

449	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 539/1149	clause 4.9.4.3	The PCS transformer may be used to provide harmonic cancellation and may include tertiary windings to supply BESS auxiliary power requirements. The transformer must be dry type	Clarification Query raised during Pre-Bid Meeting on 30.09.2020 Bidder request to allow the selection of transformer type can be oil/dry type as per his design.	Technical	Transformer May be Oil Type. Please refer Amendment S. No.33
450	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page No: 528 /1149	Table 2 Supply Specific Ratings and Requirements for each system	Charge-discharge Cycles - One discharge cycle per day is envisaged	Bidder request to confirm incase if the battery is not operated at one discharge cycle per day, the next day the battery will require less charging energy from solar and in case Solar export is curtailed due to inability to charge BESS, whether the correction on the CUF due to this limitation is allowed.	Technical	BESS shall be discharge completely during non solar hours and available for charging the next day. In case the BESS is not discharged for reasons not attributable to he Contractor, CUF correction on this account (to the extent of Battery SoC at the beginning of the day) shall be allowed.
451	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page No: 528 /1149	Table 2 Supply Specific Ratings and Requirements for each system	Charge-discharge Cycles - One discharge cycle per day is envisaged	As Bidder is also requested to provide services of DSM, Ramp rate control along with Energy shifting. Bidder requests to confirm the only one charge/discharge cycle is sufficient for consideration of BESS design. In case not, pls confirm the additional cycles envisaged from BESS for each application.	Technical	BESS is only to be used for Energy Shifting application. DSM and Ramp Rate Rate Control is not intended application.
452	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page No: 528 /1149	Table 2 Supply Specific Ratings and Requirements for each system	System ac-dc-ac efficiency - >80%	Bidder request to confirm the RTE value is applicable only for one cycle of charge/discharge test during annual performance test including auxiliaries.	Technical	Please refer Annexure – F Procedure for Plant Testing, Commissioning and Documentation, Clause 6 for BESS for methodology for measurement of RTE.
453	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page no: 527/1149	2.3 Codes and Standards	IEC 62485-2: Safety requirements for secondary batteries and battery installations - to meet requirements on safety aspects associated with the erection, use, inspection, maintenance and disposal: Applicable for Lead Acid and NiCd / NiMH batteries	The standard IEC 62485-2 covers lead acid and Nicd/NiMH batteries. Alternately, bidder proposes applicable IEC standards for safety and operation of Batteries. Please accept.	Technical	IEC 62485-2 applies to lead acid and Nicd/NiMH batteries only.
454	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page no: 527/1149	2.3 Codes and Standards	IEC TS 62933- 5-1:2017 Electrical energy storage (EES) systems - Part 5-1: Safety considerations for grid-integrated EES systems - General specification	Bidder understand that the contractor shall only required to follow the design safety in consideration for grid integrity as per IEC 62933-5-1:2017 and third party certification is not applicable. Please confirm.	Technical	Contractor is required to follow the design safety in consideration for grid integrity as per IEC 62933-5-1:2017. Third party Certification is not applicable.
455	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page no: 527/1150	2.3 Codes and Standards	UL 9540 Standard for Energy Storage Systems and Equipment	Bidder request to accept the UL 9540 applicable for Battery system alone.	Technical	UL 9540 shall be applicable to the complete BESS
456	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page No: 528 /1150	Table 2 Supply Specific Ratings and Requirements for each system	Watt-hour ratings (dispatchable capacity)	Bidder understand that specified year-on-year dispatchable energy from the BESS system is excluding the auxiliary energy consumption Auxiliary energy required during discharge / charge / standby can be drawn separately from utility. Kindly confirm.	Technical	It is clarified that specified year-on-year dispatchable energy from the BESS system is excluding the auxiliary energy consumption Auxiliary energy required during discharge / charge / standby can be drawn separately from utility or from Solar PV plant.

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Clarifications to Queries raised during Pre-Bid Meeting on 30.09.2020							
457	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page No: 528 /1149 & 530/1149	1. Table 2 Supply Specific Ratings and Requirements for each system/2. 3.2.2 Overall System Reactive Power Rating page no:	1. Reactive Power Rating: NA (mentioned in table 2) 2. The BESS shall be capable of dispatching both leading and lagging reactive power at the PCC, up to the rated VAR capacity specified in Table-2	1. Kindly specify design operating power factor for the BESS system. 2. Kindly confirm the rated power capacity of BESS shall be designed at nominal voltage only.	Technical	BESS shall be designed for operating at Unity Power Factor. However, PCS should have facilities to provide reactive power support to grid as and when required.
458	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	page no: 529/1150	3.2 Nameplate Ratings	The nameplate watt-hour rating shall be achievable during discharge for the full range of stated environmental conditions	Bidder requests to confirm the design ambient temperature for BESS components.	Technical	Design Ambient temperature for BESS shall be 25 deg C.
459	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	page: 531/1149	4.2 System-Level Design and Performance Requirements	The major equipment items shall include a battery, battery management system (BMS), PCS, output/isolation transformer, and SCADA which is to be integrated with the solar plant SCADA system defined elsewhere in this document	As per bidder understanding, both Solar and BESS shall have common SCADA. Please confirm.	Technical	It is conformed that Solar and BESS shall have common SCADA and HMI.
460	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 406 of 1149	6.4.3	The rated control voltage of the spring charging motor shall be 110 VDC/230 VAC. Closing coil shall operate at all values of voltages between 85% and 110% of rated voltage. Opening coil shall operate correctly under all operating conditions of the circuit breaker up to the rated breaking capacity and at all values of supply voltage between 70% and 110% of rated voltage.	Contractor request a leniency of using DC (battery charger) / or AC (UPS) supply at inverter room for HT switchgear control supply & SCADA related Equipments. At MCR HT switchgear shall have 110V battery bank supply Kindly confirm .	Technical	Tender does not restrict contractor to select the type/voltage level of auxiliary supply to HT switchgear. Terms and conditions of the tender document will prevail.
