifications		8	New Clause	Heating Systems for MCR and Security Rooms: Oil flow type heat convectors each of 2000 Watts, 220 V AC of ISI mark shall be provided for MCR building(4 Nos.) and Security room(1 no.). These convectors shall have thermostatically controlled operation and shall be suitable for operating under specified climatic conditions. Power supply receptacles with DPMCB switches of adequate rating shall be provided in each room. These receptacles shall be fed from AC distribution board.

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Sl. No.	Section	Page No.	Clause	Original Version	Amendment
10	VII-B Technical Specifications	112, 113 of 182	12.2.2.1	In case the contractor proposes to provide bored cast-in-situ concrete pile; the type, dia. and length of pile shall be as per recommendations of Geotechnical investigation report corresponding to prevalent soil characteristics at site. However, the min. dia. and depth of the pile shall be 300mm (min. 350 mm for column web depth more than 175 mm) and 1800mm respectively except when very hard strata/ rock (N>100) is encountered at a higher level, the pile shall be extended in to the hard strata minimum 1.5 times the diameter of the pile with total depth of the pile not less than 1200mm below cut-off level.	In case the contractor proposes to provide bored cast-in-situ concrete pile; the type, dia. and length of pile shall be as per recommendations of Geotechnical investigation report corresponding to prevalent soil characteristics at site. However, the min. dia. and depth of the pile shall be 300mm (min. 350 mm for column web depth more than 175 mm) and 1500mm respectively except when very hard strata/ rock (N>100) is encountered at a higher level, the pile shall be extended in to the hard strata minimum 1.5 times the diameter of the pile with total depth of the pile not less than 1200mm below cut-off level. The minimum clear cover to the steel in the pile foundation shall be 50 mm.
11	VII-C Special Technical Specifications	6 of 8	6.3.6	MMS structure shall be supported on precast RCC sleepers to be designed to withstand the loads coming from MMS and effectively transfer them to the ground.	As an alternative to the provisions of Cl. 12 of Section VII-B, Technical Specifications, the MMS structure may also be supported on precast RCC sleepers to be designed to withstand the loads coming from MMS and effectively transfer them to the ground.
12	SECTION - VII B. TECHNICAL SPECIFICATIONS	117 of 182	13.8	The minimum thickness excluding anti corrosive treatment (BMT) of various elements of MMS structure shall be as following: <ul style="list-style-type: none"> • Stub/ column – 3.15mm, • Rafter – 2.5mm & • Purlin – Minimum thickness of the purlin section excluding anti corrosive treatment (BMT) shall be 1.5 mm. Aluminium-zinc alloy metallic coated steel strip or sheet of grade YS350 and min. coating class AZ150 conforming to IS-15961:2012 may also be used for fabrication of purlin sections. In such a case, all the sections of the base metal exposed after cutting of members and punching of holes shall be provided with sprayed aluminum and zinc coating conforming to IS-5905. • Other members – 2.0 mm 	The minimum thickness excluding anti corrosive treatment (BMT) of various elements of MMS structure shall be as following: <ul style="list-style-type: none"> • Stub/ column – 3.15mm, • Rafter – 2.5mm & • Purlin and Other members – 2.0 mm
13	VII-C Special Technical Specifications		9	New Clause	There shall be no security cabin. Security room(1 no.) provided near the main gate shall have the provision of toilet, water tank and septic tank. Security Room shall be a RCC framed structure with shallow foundation. Min. clear dimension of security room shall be 4m x 4m x 2.75 m. Wall, flooring and other finishes of the security room shall be same as for MCR building. Security room shall also be provided with Heating system.
14	VII-C Special Technical Specifications		10	New Clause	No toe wall shall be required in the boundary wall chain link fencing.
15	VII-B Technical Specifications	152 of 182	3.1.1Such cumulative capacity must include at least 02 (Two) Grid connected BESS Plants, having minimum capacity of 2 MWh (Four Mega Watt Hour) each.....Such cumulative capacity must include at least 02 (Two) Grid connected BESS Plants, having minimum capacity of 2 MWh (Two Mega Watt Hour) each.....
16	VII-A Scope of Works	3 of 14	1	Power Transformer Capacity (MVA) - 3 x 20	Power Transformer Capacity (MVA) - 2 x 20
17	VII-B Technical Specifications	12 of 132	2	String Monitoring Unit	Void.
18	VII-B Technical Specifications	46 of 182	12.4The interconnection of PCU earth electrodes with DC earth grid shall be as per PCU manufacturer recommendation.The interconnection of PCU earth electrodes with DC earth grid shall be as per PCU manufacturer recommendation. However, If PCU is provided anti-PID device then earthing shall be as per the PCU manufacture's recommendations.
19	VII-C Special Technical Specifications		11	New Clause	All the equipment are to be designed for prevailing site conditions such as temperature range between -15°C to +25°C and Altitude of 3,400 m above sea level. For standard Equipments, ratings should be considered after applying appropriate deration factors as per site conditions.
20	VII-B Technical Specifications	149 of 182	2.1	Electrical infrastructure: AC system interconnection requirement at Point of Connection (PCC) - 33 kV / 415 V, 50 Hz, 3 phase The BESS will be coupled with the PV System at the AC Bus on the LV (415 V) or the MV (33 kV) side of the Inverter transformers. The BESS shall be designed for maximum flexibility with regard to site-specific voltages, frequency, phase imbalance, and protection requirements.	Electrical infrastructure: AC system interconnection requirement at Point of Connection (PCC) - 33 kV / 415 V, 50 Hz, 3 phase The BESS will be coupled with the PV System at the AC Bus on the MV (33 kV) side of the Inverter transformers. The BESS shall be designed for maximum flexibility with regard to site-specific voltages, frequency, phase imbalance, and protection requirements. Kindly refer the indicative SLD as attached with these clarifications & Amendment 1

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21	VII-B Technical Specifications	76 of 182	19.2	New Note to the clause 19.2	Note: 1. The above parameters are applicable for installations up to an altitude of 1000m above mean sea level. For altitude exceeding 1000m, necessary altitude correction factor shall be applicable. 2. All equipment shall be able to withstand all external and internal mechanical, thermal and electromechanical forces due to various factors like wind load, temperature variation, ice & snow, (wherever applicable) short circuit etc for the equipment.
22	VII-B Technical Specifications	32 of 182	6.9.8	All feeders except main outgoing feeder shall be provided with digital Multi-Function Meter (MFM). Tri Vector Meter (TVM) shall be provided for the main outgoing feeder (in the HT Panel). Accuracy class of MFM shall be 0.2 and that of TVM shall be 0.2S.	All feeders shall be provided with digital Multi-Function Meter (MFM) of 0.2 accuracy class. However, HT Panels for pooling power from different blocks shall be provided with TVM meter of 0.2s accuracy class in incomer as well as outgoing feeder.
23	VII-C Special Technical Specifications	-	12	New Clause	BESS Connectivity and Metering shall be as per Indicative SLD provided as Annexure 2 to amendment 1.
24	VII-C Special Technical Specifications	-	13	New Clause (Shall supersede over Clause 35.6-35.11: PV Module cleaning system of Section VII-B and Clause 6.5 of Section VII-C)	For Cleaning of PV Modules, the Contractor shall arrange for Water tankers with pumps and spray arms on either side to sprinkle the water. Cleaning of photovoltaic modules shall be done at least once in 4 week or at closer frequency as per the soiling conditions prevailing at site, in order to operate the plant at its guaranteed plant performance.
25	VII-C Special Technical Specifications	7 of 8	6.1	(xiv) Snow Load • For calculating the ground snow load so, maximum depth of undisturbed aggregate cumulative snowfall is to be taken as 100 mm with density of snow as 0.25 kN/m ³ . (xv) Temperature Load • Reference Temperature at time of erection for temperature load calculation = 20 °C • The structure shall be designed for a rise in temperature of 15 °C and for a fall in temperature of 50 °C.	(xiv) Snow Load • For calculating the ground snow load so, maximum depth of undisturbed aggregate cumulative snowfall is to be taken as 100 mm with density of snow as 2.5 kN/m ³ (xv) Temperature Load • Reference Temperature at time of erection for temperature load calculation = 10 °C • The structure shall be designed for a rise in temperature of 25°C and for a fall in temperature of 38.3 °C.
26	VII-C Special Technical Specifications	-	14	New Clause	Contractor shall supply and erect Site Office (Portable Cabin type) for Owner during Construction as per the specifications in Section VII B: Technical Specifications(Clause 16.2.4).
27	VII-A Scope of Works	3 of 14	1	Project Particulars : Origin of Manufacturer - Open	Project Particulars : Origin of Manufacturer - Domestic (Modules)
28	Section VII	8 of 14	5.1.11	Construction of Storm water drainage to its nearest outfall point & sewage network including rain water harvesting mechanism.	Void.
29	VII-C Special Technical Specifications			New Clause	RCC type Guest House shall be provided as per the Plan and Elevation Drawings and Finishing Details provided in this section.
30				Chain Link Fencing Drawing	Amended Drawing enclosed.

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Sl. No.	Section	Page No.	Clause	Original Version	Amendment
31	Section V Special Conditions of Contract	1 of 10	3	<p>The Time for Commissioning for the 20 MW (AC) Solar PV Power Plant (50 MWp DC) with 20 MW / 50 MWh Battery Energy Storage System & with all other associated equipment as per this tender document in total shall be 18 (Eighteen) Months from the Date of the Notification of Award NOA/LOA/LOI.</p> <p>Further Contractor is also to provide Operation & Maintenance Contract of Solar Photo Voltaic Plant for a period of 10 (Ten) years from the date of Operational Acceptance of the Plant.</p>	<p>The Time for Commissioning for the 20 MW (AC) Solar PV Power Plant (50 MWp DC) with 20 MW / 50 MWh Battery Energy Storage System & with all other associated equipment as per this tender document in total shall be 18 (Eighteen) Months from the Date of the Notification of Award NOA/LOA/LOI or Notice to Proceed (NTP) provided by the Employer, whichever is later. NTP will be provided by the employer in the shortest possible time and all contractual obligations will be started from the date of Notification of Award (NOA) or Notice to Proceed, whichever is later.</p> <p>Further Contractor is also to provide Operation & Maintenance Contract of Solar Photo Voltaic Plant for a period of 10 (Ten) years from the date of Operational Acceptance of the Plant.</p> <p>The Zero date accordingly clause 3.1 of the SCC will be counted from the date of NOA/LOA/LOI or Notice to Proceed (NTP) provided by the Employer, whichever is later</p>
32	Section V Special Conditions of Contract	4 of 10	7	<p>Replace the existing clause by following:</p> <p>Against EPC/ LSTK & O&M Contract of the project, within 30 (Thirty) days from the issuance of the Notification of Award/ Letter of Intent/Letter of Award, the successful bidder shall furnish unconditional and irrevocable individual Bank Guarantees issued by any Nationalized Banks in the manner as mentioned below.</p> <p>The Contract Performance Security shall be in the form of Bank Guarantee only and shall be in the currency of the Contract and will be issued in the name of the Owner as "Solar Energy Corporation of India Limited, New Delhi"</p> <p>The Contract Performance Security against this Contract need to be furnished as mentioned below: -</p> <p>1. The value of the Contract Performance Security shall be 3% (Three percent) of the Contract Value (i.e., total sum of the Supply & Service Contracts). This Performance security will be valid for a total period of 147 Months (24 Months Project commissioning period) + prescribed O & M Period, i.e. 120 Months + 03 Months additional) from the date of its issuance. Envisaging the difficulty in obtaining the longer tenure of CPS in the form of BG, the successful bidder can submit Contract Performance Security in the form of Bank Guarantee with initial validity period of 36 Months and the same may be extended for the balance period or further 36 months, within 60 days of expiry of the original CPS.</p> <p>2. The Contract Performance SecurityRest of the clauses till point 4 of the Contract Performance Security</p>	<p>Replace the existing clause by following:</p> <p>Against EPC/ LSTK & O&M Contract of the project, within 30 (Thirty) days from the issuance of the Notification of Award/ Letter of Intent/Letter of Award, the successful bidder shall furnish unconditional and irrevocable individual Bank Guarantees issued by any Nationalized Banks in the manner as mentioned below.</p> <p>The Contract Performance Security shall be in the form of Bank Guarantee only and shall be in the currency of the Contract and will be issued in the name of the Owner as "Solar Energy Corporation of India Limited, New Delhi"</p> <p>The Contract Performance Security against this Contract need to be furnished as mentioned below: -</p> <p>1. The value of the Contract Performance Security shall be 3% (Three percent) of the Contract Value (i.e., total sum of the Supply & Service Contracts). This Performance security will be valid for a total period of 141 Months (18 Months Project commissioning period) + prescribed O & M Period, i.e. 120 Months + 03 Months additional) from the date of its issuance. Envisaging the difficulty in obtaining the longer tenure of CPS in the form of BG, the successful bidder can submit Contract Performance Security in the form of Bank Guarantee with initial validity period of 36 Months and the same may be extended for the balance period or further 36 months, within 60 days of expiry of the original CPS.</p> <p>2. The Contract Performance SecurityRest of the clauses till point 4 of the Contract Performance Security</p>

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Sl. No.	Section	Page No.	Clause	Original Version	Amendment
33	Section V General Conditions of Contract	26 of 74	28.1	The Contractor shall provide and maintain an office at the site for the accommodation of his agent and staff (With meeting room) and such office shall be open at all reasonable hours to receive instructions, notice or other communications.	The Contractor shall provide and maintain an office at the site for the accommodation of his agent and staff (With meeting room) and such office shall be open at all reasonable hours to receive instructions, notice or other communications. The contractor shall make provisions and arrangements at site locations for temporary office (Portacabin) including all basic amenities having electricity, furniture, Air Conditioning, Sanitation, toilet facilities, etc. at his own cost on behalf & purpose of the Employer and his staff and shall get the clearance of local authorities for setting up/construction of such facilities. Bidders are required to consider all such temporary office construction cost into his account, while bidding. These facilities shall be provided till the final handing over of the project to the Owner. The contractor shall ensure that the area is kept clean and sanitary conditions are maintained as laid down by the local authorities controlling the area
34	VII-B Technical Specifications	120 of 182	13.33	The length of one unit (Table) of MMS shall not generally be more than 20m.	The length of one unit (Table) of MMS shall not generally be more than 20m. Depending upon topography, a table length greater than 20 m may be adopted subject to approval after analysis for temperature strains and bowing effects.
35	Invitation for Bids (IFB)	8 of 10	Point L of BIS	OFFLINE & ONLINE BID-SUBMISSION DEADLINE, 10/02/2021 up to 1400 HRS	OFFLINE & ONLINE BID-SUBMISSION DEADLINE, 24/02/2021 up to 1400 HRS
36	Invitation for Bids (IFB)	8 of 10	Point M of BIS	OFFLINE & ONLINE BID OPENING, 10/02/2021, 1600 HRS onwards	OFFLINE & ONLINE BID OPENING, 24/02/2021, 1600 HRS onwards

S No.	Tender Section	Page No	Clause No	Description as per Tender Document	Queries	Category (Finance/Technical/ Contractual)	Clarifications
1				New Clause	We request SECI to allow the bidder to quote the technical/financial capabilities of its Affiliate, as allowed in EPC tenders called by other agencies such as NTPC, which will ensure increased participation.	Contractual	Terms & conditions of the tender document shall prevail
2	3	2 of 7	1.1	The Bidder should be a body incorporated in India under the Companies Act, 2013 including any amendment thereto	The Bidder body incorporated in India under the Companies Act, 1956 including any amendment thereto is also allowed to participated in this bid. Please clarify.	Contractual	Yes
3	GCC	40 of 74	51.1	However, these adjustments would be restricted to direct transactions between the Owner and the Contractor. This adjustment shall not be applicable on procurement of raw materials, intermediary components etc. by the Contractor and shall also not be applicable on bought out items dispatched directly from sub- vendor works to site.	We request SECI to provide Change in Law for Bought out items also, as allowed in EPC tenders called by NTPC.	Contractual	Terms & conditions of the tender document shall prevail
4	Section-VII B-Technical Specifications	8 of 182	1.2	Modules shall be domestically manufactured	Please confirm that the modules and cells both shall be manufactured in India or only modules. Kindly clarify	Technical	Modules shall be domestically manufactured. Please refer S No 27 of Amendment 1.
5	A. Scope of Work	3	1. Project Particular	Minimum DC Capacity (MWp) N – S Orientation 25MWp E – W Orientation 25MWp	Does N-S & E-W orientation imply for MMS orientation of land? Please provide the more details for clarity.	Technical	In E-W orientation configuration, (25MWp) Bifacial PV Modules shall be vertically mounted with an azimuth of 90 deg. The remaining 25 MW capacity shall be South facing as per standard design. Kindly refer annexure 1 to amendment-1.
6	A. Scope of Work	3	1. Project Particular	Minimum Cumulative Inverter Capacity (MW) N – S Orientation 20MW E – W Orientation 20MW Power Transformer Capacity (MVA) 3 x 20	Please provide the single line diagram for more clarity.	Technical	Number of power transformer shall be 2 (two) each having 20MVA rated capacity. The indicative SLD is provided in Annexure 2 to Amendment 1. Please refer S. No. 16 of Amendment-1.
7	Section-VII B-Technical Specifications	46	12. Earthing 12.3.2 PV module earthing	Each PV Module frame shall be earthed using copper wire of sufficient cross section. The copper wire shall be connected to the earth hole provided in the module frame using suitable arrangement in line with the manufacturer recommendation. The earthing arrangement shall use stainless washers to prevent galvanic corrosion between aluminum frame and copper wire. In order to achieve effective earthing, serrated washers shall be employed to penetrate the anodization layer of the module frame.	Module mounting structure have been connected to earthing grid by two separate connection. And it is made of GI which will works as a conductor so there is no need to provide separate modules earthing by 2.5 Sq.mm flexible cable per our standard practice. Please clarify.	Technical	Terms and conditions of the tender document will prevail.
8	Section-VII B-Technical Specifications	17 OR 46	4 Power Conditioning Unit 4.4.7 OR 12. Earthing 12.4 PCU earthing	In case DC negative grounding is not possible, appropriate anti-PID device shall be provided. OR DC negative bus bar of the PCU shall be earthed to avoid Potential Induced Degradation (PID). DC negative bus bar and PCU equipment earth shall be bonded to the PCU earth bus and connected to earth electrodes through flexible copper cable of sufficient cross section as mentioned by the manufacturer. The interconnection of PCU earth electrodes with DC earth grid shall be as per PCU manufacturer recommendation.	In case of string inverter, there is no need of DC negative bus bar earthing as inverter OEM provides anti-PID kit. Please clarify.	Technical	If PCU is provided anti-PID device then earthing shall be as per the PCU manufacture's recommendations. Kindly refer S.no. 18 of amendment 1.
9	Section-VII B-Technical Specifications	47	12. Earthing 12.5.3 Transformer shield earthing	Inverter transformer shield shall be earthed separately using minimum two no. of earth electrodes. Earthing conductor between shield bushing and earth electrodes shall be copper flat of suitable size not less than 25 x 6 mm.	We will provide 1 no of earth pit for transformer shield earthing as per the industry practice .	Technical	Terms and conditions of the tender document will prevail.
10	Section-VII B-Technical Specifications	47	12. Earthing 12.6.3 SACADA earthing	SCADA and other related electronic devices shall be earthed separately using minimum two no. of earth electrodes	We will provide provide 1 no of earth pit for shield earthing of SCADA & other related electronic devices as the industry practice	Technical	Terms and conditions of the tender document will prevail.