461	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 407 of 1149	6.5.13	The numerical relay shall have RS-232/RS-485/RJ-45/USB ports on front side for local communication with PC and on rear side for remote communication to SCADA system.	Bidder proposes the communication of numerical relays in HT switchgears at solar plant side (ie. Inverter room & Main control room) with Modbus protocol (RS 485 port).	Technical	Terms and conditions of the tender document will prevail.
462	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 407 of 1149	6.5.7	The numerical relay shall have the following protection functions with at least two independent protection setting groups.	Numerical relay shall have one set of protection group only. Kindly accept and confirm the same.	Technical	Terms and conditions of the tender document will prevail.
463	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 413 of 1149	7.5	Cables shall be sized based on the following considerations: Short circuit withstand capability as per design for 1s.	Bidder proposes , HT cable sizing with SC capability of conductor (actual fault current) by considering breaker operating time .	Technical	Terms and conditions of the tender document will prevail.
464	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 458 of 1149	19.5.1	Current Transformer: Accuracy class - 0.2s for metering, 5P20 for protection	Bidder proposing, 0.2S class for outgoing feeder and 0.5 class for other feeders. Kindly confirm	Technical	Terms and conditions of the tender document will prevail.

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465	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 409 of 1149	6.9.2	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	Clarifications to Queries raised during Pre-Bid Meeting on 30.09.2020 Bidder proposing, accuracy class of 0.2S for TVM and 0.5 for MFM. Kindly confirm	Technical	Terms and conditions of the tender document will prevail.
466	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 410 of 1149	6.9.3	Measuring instruments shall have provision to display the following parameters. (i) Line and phase voltages (ii) Line and phase currents (iii) Active power, Reactive power, Apparent power (iv) Frequency (v) Power factor (vi) Total Harmonic Distortion (THD)	Bidder proposing, TVM (outgoing feeder) with below parameters (i) Line and phase voltages (ii) Line and phase currents (iii) Active power, Reactive power, Apparent power (iv) Frequency (v) Power factor (vi) Total Harmonic Distortion (THD) MFM with below parameters (i) Line and phase voltages (ii) Line and phase currents (iii) Active power, Reactive power, Apparent power (iv) Frequency (v) Power factor Kindly confirm	Technical	Terms and conditions of the tender document will prevail.
467	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 413 of 1149	7.5	For HT cables (from inverter transformer to interconnection point), maximum voltage drop shall be limited to 0.5 % of the rated voltage.	For HT cable voltage drop within solar plant boundary shall be considered 0.5 % . Kindly confirm	Technical	Kindly refer s.no. 25 of amendment-1
468	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 414 of 1149	8.3	Auxiliary system shall be provided with two independent sources for reliable auxiliary power supply	Bidder proposing, two independent incomer for ACDB in main control room and single for ACDB in inverter rooms. Kindly confirm	Technical	Terms and conditions of the tender document will prevail.
469	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 405 of 1149	6.3.10	Panel shall be provided with local bus-bar protection	Kindly provide the exact protection requirement for busbar, OC earth fault protections have been provided in i/c & outgoing feeders	Technical	Local Busbar protection shall be provided over and above the protection specified elsewhere in the tender document. Terms and conditions of the tender document will prevail.
470	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 420 of 1149	11.2	110 V DC system (Battery, Battery Charger & DCDB) in accordance with this specification and standards stated herein, shall comprise of the following. (i) Sealed Maintenance Free (VRLA) Battery complete with racks & accessories. (ii) One No. Float charger. (iii) One No. Float cum Boost charger (iv) DC Distribution Board (DCDB)	Bidder understands that 110V DC system has one float cum boost charger, SMF VRLA battery and DCDB. Kindly confirm	Technical	Terms and conditions of the tender document will prevail.
471	0	0	0	General	Bidder suggest Rcc trench at MCR room only, within solar plant shall be as per bidders choice to suit the site condition.	Technical	RCC trench shall be provided at MCR building and inverter yard. Also, kindly refer S.No. 20 of amendment 1.
472	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 478 of 1149	5.3	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.	Earth filling shall be provided and compacted instead of PCC, kindly confirm	Technical	The terms and conditions of Bidding Document will prevail

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473	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 478 of 1149	5.3	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.	Clarifications to Queries raised during Pre-Bid Meeting on 30.09.2020 Earth filling shall be provided and compacted instead of PCC, kindly confirm	Technical	The terms and conditions of Bidding Document will prevail
474	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 479 of 1149	6.2	The Approach road connecting nearest public road and the Main gate shall be of 4.5m 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 3.75m 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	Bidder Proposes 1. Approach Road (Nearest Public road to Main gate) - 4.0m wide carriage way with 0.5m wide shoulders on either side - WBM road 2. Access Road (Main gate and MCR and internal access road(s) connecting MCR to various facilities/ buildings/ open Installations) - of 3.0m wide carriage way with 0.5m wide shoulders on either side - Murram Compacted 3. Peripheral road - 3.0m wide carriage way with no shoulders - Compacted Road Kindly Confirm	Technical	1. Kindly refer S.No. 2 of amendment 1 for the details on road width. Minimum road section details shall be as per cl. 6.3 of Annexure A2 (Technical Specifications). 2. Same as above. 3. Kindly refer S.No. 12 of amendment 1.
475	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 479 of 1149	6.2	The roads shall be provided with alongside drains as per design requirements of drainage system for effective disposal of storm water and to avoid cross flow of storm water over the road.	Bidder suggests Drain shall be provided wherever necessary as per the rainfall intensity and land topography. Kindly Confirm.	Technical	Kindly refer S.No.14 of amendment 1 for information on peripheral drain. For other drains, terms and conditions of bidding document shall prevail
476	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 479 of 1149	6.2	The roads shall be designed as per IRC SP-72 corresponding to traffic category T3 and critical field CBR value of the subgrade.	Bidder Proposes traffic category of T1 as per IRC SP-72. Kindly confirm.	Technical	Kindly refer S.No. 2 of amendment 1.
477	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 480 of 1149	6.4	When the subgrade is silty or clayey soil and the annual rainfall of the area is more than 1000 mm, a drainage layer of 100 mm over the entire formation width should be provided conforming to the gradation given in Chapter 6 of IRC SP-20. This layer will form a part of the designed thickness of sub-base.	Kindly provide the number of years for which rainfall intensity should be considered. The type of drain also be mentioned If soil is not silty clay can we provide earthen drain.	Technical	Kindly refer Cl.7 of special technical specifications (Annexure A3).Drains shall be lined as per terms and conditions of bidding document.
478	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 481 of 1149	6.9	The pathway area shall be generally levelled and well compacted manually/ mechanically. Areas of depression, valley zones or wherever there is noticeable change in topography, shall be levelled by laying min. 100mm thick PCC M10 or precast concrete paver blocks (min. 60mm thick, Grade M60) matching the top finished surface with ground topography/ grade to avoid accumulation of water in the region and allowing its free flow to keep the area devoid of mud/ sludge.	Bidder proposes pathways shall be cleaned and levelled for access without any PCC and Paver blocks, if required. Kindly confirm.	Technical	Kindly refer S.No. 2 of amendment 1.
479	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 481 of 1149	7.2	The storm water drainage system shall be designed and planned to ensure no water stagnation in the plant.	Bidder suggests Drain shall be provided wherever necessary as per the rainfall intensity and land topography. However water shall be stagnant for a while during raining and shall be drained off through the drains provided in the plant. Kindly Confirm.	Technical	Kindly refer S.No. 14 of amendment 1 for information on peripheral drain. Drains shall be adequately designed to prevent stagnation of water in the plant area.

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480	ANNEXURE A - A.2. TECHNICAL SPECIFICATIO NS	Page 482 of 1149	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).	Clarifications to Queries raised during Pre-Bid Meeting on 30.09.2020 Bidder suggests Drain shall be provided wherever necessary as per the rainfall intensity and land topography. And Size of drain shall be designed as per the design. Kindly Confirm.	Technical	Kindly refer S.No.14 of amendment 1 for information on peripheral drain. For drain size, Terms and conditions of bidding document shall prevail.
481	ANNEXURE A - A.2. TECHNICAL SPECIFICATIO NS	Page 482 of 1149	7.12	The drain outfall shall be connected to the nearest existing natural drain(s)/ water body outside plant premises and it shall be ensured that the drainage water shall not re-enter the plant nor encroach/ flood in the adjacent property/ plot.	Bidder suggests the drainage water shall not re-enter the plant nor encroach/ flood in the adjacent property/ plot based on the land topo. Kindly Confirm.	Technical	Topographical Survey drawing has been shared for reference. Outfall locations shall be suitably planned and the same is in the scope of bidder.
482	ANNEXURE A - A.2. TECHNICAL SPECIFICATIO NS	Page 482 of 1149	7.14	The scheme for rain water harvesting along with design calculations shall be submitted for approval.	Rain water harvesting shall be proposed for buildings. Plant drain outfall shall be provided till plant boundary. Client shall give ROW to connect to the natural nala/drain adjacent to plant boundary.	Technical	As per the preliminary site survey, drains and water body to be used for discharging water are located in the close vicinity of the land patches.. All ROW issues shall be in the scope of the contractor.
483	ANNEXURE A - A.2. TECHNICAL SPECIFICATIO NS	Page 483 of 1149	8.3.1	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).	Bidder suggests that the toe wall shall not required for the plant boundary fencing. Kindly confirm	Technical	Plant boundary shall be as per the chain link fence drawing provided with Annexure A3 of tender document.
484	ANNEXURE A - A.2. TECHNICAL SPECIFICATIO NS	Page 483 of 1149	8.3.3	The brick masonry toe wall shall be plastered with 15thick CM (1:4) plaster on both faces and shall have min. 50 thick PCC (1:2:4) coping finished smooth and projecting 35mm on either side of the wall with top sloping inwards..		Technical	Query Not Clear
485	ANNEXURE A - A.2. TECHNICAL SPECIFICATIO NS	Page 483 of 1149	8.3.6	In case of pond/ drain crossing the fence, RCC beam of adequate size supported on RCC columns on either side and suitable grill of MS square rods (vertical spacing not more than 150mm) of min. Size 25x25 mm and min. 3 no. horizontal 20 SQ MS rods or 50 mm x 8 mm thick flats secured to RCC beam and columns; shall be provided in place of toe wall for smooth flow of water.	Bidder suggests 10/12mm MS rod shall be provided on horizontally. Kindly confirm.	Technical	Terms and conditions of tender document shall prevail.
486	ANNEXURE A - A.2. TECHNICAL SPECIFICATIO NS	Page 483,484 of 1149	8.3, 8.4, 8.5	Chain link fencing, Boundary wall & Barbed wire fencing.	Bidder requests the Chain link type of fencing. Kindly confirm.	Technical	Plant boundary shall be as per the chain link fence drawing provided as annexure to Amendment 1.
487	ANNEXURE A - A.2. TECHNICAL SPECIFICATIO NS	Page 497 of 1149	15.1	Unless otherwise specified elsewhere, all structural steel work shall be designed as per provisions of IS: 800 with working stress method of design (WSD).	Bidder suggests all structural steel work for Buildings shall be designed as per provisions of IS: 800 with Limit state method of design (LSD).	Technical	Kindly refer S.No.15 of amendment 1.
488	ANNEXURE A - A.2. TECHNICAL SPECIFICATIO NS	Page 487 of 1149	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 1.0, 1.05 and 1.0 respectively)	Bidder proposes below wind coefficients as per IS :875 (Part-3)-2015. K1 = 0.91 (For 44m/s wind speed) for 25 year design life of structure. K2 = 1 (terrain roughness and height factor) K3 =1 (Topography factor) K4 =1.	Technical	Kindly refer S.No. 13 of amendment 1.