11	Section-VII B-Technical Specifications	48	13.Lightning Protection System 13.4 LPS as per NFC 17-102	Highly insulated poly-plastic adaptor to fix the ESE air terminal with the FRP mast	We will use GI mast for ESE terminal mounting with guy support arrangement Please clarify.	Technical	Terms and conditions of the tender document will prevail.
12	Section-VII B-Technical Specifications	40	Uninterrupted power supply	The Uninterrupted Power Supply (UPS) system shall be designed to supply power to following loads (but not limited to): (i) Data logger / SCADA (ii) Fire Detection/ Alarm Panel (iii) HMI of SCADA (iv) Emergency Lighting (v) Inverter's Auxiliary supply (if applicable) (vi) HT panel auxiliary	We propose outdoor type Inverter Control Station & will propose HT & LT Equipments suitable for outdoor application. We shall provide power pack inside HT panel of suitable ratings to provide DC supply to the tripping & closing circuit of the outdoor HT panels. The SCADA panel shall be provided with an inbuilt DC UPS for it's emergency application. Inverter Data logger shall be provided raw power from the inverter duty transformer. No separate UPS shall be provided at ICR level. Please clarify	Technical	Power pack inside HT panel of suitable ratings to provide DC supply to the tripping & closing circuit of the outdoor HT panels and inbuilt DC UPS for SCADA Panel for it's emergency application may be accepted. However, inverter data logger shall have separate UPS. However, auxiliary supply scheme will be finalized and approved during detailed engineering. Terms and conditions of tender documents will prevail.
13	Section-VII B-Technical Specifications	35	7 AC Cables	7.2 All AC cables shall be flame retardant, low smoke (FRLS) type designed to withstand all mechanical, electrical and thermal stresses develop under steady state and transient operating conditions.	As per the industry practice, Non-FRLS cable will be considered in case of buried cable laying of AC LT & HT cable as there is no chance of fire. Please clarify.	Technical	Terms and conditions of the tender document will prevail.
14	Section-VII B-Technical Specifications	54	15 SCADA	15.6.1 All RS485, IO and CAT6 cables shall be laid in separate conduits with a minimum separation of 1.5ft from AC/DC power cables all along.	Except cat-6 cable, we propose control cable suitable for direct buried(armored) application hence conduit is not required. Please clarify.	Technical	Terms and conditions of the tender document will prevail.
15	Section-VII B-Technical Specifications	56	15 SCADA	15.10 Factory Acceptance Test (FAT) FAT procedure shall be submitted by bidder for approval. SCADA shall communicate with all third devices which are part of solar plant and same shall be demonstrated during the FAT.	FAT for some equipment will done by simulation as it is practically not possible to bring all equipment physically to SACADA OEM's factory. However same will be demonstrated during SAT(Site Acceptance Test). Please clarify.	Technical	Accepted. The details for the FAT procedure shall be submitted to the Employer for approval.
16	Section - VII A	223	1	Performance parameters: PR - 82% and CUF 42.5%	Request to keep only the CUF parameter binding as the bidder will be taking care of the plant for 10 years and any shortfall will be countered by adding new modules.	Technical	PR shall be demonstrated for Operational Acceptance as per procedure laid out in Annexure - C. Kindly refer Annexure 1 to Amendment 1.
17	Section - VII A	223	1	Performance parameters: PR - 82%	There will be times when generation is very high and the batteries are completely charged and since only 20 MW can be injected into the grid a lot of generated power will get wasted. This will impact in plant PR. Though the plant is generating as per its capability, the PR will be low. Request to reduce the PR criteria with a tolerance margin	Technical	Bidder is expected to operate the BESS in order to evacuate 20 MW energy into the grid. The PR number indicated is after considering losses during such situations where the battery is full and generation is more than 20 MW also. Therefore the terms and conditions of the tender document will prevail.
18	Section - VII B	240	2.3	Shadow free plant layout to ensure minimum losses in generation during the day time.	It is impossible to design a shadow free plant at such high latitude. Bidder can design an optimized plant where shadow loss is minimum and the generation and PR criteria can be fulfilled? Also, shading due to surrounding terrain should not be in scope of the bidder.	Technical	The EPC Contractor is expected to optimize the plant design (with reference to inter-row spacings and other shading objects) for meeting the guaranteed CUF and PR requirements. Terms and conditions of the tender document will prevail.
19	Section - VII B	241	1.2	Module technology: Mono-Crystalline and bifacial with minimum 19.5% efficiency and must be domestically manufactured	There are hardly any domestic suppliers who can fulfil this criteria. Please allow usage of Mono-Crystalline modules with generating capability only from the front side.	Technical	Terms and conditions of the tender document will prevail.
20	Section - VII B	249	4.3	Type (String/Central) - String	It is understood that either string & central inverter can be considered. Please clarify.	Technical	Only String inverters are acceptable. Terms and conditions of the tender document will prevail.
21	Annexure - C	459	2.1.2	The PR test shall be carried out for a period of 30 consecutive days at site by the Contractor in presence of the Employer/ Employer's Representative/ Owner's Engineer	If the plant is commissioned in November, it will not be possible to start the PR test within 60 days as the plant will be not receive significant irradiance during this period. Please increase this to at least 90 days	Technical	Terms and conditions of the tender document will prevail.
22	Annexure - C	458	2.1.1	PR formula, $P_o =$ Installed nominal peak power of PV modules, i.e. Nameplate rating at STC (kWp)	P_o should be equal to 50 MWp, in this way if required the bidder can add more modules than specified in the tender to fulfil the minimum PR criteria.	Technical	Bidder may install additional DC capacity to meet the performance criteria specified in tender. Terms and conditions of the tender document will prevail.
23	Annexure - C	463	2.4	CUF formula, DF: DF is module degradation factor, 0.55% per year	Since DCR modules are mandatory, please allow degradation as per module suppliers warranty parameters. 0.55% is very low for domestic suppliers	Technical	Terms and conditions of the tender document will prevail.
24	Annexure - C	463	2.4	Reference irradiation 1828 kWh/m2	As per SolarGIS database, the GHI for the location is 1812 kWh/m2. Please allow the bidder to consider reference irradiation as per SolarGIS	Technical	Terms and conditions of the tender document will prevail.

25	Annexure - C	463	2.4	The radiation data from the Plant Pyranometer shall be used for computation of CUF, except in case of any discrepancy (i.e. more than ± 10% variation from the Reference Radiation, GHlref), in which case the radiation data from the nearest available Solar Radiation Resource Assessment (SRRA) station data will be used for computation of CUF.	The nearest SRRA station shall be within 10 km vicinity of the plant as for locations like Leh the radiation is highly location specific.	Technical	The nearest SRRA station is in Leh.
26	Annexure - C	463	2.4	The radiation data from the Plant Pyranometer shall be used for computation of CUF, except in case of any discrepancy (i.e. more than ± 10% variation from the Reference Radiation, GHlref), in which case the radiation data from the nearest available Solar Radiation Resource Assessment (SRRA) station data will be used for computation of CUF.	The specifications of the nearest SRRA station must be shared with the bidder and its data must be used only after mutual agreement of the Bidder and SECI	Technical	The nearest SRRA station is in Leh. The Bidder may obtain the radiation data from NIWE.
27	Annexure - C	-	-	PR Test	The tender is silent on shadings from the surrounding terrain on the solar modules. The Pyranometer will measure all the incoming irradiance however the plant will be partially shaded ultimately impacting plant performance. Request to add a clause regarding shading from surrounding terrain	Technical	Site is located on hill-top and is relatively flat. Hence, shading due to surrounding terrain will be negligible. Please refer to the Annexure C for the PR Test Procedure. Terms and conditions of the tender document will prevail.
28	VII	147	1.1) Initial Design & Fabrication	For the initial design and fabrication of equipment, the contractor shall - Design, fabricate and assemble a fully functional, transportable BESS....	Kindly confirm that the BESS is not expected to be shifted to another location post commissioning.	Technical	The BESS is not expected to be shifted to another location post commissioning.
29	VII	147	1.1) Initial Design & Fabrication	- Develop site installation/construction drawings, specifications and calculations.	Kindly furnish the list of parameters / designs for which calculations are required.	Technical	The Master Drawing List for parameters/designs shall be mutually agreed between SECI and the successful EPC Contractor.
30	VII	147	1.2) Transportation & Site set-up	Interconnection of BESS with the grid is at the point of common connection (PCC).	Table:1 of Clause No.2 Site Specific Implementation requirements mentions coupling on the LV or MV side of Inverter Duty Transformer. Please confirm whether entire BESS component of 20MW / 50MWh can be placed at single location instead of interconnection at IDT level. This will facilitate design optimization.	Technical	Entire BESS component of 20MW / 50MWh placed at single location shall be acceptable. Kindly refer the indicative AC SLD in Annexure 2 to amendment-1.
31	VII	148	1.3) Installation/ Interconnection	Obtain all permits necessary to transport the BESS to the site.	Kindly furnish the list of permits required and approving authority for the requisite permits.	Technical	It shall be the responsibility of the Bidder to identify and obtain any permits, if required, for transportation of the BESS to site from authorities in the area of jurisdiction.
32	VII	148	1.3) Installation/ Interconnection	Obtain permits necessary to prepare the site and to install and interconnect the BESS to the grid.	Kindly furnish the list of permits required and approving authority for the requisite permits.	Technical	It shall be the responsibility of the Bidder to identify and obtain any permits, if required, for interconnection of the BESS to the grid from authorities in the area of jurisdiction.
33	VII	149	2) Site Specific Implementation requirements	The BESS will be coupled with the PV system at the AC bus on the LV or MV side of Inverter duty transformer.	Please confirm the maximum BESS capacity in % rating terms that can be considered with each IDT.	Technical	BESS Connectivity and Metering shall be as per Indicative SLD provided as Annexure 2 to amendment 1.
34	VII	150	2.3) Codes & Standards	The BESS shall comply with the following Codes and Standards	Considering that BESS supplier may have other certifications, equivalent to the ones mentioned in the tender document. In such a case will SECI facilitate the acceptance of alternate equivalent standards followed elsewhere.	Technical	Terms and conditions of the tender document will prevail.
35	VII	151	3) Technical Specification of Battery Energy Storage System	Table 2: Supply Specific ratings & requirements : 4000 cycles at rated energy capacity at minimum 80% DoD at 25DegC and upto c/2.5 Rate of discharge	1) Please confirm if C-rate during discharge is 0.1C or 0.25C? 2) Does minimum 80% DoD also include capacity fade due to altitude? 3) What does minimum DoD signify? Can it be more than 80% or not more than 80%?	Technical	1. Max C-rate during discharge for design purpose shall be C/ 2.5 i.e. 0.4C. 2. All design calculation shall be made by applying the appropriate deration factors for prevailing site conditions including altitude. 3. Battery nominal capacity shall be decided as per OEMs recommendation subjected to condition that DoD will not be less than 80% i.e. DoD shall be 80% or more.
36	VII	154	4) Design, Fabrication and Construction Requirements of BESS	Lifecycle costs include the following: periodic equipment upgrades....	Please specify the criteria for equipment upgrade. Or is it at the description of bidder?	Technical	Equipment upgrade shall be as per the discretion of the bidder so as to maintain the minimum system availability and annual dispatchable capacity as per the specifications throughout the life.
37	VII	154	4.2) System Level Design and Performance Requirements	Electrochemical cells must be replaceable (in small orders) with a maximum six week time under normal business conditions.	Replacement of electrochemical cells depends on the design topology adopted by BESS supplier. It might not be possible to replace cells if the new generation cells do not match the size and configurations of the existing / older cells. In such a case, the entire battery rack / battery module may be replaced or entire battery bank might be required to be replaced. Considering the above factors, 2 weeks time needs to be increased to atleast 2 months considering the Site specific conditions. Also in such a case, capacity shortfall must be exempted from the availability calculation.	Technical	Terms and conditions of the tender document will prevail.

38	VII	155	4.2.3) System Level Design and Performance Requirements	The prudent design of the BESS should include careful consideration of resonance and ferro-resonance.	Please clarify the parameters for ride through and tripping of BESS in case of resonance and ferro-resonance.	Technical	To be decided during Detailed Engineering stage.
39	VII	155	4.4) Additional transportability requirements	In designing for transportability.....	Please furnish the name of the relevant certifying agency. Will SECI facilitate / support in this approval?	Technical	Contractors may seek the necessary information from Battery OEMs for UN38.3 certification as these are UN guidelines for Li Ion Battery transportation.
40	VII	156	4.5.2) Design Life & Life-Cycle costs	Outage time as a result of replacement will also be counted as an accountable accountable	1) Since this is a unique project being implemented at a site with specific constraints, this clause needs to be exempted. Resolutions can be based on mutually agreed terms based on site challenges realized during commissioning and operation of plant. 2) Will battery unavailability on account of cell balancing be considered / accounted in outage time?	Technical	BESS unavailability on account of cell balancing shall not be an accountable outage. Please refer Clause 4.6 of TS at Page no. 156 of 182 for details.
41	VII	156	4.6) Reliability, Availability and Operability of BESS	The BESS shall be designed for high reliability, defined in the following terms:	Since this is a unique project being implemented at a site with specific constraints, this clause needs to be exempted. Resolutions can be based on mutually agreed terms based on site challenges and learnings realized during commissioning and first year operation of plant.	Technical	Terms and conditions of the tender document will prevail.
42	VII	157	4.7) Planned Maintenance Outage	The Contractor shall provide a guarantee for the maximum length of time required for this type of maintenance operation.	The time required for maintenance and delay on account of grid specific issues shall not be accounted as maintenance operation. Please confirm.	Technical	Grid outage hours shall be subtracted from total no. of hours in the year for the calculation of BESS availability.
43	VII	158	4.8) Battery Sub-system Design Requirements	For both premature cell failures and end of life replacement, the contractor shall guarantee cell availability and length of down time...	Replacement of electrochemical cells depends on the design topology adopted by BESS supplier. It might not be possible to replace cells if the new generation cells do not match the size and configurations of the existing / older cells. In such a case, the entire battery rack / battery module may be replaced or entire battery bank might be required to be replaced. Please clarify how will SECI account such down time?	Technical	The time shall be accounted from the time the requisite storage capacity (to the extent the storage capacity is depleted due to cell failure) is unavailable to the time it is restored.
44	VII	162	4.9.4.5) Islanding	The PCS design shall include provisions to limit run-on and islanding as per applicable standards... This capability shall be successfully demonstrated during FAT.	In case if OEM does not have facility to conduct such FAT in-house, please furnish list of accredited Labs to conduct such tests.	Technical	The List of accredited Labs are available with the NABL or any other ILAC member signatory.
45	VII	168	5.7) Performance Monitoring and Data Acquisition	The BESS shall include a DAS to provide continuous...	Please furnish the list of parameters that are to be monitored on continuous as well as intermediate interval basis.	Technical	Indicative Parameters are mentioned in Clause No. 5.7.3 of TS at page no. 169 of 182.
46	VII	174	12) Factory Acceptance Testing of BESS	FAT test	In case if OEM does not have facility to conduct such FAT in-house, please furnish list of accredited Labs to conduct such tests.	Technical	The List of accredited Labs are available with the NABL or any other ILAC member signatory.
47	Annexure-D	1	Mandatory Spares	13. Battery: 2% of total supply along with all cell/battery auxiliary systems, interconnectors, monitoring devices.	1) As per 2% criteria, 1MWh capacity battery cells will be required as spares, if calculated at throughput capacity. Please confirm. 2) In case if the above is true, will auxiliary system, interconnectors, monitoring devices be considered for 1MWh Battery rack capacity for spares? Please confirm.	Technical	2% spare capacity shall be calculate on basis of cumulated capacity supplied to meet the dispatchable energy of 50MWh. Terms and conditions of the tender document will prevail.
48	Annexure-F	20	6.6) System Rating Verification	Roundtrip Efficiency	1) Will auxiliary consumption of BESS system (viz. HVAC consumption) be considered as input energy for Roundtrip Efficiency Calculation? 2) Will the aux. consumption of BESS be considered as input energy in case of reactive power support to the grid? Please clarify.	Technical	1) Yes, auxiliary Consumption of BESS will be considered as Input Energy for Round Trip Efficiency Calculation. 2) Round Trip Efficiency is to be demonstrated during FAT only as per procedure laid down in this Annexure.
49	Annexure-F	20	6.6) System Rating Verification	Roundtrip Efficiency	One of the test is to be conducted for 3 cycles at 100% rated power capacity. In this case the C-rate will be 0.4C. Whereas the battery is required to be designed at C/0.25 as per Table 2: Supply Specific ratings & requirements in Section-VII Part-E. Please clarify.	Technical	Required C-rating as per Table 2: Supply Specific Ratings is C/2.5 i.e. 0.4 and not 0.25 C. Please refer the relevant Clause.
50	SECTION - VII B. TECHNICAL SPECIFICATIONS	110	10.5	To calculate the design wind speed (Vz), the factors K1 (probability factor or risk coefficient), K2 (terrain roughness and height factor) and K3 (topography factor) shall be considered as per IS 875 (Part-3) (However, minimum values for K1, K2 and K3 shall be .94, 1.0 and 1.0 respectively)	k1 shall be taken as 0.89 for 25 years life of structure & 55 m/s wind speed at Leh as per Table-1 of IS 875 part 3 2015. Pl confirm	Technical	K1 shall be taken as 0.92. Please refer sl no. 1 of Amendment 1.
51	SECTION - VII B. TECHNICAL SPECIFICATIONS	110	10.8	To calculate the design wind pressure 'pd', factors 'ka' (area averaging factor) and 'kc' (combination factor) shall be taken as 1.0.(The factor 'kd' shall be taken as 1.0 in case of plant site within 60km of sea coast).	'kd' shall be taken as 0.9 in case of plant site is NOT within 60km of sea coast as per Cl. 7.2.1 of IS 875 part 3 2015. Pl confirm.	Technical	Already confirmed under Cl. 6.1, Sec VII-C