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489	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 487 of 1149	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 (ϕ) shall be taken as 0.5.	Clarifications to Queries raised during Pre-Bid Meeting on 30.09.2020 Wind load shall be considered as UDL on the Purlin, since the 0.3 W loading is applicable for monoslope canopy roofs of buildings. The solidity ratio shall be 0 as per IS:875 (Part-3)-2015, since there are no obstructions below the module for wind flow. Kindly confirm	Technical	Kindly refer S.No. 6 of amendment 1.
490	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 488 of 1149	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.	As per IS code it is permitted to consider 20% reduction in the wind pressure. Same is allowed in all international standards (American , Australian, British etc). Hence bidder requests client for allowance of 20% reduction in wind pressure. Kindly confirm	Technical	Terms and conditions of tender document shall prevail.
491	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 489 of 1149	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.	Bidder proposes MMS foundation depth and diameter based on the geotechnical properties of soil. Kindly confirm	Technical	Terms and conditions of tender document shall prevail.
492	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 493 of 1149	13.1	The module mounting structure design shall generally follow the existing land profile. The top of the table shall be in one plane.	The module mounting structure is a contour following structure the top of structure shall be parallel to the ground profile, hence the top of table shall not be flat. Kindly confirm	Technical	Terms and conditions of tender document shall prevail.
493	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 489 of 1149	11.3	Min. depth of foundation for all buildings and plinth for open installations shall be 1.5 m below NGL. For all other structures, min. depth of foundation shall be 1.0 m unless specified otherwise.	Bidder request to decide the foundation depth with respect to the Geo-investigation report. However the minimum depth shall be 1m below FGL. Kindly confirm	Technical	Terms and conditions of tender document shall prevail.

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494	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 493 of 1149	13.5	<p>The MMS stub/ column, rafter, purlin, ties and bracing members shall conform to following Indian standards.</p> <p><input type="checkbox"/> IS: 2062 – Hot rolled Medium and High tensile structural steel</p> <p><input type="checkbox"/> IS: 811 – Cold formed light gauge structural steel sections</p> <p><input type="checkbox"/> IS: 1161 – Steel tubes for structural purposes</p> <p><input type="checkbox"/> IS: 4923 – Hollow steel sections for structural use</p> <p><input type="checkbox"/> 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.</p>	<p>Clarifications to Queries raised during Pre-Bid Meeting on 30.09.2020</p> <p>Bidder proposes structural steel as per below standards for the MMS members</p> <p>Post - As per IS 2062 E 350 Grade A/ Grade C, minimum yield strength shall be 350Mpa.</p> <p>Bracing, Rafter and Purlin - As per IS:15961-2012, minimum yield strength shall be 550Mpa.</p> <p>Kindly confirm</p>	Technical	For members other than purlin, Terms and conditions of tender document shall prevail. For purlin members. Kindly refer S.No. 5 of amendment 1.
495	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 495 of 1149	13.16	<p>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.</p>	<p>Bidder proposes galvanization as per below standards</p> <p>For post - Minimum 560 GSM (80 microns) as per IS:4759.</p> <p>For bracing, Rafter and Purlin - 150 GSM (Average) as per IS:15961-2012.</p> <p>Kindly confirm</p>	Technical	For members other than purlin, Terms and conditions of tender document shall prevail. For purlin members. Kindly refer S.No. 5 of amendment 1.
496	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 494 of 1149	13.7	<p>The minimum thickness excluding anti corrosive treatment (BMT) of various elements of MMS structure shall be as following:</p> <p><input type="checkbox"/> Stub/ column – 3.15mm,</p> <p><input type="checkbox"/> Rafter – 2.5mm &</p> <p><input type="checkbox"/> Purlin & other members – 2.0mm</p>	<p>Bidder proposes the following minimum member thickness:</p> <p>-Stub / Column -2mm (BMT)</p> <p>-Rafter & Bracing members – 1.2mm (BMT)</p> <p>-Purlin – 1.0mm (BMT)</p>	Technical	For members other than purlin, Terms and conditions of tender document shall prevail. For purlin members. Kindly refer S.No. 5 of amendment 1.
497	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 494 of 1149	13.9	<p>The maximum permissible deflection/ side sway limits for various elements of MMS under serviceability conditions shall be as following:</p> <p><input type="checkbox"/> Lateral deflection/ side sway for Column – Span/ 240</p> <p><input type="checkbox"/> Vertical deflection for Rafter and Purlin – Span/ 180</p> <p><input type="checkbox"/> Lateral deflection for Purlin – Span/240</p>	<p>The maximum permissible deflection/ side sway limits for various elements of MMS under serviceability conditions shall be as following:</p> <p>- Lateral deflection/ side sway for Column – Span/ 240</p> <p>-Vertical deflection for Rafter and Purlin – Span/ 180</p> <p>-Vertical deflection for Purlin in Cantilever– Span/ 150</p>	Technical	Terms and conditions of tender document shall prevail.
498	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 494 of 1149	13.13	<p>The vertical diagonal bracing shall be provided in end spans and every alternate span .of each unit (table) of MMS.</p>	<p>The bracings shall be provided if required based on the design requirement. Kindly confirm</p>	Technical	Terms and conditions of tender document shall prevail.
499	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 495 of 1149	13.23	<p>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 & SS 316 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.</p>	<p>Bidder proposes 5.6 grade GI bolts for Structural connections and SS 304 stainless steel bolts for Module mounting connections.</p>	Technical	Kindly refer S.No. 7 of amendment 1.

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500	ANNEXURE A - A.2. TECHNICAL SPECIFICATIO NS	Page 495 of 1149	13.24	Min. diameter of bolt for MMS connections shall be 10mm (12 mm in case of single bolt connection for seasonal tilt) except at column-rafter connection, where it shall not be less than 12mm (not less than 16mm in case of single bolt connection for seasonal tilt). In case of fixed tilt, min. two number of bolts shall be provided at each joint	Clarifications to Queries raised during Pre-Bid Meeting on 30.09.2020 Bidder proposes to provide 1 number of bolt for Purlin to Rafter connection and Bracing to rafter connections. The connection design shall be provided for all the connections.	Technical	Terms and conditions of tender document shall prevail.