52	SECTION - VII B. TECHNICAL SPECIFICATION S	110	10.10.1	<p>WL shall be considered as detailed below for estimation of WL under primary loads:</p> <p>(i) WLx (downward), WLz (downward): Load due to positive pressure on design tilt angles of MMS members for wind acting in both ($\pm X$, $\pm Z$) directions.</p> <p>(ii) WLx (upward), WLz (upward): Load due to negative pressure on design tilt angles of MMS members for wind acting in both ($\pm X$, $\pm Z$) directions.</p> <p>(iii) WLx (member load), WLz (member load): Load due to wind action on side (exposed) face of respective MMS members (drag force) for wind acting in both ($\pm X$, $\pm Z$) directions.</p> <ul style="list-style-type: none"> • $\pm WLx$ (member load, transverse to MMS table): Load due to wind action on column, front and back bracing, longitudinal bracing • $\pm WLz$ (member load, along length of MMS table): Load due to wind action on column, rafter front and back bracing, longitudinal bracing 	<p>Wind Loads Primary Load cases for MMS design shall be as following:</p> <ol style="list-style-type: none"> 1. Maximum Positive Loads (Applied Towards the module Frame as per C_p value from Table-8) 2. Maximum Negative Loads (Applied away from the module Frame as per C_p value from Table-8) 3. Wind Load along the Length of Table (applied on the structural members considering the area obstructed & co-efficient as per Table - 29) 4. Wind Load along the width of Table (applied on the structural members considering the area obstructed & co-efficient as per Table - 29) <p>PI confirm.</p>	Technical	Terms and conditions of tender document shall prevail.
53	SECTION - VII B. TECHNICAL SPECIFICATION S	111	10.10.2	Solidity ratio (θ) shall be taken as 0.5.	For MMS design, Solidity ratio (θ) can be considered 0 as there is very less obstruction below Table.	Technical	Accepted. Kindly refer to Sl. 4 of Amendment 1.
54	SECTION - VII B. TECHNICAL SPECIFICATION S	111	10.10.3	In design of MMS (for height of structures less than 10 m from ground), 20% reduction in wind pressure as per Note under Cl. 6.3 of IS 875 – Part 3 is not permitted in case of purlins (members supporting modules), which shall be designed against action of WL corresponding to full wind pressure.	20% reduction shall be considered as same is allowed in the Cl. 6.3 of IS 875 – Part 3. PI confirm.	Technical	Terms and conditions of tender document shall prevail. Reduction in wind load isn't permitted for purlin members.
55	SECTION - VII B. TECHNICAL SPECIFICATION S	117	13.7	Aluminum-Zinc Alloy metallic coated steel strip or sheet of grade YS350 and minimum coating class AZ200 conforming to IS 15961 : 2012 may also be used for fabrication of purlin sections.	coating class AZ150 conforming to IS 15961 : 2012 may be used for fabrication of purlin sections. PI confirm.	Technical	Clause removed; For information on the material to be used for MMS, please refer Cl 6.3 (Section - VII(C)) of tender.
56	SECTION - VII B. TECHNICAL SPECIFICATION S	117	13.8	<p>The minimum thickness excluding anti corrosive treatment (BMT) of various elements of MMS structure shall be as following:</p> <ul style="list-style-type: none"> • Stub/ column – 3.15mm, • Rafter – 2.5mm & • Purlin – Minimum thickness of the purlin section excluding anti corrosive treatment (BMT) shall be 1.5 mm. Aluminium-zinc alloy metallic coated steel strip or sheet of grade YS350 and min. coating class AZ150 conforming to IS-15961:2012 may also be used for fabrication of purlin sections. In such a case, all the sections of the base metal exposed after cutting of members and punching of holes shall be provided with sprayed aluminum and zinc coating conforming to IS-5905. • Other members – 2.0 mm 	<p>The minimum thickness of various elements of MMS shall be as following:</p> <ul style="list-style-type: none"> • Stub/ column – 2mm, • Rafter – 1.4mm & • Purlin – Minimum thickness of the purlin section excluding anti corrosive treatment (BMT) shall be 0.8 mm AZ150 material. • Other members – 1.2 mm <p>PI. confirm.</p>	Technical	Kindly refer to Sl. 12 of Amendment 1.
57	SECTION - VII B. TECHNICAL SPECIFICATION S	118	13.10	<p>The maximum permissible deflection/ side sway limits for various elements of MMS under serviceability conditions shall be as following:</p> <ul style="list-style-type: none"> • Lateral deflection/ side sway for Column – Span/ 240 • Vertical deflection for Rafter and Purlin – Span/ 180 • Lateral deflection for Purlin – Span/240 	<p>The maximum permissible deflection/ side sway limits for various elements of MMS under serviceability conditions shall be as following:</p> <ul style="list-style-type: none"> • Lateral deflection/ side sway for Column – Span/ 150 • Vertical deflection for Rafter and Purlin – Span/ 180 for Simly supported/ Continuous spans & span/150 for Cantilever span <p>PI confirm.</p>	Technical	Terms and conditions of tender document shall prevail.
58	SECTION - VII B. TECHNICAL SPECIFICATION S	118	13.10	Lateral restraint to compression flange if any due to PV panels is not permitted in purlin design.	<p>UNL shall be considered as distance between mounting Bolts in Purlins in combinations of Downwind.</p> <p>UNL shall be considered as distance between mounting Bolts in Rafter in combinations of Upwind.</p> <p>PI confirm</p>	Technical	Terms and conditions of tender document shall prevail.
59	SECTION - VII B. TECHNICAL SPECIFICATION S	118	13.14	The vertical diagonal bracing shall be provided in end spans and every alternate span of each unit (table) of MMS.	The vertical diagonal bracing shall be provided in any two spans of each unit (table) of MMS. PI confirm.	Technical	Terms and conditions of tender document shall prevail.
60	SECTION - VII B. TECHNICAL SPECIFICATION S	118	13.17	The MMS structure shall be hot dip galvanized with minimum GSM 610 kg/ sqm and/or minimum coating thickness of 80 microns for protection against corrosion. Galvanization shall conform to IS-2629, 4759 & 4736 as applicable.	Pregalvanised material with 550 GSM coating including both sides, Galvalume material with 150GSM coating including both sides or PosMAC material can be used. PI confirm.	Technical	Terms and conditions of tender document shall prevail. Please refer Cl 6.3.12 (Section VII(C)) of tender for information on corrosion protection treatment of MMS.

61	SECTION - VII B. TECHNICAL SPECIFICATION S	119	13.23	Two numbers of anti-theft fasteners of stainless steel on two diagonally opposite corners for each module shall be provided. All fasteners and washers (2 round + 1 spring) both for MMS connections and fixing of PV Module shall be adequately protected from atmosphere and weather prevailing in the area.	Flange Bolt & Flange Nut without washers can be used. PI confirm.	Technical	Terms and conditions of tender document shall prevail.
62	SECTION - VII B. TECHNICAL SPECIFICATION S	119	13.29	In case the contractor proposes to extend the column leg to embed it in the pile/pedestal as an alternate fixing arrangement, the column member shall be extended for full depth of the pile (100mm cover at tip of the pile) with an end plate of min. 4mm thickness to be welded at the bottom of column leg. (However, for plants in coastal area or in case of marshy soil the column post shall be supported only with base secured to foundation through base plate and anchor bolt assembly and no embedment of column leg in foundation is permitted)	Reduced Column cross-section inside pile below ground can be provided. PI confirm.	Technical	A reduction in cross section is permissible subject to supporting design calculations.
63	SECTION - VII B. TECHNICAL SPECIFICATION S	120	13.33	The length of one unit (Table) of MMS shall not generally be more than 20m.	Fulfilling generation & structural criteria, Table length higher than 20m may be considered. PI confirm.	Technical	Kindly refer to Sl. 34 of Amendment 1.
64	SECTION - VII B. TECHNICAL SPECIFICATION S	120	13.36	The length of any cold formed section (CFS) shall not be more than 5.5 m.	To restrict the number of joints in structure, individual members upto 10m can be provided. PI confirm.	Technical	Terms and conditions of tender document shall prevail.
65	SECTION - VII B. TECHNICAL SPECIFICATION S	120	13.4	For same member type, same section shall be used.	Different cross-section or deferent thickness may be used to achieve economy. PI confirm.	Technical	Terms and conditions of tender document shall prevail.
66	SECTION - VII C. SPECIAL TECHNICAL SPECIFICATION S	3	6.1(vii)	Probability Factor or Risk Coefficient, $k_1 = 1$	k_1 shall be taken as 0.89 for 25 years life of structure & 55 m/s wind speed at Leh as per Table-1 of IS 875 part 3 2015. PI confirm	Technical	K_1 shall be taken as 0.92. Please refer sl no. 1 of Amendment 1.
67	SECTION - VII C. SPECIAL TECHNICAL SPECIFICATION S	3	6.1(viii)	Terrain Roughness and Height Factor, $k_2 = 1.05$	Terrain Roughness and Height Factor, $k_2 = 1.0$ for Terrain category -2 PI confirm.	Technical	Agreed; Please refer sl no. 1 of Amendment 1.
68	SECTION - VII C. SPECIAL TECHNICAL SPECIFICATION S	3	6.1(xii)	As per Note under Cl. No. 6.3 of IS:875-Part 3, there shall not be any reduction in wind speed for structures less than 10m in height. Wind pressure may be reduced by 20% for checking stability and design of framing however, purlin member directly supporting module shall be designed for full wind pressure without any reduction.	Wind pressure may be reduced by 20% for design of Purlins. PI confirm.	Technical	Terms and conditions of tender document shall prevail. Reduction in wind load isn't permitted for purlin members.
69	SECTION - VII C. SPECIAL TECHNICAL SPECIFICATION S	6	6.3.6	MMS structure shall be supported on precast RCC sleepers to be designed to withstand the loads coming from MMS and effectively transfer them to the ground. However, as per cl 12 of Section -VII Part (B), it is stated that bored cast in situ pile can also be considered for MMS foundation.	We presume that, bored cast in situ pile can also be considered for MMS foundation. Please confirm.	Technical	Agreed. Please refer to Sl. 11 of Amendment 1.
70	SECTION - VII C. SPECIAL TECHNICAL SPECIFICATION S	5	6.3.3	The structural design of the MMS shall be done by Working Stress Method with no increase in permissible stresses. To avoid brittle failure of steel under low temperatures, a reserve strength of 15% shall be kept under the permissible strength by limiting the 'utilization ratio' as commonly termed by structural design software to 0.85.	Considering reserve strength in the material & factors considered in strength, utilization ratio upto 0.95 may be allowed. PI confirm.	Technical	Terms and conditions of tender document shall prevail.
71	SECTION - VII C. SPECIAL TECHNICAL SPECIFICATION S	6	6.3.10	Each vertical MMS unit shall hold 4 (four) modules in 2Lx2 configuration using three horizontal members supported over two vertical members. However, the contractor can propose an alternate structural arrangement for approval if the latter is found to be structurally more optimum.	MMS configuration shall be as per suitability of generation & structural design. MMS with higher no. of modules than this may be used. PI confirm.	Technical	Terms and conditions of tender document shall prevail.
72	SECTION - VII C. SPECIAL TECHNICAL SPECIFICATION S	8	6.7	Internal road carriageway shall be constituted by interlocked concrete paver blocks of M60 grade laid over well compacted and cleaned natural ground compacted for a depth of 300 mm and brought to desired gradient	We propose to use WBM road with suitable subbase layer for internal and approach road. Please confirm.	Technical	Please refer to Sl. 7 of Amendment 1.
73	SECTION - VII B. TECHNICAL SPECIFICATION S	95	2.2	The Topographical survey shall be conducted at 20m x 20m grid, or as directed by the Engineer, only with the help of digital surveying instruments like Total Station/ Auto level.	We propose to use drone survey using UAV for topographical survey instead of total station. Please confirm.	Technical	Terms and conditions of tender document shall prevail.

74	SECTION - VII B. TECHNICAL SPECIFICATIONS	103 & 104	6.2 & 6.10	As per Cl 6.2, it is stated that, "peripheral road shall be of 2.5m wide carriage way with 0.5m shoulders on either side", however as per Cl. 6.10 it is stated that "There shall be no peripheral road".	We presume there is no need for peripheral roads. Please confirm.	Technical	In place of peripheral road, 2.5m wide corridor shall be provided along plant boundary as per Cl 6.10(Section - VII B) of tender.
75	SECTION - VII B. TECHNICAL SPECIFICATIONS	113	12.2.2	MMS support shall project minimum 200mm above FGL (Finished grade level) to avoid any damage to the MMS column/sub support due to direct contact of rain water/ surface run-off	We propose to consider minimum 100mm pile projection above EGL (Existing Grade Level). Please confirm.	Technical	Terms and conditions of tender document shall prevail.
76				Power system studies (Load flow study and Short circuit Study)not specified on bid document	Who will be take care of this study Client/State utility/SECI. Who will provide the input of the network. In 66kV Phyang - Nimmo feeder 45MW Hydro Generation is already connected and its Avg. daily generation output is 20MWac.	Technical	It shall be the responsibility of SECI.
77				What is the 66kV fault level value is assume for Detailed engineering	For proposed Solar plant detailed engineering Can you please provide site specific 66kV fault MVAsc and Fault current kA	Technical	Rated short time withstand current is 31.5(40)-1 sec kArms as per the nameplate of the transformer at Phyang GIS S/s .
78				Metering Mode: Client buy and test meter as per utility make and model or State utility provide Complete Meter with test done	Please suggest what is the slandered practice in state utility.	Technical	ABT meters (main, check and standby) 0.2 s class at Plant end.Kindly refer the indicative SLD as attached with these clarifications & Amendment 1
79				During Site visit we checked there are no communication facility OFC or PLCC at 66kV feeder side. How we can take care for sharing Generation data to SLDC and communication at other end of 66kV substation.	Please suggest what is the Current practice in state utility of existing substation. Separate SCADA and Gateway is required for solar substation?	Technical	Current communication by Phyang GIS S/s with NHPC plants at Chutak and Nimmo are through phone calls (mobile and landline) only and confirmed by PGCIL. However, laying of OPGW cable and sundry system for communication being planned.
80				What is the current practice of 66kV line bracker trip functionality	PLCC or OFC is not available at 66kV side. How it manage by state utility?	Technical	Through Telephonic communication
81				Please confirm location of Commercial Billing metering	What is the standard practice of Utility.	Technical	LILO end.
82	Electrical Interconnection Details	222	SOW 3 of 14	66 kV LILO substation tapping 66 kV line interconnecting with the 220 kV Phyang Substation. Leh	Please provide 66kV transmission line substation name (both end)and total length of the line.	Technical	Kindly refer the Indicative SLD in annexure-2 to amendment 1.
83	GCC	120	73	Defects Liability Period 12 (Twelve) Months Period of Liability from the date of Operational Acceptance	Warranty referred under warranty section of procurement is mentioned as 1 Year for Cable; 2 Year for HT Panel, Battery, etc. Please specify the exact contractual warranty requirement.	Contractual	The mentioned warranty refers to the actual warranty period only
84	GCC	123	75	Guarantee/ Transfer of Guarantee - For the major Material/Products/Spares of the works & Projects including but not limited to PV Modules, Power Conditioning Units (PCU) Inverters, Transformers, Batteries (If applicable) etc the Contractor shall invariably engage OEMs/Sub-Contractors who are specialists in the field and OEM's/OPM's/firms of repute and such a OEM/OPM/Sub-Contractor shall furnish guarantees/warranties for their workmanship to the Owner directly in the name of Owner only without any deviation. The Contractor shall give the guarantee/warranty to the Owner directly For other minor Material/Products/Spares also.	For Transfer of warranty, please confirm that Novation Agreement between OWNER-EPC Contractor-OEM shall be allowed.	Contractual	No
85	SAMPLE FORMS	180	Form F-8	RESTRICTION ON PROCUREMENT FROM CERTAIN COUNTRIES Declaration 1 & 2: "I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. Where applicable, evidence of valid registration by the Competent Authority shall be attached."	Please provide the competent Authority List with list of Suppliers & Contractors. Please clarify whether Chinese OEMs are not allowed to supply material in this bid.	Contractual	Kindly refer MoF OM No 6/18/2019-PPD dated 23.07.2020 for more clarity on the mentioned query and the process to get registered at Department for Promotion of Industry and Internal Trade (DPIIT), if the bidder belongs to a bordering country.
86	SAMPLE FORMS	188	Form F-12A	DECLARATION REGARDING THE MANDATORY PROCUREMENT OF SOLAR INVERTERS FROM CLASS I LOCAL SUPPLIERS a) The procurement of Solar Inverters for the subject tender will be done from Class I Local suppliers only. b) A Class-I local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content equal to or more than 50%, as defined under the above said Orders. c) The percentage of Local content in the procurement of mentioned Solar Inverters is.....% (In words)	For String Inverters, there are limited local suppliers to support for this bid, please allow us for sourcing of string inverter globally including country sharing with Indian boarder .	Technical	Terms and Conditions of the tender document prevail.

87	TS	249	4.1	As per the Solar Photovoltaics, Systems, Devices and Components Goods (Requirements for Compulsory Registration) Order, 2017, Inverters used in the grid connected solar power projects shall be registered with BIS and bear the Standard Mark as notified by the Bureau of Indian Standards.	Presently, all ground mounting string inverters are having capacity more than 160 KW and having voltage level of 1500V. For BIS certification, local test laboratory are not equipped to carry out BIS certification. Please waive this requirement.	Technical	Extant Regulations of GoI as per the Quality Control Order at the time of Supply shall apply.
88	Section II	25	12	Prices quoted by the Bidder, shall remain FIRM and Fixed and valid until completion of the Contract and will not be subject to variation on any account.	We request you to consider the statutory variation upto actual completion of contract under change in law.	Contractual	Terms & conditions of the tender document shall prevail. Kindly refer clause No 51 of the GCC "Change in Laws and Regulations" for more clarity on the applicability regarding change in law.
89	Section II	26	13.6	The payment of GST by the Employer shall only be at the CEILING of GST as mentioned by the Bidder in the Schedule No 2 at the time of bidding. Bidders are required to quote the applicable GST with due diligence & appropriate financial prudence, as afterwards bidders will not be able to change or claim the GST charges already quoted during the bid.	It is requested to kindly re-imburse the GST at actuals under the change in law clause without the ceiling limit.	Contractual	Terms & conditions of the tender document shall prevail
90	Section II	29	19	Zero Deviation	This project is first of its kind in India, hence change in design & procurement during execution stage is envisaged. Therefore, we request you to waive off this clause.	Contractual	Terms & conditions of the tender document shall prevail
91	Section II	44	42	Any Conditional Bid will straight away run into risk of rejection	This project is first of its kind in India, hence change in design & procurement during execution stage is envisaged. Therefore, we request you to waive off this clause.	Contractual	Terms & conditions of the tender document shall prevail
92	Section III	68	1.3.6	"Details of Financial capability of Bidder" as per format F-16 duly signed and stamped by a Chartered Accountant (format attached)	Bidder shall be allowed to submit the audited financial statement duly signed by chartered account to meet financial qualification requirement.	Financial	Terms & conditions of the tender document shall prevail
93	Section-IV	80	1.1.32	EFFECTIVE DATE means the date of issuance of Notification of Award from which the Time for Completion shall be determined or any other specific date as provided in the Notice to Proceed(NTP) for exceptional cases	We kindly requested you that effective date should be considered as date of handing over of complete encumbrance free land to bidder and subsequently zero date and date of completion to be changed accordingly as there have been instances where NOA has been awarded but land has been awarded at a later stage.	Contractual	Effective Date: "Effective Date" of the Contract will be starting from the date as mentioned in the NOA or Notice to Proceed (NTP) provided by the Employer, whichever is later. NTP will be provided by the employer in the shortest possible time and all contractual obligations will be started from the date of Notification of Award (NOA) or Notice to Proceed, whichever is later.
94	Section-IV	83	2.3 & 2.4	Power and Water Supply during Construction	We request SECI to kindly arrange the Water and Power Supply for construction.	Technical	Terms and Conditions of the tender document prevail.
95	Section-IV	85	5.1	The right to accept the Tender will rest with the Employer/ Owner. The Employer/ Owner, however, does not bind himself to accept the lowest Tender, and reserves to itself the authority to reject any or all the Tenders received without assigning any reason whatsoever. At the option of the Employer/ Owner, the work for which the Tender had been invited, may be awarded to one Contractor or split between more than one bidders,	We kindly request to waive off this clause as this doesn't guarantee that project will be awarded to the L-1 bidder.	Contractual	Terms & conditions of the tender document shall prevail
96	Section-IV	92	19	Force Majeure	We kindly request to include local disturbances and public outage to be included in the force majeure events.	Contractual	Terms & conditions of the tender document shall prevail
97	Section-IV	93	19.7	If works are suspended by Force Majeure conditions lasting for more than two months, the Employer/Owner shall have the option of cancelling this Contract in whole or part thereof, at its discretion.	We kindly request you to remove this clause, as the force majeure is beyond the bidder's control..	Contractual	Terms & conditions of the tender document shall prevail
98	Section-IV	97	25.3	Termination for Convenience The Owner may, by written notice sent to the Contractor, terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Owner's convenience, the extent to which performance of work under the Contract is terminated, and the date upon which such termination becomes effective.	We kindly request you to waive off this clause as reason for termination should be on some valid ground like on grounds of EPC bidder not following specifications not because of customer convenience.	Contractual	Terms & conditions of the tender document shall prevail
99	Section-IV	93	20	Liquidated damages for Delay half percent (0.5%) per week of the Contract Price for the whole of the facilities as liquidated damages	We kindly request you to amend the clause as 0.5% per week of the Contract Price (excluding O&M) for the undelivered portion as liquidated damages. Kindly accept	Contractual	Terms & conditions of the tender document shall prevail
100	Section-IV	96	24	any delay beyond 30 (Thirty) days shall attract interest @ 1.25% per month on the total Contract Performance Security amount, calculated on pro-rata basis accordingly	We request you to remove this clause.	Contractual	Terms & conditions of the tender document shall prevail

101	Section-IV	100	32.1.3	In the matter of connectivity of Plant to DISCOM's substation, the Owner will take the necessary connectivity permission, however, all the other permissions and clearances as deemed required by the State Agency/DISCOM for Bay allocation, technical/regulatory compliance for interconnection, ROW etc are to be taken by the Contractor.	Kindly inform if there are any ROW issues for laying of Tx line. Also inform the distance of the transmission line which falls under ROW. Bidder may please be facilitated to carry out only works related to solar PV plant and ROW issues if any shall be resolved by M/s. SECI/SCCL	Technical	Terms and Conditions of the tender document prevail. No RoW Issues are envisaged.
102	Section-IV	104	37	If, at any time there should be evidence or any lien or claim for which the Owner might have become liable and which is chargeable to the Contractor, the Owner shall have the right to retain out of any payment then due or thereafter to become due an amount sufficient to completely indemnify the Owner against such lien or claim and if such lien or claim be valid, the Owner may pay and discharge the same and deduct the amount so paid from any money which may be or may become due and payable to the Contractor. If any lien or claim remain unsettled after all payments are made, the Contractor shall refund or pay to the Owner all money that the latter may be compelled to pay in discharging such lien or claim including all costs and reasonable expenses. Owner reserves the right to do the same.	This should be exercised under mutual agreed terms and conditions.	Contractual	Terms & conditions of the tender document shall prevail
103	Section-IV	115	58.4	All the spares, as required for the trouble-free comprehensive O&M of Plant, must be kept under secure storage during O&M period.	Kindly confirm if these are additional spares other than the mandatory spares or same. Also kindly mentioned the list of these spares if different from mandatory spares	Technical	Please refer Annexure D for Mandatory Spares. However, bidder may keep additional spares to meet the operational guarantees as per tender.
104	Section-IV	119	70	The Contractor shall not be entitled to claim compensation for any loss or damage sustained by him by reason of temporary suspension of the Works aforesaid. However, suitable time extension may be considered at the sole discretion of the owner.	We kindly request that Compensation to be provided to the contract in addition to the time extension if work is suspended by EIC temporarily.	Contractual	Terms & conditions of the tender document shall prevail
105	Section-IV	129	81.1.4	Owner shall make all endeavor to make payments of undisputed amount of the bills submitted based on the joint measurements within 30 (Thirty) days from the date of certification by the Engineer-in-Charge/Project Manager.	We kindly request to reduce the date of payment from within 30 days to within 15 days from the date of certification as this is short term project and payment to be made as quick as possible for more workers to rope into the project and maintaining delivery schedule.	Contractual	Terms & conditions of the tender document shall prevail
106	Section-IV	131	85	Payment due to the Contractor shall be made by the Owner either by e-Banking or by Account Payee Cheque	We kindly request that "The Employer will establish an irrevocable Letter of Credit (L/C) in favor of the Contractor through the Employer's Bank in Employer's country for payments due for Supply" Kindly confirm	Contractual	Terms & conditions of the tender document shall prevail
107	Section-IV	133	94	During the Contract period including O&M period, i.e., during Construction & O&M period, all insurance related expenses shall be borne by the Contractor.	As per norms & rules, During construction period all insurances shall be borne by bidder. However, We request SECI to accept all insurance during O & M period under SECI scope	Contractual	Terms & conditions of the tender document shall prevail
108	Section-V	147	3.1	Issue of NOA/LOA/LOI as zero date	We kindly request you to accept that zero date or effective date should be the date of handover of complete encumbrance free land to the successful bidder not the issue of NOA	Contractual	Effective Date: "Effective Date" of the Contract will be starting from the date as mentioned in the NOA or Notice to Proceed (NTP) provided by the Employer, whichever is later. NTP will be provided by the employer in the shortest possible time and all contractual obligations will be started from the date of Notification of Award (NOA) or Notice to Proceed, whichever is later.
109	Section-V	149	7	CPBG submission	We kindly request to allow the bidder to submit CPBG within 30 days from the date of handing over of encumbrance free land to successful bidder instead of issuing of NOA	Contractual	Effective Date: "Effective Date" of the Contract will be starting from the date as mentioned in the NOA or Notice to Proceed (NTP) provided by the Employer, whichever is later. NTP will be provided by the employer in the shortest possible time and all contractual obligations will be started from the date of Notification of Award (NOA) or Notice to Proceed, whichever is later.

110	Section-V	149	7	<p>Contract Performance Security: The value of the Contract Performance Security shall be 3% (Three percent) of the Contract Value (i.e., total sum of the Supply & Service Contracts). This Performance security will be valid for a total period of 147 Months (24 Months Project commissioning period) + prescribed O & M Period, i.e. 120 Months + 03 Months additional) from the date of its issuance. Envisaging the difficulty in obtaining the longer tenure of CPS in the form of BG, the successful bidder can submit Contract Performance Security in the form of Bank Guarantee with initial validity period of 36 Months and the same may be extended for the balance period or further 36 months, within 60 days of expiry of the original CPS</p>	<p>We kindly request you to accept CPBG-1 of 3% of contract value excluding O&M charges with validity up to Defect liability period as the O&M will be started after operational acceptance and bidder will be providing separate BG for that.</p> <p>We also request you to accept CPBG-II for O&M with amount of 10% of O&M value with initial validity of one year which will be extended from time to time and value will be reduced after completion of each year O&M as allowed in other tenders.</p>	Contractual	Terms & conditions of the tender document shall prevail
111	Section-V (SCC)	151	11	Interest bearing adjustable initial advance (OPTIONAL) of 10% of the Contract Value (i.e., total sum of all the Supply Contract) shall be released to successful bidder upon receipt of unconditional acceptance of NOA	<p>We request to give interest free advance. Kindly accept.</p> <p>We request to submit unconditional Bank Guarantee for 100% of advance amount. Kindly accept.</p>	Contractual	Terms & conditions of the tender document shall prevail
112	Section-V	152	11	Freight and Insurance Portion, the payment shall be made in line with Supply Portion of the First Contract,	100% Freight and Insurance Portion shall be paid on pro rata basis along with supplies of items	Contractual	Terms & conditions of the tender document shall prevail
113	Section-VI	229	6	Obtaining statutory approvals /clearances/ compliances on behalf of the Employer from various Government Departments	It is requested to kindly consider the scope of statutory approvals, permits, etc. in the scope of Employer. However, the contractor will provide the required support to the employer in obtaining the statutory approvals, permits etc.	Contractual	Terms & conditions of the tender document shall prevail
114	Section-VI	326	25.3	The ROW for the TL/UG cable shall be obtained prior to the construction of the line from the concerned authorities.	It is requested to kindly consider the scope of ROW in the account of Employer. Kindly accept.	Technical	Terms and Conditions of the tender document prevail. No RoW Issues are envisaged.
115				Distance to connecting sub station (Appr. 500 M)	Kindly confirm the length of transmission line.	Technical	>500 m ,<1000 m
116				General	Bidder being a PSU has to finalize/shortlist the subcontractors for supply/services of the major item of the project through tendering process only.	Contractual	Terms & conditions of the tender document shall prevail
117				General	SECI is requested to include vendor list if any at the tender stage itself for the project components, else the Approving Authorities are to accept vendors finalized by the Contractor at post award stage based on Contractor's evaluation. Such evaluation documents will be submitted to the approving agency for information and record only. Kindly confirm	Technical	Vendors finalized by the EPC Contractor in the post award stage meeting the technical specifications and qualifying criteria, if any, laid out in the tender shall be acceptable.
118					SECI is requested to provide documents to Bidders regarding approval/ license to establish the tendered project.	Technical	EPC LOA should suffice.
119					The project completion date will be extended proportionately in case the key regulatory / authority clearances are delayed beyond two months from the date of applications along with complete set of documents by the Contractor. Kindly confirm	Contractual	All such matters may be dealt on case to case basis
120					In case contractor makes the project ready for commissioning as per contractual timeline, but the grid connectivity cannot be established within a month from such date due to reasons beyond Contractor's control; in such a case the project will be considered as deemed commissioned and payment will be released to contractor in full as per agreed T.O.P. Also the 10 year O&M will start from such date of deemed commissioning. Kindly confirm	Technical	For reasons beyond SoW of the Contractor, any delay won't be counted in its account.
121					Deferred payment for O&M is not practicable as this will create payment issue to the O&M agency. SECI is requested to kindly review and confirm	Financial	Terms & conditions of the tender document shall prevail

122				<p>Transmission Line structure scope:</p> <p>As per Cl 1.2 Transmission Line structure (Civil, Mechanical & plumbing work), This excludes design, supply and installation of Galvanized 220 kV and 132 kV Transmission Line towers, Tower extensions & accessories and 11 kV, 22 kV & 33 kV transmission poles & accessories.</p> <p>However, as per Technical scope Cl 37 (Technical Scope), Transmission Line structure has been shown in under scope</p>	Please clarify wrt Transmission Line structure scope	Technical	As per Clause no. 4.1.25 of SOW, Design & construction of LILO arrangement is in scope of Bidder. Clause no. 1.2 and 37 of "C. Civil, Mechanical and Plumbing Works" under Section VII Technical specifications further clarifies that bidder shall design the transmission line, poles, towers & accessories in line with the latest guidelines of PGCIL/PDD.
123				Supply Payment Terms	We request to kindly accept the payment terms as per following. i. 10% of Supply Contract Value as Advance payment ii. 65% of supply contract value on dispatch of equipment on pro-rata basis against Letter of Credit (L/C) payable at sight iii. 15% on Material receipt Confirmation on site on pro-rata basis iv. 10% on commissioning of project	Contractual	Terms & conditions of the tender document shall prevail
124				Site Saervices_Payment Terms	We request to kindly accept the payment terms as per following. 1. 10% of Work Contract Value -Advance Payment 2. 80 % of Work Contract Value - Against monthly RA bills for the Works executed at site 3. 10 % of Work Contract Value - Upon Commissioning	Contractual	Terms & conditions of the tender document shall prevail
125		General		Vendor Approval for Works	Kindly inform if any vendor approval for works is required	Technical	Vendor Approval, wherever required is specified in Section VII B: Technical Specifications.
126		General		Labor License	As we are not employing labors directly & labors are employed by our Contractors/sub-contractors. Hence we request you to kindly issue Form-V directly to our subcontractors. Employer will provide the Form-V directly to the sub-contractor who will employ the labor directly. Kindly accept and confirm.	Contractual	All such matters may be dealt on case to case basis
127		General		General	If delay from scheduled completion is on account of employer, then any statutory variation beyond stipulated Delivery/ Commissioning/Completion schedule shall be to customer's account.	Technical	For reasons beyond SoW of the Contractor, any delay won't be counted in its account.
128						Technical	Blank
129	Section VII	8 of 182	1.2	Cell/ Module Technology: Mono-crystalline and Bifacial	Polycrystalline monofacial type be also permitted please.	Technical	Terms and Conditions of the tender prevail.
130				Origin: Modules shall be domestically manufactured	Option to import be also permitted, please.	Technical	Terms and Conditions of the tender prevail.
131				Module Efficiency: ≥ 19.5%	Requested to permit module efficiency ≥ 17.0 %.	Technical	Terms and Conditions of the tender prevail.
132	Section VII	9 of 182	1.4.1 (i)	Glass-glass Modules, with minimum of 2 mm glass thickness on each side	Option to use single glass with minimum thickness 3.2 mm be also permitted, please.	Technical	Terms and conditions of the tender document will prevail.
133	Section VII B- Technical specifications	Page 9 of 182	Clause 1.3.1	Supplier Qualification criteria: The PV Modules Supplier should have supplied minimum 5 GW capacity globally or 500 MW in India in the past 5 years (as on last date of Bid submission). The PV Module supplier shall be Class-I local supplier as per MNRE Order dated 23rd Sep, 2020 on Public Procurement (Preference to Make in India) to provide for Purchase Preference (linked with local content) in respect of Renewable Energy (RE) Sector.	Having restricted the sources to Class I local supplier (Supplier to offer more than 50% local content as per MNRE order), requirement of bifacial modules and 19.5% efficiency to be reviewed due to lack of sources meeting the requirements in India. Please accept monofacial modules of 17% efficiency or exempt from the ambit of MNRE order to use imported modules.	Technical	Terms and conditions of the tender document will prevail.
134	VII+C7:F17F8C7:G18C7:G18F8C7:G18C7:I21C7C7:H30	221	1	Minimum Cumulative Inverter Capacity(MW) - N – S Orientation -20 -E – W Orientation -20 Minimum Cumulative Inverter Transformer Capacity (MVA) -N – S Orientation- 20 -E – W Orientation- 20	Request to consider Inverter sizing under the scope of the bidder to achieve the plant guarantee parameters.-Please confirm	Technical	Terms and condition of tender will prevail.
135	Section VII	221	1	Power Transformer Capacity (MVA) - 3X20	Please review and confirm , requirement of 3 No of power transformer and also confirm the number of feeder required at termination point to 66 kV LILO substation	Technical	Number of power transformer shall be 2 (two) each having 20MVA rated capacity. The indicative SLD is provided in Annexure 2 to Amendment 1. Please refer S. No. 16 of Amendment-1.

136	Section VII	221	1	Performance Ratio (PR)- 82%	Kindly revise the PR required, based on site climate, irradiance level & unconventional sub optimal tilt, to 78%.	Technical	Terms and Conditions of the tender prevail.
137	Section VII	221	1	CUF = 42.5%	Considering the radiation and adjoining plots with plan and elevation, CUF requirement specified is very high. Please revise.	Technical	Terms and Conditions of the tender prevail.
138	Section VII	326		The ROW for the TL/UG cable shall be obtained prior to the construction of the line from the concerned authorities.	Bidder may please be facilitated to carry out only works related to solar PV plant and ROW issues, if any, may please be resolved by M/s. SECI. Please confirm	Technical	RoW issues are not envisaged. If anything arises, SECI shall assist in resolution.
139				The contractor shall get the route approval from the Employer and PDD Ladakh as the case may be prior to start of the construction.		Technical	RoW issues are not envisaged. If anything arises, SECI shall assist in resolution.
140	Section VII	246	2.3	The SMU unit shall be warranted against all material/ manufacturing defects and workmanship for minimum of 2 (two) years from the date of supply.	The standard warranty offered in the industry is 1 year. Please accept and revise.	Technical	Terms and condition of tender will prevail.
141	Section VII	257	5	The transformer shall be warranted against all material/ manufacturing defects and workmanship for minimum of 5 (five) years from the date of supply.		Technical	Terms and condition of tender will prevail.
142	Section VII	266	6.11	The HT panel unit shall be warranted against all material/ manufacturing defects and workmanship for minimum of 2 (Two) years from the date of supply.		Technical	
143	Section VII	275	10.4	UPS shall be warranted for minimum of 5 (five) years and batteries shall be warranted for a minimum of 2 (two) years against all material/ manufacturing defects and workmanship from the date of supply.		Technical	Terms and condition of tender will prevail.
144	Section VII	277	11.6	Batteries and battery charger shall be warranted for minimum of 2 (two) years against all material/ manufacturing defects and workmanship.		Technical	Terms and condition of tender will prevail.
145	Section VII	308	18.13	The control and relay panel unit shall be warranted for minimum of 2 (Two) years against all material/ manufacturing defects and workmanship.		Technical	Terms and condition of tender will prevail.
146	Section VII	422	6.4	The MCR and LCR buildings shall be made of a RCC framed structure with plinth and shallow foundations. The roof of the structure shall employ mono/dual sloped gable RCC roof system	Bidder may give option to choose between roof structure or open platform for MCR and LCR building.-Please confirm	Technical	Please refer SI no. 2 of Amendment 1.
147	Section VII	279	12.3	Each PV Module frame shall be earthed using copper wire of sufficient cross section.	Module-to module earthing need not be mandated. It can be as per module OEM recommendations however if copper earthing wire is required then termination shall be made at earth flat instead of direct DC earth pit.- Please confirm	Technical	Terms and condition of tender will prevail.
148	Section VII	279	12.3	Continuous copper earthing wire shall be run to connect a group of modules and both ends of the loop shall be bolted to the DC earth grid using bimetallic lugs and stainless-steel fasteners. The copper earthing wire shall be routed in such a way to avoid physical contact with the module aluminum frame.		Technical	Terms and condition of tender will prevail.
149	Section VII	251	4.4.9	PCU front panel shall be provided with LCD/ LED to display all the relevant parameters related to PCU operation and fault conditions. It shall include, but not limited to, the following parameters - DC input current (for each terminal)	Cumulative DC current shall be displayed instead of each terminal DC current- Please confirm	Technical	Terms and condition of tender will prevail.
150	Section VII	327	C.1	This excludes design, supply and installation of Galvanized 220 kV and 132 kV Transmission Line towers, Tower extensions & accessories and 11 kV, 22 kV & 33 kV transmission poles	Over transmission line for 66KV line shall be through transmission pole- Please confirm.	Technical	Bidder shall design the transmission line, poles, towers & accessories in line with the latest guidelines of PGCIL/PDD.
151	Section VII	222		Distance to connecting substation =500m	As per tender specification, distance to connect substation =500m and as per submitted layout distance is 2022- Please confirm the correct distance.	Technical	Its >500 m and <1000m
152				GENERAL	Please confirm the number of feeder termination are required and each feeder have how much capacity and If single feeder of 20 MW is used then what is the tolerance in capacity.	Technical	One feeder with evacuation capacity of 20MW will be terminated at 66kV LILO substation. The indicative SLD is provided in Annexure 1 to Amendment 1.
153					Please confirm that gantry Bay is available at final termination substation .	Technical	Power evacuation from plant shall be terminated by constructing the LILO substation as specified in clause no. 4.1.25.
154					Please confirm the point of metering for CUF calculation. i.e. Plant side or Substation side ?	Technical	CUF will be calculated at plant end.
155					Will all Protection switchgear is required at Substation side? Please share the reference SLD.	Technical	Reference SLD is provided in Annexure 2 to amendment 1.
156	Section VII	249	4.2.1	Supplier Qualification Criteria -The Inverter Supplier should have supplied minimum 5 GW capacity globally or 1 GW in India in the past 5 years (as on last date of the bid submission)	Inverter QC shall not be 1 GW as required inverter capacity is only 40 MW, So please revised qualification criteria.	Technical	Terms and conditions of the tender document will prevail.
157	BDS	275	10.3.2	SCADA communications-RS-232 & RS-485 Interface Port	Please allow RS-232 OR RS-485 interface port.	Technical	Terms and condition of tender will prevail.