501	ANNEXURE A - A.2. TECHNICAL SPECIFICATIO NS	Page 496 of 1149	13.28	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.	In case of ground undulation , bidder proposes to pull out the stub for 200mm to have cover 250mm. Necessary design validation shall be performed.	Technical	Terms and conditions of tender document shall prevail.
502	ANNEXURE A - A.2. TECHNICAL SPECIFICATIO NS	Page 496 of 1149	13.31	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) 500 mm, as applicable	Bidder proposes a minimum clearance of 500mm from bottom of module to ground level. HFL level considered as 0mm. Kindly confirm	Technical	Kindly refer S.No. 19 of amendment 1.
503	ANNEXURE A - A.2. TECHNICAL SPECIFICATIO NS	Page 496 of 1149	13.32	The length of one unit (Table) of MMS shall not generally be more than 20m.	Bidder proposes a maximum structure length of 32m for one table matching the modules in series	Technical	Terms and conditions of tender document shall prevail.
504	ANNEXURE A - A.2. TECHNICAL SPECIFICATIO NS	Page 496 of 1149	13.33	The contractor shall submit the foundation and structural design basis for MMS along with the list of reference standards in his Bid duly certified by a Chartered Engineer having adequate successful experience in similar works which shall be finalized with the prospective bidder during pre-award.	Bidder proposes to share the details after award of the contract.	Technical	Clause Updated Kindly refer S.No. 8 of amendment 1.
505	ANNEXURE A - A.2. TECHNICAL SPECIFICATIO NS	Page 496 of 1149	13.35	The length of any cold formed section (CFS) shall not be more than 5.5 m.	Bidder requests client to consider a length of 6.5m for cold form steel sections	Technical	Terms and conditions of tender document shall prevail.
506	ANNEXURE A - A.2. TECHNICAL SPECIFICATIO NS	Page 496 of 1149	13.36	In case of seasonal tilt, the front and back bracing members (subject to seasonal rotation) shall be connected to rafter or column through gusset plate and shall not be connected directly to the column or rafter.	The connection shall be decided based on the suitability of the Seasonal tilting arrangement.	Technical	MMS shall be of fixed tilt type. Accordingly, Terms and conditions of tender document shall prevail.
507	ANNEXURE A - A.2. TECHNICAL SPECIFICATIO NS	Page 487 of 1149	10.7	Provisions of IS: 15498 shall also be followed to ensure general safety of the structure.	The provisions of IS: 15498 are for cyclone relief structures, MMS cannot be used as cyclone relief structures, hence the standards cannot be followed. Kindly confirm	Technical	Kindly refer S.No. 16 of amendment 1.

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508	ANNEXURE A - A.2. SCOPE OF WORKS	Page 368 of 1149	4.1.14	Clarifications to Queries raised during Pre-Bid Meeting on 30.09.2020 SCADA: Providing necessary communication and Data Acquisition System to transfer real time data to SLDC, Danganiya, Raipur, Chhattisgarh as per the specifications of SLDC wing and as per grid connectivity approving authority.	Bidder assumes that Communication protocol for SLDC communication shall be IEC-104 & Communication medium shall be wireless GPRS. Please confirm that bidder's assumption is correct.	Technical	Communication protocol shall be IEC 60870-5-101 or IEC 60870-5-104 protocol as per Chhattisgarh SLDC Guidelines for Planning of Telemetry & Voice Communication
509	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 419 of 1149	10.3.2	UPS: SCADA communications : RS-232 & RS-485 Interface Port	Bidder proposal is, there shall be only 1 port in the UPS for communication with SCADA. The Port shall be preferably RS 485 Modbus type as per standardly followed in Solar projects Kindly provide your acceptance for the same.	Technical	Bidder may opt for either RS-232 or RS 485 interface port for communicating UPS with SCADA. Kindly refer S.No. 36 of amendment 1.
510	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 426 of 1149	14.2.3	14.2 Communication Cable (Modbus) Communication cable shall be laid through underground with suitable HDPE ducts.	Bidder proposes to use armored Communication Cable (Modbus). In view of this HDPE duct/conduit is not required for underground installation. Please provide your acceptance.	Technical	Terms and conditions of the tender document will prevail.
511	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 427 of 1149	15.1.3	SCADA: (iv) Support for O&M Activities: The interface shall allow integration with Surveillance System(s), Module Cleaning System and various other O&M support systems to provide a Data Analysis and Decision Support System for smooth and efficient Plant Operations.	Bidder wants to inform that, CCTV Surveillance System is an independent system which will have its own hardware and workstation. Hence integration of CCTV with SCADA is not recommended as per standard practices followed in Solar projects. Integration of Module Cleaning System with SCADA is not required as per standard practices followed in Solar projects, As Module cleaning system is a manual activity done at site and as it is not a continuous operating system (like Inverters, Meters etc.), we request Owner to void this requirement. Kindly provide your acceptance for the same.	Technical	CCTV Surveillance system may be independent system. For monitoring water usage, SCADA shall have provision to monitor the water consumption for Module Cleaning using smart/digital flow meter(s).
512	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 427 of 1149	15.1.3	SCADA: (v) AI based Distributed Analytics for Predictive Maintenance, trend analysis and Alerts.	Bidder wish to clarify that features like "AI based Distributed Analytics for Predictive Maintenance, trend analysis and Alerts" are not available in standard SCADA systems". We request Owner to void this requirement.	Technical	Terms and conditions of the tender document will prevail.
513	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 427 of 1149	15.1.3	SCADA: (viii) Transfer of plant data reliably, to an Owner designated server or Cloud on any kind of remote network including low bandwidth and wireless links such as 2G/3G/VSAT	Bidder wish to clarify that to achieve this requirement, bidder will provide OPC-UA interface at plant SCADA end. Owner's existing SCADA system can fetch entire Solar plant data on OPC-UA interface. Please confirm your acceptance for the same.	Technical	A virtual/cloud 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 complete plant data. Please refer Clause 15.2.7
514	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 428 of 1149	15.2.1	The SCADA System shall be built over Industrial IoT architecture with integrated Analytics, secure web access, enterprise software and Database	Bidder requests to accept the option of having PLC processor based architecture for SCADA design. Bidder wants to inform that, PLC processor based architecture is commonly used in Solar projects. Kindly provide your acceptance for the same.	Technical	Terms and conditions of the tender document will prevail.

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515	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 428 of 1149	15.2.8	Operator Workstation/PC shall be of Industrial Grade for browser-based access to plant data from Plant or remote server. Plant control & SLDC/Utility related operations shall only be initiated through browser-based interface requiring no client software or database to be installed on the Workstation. All critical software and Plant Data shall be installed/stored on local and remote servers only with user access control for protecting the software and data assets from accidental deletion or corruption.	Clarifications to Queries raised during Pre-Bid Meeting on 30.09.2020 Bidder informs Owner that, As the SCADA OEM's (Vendors) works on independent methodology as per their System design, Browser based interface / Server-Client based design / any other applicable as per technical needs, shall be finalized during detailed engineering based on SCADA vendor recommendation to meet the SCADA specifications. Kindly provide your acceptance for the same.	Technical	Terms and conditions of the tender document will prevail.
516	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 429 of 1149	15.2.10	GPS based Time Synchronization System: The SCADA system shall have a Master/Slave Clock system along with antenna, receiver, cabinet and internal interconnection cables. All SCADA controllers, servers, OWS and communicating equipment shall be synchronized to the GPS clock.	Bidder wants to inform that, as Data storage is done at SCADA servers, the SCADA server and OWS shall be time synchronized by GPS. There shall no requirement for time synchronizing the SCADA controller with GPS. Bidder informs that, the time synchronization of field devices (such as Meters etc.) with SCADA / GPS shall be subject to provision available in the field device's features. The same shall be confirmed during detailed engineering. Kindly provide your acceptance for the same.	Technical	Terms and conditions of the tender document will prevail.
517	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 429 of 1149	15.3.3 15.3.4 15.3.8	Industrial IoT Controllers & Data Acquisition: 15.3.3 Shall have local storage for a minimum of 2 weeks (in case of network failure). 15.3.4 Provide web-based interface to configure the controller for various equipment in the field. 15.3.8 Controllers shall be capable of sending data over Internet connections USB data cards	Bidder proposal is listed below - as the same is followed standardly in solar projects. 1. PLC processor based architecture shall be considered at Inverter rooms and Main control room 2. As Fiber optic ring network is formed between Inverter rooms and Main control room, network failure is not generally applicable, hence local data storage for a minimum of 2 weeks shall be not required. 3. Instead of Web based interface, the Controllers shall be configured from SCADA server through SCADA LAN network. 4. As Controllers are connected in the SCADA LAN network, data transfer shall be done through OFC network instead of Internet connection, as all these controllers are inside the Solar plant. Kindly provide your acceptance for the same.	Technical	Terms and conditions of the tender document will prevail.
518	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 430 of 1149	15.4.6	The SCADA system shall have user-friendly browser-based User Interface for secure access from anywhere, for minimum ten concurrent connections from the Operator PC or other securely connected laptop/mobile, for plant monitoring, O&M, daily reporting, and analysis.	Bidder requests Owner to confirm the exact requirement of Quantity (Nos) of 1. Browser (i.e. Laptop) based user access and 2. Mobile user licenses Kindly confirm	Technical	Will be decided at the time of detailed engineering
519	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 430 of 1149	15.4.9	The SCADA system shall be extensible to include maintenance of O&M schedules and related activities for plant equipment as per the O&M Manual.	Bidder wants to inform that, SCADA systems do not come with feature of O&M schedules & related activities. Bidder recommendation is to void this requirement of having O&M functions in SCADA. Kindly provide your acceptance for the same.	Technical	A hyperlink in the SCADA interface to Equipment Preventive Maintenance Schedules and related activities shall be acceptable.

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520	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 431 of 1149	15.4.14	Forecasting and Scheduling: SCADA shall provide day ahead and week ahead forecasting and scheduling for power generation at the plant as per SLDC/Utility stipulations.	Clarifications to Queries raised during Pre-Bid Meeting on 30.09.2020 Bidder understand that appointing and service charges for Forecasting and Scheduling agency is not part of bidder's scope and same shall be taken cared by owner. Bidder scope is to interface plant SCADA with Forecasting and Scheduling agency's system over standard protocol like FTP. Please confirm that bidder's understanding is correct.	Technical	Forecasting and scheduling is in scope of contractor. Kindly refer Clause 7.6 of scope of work for details.
521	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 431 of 1149	15.4.15	Predictive Maintenance: SCADA system shall have in-built or pluggable frameworks to support AI based Predictive Maintenance for all key equipment including inverters, transformers and switchgear at the plant.	Bidder wish to clarify that Predictive Maintenance feature is not available in SCADA. Bidder recommendation is to void this requirement of having O&M functions in SCADA. Kindly provide your acceptance for the same.	Technical	Terms and conditions of the tender document will prevail.
522	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 431 of 1149	15.6.1 15.6.2 15.6.3 15.6.4	Communication Cable Laying 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. 15.6.2 Power cables shall be laid deep in the trenches first. Data cables shall be laid in separate conduits after partially filling the trenches to ensure minimum 1.5 ft separation between power and communication cables all along the trench. 15.6.3 IO Cables between switch gear panels and SCADA panel shall be laid on separate cable trays, with a minimum of 1.5ft separation from trays carrying AC Power cables. 15.6.4 RS485 & CAT6 cables between switch gear panels or Inverters and SCADA panel shall be laid on separate cable trays, with a minimum of 1.5ft separation from trays carrying AC Power cables.	Bidder proposal is 1. Armored Communication cable (including RS 485 cable, OFC cable etc.) & Armored Instrumentation IO cables shall be laid directly in underground buried trenches or in cable trays without any conduit, as these cables are armored and conduits shall not be required. 2. Unarmored Communication cables (CAT-6 cable) shall be laid inside HDPE conduit in underground buried trenches. 3. As per IS 1255 standard, it is specified that, 300 mm (1 foot) clearance can be provided between Power and Communication cables, and hence the same can be followed for all communication & Instrumentation IO cables laid inside buried underground trenches and in cable trays. Kindly provide your acceptance for the same.	Technical	Terms and conditions of the tender document will prevail.