158	Section VII	223 of 539	Table	BESS Availability : 98%	BESS will be operational during day time charging the batteries and will discharge during evening peak hours after solar generation hours. Leaving little to no time for repair/maintenance of BESS. Also, any major repair/replacement situation during O&M period may require replacement of Li-ion battery cells/pack. BESS being an imported item will have some fixed lead time for procurement. The specified BESS Availability condition is on significantly higher side. Bidder request to revise assured BESS Availability to 95%. Please accept.	Technical	Terms and condition of tender will prevail.
159	Section VII	223 of 539	Table	BESS Availability : 98%	Bidder understands that in order to meet desired 'BESS Availability' requirements; only the specified duration of "...discharged after solar hours after solar generation hours" per day shall be taken into consideration for calculations of BESS Availability and not the complete day of 24 hours. Please confirm.	Technical	Terms and condition of tender will prevail.
160	Section VII	385 of 539	Table	Peak Management: In the Peak Management Use Case scenario, power generated during the early and midday periods shall be stored in the BESS and discharged after solar hours after solar generation hours	BESS will have only Peak management application for this Solar PV project. Please confirm.	Technical	Terms and condition of tender will prevail.
161	Section VII	385 of 539	Table	Peak Management: In the Peak Management Use Case scenario, power generated during the early and midday periods shall be stored in the BESS and discharged after solar hours after solar generation hours	BESS will have only Peak management application for this Solar PV project. Please confirm.	Technical	Confirmed. Terms and conditions of the tender document will prevail.
162	Section VII	388 of 539		The BESS shall be containerized, using either standard International Organization for Standardization (ISO) 668 shipping containers or custom-designed power equipment centers.	From 'custom-designed power equipment centers'; Bidder understands that Pre-fab type housing structures meeting industrial standards can be provided for installation of BESS. Please confirm.	Technical	Custom-designed pre-fab type power equipment centers which suits weather conditions of Leh are acceptable wh.
163	Section VII	398 of 539	5.2.2	The communication protocol for the BESS shall be according to IEEE 1815-2010, Standard for Electric Power Communications—Distributed Network Protocol (DNP3) or IEC 61850.	Whether IEC60870-5-104 and Modbus serial or TCP/IP also acceptable as communication protocol for the BESS	Technical	Terms and condition of tender will prevail.
164	Section VII	401 of 539	5.7.1	The BESS shall include a (Data Acquisition System) DAS to provide continuous monitoring and display of key operational parameters, as well as permanent archival of all measured parameters.	DAS shall be part of BESS EMS system. Please accept.	Technical	Accepted.
165	Section VII	385 of 539	3.1.1	The BESS Supplier/sub-Contractor must have the experience of having successfully completed Design, Engineering, Procurement, Construction, Installation, Testing and Commissioning of Grid Connected Battery Energy Storage System (BESS) of cumulative capacity of 5 MWh or above in the last 5 (Five) years. Such cumulative capacity must include at least 02 (Two) Grid connected BESS Plants, having minimum capacity of 2 MWh (Four Mega Watt Hour) each.	1)Whether BESS can be from foreign vendors, meeting the Tender PQR requirement? Whether BESS OEMS from China acceptable?	Technical	BESS can be from any country of origin. Terms and Conditions of the tender prevail.
166					2)qualifying capacity may please be corrected: correction marked in Red *Such cumulative capacity must include at least 02 (Two) Grid connected BESS Plants, having minimum capacity of 2 MWh (Two Mega Watt Hour) each.*	Technical	Please refer S. No. 15 of Amendment No. 1.
167	Section II	39 of 539	32.4.2	2. After financial bid evaluation, the bidders shall be shortlisted in the ascending order of price bid quoted. Keeping minimum 03 Bids eligible for e-RA, Total no of bids will be reduced by a factor 1/2 and resultant as such, will be eligible for e-RA.	All the technically qualified bidders may please be allowed to participate in the e-RA.	Contractual	Terms & conditions of the tender document shall prevail
168	Section VI	66 of 182	16.14.1.2 (i)	Power Transformer- Short circuit withstand test as per IS 2026-5/IEC 60076-5	This being a low rating transformer, we request you to waive this test requirement.	Technical	Terms and condition of tender will prevail.
169	Section VI	101	5.3	It is envisaged that the MMS are installed on natural/ existing ground without any levelling or grading of the area. Contractor shall accordingly consider the effect of the existing ground slope on the design of MMS structure as specified elsewhere in the specifications. If any ground undulations at column locations are observed the same shall be filled up with PCC (1:3:6) up to surrounding ground level immediately after pile installation before start of erection of other MMS members. In case of pile, the PCC fill shall extend min. 500mm outside pile cap all around and remaining area may be filled up with local soil properly compacted.	In case the effect of ground slope is considered in the design of MMS , then filling up of ground undulations is not understood. In case the filling to be done then what should be the reference level upto which it has to be filled. It is requested to remove this clause as it will delay Site execution works tremendously.	Technical	Local depressions present at the column locations shall be provided with PCC filling matching the top finished surface with ground topography/ grade.

170	Section VI	111	10.10.2	For estimation of design wind loads on purlins (Table 8 of IS 875- Part 3), WL(downward) and WL (upward) on modules (laid in the profile of mono slope canopy) shall be applied such that the center of pressure should be at (0.3 × length of canopy) from windward end (for simplicity, the wind load distribution may be taken as triangular with max. value at windward end). Solidity ratio (σ) shall be taken as 0.5.	Interactions with prominent customers and technical forums have informed that the results of Wind tunnel testing on MMS structure are not in sync to the results obtained through MMS design done by Triangulation method and hence it is requested to review the same.	Technical	Please refer to Sl. 4 of Amendment 1.
171	Section VI	117	13.5	Minimum grade of steel for sections conforming to IS: 811 & IS: 4923 shall be E350 conforming to IS: 2062 and YSt 310 conforming to IS: 1608 respectively.	Please allow steel of IS 2062 E250 with Yst 250.	Technical	Terms and conditions of tender document shall prevail. Please also refer to Section VII-C, Special Technical Specifications.
172	Section VI	117	13.7	The minimum thickness excluding anti corrosive treatment (BMT) of various elements of MMS structure shall be as following: <input type="checkbox"/> Stub/ column – 3.15mm, <input type="checkbox"/> Rafter – 2.5mm & <input type="checkbox"/> Purlin & other members – 2.0mm	Clause 13.6 & 13.7 are contradictory.	Technical	Please refer to Sl. 5 of Amendment 1.
173	Section VI	118	13.12	The purlins shall be provided with min. following tie/sag rods or angles or channels: <input type="checkbox"/> 1 no., in the mid of each span and shall connect all the purlin members <input type="checkbox"/> 1 no., diagonal, at each corner in end spans	The introduction of so many sag angles increases the complexity of assembly at site.	Technical	Terms and conditions of tender document shall prevail.
174	Section VI	118	13.14	The vertical diagonal bracing shall be provided in end spans and every alternate span of each unit (table) of MMS.	Bracing requirement should be as per requirement in Staad design.	Technical	Terms and conditions of tender document shall prevail.
175	Section VI	119	13.23	Two numbers of anti-theft fasteners of stainless steel on two diagonally opposite corners for each module shall be provided. All fasteners both for MMS connections and fixing of PV Module shall be adequately protected from atmosphere and weather prevailing in the area.	Anti theft fasteners are not recommended as it limits the replacement of PV module during O & M period. Also it does not ensure non-pilferage as the Modules can be still be stolen along with the purlins by opening the fastener connection between rafter and purlin.(Purlin will also provide support in carrying PV Modules.)	Technical	Terms and conditions of tender document shall prevail.
176	Section VI	119	13.29	In case the contractor proposes to extend the column leg to embed it in the pile/pedestal as an alternate fixing arrangement, the column member shall be extended for full depth of the pile (100mm cover at tip of the pile) with an end plate of min. 4mm thickness to be welded at the bottom of column leg. (However, for plants in coastal area or in case of marshy soil the column post shall be supported only with base secured to foundation through base plate and anchor bolt assembly and no embedment of column leg in foundation is permitted)	Welding end plate to Column shall delay Manufacturing of MMS Columns , and MMS Columns are the first items required at site. Instead Bolting of Cleats to the MMS-Column to be permitted.	Technical	Terms and conditions of tender document shall prevail.
177	Section VI	120	13.32	The Bidder should design the structure height considering highest flood level at the site and the finished grade level. The minimum clearance between the lower edge of the module and the finished grade shall be the higher of (i) Highest flood level + 100mm and (ii) 1000 mm, as applicable	Please confirm the HFL as 1000 mm clearance will increase the MMS cost.	Technical	For MMS to be placed along N-S orientation, min. ground clearance to the lower edge of module shall be 1000 mm. For E-W orientation, min.ground clearance to the lower edge of module shall be 500 mm.
178	Section VI	120	13.33	The length of one unit (Table) of MMS shall not generally be more than 20m.	With 1500V System design we are providing 60 modules table in projects having length upto 30 M. Please permit.	Technical	Kindly refer to Sl. 34 of Amendment 1.
179	Section VI	120	13.39	The purlin splice shall comprise of flange and web splice plates and splice design shall conform to Annexure-F of BIS:800. For simplicity in fabrication, the splice member may be of CFS channel section without lips (CU). There shall be min. four number of bolts on either sides of joints in web zones and one number of bolt on either side of joint in flange zones.	As per experience though the fabrication of C-Channel splice may be faster , however with the allowed tolerance in MMS Manufacturing it never fits at all the three faces of the purlin(two flange + one web) . In case of non-mating of purlin with purlin splice at all faces the effort of providing C-Channel with so many bolts is defeated. Even if tolerances are controlled in fabrication stage(will delay fabrication) assembly at site will delay overall execution.	Technical	Terms & conditions of tender document shall prevail. Sufficient clearances shall be ensured at fabrication stage to ensure proper fitting.
180	STS	5	6.3.1	Structural steel of grade designation E350 quality 'C' conforming to IS 2062: 2011 shall be used as a material for MMS members.	Please allow steel of IS 2062 E250 with Yst 250. It is requested to give uniform specification for same item everywhere in tender document.	Technical	Terms and conditions of tender document shall prevail.
181	STS	5	6.3.3	The structural design of the MMS shall be done by Working Stress Method with no increase in permissible stresses. To avoid brittle failure of steel under low temperatures, a reserve strength of 15% shall be kept under the permissible strength by limiting the 'utilization ratio' as commonly termed by structural design software to 0.85.	As per standard practice of design. Please allow utilization ratio as 1.	Technical	Terms and conditions of tender document shall prevail.

182	Section VI	139	35.4	Water used for drinking & PV module cleaning purpose shall generally be of potable quality and fit for cleaning the modules with TDS generally not more than 75 PPM. In case of higher salt contents, the water shall be thoroughly squeezed off to prevent salt deposition over module surface. However, water with TDS more than 200 PPM shall not be used directly for module cleaning without suitable treatment to control the TDS within acceptable limits. The water must be free from any grit and any physical contaminants that could damage the panel surface.	The recommended range for PPM from PV Module manufacturer is 300 to 400 ppm. Further, the PPM of cleaning water shall be as per recommendation of PV module manufacturer.	Technical	Terms and conditions of tender document shall prevail.
183	STS	140	35.10	Module cleaning procedure and pressure requirement at discharge point shall be as per the recommendation of PV module manufacturer. However, discharge pressure at outlet shall not be less than 50kg/cm2 (5 MPa)	The pressure requirement at discharge point should be as per the recommendation of PV module manufacturer. 5 bar is unsafe and not recommended . It should be 2 bar as per PV Module manufacturer.	Technical	Please refer to Sl. 6 of Amendment 1. Also, refer to sl. 24 of Amendment 1.
184	Section VII	8 of 14	5.1.1	Conducting geotechnical investigation and topographical survey of the given area.	While the bidder will carry out Topographical Survey & Geotechnical Investigation at site before construction, it is requested to provide preliminary Topo Survey & Geotechnical Data during tender stage for estimation.	Technical	Information isn't available with the employer.
185	Section VII	8 of 14	5.1.11	Construction of Storm water drainage to its nearest outfall point & sewage network including rain water harvesting mechanism.	Nearest outfall point may please be shown in the layout drawing. Specifications for Rain water harvesting mechanism including the area/buildings to be considered for Rain water harvesting may be provided.	Technical	Rain Water Harvesting is not required. Please refer S.No. 8 and 28 of Amendment 1.
186	Section VII	8 of 14	5.1.14	Construction of transmission line including Design, route survey, foundation, erection stringing, commissioning as per PDD/PGCIL procedure from take-off point at plant end/ substation to the delivery point at the evacuation substation as per Project Particulars provided above.	The two clauses contradictory. Please check and clarify.	Technical	As per Clause no. 4.1.25 of SOW, Design & construction of LILO Transmission line is in scope of Bidder. Clause no. 1.2 and 37 of "C. Civil, Mechanical and Plumbing Works" under Section VII Technical specifications Further clarifies that the transmission poles, towers & accessories shall be designed following latest guidelines of PDD-Leh/PGCIL and approved by PDD-Leh/PGCIL before execution.
187	Section VII	94 of 182	1.2	This excludes design, supply and installation of Galvanized 220 kV and 132 kV Transmission Line towers, Tower extensions & accessories and 11 kV, 22 kV & 33 kV transmission poles & accessories which shall be designed following latest guidelines of respective SEB (State electricity board) and got approved from SEB/STU before execution.		Technical	
188	Section VII	95 of 182	1.3.5	As per project requirements, the Employer may ask for approval of all civil designs and drawings by a Chartered Civil/ Structural Engineer.	We underrated that in case of drawing approval required from chartered civil/structural engineer, expenses shall be reimbursed by SECI.	Technical	Any such expense shall be in the scope of the contractor.
189	Section VII	97 of 182	3.1	Geotechnical Investigation: The investigation work shall be carried out through any Govt. approved/ NABL accredited agency.	Geotechnical investigation agency with proven track record in BHEL/NTPC/Other PSU projects may also be allowed.	Technical	Agreed; However, lab testing shall be carried out at NABL accredited laboratory.
190	Section VII	101 of 182	5.1	The data regarding HFL at proposed site shall be obtained from the metrological department by the contractor. In case of absence of this data, the contractor shall assess the required information through local site reconnaissance.	It is requested to furnish the HFL data at tender stage itself for proper estimation of levelling/grading work.	Technical	Information isn't available with the employer.
191	Section VII	104 of 182	6.7	Drain, cable or any other crossing shall be provided with RCC box or precast concrete pipe culvert	Drain, cable crossing using suitable RCC Spun pipes may also be allowed.	Technical	RCC Hume pipes of min. class NP3 shall be permitted.
192	Section VII	116 of 182	13.2	In MMS analysis the column support shall be assumed at EGL/NGL.	The clause may be modified as, "In MMS analysis the column support shall be assumed at the top of concrete pile level."	Technical	Terms and Conditions of tender document shall prevail.
193	Section VII	119 of 182	13.29	In case the contractor proposes to extend the column leg to embed it in the pile/pedestal as an alternate fixing arrangement, the column member shall be extended for full depth of the pile (100mm cover at tip of the pile) with an end plate of min. 4mm thickness to be welded at the bottom of column leg.	Requirement of end plate may be put only when embedded length is not sufficient.	Technical	Terms and Conditions of tender document shall prevail.
194	Section VII	121 of 182	16.1.2	Unless otherwise specified elsewhere, all buildings and plinth for open installations except Security room/ cabin shall have RCC framed structure.	Option of Prefabricated steel buildings may also please be provided.	Technical	Terms and Conditions of tender document shall prevail.
195	Section-VII	269	7.8.2	Cables shall laid through RCC cable trench with supports.	We kindly request you to accept PCC trench instead of RCC as this will consume a lot of time. it is feasible to allow PCC trench as same is allowed in other tenders.	Technical	Terms and Conditions of tender document shall prevail.
196	Section-VII	General		Sub-Vendor List	No specific vendor list is being provided in the tender. Kindly inform whether bidder can proceed with their PMD vendors for raw material and bought out items.	Technical	SECI does not have any approved vendor list. Bidder may proceed with any vendor meeting the tender requirements. Terms and Conditions of tender document shall prevail.