523	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 433 of 1149	15.9.2	Plant Server - Operating System: Operating System and Database shall be of enterprise scale (RedHat Linux or equivalent Linux OS, Oracle/MySQL or equivalent DB), with required AMC for 5 years	Bidder proposes that, it is recommended to consider Windows Server Operating System for Plant server as Windows Operating system is compatible for all standard SCADA software's. As per the Operator Workstation specifications, it is mentioned to consider Windows operating system, hence for integration of Plant Server and Operator Workstation, Bidder recommends to consider Windows based operating system for both Plant server and Operator Workstation. Kindly provide your acceptance for the same.	Technical	Kindly refer S. no. 22 of amendment 1.
524	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 463 of 1149	21.1.2	Specification of the pyranometer shall be as follows: Output: Analog output: 4 – 20 mA, Serial output: RS485	Bidder requests Owner to also accept the Milli-Voltage output type pyranometer without RS485 output. Kindly provide your acceptance for the same.	Technical	Terms and conditions of the tender document will prevail.

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525	ANNEXURE A - A.2. TECHNICAL SPECIFICATIO NS	Page 463 of 1149	21.3	Clarifications to Queries raised during Pre-Bid Meeting on 30.09.2020 Bidder requests Owner to also accept the below options: 1. Cup type Anemometer for Wind speed measurement 2. Vane type Anemometer for Wind direction measurement Bidder requests Owner to accept the Output types of Voltage output, Current output, Pulse output for Wind speed and Wind direction sensors, as these above mentioned output types are standardly acceptable in Solar projects. Kindly provide your acceptance for the same.	Technical	Terms and conditions of the tender document will prevail.
526	ANNEXURE A - A.2. TECHNICAL SPECIFICATIO NS	Page 464 of 1149	21.4.1	Data logger and Data Acquisition System: Provision for analog, digital and counter type inputs for interfacing with various type of sensors (i) Analog Input: Adequate nos. for all analog sensors with redundancy	Bidder's understanding on this clause is " Sufficient Analog inputs shall be provided in the Datalogger for interfacing with Analog sensors and spare Analog inputs shall be made available for future use" Kindly provide your acceptance for the same.	Technical Terms and Conditions of the tender document will prevail.
527	ANNEXURE A - A.2. TECHNICAL SPECIFICATIO NS	Page 464 of 1149	21.4.1	Data logger and Data Acquisition System: (v) Connectivity and Data transmission: Web interface with provision for user login to enable viewing and downloading of weather data in XLS/ CSV format	Bidder requests Owner to accept the below proposal. 1. To have data security, it is recommended that, Weather station shall communicate only with SCADA and Plant SCADA shall transfer all its data to owners remote server. 2. To have data security, it is recommended that, data shall be downloaded from Datalogger locally at site by service engineers and the same can be archived for records. Kindly provide your acceptance for the same.	Technical Refer the S.no 21 of ammendment-1.
528	ANNEXURE A - A.2. TECHNICAL SPECIFICATIO NS	Page 465 of 1149	22.1	CCTV Camera: CCTV Cameras along with monitoring stations (sufficient numbers) and all other accessories required for its proper operation must be installed to have complete coverage of following areas for 24 hours. (i) Main entry: Covering all the entry/exit (ii) Along the Plant Perimeter: Covering complete perimeter of Plant Area to capture all possible intrusion (iii) Control Rooms: Covering Entry/Exit and Equipment Rooms (iv) Switchyard	Bidder requests Owner to accept the below proposal. 1. Fixed type camera shall be provided at Main entry gate Covering all the entry/exit 2. Fixed/ PTZ type camera (as per coverage requirement) shall be provided across Plant perimeter and Switchyard 3. Fixed type camera shall be provided at Control Rooms Covering Entry/Exit and Equipment Rooms Kindly provide your acceptance for the same. Bidder understanding is Camera's are not required at Inverter rooms as per technical specifications. Kindly confirm the same.	Technical Kindly refer STS clause 17, CCTV Camera network covering complete perimeter of plant area is not required. However, it shall include Main Entry, Control Rooms: Covering Entry/Exit and Equipment Rooms, Switchyard and BESS installation area. Type of camera for other location shall be finalized during detailed engineering.
529	0	0	0	General	Bidder understand that there is no requirement for Soiling station . Please confirm that bidder's understanding is correct.	Technical Soiling station is not required.
530	0	0	0	General	Bidder understands that communication interfacing is not required between Solar plant SCADA and Existing Substation Automation System (if available in existing upstream substation). Please confirm that bidder's understanding is correction.	Technical Communication between Plant 132 kV Switchyard and CSPTCL Telkadih Substation shall be over PLCC line. Kindly refer the S.no. of ammendment-1.