197	Section-IV	229	6.1.1.	All statutory approvals/permissions and/or No Objection Certificates (NoC) etc. from the DISCOM for obtaining connectivity at the substation as per Project Particulars provided above.	The is contradiction in two clauses, we infer that SCCL will take grid connectivity permission.pls confirm.	Technical	Grid Connectivity Approvals shall be the responsibility of the Employer.
198	Section-IV	100	32.1.3	In the matter of connectivity of Plant to DISCOM's substation, the Owner will take the necessary connectivity permission		Technical	
199	General			Substation	Kindly confirm the Substation details (bay availability, available feeders) in the substation. Also if during the execution of the contract, if SECI or SCCL propose new sub-station for evacuation then this calls for Price & Time implication under unforeseen circumstances/Additional Work and SECI-SCCL will bear the cost implication.	Technical	Power is to be evacuated through LILO substation at the Plant End (Please refer SLD provided as Annexure a to Amendment 1.)
200	Section-V	466	2.4	LD for PR Test For every 0.01 shortfall in PR below the committed PR value, a penalty of 1% of the total Contract Value (i.e., total sum of all the Supply, Service and absolute value of O & M Contract) shall be levied. In case the Contract Performance Security has already been encashed on account of any default/delays, the penalty amount will be recovered from any due payments to the contractor. In case the Plant PR Shortfall is more than 0.05 than the specified PR value, then the total plant will be accepted on as-is basis & the total Contract Performance Security submitted by the contractor will be forfeited & payments linked to operational acceptance will not be made.	We kindly request to review the penalty clause and reduce the penalty to 0.5% of Contract price excluding O&M without encashment of CPBG	Contractual	Terms & conditions of the tender document shall prevail
201	Section-VII	369	32.1	The Contractor shall design & provide soak pit and RCC Septic tank for treatment of sewage and waste water from MCR/LCR building and Security room. The septic shall be designed as liquid retaining structure conforming to IS:3370 for design loads as specified under Clause No.35	Septic tank will be constructed with brick work as per IS 2470. Pl. review.	Technical	Terms and conditions of tender document shall prevail.
202	Section-VII	335	5.4	The contractor is responsible for making the site ready and easily approachable by clearing bushes, felling of trees (mandatory permissions/licenses/ statutory clearances from competent authorities if required for cutting of trees, blasting or mining operations, disposal of waste material etc. shall be obtained by the contractor), cutting, filling with selected excavated earth or borrowed earth including identifying borrow areas	We kindly request you to consider the tree cutting in SECI or SCCL scope. However if the bidder is responsible for it then we request SECI-SCCL to obtain the permission from Forest dept. Please confirm	Technical	The Project site is free from vegetation. Terms and Conditions of the tender prevail.
203	Section-VII	243	1.5	Warranty: The above warranties shall be backed by third party insurance.	We kindly request you to also accept the provision of providing Bank Guarantee also for the solar PV modules warranty as accepted in all other tenders.	Technical	Terms and condition of tender will prevail.
204	Section-VII	326	25.3	The ROW for the TL/UG cable shall be obtained prior to the construction of the line from the concerned authorities	Please clarify scope. Is there any private land through which the evacuation line has to be constructed?	Technical	There is no private land.
205	Section-VII	283	15.2.1	The SCADA System shall be built over Industrial IoT architecture with integrated Analytics, secure web access, enterprise software and Database.	SECI may pl provide list of IOT based SCADA software vendors for our reference who will meet requirements as specified in the tender document.	Technical	SECI does not have any approved vendor list. Bidder may proceed with any vendor meeting the tender requirements. Terms and Conditions of tender document shall prevail.
206	Section-VII	284	15.2.7	A server running SCADA & Monitoring Software shall be configured in parallel with Plant Server to enable easy access to plant data from outside the plant without having to login to plant server. Effectively, the plant data shall be replicated in both places i.e. between systems at the Plant Server and Remote Server to provide data redundancy for critical plant data.	The remote server here is same as Owner designated server in various clauses. Plant data is getting replicated in the Owner designated server also to provide data redundancy for critical plant data. In order to have clarity on requirements, block architecture diagram to be provided.	Technical	Bidder shall provide virtual/cloud server running SCADA & monitoring software configured in parallel with Plant Server in line with TS clause 15.2.7. In addition to above Data collected by plant SCADA shall be replicated in real-time with Owner's Central Monitoring System in line with TS clause 15.4.10.
207	Section-VII	283	15.2.2	Data acquisition shall be distributed across MCR and LCRs while plant level data aggregation shall be done in both local and remote server (as specified by Owner).	This Owner specified server is same as Owner designated server in various clauses	Technical	The Owner Designated Server for the purpose of Clause 15.1.3 (viii) and the the Owner's Data Monitoring Center mentioned in Clause 15.4.10 shall be the virtual/Cloud server configuration required to be set up under Clause 15.2.7.
208	Section-VII	283	15.1.3 (viii)	Transfer of plant data reliably, to an Owner designated server	This Owner specified server is same as Owner designated server in various clauses	Technical	
209	Section-VII	286	15.4.10	Connectivity shall be provided to Owner's Data Monitoring Centre..	Where is this Owner's Data Monitoring Center located??	Technical	
210	Section-VII	288	15.9.2	Accessories :Intelligent UPS (on line): Minimum 2 hour battery backup.	Plant server and OWS will be fed from Main Control Room UPS. Separate UPS is not recommended.	Technical	Auxiliary supply to SCADA system shall be through dedicated UPS. Terms and conditions of tender document shall prevail.

211	Section-VII	288	15.9.2	Operating System	Plant server will have operating system and database compatible to the SCADA software being proposed for plant, because software's performances are linked with specific Server PC models, operating system and databases.	Technical	Terms and Conditions of the tender prevail.
212	Section-VII	285	15.3.9	Shall not require a static public IP address, at the plant for the purpose of remote access.	With dynamic IP, how remote access will be possible?	Technical	Contractor may use DNS updater services. Terms and Conditions of the tender document will prevail.
213	Section-VII	464	2.4	Grid outage hours shall be subtracted from total number of hours in a year. The Contractor shall submit grid outage certification from competent authority of STU/DISCOM.	STU/DISCOM certification for grid loss hours may be practically difficult. Please amend the clause to competent authority of STU/DISCOM/SCCL/SECI.	Technical	Terms and condition of tender will prevail.
214	Section-VII	General		Soil resistivity	Please provide the soil resistivity to be considered by bidder for tender estimate purpose.	Technical	Conducting the geotech investigation including soil resistivity test is in the scope of bidder.
215	Section-VII	General		Bore well with pump	Please furnish the level of underground ground water from NGL for installation of Bore Well. Please furnish scheme or P&IDs. Further, taking permission of digging borewell in the SPV area shall lies with owner. Kindly confirm.	Technical	The requisite data is not available with Employer. Permission for Borewells shall be the responsibility of the Contractor, However, the Employer shall facilitate.
216	Section-VII	321	22	No. of Cameras	As per the referred clause, Number of cameras will be finalized by customer during execution of the project. However, Bidders proposal is that , in case during execution, customer requirement exceeds the bidders estimated BOQ then in such case unit rate shall be applicable. kindly confirm.	Technical	It is bidder's responsibility to design the CCTV surveillance network to cover areas specified in TS clause no. 22.1.
217	Section-VII	General		Type test charges	Valid type test certificates (less than 10 years old) shall be submitted during detailed engineering stage. Type test shall be conducted only if valid type test certificates are not available. Type test charges are not accounted at this stage, same shall be charged to customer during execution time if type test shall be required for any supplied equipment. This is inline with the type test requirements of Equipments indicated in bid specification. Customer may please confirm.	Contractual	Terms & conditions of the tender document shall prevail
218	Section-IV	83	2.3	Construction Water Supply	We request you to provide water free supply during execution and O&M Period	Technical	Terms and condition of tender will prevail.
219	Section-IV	83	2.4	Construction Power Supply	We request you to provide power free supply during execution and O&M Period	Technical	Terms and condition of tender will prevail.
220	GCC	9/74	Clause No- 1.1.32	Effective Date	It would have been better if, the Effective Date of the Contract starts when the Site is available and handed over to start the work.	Contractual	Effective Date: "Effective Date" of the Contract will be starting from the date as mentioned in the NOA or Notice to Proceed (NTP) provided by the Employer, whichever is later. NTP will be provided by the employer in the shortest possible time and all contractual obligations will be started from the date of Notification of Award (NOA) or Notice to Proceed, whichever is later.
221	GCC	12/74	Clause No.- 2.1.b	Access by Road	The employer should be liable for the right of way and its related costs. Liability of access road should be totally on the Employer. Furthermore, any delay by the Employer in granting access shall result in extension of time and additional costs if any to the Contractor. Please confirm.	Contractual	The EPC Developer will be liable for the right of way and its related costs, however the Employer will facilitate all possible support in case of any emergence of unforeseen ROW issues, if any during the project execution
222	GCC	13/74	Clause No.-2.4.4	Construction Power Supply	The Contractor shall be liable for reasonable cost at mutually decided rates, for no default of Contractor's part.	Technical	Terms and condition of tender will prevail.
223	GCC	14/74	Clause No.- 6.3	Time Schedule & Progress Reporting	The Contractor should not be responsible once program is approved by the Employer. Furthermore, Contractor should be given additional cost incurred for any modifications.	Contractual	Terms & conditions of the tender document shall prevail
224	GCC	15/74	Clause No.- 7.2	Conflict of Interest and Bidder's Responsibility	Even after inspection, there could be obstacles, hardships which could not be foreseen even after reasonable diligence. Hence, the Contractor should be compensated for such shortfall with cost and time. Thus this clause can be added- However, in case of any data or information which could not have been reasonably known to the Contractor by such inspection, then the Contractor shall be entitled to additional costs or time due to such hurdles/hardships in completion of the Contract.	Contractual	Terms & conditions of the tender document shall prevail

225	GCC	18/74	Clause No.- 13.1	Local Conditions	Even after inspection, there could be obstacles, hardships which could not be foreseen even after reasonable diligence. Hence, the Contractor should be compensated for such shortfall with cost and time. Thus, this clause can be added- However, in case of any data or information which could not have been reasonably known to the Contractor by such inspection, then the Contractor shall be entitled to additional costs or time due to such hurdles/hardships in completion of the Contract.	Contractual	Terms & conditions of the tender document shall prevail
226	GCC	20/74	Clause No.- 18.1	Time for Mobilization	Addition: If a change in legislation leads to extra costs for the Contractor, the Employer shall reimburse such costs. The amount of costs should be mutually decided.	Contractual	Terms & conditions of the tender document shall prevail
227	GCC	21/74	Clause No.- 19.1	Force Majeure	This clause should include the category of "Epidemic"	Contractual	Terms & conditions of the tender document shall prevail. However, all such cases related to specific "Epidemic" will be dealt on case to case basis.
228	GCC	21/74	Clause No.- 19.4	Force Majeure Upon occurrence of such causes, the party alleging that it has been rendered unable as aforesaid, thereby, shall notify the other party in writing by registered notice within 48 (forty eight) hours of the alleged beginning thereof giving full particulars and satisfactory evidence in support of its claim. Further, within 7 (seven) days, the Contractor will furnish a detailed Contingency Plan to overcome the effects of the incident and bring the project on its schedule after cessation of the effect of Force Majeure.	The time period shall be extended to 15-day & 30-days subsequently.	Contractual	Terms & conditions of the tender document shall prevail
229	GCC	22/74	Clause No.- 19.8	The Contractor will not be entitled to claim any compensation for Force Majeure conditions and shall take appropriate steps to ensure its men and materials utilized by it under the Contract.	Renegotiation of price should be allowed if the Force Majeure event continues for a prolonged term.	Contractual	Terms & conditions of the tender document shall prevail
230	GCC	22/74	Clause No.- 20	Liquidated Damages (LD)	•Clause to be added: The LD should be levied at 0.5% of Contract Price per week of delay subject to a maximum of 10% of the Contract Price. LD is the sole and exclusive remedy that the Employer shall have in case of delay. Such delay should be directly attributable to the Contractor. •Clause to be added: Notwithstanding anything contrary contained herein, if the Contractor is delayed in achieving any particular milestone as per the terms of the Contract, however, able to achieve the cumulative timeline in accordance with the final contract completion date, then the Contractor shall not be liable for any liquidated damages. It is clarified that sole and exclusive remedy of the Employer against the Contractor, due to delay in achieving the agreed timeline under the contract is imposition of liquidated damages only.	Contractual	Terms & conditions of the tender document shall prevail
231	GCC	22/74	Clause No.- 21.1	Rights of the Owner to forfeit Contract Performance Security	The contractor shall not be held liable for default of others. No deductions shall be made without giving prior intimation to the contractor. The liability of the Contractor throughout the Contract should only accrue if the contravention, wrongful act, breach, infringement, etc. is directly attributable to Contractor.	Contractual	Terms & conditions of the tender document shall prevail
232	GCC	23/74	Clause No.- 22.1(b)	Failure by the Contractor to comply with the provisions of the Contract The Contractor and any of his sureties are liable to the Owner for any excess cost over and above the cost at the rates specified in the Schedule of Rates, occasioned by such works having been taken over and completed by the Owner.	The liability of the Contractor throughout the Contract should be capped at 10% of the Contract Price or actuals, whichever is lower. The liability of the Contractor throughout the Contract should only accrue if the contravention, wrongful act, breach, infringement, etc. is directly attributable to Contractor.	Contractual	Terms & conditions of the tender document shall prevail

233	GCC	23/74	Clause No.- 22.4	The Owner shall also have the right to proceed.....	Termination clause has to be mutual. The Contractor should have the rights for termination too for the same reasons as mentioned in clause 22.4 along with the following additional reasons: 1.Force majeure 2.Prolonged suspension beyond 30 days. 3.Failure to comply with the conditions of the contract of their scope of work. 4.Failure to comply with the conditions of the contract of their scope of work. Before terminating the contract under GCC sub clause 22.4, both employer and KEC should try to find an amicable solution to mitigate the problem.	Contractual	Terms & conditions of the tender document shall prevail
234	GCC	23/74	Clause No.- 23	Contractor remains liable to pay compensation if	LD is the sole and exclusive remedy that the Employer shall have in case of delay. Such delay should be directly attributable to the Contractor. *Clause to be added: Notwithstanding anything contrary contained herein, if the Contractor is delayed in achieving any particular milestone as per the terms of the Contract, however, able to achieve the cumulative timeline in accordance with the final contract completion date, then the Contractor shall not be liable for any liquidated damages. It is clarified that sole and exclusive remedy of the Employer against the Contractor, due to delay in achieving the agreed timeline under the contract is imposition of liquidated damages only.	Contractual	Terms & conditions of the tender document shall prevail
235	GCC	24/74	Clause No.- 24	Contract Performance Security	It must be inserted that the first notice to be provided to the Contractor to remedy the breach and if Contractor fails to remedy the breach then after stating the reason and notifying the Contractor the Security can be invoked. <input type="checkbox"/> The validity of BG should not be till the DLP. The Clause should be examined carefully.	Contractual	Terms & conditions of the tender document shall prevail
236	GCC	25/74	Clause No.- 25.1	Termination of Contract in Case of Liquidation/ Bankruptcy etc.	Termination clause has to be mutual.	Contractual	Terms & conditions of the tender document shall prevail
237	GCC	25/74	Clause No.- 25.3	Termination for Convenience	Other than the amounts mentioned in 25.3.2 , the Contractor shall also be eligible for other attributable costs that the Contractor must have incurred on carrying out the works.	Contractual	Terms & conditions of the tender document shall prevail
238	GCC	27/74	Clause No.- 29.3	Contractor's Subordinate Staff and their Conduct	The Contractor shall not be held liable for their sub-contractors and its personnel as our contract with the sub-contractors is on principal to principal basis. Furthermore, the indemnity liability of the Contractor throughout the Contract should be capped at 10% of the Contract Price or actuals, whichever is lower. The indemnity liability of the Contractor throughout the Contract should only accrue if the contravention, wrongful act, breach, infringement, etc. is directly attributable to Contractor.	Contractual	Terms & conditions of the tender document shall prevail
239	GCC	28/74	Clause No.- 30.(vii)	Sub-letting of Works	The Contractor shall not be held liable for their sub-contractors and its personnel as our contract with the sub-contractors is on principal to principal basis. Furthermore, the indemnity liability of the Contractor throughout the Contract should be capped at 10% of the Contract Price or actuals, whichever is lower. The indemnity liability of the Contractor throughout the Contract should only accrue if the contravention, wrongful act, breach, infringement, etc. is directly attributable to Contractor.	Contractual	Terms & conditions of the tender document shall prevail
240	GCC	29/74	Clause No.- 32.1.2 & 32.1.3	Contractor's responsibility	In the event of delay from the government authorities or any unforeseeable circumstances, the Contractor should be given EOT plus costs.	Contractual	Terms & conditions of the tender document shall prevail
241	GCC	33/74	Clause No.- 38.2	Delays by Employer/ Owner or his Authorized representatives	Addition: - In case if extension of time is given, the Contractor will be equally compensated in terms of costs and expenses incurred due to such delays on account of reasons not attributable to the Contractor.	Contractual	Terms & conditions of the tender document shall prevail

242	GCC	37/74	Clause No.- 44.6	Release of Confidential Information	The medium for Confidential information shall be in tangible form. Insert the following clause: This clause shall survive for a period of two (2) years from the termination or the expiry of the Agreement whichever is earlier.	Contractual	Terms & conditions of the tender document shall prevail
243	GCC	41/74	Clause No.- 53.2.1	Specifications and Drawings	The Contractor should not be responsible once drawings/design is approved by the Employer. Furthermore, Contractor should be given additional cost incurred for any modifications.	Contractual	Terms & conditions of the tender document shall prevail
244	GCC	45/74	Clause No.- 60	Conditions for Issue of Materials	Any delay by the Employer in granting materials shall result in extension of time and additional costs if any to the Contractor.	Contractual	Terms & conditions of the tender document shall prevail
245	GCC	45/74	Clause No.- 60.1(v)	Conditions for Issue of Materials	Even after inspection, there could be obstacles, hardships which could not be foreseen even after reasonable diligence. Hence, the Contractor should be compensated for such shortfall. Thus, the following can be added- However, in case of any data or information which could not have been reasonably known to the Contractor by such inspection, then the Contractor shall be entitled to additional costs or time due to such hurdles/hardships in completion of the Contract.	Contractual	Terms & conditions of the tender document shall prevail
246	GCC	46/74	Clause No.- 64.1	Discrepancies between Instructions	The final decision by Engineer in charge should not be accepted rather provision of mutually solving the matter should be added. Wherein, if the dispute does not solve in 15-days after mutual discussion it shall be referred to Arbitration.	Contractual	Terms & conditions of the tender document shall prevail
247	GCC	47/74	Clause No.- 66.1	Inspection of Works	Prior notice of 24-hours shall be required before such inspection by the Employer. If the authorized representative of the Employer fails to attend the test and/or inspection on the designated date, OR if it is agreed between the Parties that such persons shall not attend the test, then the Contractor may proceed with the test and/or inspection in the absence of such persons, and may provide the Employer with a certified report of the results thereof.	Contractual	Terms & conditions of the tender document shall prevail
248	GCC	48/74	Clause No.- 70.1(i)	Suspension of Works	In case of suspension ordered by the Employer, the Contractor shall be entitled to all the additional attributable costs. Addition: - The Contractor shall, in addition to any other rights of the Contractor shall have a right to suspend the Works under the Contract in case of failure/delay to pay the Contractor within the prescribed time-limit or any delays attributable to the Employer.	Contractual	Terms & conditions of the tender document shall prevail
249	GCC	49/74	Clause No.- 71.1	Owner may do Part of Work	The contractor shall not be held liable for default of others. No deductions shall be made without giving prior intimation to the contractor. The liability of the Contractor throughout the Contract should only accrue if the contravention, wrongful act, breach, infringement, etc. is directly attributable to Contractor.	Contractual	Terms & conditions of the tender document shall prevail
250	GCC	56/74	Clause No.- 78	Indemnity	The indemnity liability of the Contractor throughout the Contract should be capped at 10% of the Contract Price or actuals, whichever is lower. Any claim under indemnity can be made only within one year of the expiry/termination of the Contract, as the case maybe. The indemnity liability of the Contractor throughout the Contract should only accrue if the contravention, wrongful act, breach, infringement, etc. is directly attributable to Contractor.	Contractual	Terms & conditions of the tender document shall prevail
251	GCC	56/74	Clause No.- 80.1	Contractor's Remuneration	In case of delay in payment by the Employer, the Employer shall be liable to an interest @18% per annum till actual realization of the amount. If a change in legislation leads to extra costs for the Contractor, the Employer shall reimburse such costs. The amount of costs should be mutually decided	Contractual	Terms & conditions of the tender document shall prevail

252	GCC	60/74	Clause No.- 87.1	Contractor's Remuneration Handing Over – Taking Over	Under this clause, the loss and damage caused pursuant to the transfer that is not caused or attributed to the Contractor shall not be the Contractor's responsibility. It should be subjected to any unforeseen event like theft, sabotage etc. The ownership or risk should be transferred in accordance with the agreed incoterms or delivery terms between the parties	Contractual	Terms & conditions of the tender document shall prevail
253	GCC	60/74	Clause No.-90	Deductions from the Contract Price	Notice shall be provided before any such deduction and only deducted if it is not disputed by the Contractor.	Contractual	Terms & conditions of the tender document shall prevail
254	GCC	62/74	Clause No.- 92	Statutory Variations	The variations should be capped at plus/minus 15% of the Contract Price. If the variation is beyond this, the Contractor should be entitled to re-negotiate the Contract Price.	Contractual	Terms & conditions of the tender document shall prevail
255	GCC	68/74	Clause No.- 100	Arbitration	Place of arbitration not added. We would suggest Mumbai The Parties hereby undertake to implement the award without delay. All cost incurred during the arbitration shall be paid by the losing Party unless otherwise ordered by the arbitrator. The tribunal may pass interim orders, if sought by either Party.	Contractual	Terms & conditions of the tender document shall prevail
256	SCC	3/10	Clause No.- 4.(g)	Location of Site	Even after inspection, there could be obstacles, hardships which could not be foreseen even after reasonable diligence. Hence, the Contractor should be compensated for such shortfall. Thus, the following can be added if possible- However, in case of any data or information which could not have been reasonably known to the Contractor by such inspection, then the Contractor shall be entitled to additional costs or time due to such hurdles/hardships in completion of the Contract.	Contractual	Terms & conditions of the tender document shall prevail
257	SCC	3/10	Clause No.-5	Location of Site	Any delay by the Employer in granting access shall result in extension of time and additional costs if any to the Contractor	Contractual	Terms & conditions of the tender document shall prevail
258	SCC	5/10	Clause No.- 8.4	Functional Guarantees	The LD should be levied at 0.5% of Contract Price per week subject to a maximum of 10% of the Contract Price	Contractual	Terms & conditions of the tender document shall prevail
259	SCC	6/10	Clause No.- 11	Schedule of Rates & Payments	Contractor should be entitled to interest @ 18% p.a. if the payments are not made within stipulated time till the actual realization of the amount. Timelines of payment to be clearly specified.	Contractual	Terms & conditions of the tender document shall prevail
260	SCC	2/10 & 4/10	Clause N. and Page- (SCC-3, Pg. 147/539) and(SCC 7, P. 149/539	Completion Period	Please clarify whether completion period is 18 months or 24 months	Contractual	The Time for Commissioning for the 20 MW (AC) Solar PV Power Plant (50 MWp DC) with 20 MW / 50 MWh Battery Energy Storage System & with all other associated equipment as per this tender document in total shall be 18 (Eighteen) Months from the Date of the Notification of Award NOA/LOA/LOI or Notice to Proceed (NTP) provided by the Employer, whichever is later. NTP will be provided by the employer in the shortest possible time and all contractual obligations will be started from the date of Notification of Award (NOA) or Notice to Proceed, whichever is later. Further Contractor is also to provide Operation & Maintenance Contract of Solar Photo Voltaic Plant for a period of 10 (Ten) years from the date of Operational Acceptance of the Plant. The Zero date accordingly clause 3.1 of the SCC will be counted from the date of NOA/LOA/LOI or Notice to Proceed (NTP) provided by the Employer, whichever is later

261	GCC	22/74	Clause No. - 20.1	Subject to Force Majeure Clause, if the Contractor fails to comply with the Time for Completion /successful commissioning or any extension thereof of Plant facilities in accordance with timelines as mentioned under the SCC, then the Contractor shall pay to the Owner a sum equivalent to half percent (0.5%) per week of the Contract Price for the whole of the facilities as liquidated damages for such default and not as a penalty, without prejudice to the Owner's other remedies under the Contract subject to the maximum limit of five percent (05%) of Contract Price for the whole of the facilities. The Owner may, without prejudice to any other method of recovery, deduct the amount of such damages from any amount due or to become due to the Contractor. The payment or deduction of such damages shall not relieve the Contractor from his obligation to complete the Works, or from any other of his obligations and liabilities under the Contract. Once the maximum limit is reached, Owner may consider the termination of contract and/or shall have the discretion of getting executed the work from the Contractor with the maximum limit of Liquidated damages. Any such recovery on account of the Liquidated damages can be done from the running bills of the Contractor by Owner.	LD a sum equivalent to half percent (0.5%) per week of the Contract Price for the whole of the facilities. Maximum limit of five percent (05%) of Contract Price for the whole of the facilities.	Contractual	Terms & conditions of the tender document shall prevail
262	SOW	3/14	Project particulars page no. SOW Page 3 of 14	--	where Reference Irradiation = 1828 kWh/m2 Please provide Monthly GHI so that bidder can estimate Performance ratio and CUF	Technical	Annual CUF guarantee is based on annual radiation data only. Please refer the CUF calculation formula provided in tender.
263	SOW	3/14	Project particulars page no. SOW Page 3 of 14	--	Metering point Please confirm where performance ratio and CUF will be measured.	Technical	PR will be calculated at MV level feeders (before tapping power for BESS) and CUF will be calculated at plant end. Kindly refer the annexure 2 to amendment 1.
264	SOW	--	Layout/Contour drawing	General layout plan (draft for information)	Pl. share the AUTOCAD layout drawing .	Technical	It is contractors responsibility to develop the design philosophy so as to meet the tender requirement and accordingly prepare the plant layout during detailed engineering.
265	SOW	4/16	Function guarantee test for solar PV plant Scope of work page no: SOW Page 4 of 16	Minimum required PR: 82%	The required Performance ration 82% is seems higher side, Bidder requests for 78% to be guaranteed.	Technical	Please Refer Annexure 1 to Amendment 1.
266	SOW	4/16	2.4 CAPACITY UTILIZATION FACTOR (CUF)Page no. ANNEXURE-C Page 4 of 6	CUF 42.5%	The CUF requirement is seems high, Kindly clarify	Technical	CUF is calculated with Plant Capacity of 20 MW against installed DC Capacity of 50 MWp (min). Terms and Conditions of the tender prevail.
267	Annexure-C	8/11	2.4 CAPACITY UTILIZATION FACTOR (CUF)Page no. ANNEXURE-C Page 8 of 11	DF is module degradation factor, 0.55% per year	Bidder requests for degradation to be 0.7% as most of manufacturers are offering.	Technical	Terms and condition of tender will prevail.
268	SOW	3/14	solar PV plant Scope of work page no: Design and Engineering Page 3 of 14	Proposed AC capacity (MW)-20 MW	Please confirm Plant Capacity 20 MW or 60 MW AC	Technical	Plant AC capacity shall be 20 MW.
269	SOW	3/14	solar PV plant Scope of work page no: Design and Engineering Page 3 of 14	Power Transformer Capacity (MVA) 3x 20	Please confirm Power transformer rating	Technical	Number of power transformer shall be 2 (two) each having 20MVA rated capacity. The indicative SLD is provided in Annexure 1 to Amendment 1. Please refer S. No. 16 of Amendment-1.
270	SOW	3/14	solar PV plant Scope of work page no: Design and Engineering Page 3 of 14	Minimum Cumulative Inverter Capacity (MW) N – S Orientation 20 E – W Orientation 20	Bidder understand plant AC capacity 20 MW and Inverter rating also 20 MW is reared	Technical	Plant AC capacity is 20 MW and cumulative Inverter capacity in each configuration is 20MW i.e. 20MW for N-S orientation and 20MW for E-W vertical orientation. Terms and Conditions of the tender prevail.
271	SOW	3/14	solar PV plant Scope of work page no: Design and Engineering Page 3 of 14	66 kV LILO substation tapping 66 kV line interconnecting with the 220 kV Phyang Substation, Leh	Kec Request you please confirm step-up voltage and evacuation voltage Metering Voltage level also	Technical	Power evacuation shall be done at 66kV voltage level. ABT Meters shall be installed at final outgoing feeder. Kindly refer the indicative SLD provided in annexure-2 to amendment 1.

272	VII-TS	13/182	solar PV plant Scope of work page no Page Page 13 of 182 String Monitoring Unit	Suitable communication interface shall be provided to communicate the data to SCADA. The following parameters shall be measured/ monitored and made available at SCADA. (i) String current (ii) Bus voltage (iii) Output current (iv) Cabinet temperature (v) DC disconnecter switch ON/OFF	KEC Propose : monitoring at Inverter Level Please Confirm	Technical	Kindly refer S.no. 17 of amendment 1.
273	VII-TS	123/182	solar PV plant Scope of work Page no 123 of 182 Security Room/ Cabin	Security Room/ Cabin	Kec Request you Please confirm quantity of Security Room/ Cabin	Technical	One security room shall be provided near main gate. Please refer to Sl. 13 of Amendment 1.
274	VII-TS	140/182	solar PV plant Scope of work page no Page 140 of 182: Potable Water Supply & PV Module Cleaning System	Module cleaning procedure and pressure requirement at discharge point shall be as per the recommendation of PV module manufacturer. However, discharge pressure at outlet shall not be less than 50kg/cm2 (5 MPa)	KEC Proposes: Module cleaning procedure and pressure requirement at discharge point It should be 2 bar Please confirm	Technical	Please refer to Sl. 6 of Amendment 1. Also, refer to sl. 24 of Amendment 1.
275	VII-TS	140/182	solar PV plant Scope of work page no Page 140 of 182: Potable Water Supply & PV Module Cleaning System	min. consumption of 2 Ltr / Sqm of surface area of SPV module shall be considered in estimation of required quantity of water storage	As per PV module manufacturer's recommendations 1 Ltr/SQM is sufficient.	Technical	Please refer to Sl. 24 of Amendment 1.
276	VII-TS	94/182	Underground cable	In case the power evacuation is planned with underground cable for plant internal evacuation, the cable shall be approved by the Employer. However, in case of external power evacuation, the evacuation plan shall be as per PDD/CTU's requirement and the same shall be submitted to Employer for approval/ accord	KEC Request you please Confirm Scope of work and, please mention external Cable Length	Technical	SoW includes construction of TL till LILO S/s and onward connectivity.
277	VII-TS	116/182	solar PV plant Scope of work page no Module Mounting Structure (MMS) Page 116 of 182	In case of topographical variations more than 30, the contractor shall carry out detailed study of its effect on array layout, shadow analysis and structural stability of MMS.	Leh, & Ladakh, hili train area it can not possible to maintain 3 deg slope So we are follow Natural contour without cutting Grading Please Confirm	Technical	Terms and condition of tender will prevail.
278	VII-TS	108/182	solar PV plant Scope of work Page 108 of 182 Plant Layout	Plant layout	Bidder request employer to provide the CAD file and TOPO file which clearly indicating the available land for Solar field and BESS. Please Mention Available land area	Technical	It is the contractor's responsibility to carry out detailed Topography survey. Revised site boundary is hereby attached along with these clarifications & Amendment 1.
279	VII-TS	108/182	solar PV plant Scope of work Page 108 of 182 Plant Layout	Plant layout	Bidder request employer to provide the KMZ File With Mark Transmission Line Distance also.	Technical	Ref. Annexure-E already uploaded with RfS doc.
280	VII-TS	147/182	solar PV plant Scope of work page no Battery Energy Storage System	Battery Energy Storage System	KEC Request Please Confirm Battery Energy Storage System Rating	Technical	The minimum dispatchable capacities year-wise specified in the table 2 (on page 151 of 182 of TS) are the expected minimum throughput from battery every day during the year. The contractor shall size the battery so as to ensure minimum daily throughput from the battery as provided in the table against the given year.
281	VII-TS	97/182	3.3	There shall be minimum 1 nos. of BH per 5 acres of the area (However, total number of boreholes shall not be less than 5), 3 nos. of Trial pits, 5 nos. of CBR test & ERT, 5 nos. of Ground water samples for laboratory investigations.	KEC suggests that, for a site of 50MW, 10nos. of Pull-out and 5 nos. of Lateral Tests to be conducted as per general industry practices. Kindly confirm.	Technical	Please refer Cl. 3.9.3 of Section VII-B for details on no. of pile test which addresses the concerns adequately.

282	VII-TS	102/182	5.4	The filling for levelling/ reclaiming the ground/ area shall be done in layers not more than 150mm of compacted thickness in case of cohesive (clayey) soils and 250mm compacted thickness in case of granular (sandy) soils with compaction up to 95% (of modified proctor density) and 80% (of relative density) respectively. The slope at edge of graded areas shall not be steeper than 1:1.5 (1 Vertical: 1.5 Horizontal) in cutting and 1:2 (1 Vertical: 2 Horizontal) in filling. In case of filling with rock material, the edges shall be provided in line with provisions of relevant BIS standard	KEC proposes that Fill shall normally be made up of Cohesive Non swelling material capable of being compacted upto 95% Standard Proctor density instead of Modified Proctor density. Kindly confirm.	Technical	Terms & conditions of tender document shall prevail.
283	VII-TS	103/182	6.2	The Approach road connecting nearest public road and the Main gate shall be of 4.0m wide carriage way with 0.5m wide shoulders on either side. The access road connecting Main gate and MCR and internal access road(s) connecting MCR to various facilities/ buildings/ open Installations shall be of 3.0m wide carriage way with 0.5m wide shoulders on either side while the peripheral road shall be of 2.5m wide carriage way with 0.5m shoulders on either side.	KEC proposes 1. Approach road(Public road to Main gate) to be WBM type with a road width of 3m and 0.5m shoulders on both sides. 2. Internal road (MCR to all inverter stations) to be WBM 3m wide and 0.5m shoulders on both the sides. 3. Peripheral road to be simple compacted 2.5m wide. Kindly confirm.	Technical	1. Terms & conditions of tender document shall prevail. 2. Terms & conditions of tender document shall prevail. 3. Agreed; Refer Cl 6.10 (Section VII-B; Civil, Mechanical and Plumbing Works) of tender.
284	VII-TS	105/182	7.5	The coefficient of run-off for estimation of design discharge shall be considered as per catchment characteristics, however it shall not be less than 0.6	KEC suggests that surface run-off coefficient to be 0.3 instead of 0.6.	Technical	Terms and conditions of tender document shall prevail.
285	VII-TS	105/182	7.8	Suitable size plant peripheral drain as per design (min. 500mm wide x 500mm deep) along inside of plant boundary wall/ fence shall be provided for smooth channelization of outside storm water and to avoid flooding in the plant. The size of all internal and road side drains shall not be less than 450mm (bottom width) x 500mm (depth).	Drain(Trapezoidal) to be provided at locations where required as per the contour study and shall not be required everywhere along side of the road & plant boundary wall. The internal drain shall be min 300mmX300mm. Kindly confirm.	Technical	Please refer to Sl. 8 of Amendment 1.
286	VII-TS	105/182	7.9	All trapezoidal drains shall have side slopes not steeper than 1:1 and shall be lined with either brick or RR masonry/ concrete or stone slabs as suitable to the site conditions. The min. Thickness of the lining shall be 115mm for brick masonry, 75mm for concrete slabs, 150mm for RR masonry and 100mm for stone slabs. The lining shall be in CM (1:4) and the joints shall be raked and pointed with CM (1:3), however, the joints in lining of plant peripheral drain may be left without pointing.	KEC proposes earthen drains instead of Brick lining with PCC lining. KEC proposes 40mm thick stone slab will suffice instead of 100mm thick for stone slab. Kindly confirm.	Technical	Please refer to Sl. 8 of Amendment 1.
287	VII-TS	106/182	8.3.1	The fencing shall be of Chain link (GI or poly coat GI as specified) mesh fabric with internal, corner and stay posts of RCC (min 200mm x 200mm size, M30 grade) or Hot dipped GI angle (min. ISA 75x75x6 mm), as applicable, along with 230 thick brick/ 300 thick RR masonry toe wall, with 100mm thick M15 PCC foundation (min. width 450mm and min. depth 450 mm below GL).	KEC suggests toe wall is not required for fencing. Fencing foundation shall be pile foundations. Column post shall be 65x65x6mm instead of 75x75x6mm. Kindly confirm.	Technical	Please refer to Sl. 14 of Amendment 1. For column post, terms and conditions of tender shall prevail.
288	VII-TS	107/182	8.3.7	The GI chain link mesh fabric (40x40 mm with min. wire gauge 3.15mm, both ends twisted) and fencing shall conform to IS: 2721. Poly coat GI chain link mesh (50x50mm) shall conform to ASTM 668 and fencing shall conform to ASTM 668.	KEC suggests that chain link mesh fabric shall be 75x75mm with min wire gauge 2.5mm. Kindly confirm.	Technical	Terms and conditions of tender document shall prevail.
289	VII-TS	110/182	10.5	To calculate the design wind speed (V_z), the factors K_1 (probability factor or risk coefficient), K_2 (terrain roughness and height factor) and K_3 (topography factor) shall be considered as per IS 875 (Part-3) (However, minimum values for K_1 , K_2 and K_3 shall be .94, 1.0 and 1.0 respectively)	KEC proposes that Design wind speed factors $K_1=0.89$ shall be considered as per IS:875. Kindly confirm.	Technical	Please refer to Sl. 1 of Amendment 1.
290	VII-TS	111/182	10.10.2	For estimation of design wind loads on purlins (Table 8 of IS 875- Part 3), W_L (downward) and W_L (upward) on modules (laid in the profile of mono slope canopy) shall be applied such that the center of pressure should be at $(0.3 \times \text{length of canopy})$ from windward end (for simplicity, the wind load distribution may be taken as triangular with max. value at windward end). Solidity ratio (θ) shall be taken as 0.5.	KEC proposes wind loading on purlins shall be uniform loading instead of 0.3W loading. Solidity ratio shall be taken as 0 instead of 0.5. Kindly confirm.	Technical	Please refer to Sl. 4 of Amendment 1.

291	VII-TS	112/182	12.2.1	In case the contractor proposes to provide bored cast-in-situ concrete pile; the type, dia. and length of pile shall be as per recommendations of Geotechnical investigation report corresponding to prevalent soil characteristics at site. However, the min. dia. and depth of the pile shall be 300mm (Min 350 mm for column depth more than 175 mm) and 1800mm respectively except when very hard strata/ rock (N>100) is encountered at a higher level, the pile shall be extended in to the hard strata minimum 1.5 times the diameter of the pile with total depth of the pile not less than 1200mm below cut-off level.	KEC suggests that pile depth shall be based on geotechnical report. Instead of min specified depth. Kindly confirm.	Technical	Please refer to Sl. 10 of Amendment 1.
292	VII-TS	113/182	12.2.2	As specified above, the MMS support shall project minimum 200mm above FGL (Finished grade level) to avoid any damage to the MMS column/sub support due to direct contact of rain water/ surface run-off. This shall be ensured through either single stage construction of entire pile length including portion above FGL or by providing a collar (to be cast in second stage) which shall project min. 75mm in plan beyond the pile face and shall extend min. 250mm below GL.	KEC requests to reduce the collar height to 150mm instead of 250mm. Kindly confirm.	Technical	Terms and conditions of tender document shall prevail.
293	VII-TS	117/182	13.8	The minimum thickness excluding anti corrosive treatment (BMT) of various elements of MMS structure shall be as following: <ul style="list-style-type: none"> • Stub/ column – 3.15mm, • Rafter – 2.5mm & • Purlin – Minimum thickness of the purlin section excluding anti corrosive treatment (BMT) shall be 1.5 mm. Aluminum-zinc alloy metallic coated steel strip or sheet of grade YS350 and min. coating class AZ150 conforming to IS-15961:2012 may also be used for fabrication of purlin sections. In such a case, all the sections of the base metal exposed after cutting of members and punching of holes shall be provided with sprayed aluminum and zinc coating conforming to IS-5905. • Other members – 2.0 mm 	KEC proposes following member specifications for MMS structures :- 1) Purlins to be 0.9mm thick of Galvalume with AZ150 coating. 2) Rafters to be min. 1.4mm thick Galvalume with AZ150 Coating. 3) Legs to be min. 2mm thick HDG with average 80 micron coating. 4) Bracings to be min. 1.6mm thick pregal with 550 GSM Coating. Kindly Confirm .	Technical	Please refer to Sl. 12 of Amendment 1.
294	VII-TS	119/182	13.24	Fasteners and washers to be used for erection of mounting structures and those for fixing Module over MMS shall be of stainless steel grade SS 304 with property class A2-70 conforming to relevant ISO standard and must sustain the adverse climatic conditions to ensure the life of the structure for 25 years.	KEC proposes fasteners shall be HDG 4.6 Gr for structure and SS 304 for module fixing. Kindly confirm.	Technical	Terms and Conditions of tender document shall prevail.
295	VII-TS	119/182	13.32	The Bidder should design the structure height considering highest flood level at the site and the finished grade level. The minimum clearance between the lower edge of the module and the finished grade shall be the higher of (i) Highest flood level + 100mm and (ii) 1000 mm, as applicable	KEC suggests that module clearance shall be 500mm. Kindly confirm	Technical	For MMS to be placed along N-S orientation, min. ground clearance to the lower edge of module shall be 1000 mm. For E-W orientation, min. Ground clearance to the lower edge of module shall be 500 mm.
296	VII-TS	120/182	13.33	The length of one unit (Table) of MMS shall not generally be more than 20m.	KECK suggests that length of the table shall be based upon string configuration instead of 20m. Kindly confirm	Technical	Kindly refer to Sl. 34 of Amendment 1.
297	VII-TS	122/182	16.1.4	Roof slab shall have projection of 450mm beyond external walls with RCC parapet wall of 450 mm clear height all-around which shall form a projected band at roof level. For weather protection all doors and windows shall be provided with 450mm wide RCC chajja. However, chajja for rolling shutter shall be 750mm wide.	1) KEC proposes that RCC Canopy of 750mm shall be provided over doors and 450mm over windows instead of projecting the roof all around the building by 450mm. Kindly confirm.	Technical	Plan and elevation of MCR building has been provided in the attached Annexures. The same shall be followed.
298	VII-TS	126/182	16.2.5.2	Primary Structural Members: Steel frame members with minimum thickness 4 mm with minimum yield strength of 345 Mpa.	KEC proposes min thickness of members shall be based on design instead of 4 mm. Kindly confirm.	Technical	Terms and conditions of tender document shall prevail.
299	VII-TS	126/182	16.2.5.2	Minimum thickness 3.15 mm. Secondary members for purlins and Girts shall have minimum yield strength of 345 MPa. Miscellaneous secondary members shall have minimum yield strength of 250 MPa.	KEC proposes min thickness of secondary members shall be 1.6 mm instead of 3.15mm. Kindly confirm.	Technical	Terms and conditions of tender document shall prevail.

300	VII-TS	--	General	--	Kindly provide the boundary , contours and Detail soil report for the plot.	Technical	Contour maps and soil report aren't available with the employer. Land boundary has already been shared with tender document. Detailed topographical survey and geotechnical investigation shall be in the scope of the bidder.
301	VII B - Technical Specifications	152 of 182	Clause 3.1	Watt-Hour Rating (Dispatchable Capacity) 50 MWh ,Dispatchable at the beginning of life (i.e. at the time of Commissioning) and minimum throughput capacity at the end of each year of operation as per below table: Year of Operation Dispatchable Capacity Year 1 48.5 MWh Year 2 48 MWh Year 3 47 MWh Year 4 46 MWh Year 5 45 MWh Year 6 44 MWh Year 7 43 MWh Year 8 42 MWh Year 9 41 MWh Year 10 40 MWh Dispatchable capacity shall not be less than 80% of Beginning of Life capacity at any point of time up to End of Battery Life.	Please clarify whether we are measuring at PCS output or 33KV level of the system. Kindly allow 60% of BOL for dispatchable capacity considering the ambient temperature of the site. While we can oversize the BESS, batteries are quite expensive and will lead to higher capex and subsequently more tariff	Technical	Metering for BESS shall be done at the 33 kV Level.
302	VII B - Technical Specifications	152 of 182	Clause 3.1	System ac-dc-ac efficiency" : >85%	Kindly allow >80% system efficiency due to climatic conditions of the location (In previous SECI EPC tenders, the required system efficiency was 80%)	Technical	Terms and Conditions of tender will prevail.
303	VII B - Technical Specifications	152 of 182	Clause 3.1	In the Peak Management Use Case scenario, power generated during the early and midday periods shall be stored in the BESS and discharged after solar generation hours	1) In Midday periods kindly define the base power limit above which can be used for battery charging. 2) Early hours solar generation can be captured in DC-Coupled design , tender allows DC coupled design ? Kindly clarify the same .	Technical	1. It is contractors responsibility to forecast the power generation profile and schedule the power injected into the grid. Accordingly, bidder shall also be responsible for charging the battery during solar generation hours and discharge in the evening hours to meet the plant performance requirements specified in tender. 2. Terms and conditions of tender document shall prevail.
304	VII B - Technical Specifications	152 of 182	Clause 3.1	Grid charging : No	Kindly allow grid charging for continues non solar days and extreme battery deep discharge scenario	Technical	Terms and Conditions of tender will prevail.
305	VII B - Technical Specifications	155 of 182	Clause 4.3.1	The BESS shall be containerized, using either standard International Organization for Standardization (ISO) 668 shipping containers or custom-designed power equipment centers.	Kindly specify the maximum container size allowed	Technical	Container size shall be determined by the Contractor
306	VII B - Technical Specifications	156 of 182	Clause 4.5	Design Life and Life-Cycle Costs: Battery End of life shall be not less than 10 years from the date of Commissioning.	EOL shall be sized as per the dispatchable capacity specified in clause no 3.1	Technical	Terms and Conditions of tender will prevail.
307	VII B - Technical Specifications	156 of 182	Clause 4.5	Outage time as a result of replacement will also be counted as an "Accountable BESS outage" for the purpose of computing BESS availability	Please allow outage time during Non BESS running hours i.e. Non peak shaving hours not be counted as BESS outage hours for any maintenance activity performed during the such hours.	Technical	Terms and Conditions of tender will prevail.
308	VII B - Technical Specifications	158 of 182	Clause 4.8.1	For both premature cell failures and end-of-battery replacement, the contractor shall guarantee cell availability and length of downtime (hours/days) required to replace cells	Technically cell level replacement not possible, it may void battery warranty conditions. Kindly allow battery module level replacement	Technical	Battery Module level replacement shall be acceptable.
309	VII B - Technical Specifications	161 of 182	Clause 4.9.1	PCS standards	Kindly include IEC 62109 /IEC 62103, IEC 62116/ IEEE 1547 and UL 1741 to PCS standards	Technical	Kindly refer clause no. 4.9.1.1 of E of section VII B. Technical specification.
310	VII B - Technical Specifications	164 of 182	Clause 4.12	Auxiliary Power: The BESS shall include an auxiliary power system (separate or same as the Solar Plant auxiliary system) derived from the utility AC bus, the PCS transformer low-side bus, PCS transformer tertiary winding, or similar means with metering.	Please clarify whether auxiliary power of BESS is counted in capacity calculation or RTE calculation	Technical	Auxiliary power of BESS is accounted in calculation of RTE.
311	VII B - Technical Specifications	175 of 182	Clause 12.6	Factory testing shall demonstrate operation at expected temperature extremes at the Employer site, if this is not possible for the full BESS at the manufacturing facility independent laboratory certification of operation of critical components and subsystems in the battery, PCS, and control systems shall be submitted at the time of the FAT	Kindly specify detailed criteria of testing and certification required to be furnished and acceptable agencies for the same	Technical	Please refer Clause 2.3 of TS at Page 150 of 182
312	VII B - Technical Specifications	177 of 182	Clause 14.4	The warranty shall guarantee the availability of battery replacements delivered to the site within 2 weeks of notification during the battery warranty period.	Considering site location will not be accessible during certain months of the year, 2 weeks is too low to ensure battery replacement	Technical	Terms and Conditions of tender will prevail.
313	VII A - Scope of Works	4 of 14	Clause 1	Functional Guarantees : BESS Availability- 98% during the year	Considering harsh climatic conditions at site, it will be difficult to meet 98% availability of battery. Kindly allow availability level of 90%	Technical	Terms and Conditions of tender will prevail.

314	V - Special Conditions of contract	4 of 10	Clause 7	The value of the bank guarantee shall be 3% of the Contract Value. Valid for 24 months project commissioning period plus prescribed O&M Period i.e. 10 years, with an additional 3 month period	We understand that the CPS shall only be released after successful completion of the O&M period. Given that upon successful commissioning, the obligations with respect to supply and construction cease to exist, the bid should differentiate between the CPS amount for the commissioning phase and the O&M phase. Kindly consider 2 separate performance securities - Construction CPS at 3% of EPC contract Value and O&M CPS at 3% of Lumpsum O&M value	Contractual	Terms & conditions of the tender document shall prevail
315	IV- General conditions of contract	23 of 74	Clause 22	Failure by contractor to comply with the provisions of contract	In our view the provisions of this clause are subjective. Event of default on the part of the Contractor shall be specific in nature with a pre decided cure period. The current wording of the clause gives discretionary rights to the Owner to terminate in case of failure by the Contractor to perform its obligations	Contractual	Terms & conditions of the tender document shall prevail
316	IV- General conditions of contract	21 of 74	Clause 19	Force majeure	The FM clause seems exhaustive in nature and limited to specific events as provided in the clause. In our view the FM clause should include events which are beyond the reasonable control of the contractor. For e.g. failure to obtain any approval despite complying with all regulatory requirements. Further the termination by the Owner in case of continued FM has been fixed at 2 months. We propose this timeline be extended as it exposes us to considerable risk and costs due to FM termination	Contractual	Terms & conditions of the tender document shall prevail
317	IV- General conditions of contract	25 of 74	Clause 25.3	Termination for convenience- The Owner has the right to terminate the contract at any given time for convenience.	We propose this clause be deleted. Termination shall only be on account of specific event of default	Contractual	Terms & conditions of the tender document shall prevail
318	II - Instruction to Bidders	23 of 47	Clause 32.3	The Evaluated bid value would be Total sum of the price comprising of Ex Works Supply of all Equipment and materials including mandatory spares and any other supplies specified in the tender Documents, providing all services i.e. Transportation for delivery at site and Insurance including unloading, storage, handling at site, Civil works, Erection, Installation, Testing and Commissioning, performance testing in respect of all the equipment's supplied and any other services specified in the Tender Documents including Goods & Service Tax on both supply & services. AND Net Present Value (NPV) of O&M Contract Price including GST for the entire period in years to be calculated at a discounting rate as mentioned in the Tender documents..	We understand that under current provisions the EBV would be inclusive of taxes (GST) and duties (SGD/BCD). Considering there is a significant portion of capex to be deployed in the form of battery storage in this project which will invariably be sourced from abroad, and taxes and duty structures applicable on such items are still evolving, we request that the EBV be exclusive of taxes and duties of all kinds and the applicable taxes and duties be reimbursed to installer at the time of execution on the basis of actuals	Contractual	EBV would be inclusive of GST & all other applicable taxes and duties.
319	VII B - Technical Specifications	8 of 182	Clause 1.2	Technical requirements of solar modules - Modules shall be domestically manufactured	Please clarify whether both cell and modules are to comply with domestic content requirement. India does not have sufficient bifacial monocrystalline module manufacturing capacity and the handful of suppliers manufacturing such modules are doing so in lower Wp and efficiency compared to internationally available products. Hence, we request the domestic content requirement be removed and bidders to be allowed choose products from global suppliers	Technical	Modules shall be domestically manufactured. Please refer Annexure 1 to Amendment 1.
320	VII B - Technical Specifications	16 of 182	Clause 4.2	PCU - Supplier qualification criteria - Class 1 local supplier as per MNRE Order dt 23rd Sep 2020	Please clarify whether such criteria will be applicable only on Solar inverter or BESS inverter as well. At such high altitude and difficult terrain we need sizeable number of inverter options that can work satisfactorily in severely derated conditions also. We request the local supplier criteria be removed so that installer has a choice to fit the globally best available technology and not be restricted by domestic market availability	Technical	Criteria does not apply to BESS inverter. Terms and Conditions of tender prevail.
321	II - Instruction to Bidders	29 of 47	36	Contract period shall commence from NOA/LOI/LOA	We request issuing a Notice To Proceed along with hand over of encumbrance free land to EPC contractor and the same may be treated as 'zero date' of scheduled completion period as per contract (18 months)	Contractual	Effective Date: "Effective Date" of the Contract will be starting from the date as mentioned in the NOA or Notice to Proceed (NTP) provided by the Employer, whichever is later. NTP will be provided by the employer in the shortest possible time and all contractual obligations will be started from the date of Notification of Award (NOA) or Notice to Proceed, whichever is later.

322	Annexure to Bid Data Sheets (BDS) - Qualifying requirements	3 of 7	1.2	Route II - The bidder must have experience in execution of Ground mounted Solar Projects as a Developer of Grid-connected Solar PV Power Plant(s) of cumulative Capacity not less than 10 (Ten) MW (AC) in last seven Financial years as on last date of bid submission AND The bidder must have experience in execution of Ground mounted Solar Projects as a Developer of at least 02 (Two) Grid connected Solar PV Power Plant Projects having an individual capacity of 02 (Two) MW (AC) or above in last seven Financial years and till last date of bid submission. However, such Grid connected Solar PV Power Plant capacity must have been in satisfactory operation for at least six (06) months prior to the last date of bid submission	Since Developers of solar power plants have specific projects housed under associates / 'SPVs', we request projects housed under SPVs of the bidding entity to be considered for meeting qualification criteria	Contractual	Terms & conditions of the tender document shall prevail
323	Sample Forms	37 of 57	Form F-16	Financial Eligibility of bidder: Audited consolidated annual accounts of the bidder may also be used for the purpose of financial criteria provided bidder has at least 50% equity in each company whose accounts are merged in the audited consol accounts and provided that financial capabilities of such companies which are merged into the consol accounts shall not be considered again for the purpose of evaluation of bid.	We understand that Consolidated financial accounts including income from all subsidiaries where the entity has 50% equity shall be considered for qualification on financial criteria. This will include income from subsidiaries or SPVs housed under the bidding entity. Please let us know if our interpretation of the stated financial eligibility condition is correct	Contractual	Terms & conditions of the tender document shall prevail
324	Special Conditions	6 of 10	Clause 11	Payment Terms: Interest bearing adjustable initial advance (optional) of 10% of supply contract value to be released upon receipt of a) unconditional acceptance of NOA b) irrevocable ABG of 110% of advance amount with a validity period till date of final commissioning (ABG needs to be submitted in addition to CPS). Annual interest rate to be SBI MCLR+3.5%. 70% on pro-rata basis against supply, receipt and acceptance of materials at site on submission of documents (except ABG). Contractor's detailed invoice & packing list identifying contents of each shipment, evidence of dispatch (GR/LR copy), manufacturers/contractors guarantee certificate of quality, MDCC issued by employer. If advance payment has been availed, 10% will be adjusted while making payments of this instalment. Up to date accrued interest will be recovered. 20% on completion of operational acceptance test and submission of as-built drawings	We request payment terms to be simplified as below because the current structure will put additional financial burden on contractor which will eventually lead to escalation in contract price. For supply and service - A) 10% of total amount as advance against 100% Advance Payment Security and receipt of pro-forma invoice (if equipment supplied from abroad) B) 70% of total or pro-rata amount upon delivery to the destination within 30 days after receipt of materials and relevant documents C) 20% of total or pro-rata amount upon successful erection, testing and commissioning at site and Operational Acceptance For Design & Services- A) 10% of total design services amount as advance against 100% Advance Payment Security B) 90% of total or pro-rata design services amount on acceptance of design by the Project Manager within 30 days after receipt of invoice Installation & Other Services - A) 10% of total installation and other services cost as advance against 100% Advance Payment Security and receipt of invoice B) Monthly Payment of 80% of the measured value of work performed by contractor, during preceding month, within 30 days after receipt of invoice C) 10% of total of installation cost within 30 days of Operational Acceptance of the plant	Contractual	Terms & conditions of the tender document shall prevail
325	Section VII A Scope of Works	3 of 14	1	Power Transformer capacity (MVA) to be 3X20 MVA	Since project AC capacity is 20 MW, we understand a 20 MVA power transformer would be appropriate along with a spare transformer if required. Please clarify if our understanding on this is correct	Technical	2 nos. of 20MVA Power transformers shall be installed at site with an intention of having 100% spare capacity. Please refer S. No. 16 of Amendment 1.
326	Section VII B - Technical Specifications	7 of 182	A 2.7	The designed array capacity at STC shall be suitably determined to meet the proposed guaranteed generation output at the point of interconnection by the contractor in his bid. The contractor shall take care of first year degradation also by installing additional DC capacity as the CUF calculations will not factor the first-year degradation of the modules	Since modules undergo maximum percentage degradation in the first year of operation and bidder has to guarantee CUF after first year as part of functional guarantee, we request module capacity degradation for first year to also be included in CUF formula	Technical	Terms and Conditions of tender will prevail.