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531	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 480 of 1149	6.7	<p>Clarifications to Queries raised during Pre-Bid Meeting on 30.09.2020</p> <p>Drain cable or any other crossing shall be provided with RCC box or precast concrete pipe culvert. The culvert design shall conform to relevant IRC standard. The pipes for road culverts shall be of minimum class NP3 conforming to IS 458 with min. soil cover of 750mm above the pipe. In case of soil cushion less than 750mm the pipe shall be provided with 100 mm thick M20 reinforced concrete encasement with 10 dia. reinforcement rods @ 150mm c/c both ways.</p> <p>However, the water supply pipe for module cleaning and service/ drinking water shall be routed through Medium class GI steel pipe of required dia. conforming to IS: 1161.</p>	<p>Kindly confirm the pipe material for module cleaning system.</p> <p>(In page no. 481 it is specified as MCS system shall be routed using GI Pipe but in clause no 35.8 (page 516) it is specified as option as (GI / UPVC / HDPE).</p> <p>Bidder propose to consider HDPE pipe for routing pipe along PV area and tap off shall be made of GI pipe. Kindly confirm</p>	Technical	<p>Pipe Material for MCS shall be as per Cl. 35.8 of Annexure A.2. TECHNICAL SPECIFICATIONS.</p> <p>At locations of Road crossings, MCS pipe/Water supply pipe shall be routed through medium class GI steel pipe of required dia. conforming to IS:1161.</p>
532	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 516 of 1149	35.8	The water supply mains could be either of GI, uPVC or HDPE, however, the vertical pipe connecting supply main to the discharge point shall be of GI.		Technical	Query Not Clear
533	ANNEXURE A - A.2. TECHNICAL SPECIFICATIONS	Page 427 of 1149	15.1.3	(iv) Support for O&M Activities: The interface shall allow integration with Surveillance System(s), Module Cleaning System and various other O&M support systems to provide a Data Analysis and Decision Support System for smooth and efficient Plant Operations.	In general practice complete module cleaning system is not monitored in SCADA. Since it is a Manuel process. Only the over all water consumption shall be monitored in SCADA using smart / digital flow meter. Kindly confirm.	Technical	SCADA shall have provision to monitor the water consumption for Module Cleaning using smart/digital flow meter(s).
534	IX - PCC	307	10.3	PCC 10.3	<p>Please confirm that Employer shall facilitate all clearances and approvals from concerned authorities for any Railway crossings, highway and roads crossings for laying of Overhead Transmission line.</p> <p>Please also confirm that if there is delay in obtaining such clearances for reasons not attributable to contractor, then contractor would not be held liable for any consequent delays in the Project completion..</p>	Technical	SECI will assist in obtaining such approvals for transmission line. However it will be the responsibility of the contractor to obtain all the necessary approvals in time and commission the project as per the timelines mentioned in the tender document.
535	IX - PCC	311	PCC 24.8	<p>GCC: 24.8 Upon Completion, the Employer shall be responsible for the care and custody of the Facilities or the relevant part thereof, together with the risk of loss or damage thereto, and shall thereafter take over the Facilities or the relevant part thereof.</p> <p>PCC 24.8: NA as the comprehensive O&M for 10 years is in the scope of the contractor</p>	<p>Please confirm that risk of loss for plant and equipment shall lie with Employer during O&M.</p> <p>A such O&M, contractor cannot be held responsible for any damage to the plant/ equipment due to natural calamities or reasons beyond O&M contractor's control. Moreover, O&M contractor would not be able to take insurance for protection against such damages as Plant would be owned by SECI. Please clarify.</p>	Technical	Original clause shall prevail.
536	Section X - Contract Forms	326	Appendix 1. Terms and Procedures of Payment	Appendix 1. Terms and Procedures of Payment Last stage payment to be released after completion of first year O&M.	It is suggested to release the last stage payment after Operational Acceptance and instead increase the validity of 10% CPS up to first year O&M.	Financial	Kindly refer S.No. 66 & 67 of amendment 1.

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537	Section X - Contract Forms	339	Appendix 8. Functional Guarantees	<p>Annual CUF Guarantee: Clarifications to Queries raised during Pre-Bid Meeting on 30.09.2020</p> <p>If the Contractor fails to achieve the annual guaranteed CUF at the end of 10th year, then the Contractor shall pay compensation to the Employer an amount equal to the Net Present Value (NPV) of the revenue loss for 10th to 25th year</p> <p>In the event the CUF is less than the Guaranteed CUF, the Contractor shall immediately, upon demand, indemnify the Employer, as liquidated damages and not as penalty, amounts equivalent to remuneration of the equivalent Energy, subject to a maximum of hundred (100%) percent of the Total Annual O&M Price.</p>	<p>There is no capping specifically mentioned against the LD due to shortfall in CUF at 10th year which shall be estimated as NPV for revenue loss for 10th to 25th year.</p> <p>As pr RfP document, capping of LD due to CUF shortfall is 100% of Total Annual O&M Price, so we infer that this capping is for LD due to total cumulative shortfall in CUF from 1st year to 25 th year of O&M.</p> <p>Please confirm.</p>	Technical	Kindly refer S.No.1 of amendment 1.
538	Section X - Contract Forms	339-345	Appendix 8. Functional Guarantees	Capping of Performance LD	The LDs due to under-achievement of Functional Guarantees and DSM penalties are independently stipulated. Please limit the total Performance LD (i.e LD under the contract for any performance related reasons other than delays) to 5% of contract value.	Technical	The LDs imposed due to under-achievement of Functional Guarantees will be recovered through CPS/O&M Payments/ any other Payments due to vendor . However, any DSM Penalties imposed in the event of Plant breakdown event attributable solely to the Contractor shall be borne by the Contractor.
539	Section X - Contract Forms	339-345	Appendix 8. Functional Guarantees	Performance LD	<p>The shortfall due to Generation related equipment breakdown and also due unavailability of BESS is being double counted due to CUF shortfall.</p> <p>Kindly correct the CUF shortfall by subtracting the LDs so levied due to Generation related equipment breakdown and also due unavailability of BESS.</p>	Technical	Kindly refer S.No.45 of amendment 1.
540	IV	90	Form	FORM - POWER OF ATTORNEY FOR BIDDER	<p>We have one exhaustive Power of Attorney issued with Board's approval for our authorized signatory for all tenders and bids, which we submit for all govt and psu tenders like ntpc, nhpc, etc and is accepted by all the agencies.</p> <p>We shall submit its scanned copy for this tender as it will be very long process and time consuming for us go to board for new POA issuance as given format? Please allow.</p>	Contractual	The case may be considered for the ease of Bid submission. However, any further observation in this regard during the bid evaluation will be sought from the bidder.
541	IV	135, 137	Appendix to Technical Part	Form FIN – 3.1 - Financial Situation Form FIN – 3.1 - Average Annual Turnover	Do we need to include financials of FY19-20 in last three years financials? As per tender form - FIN 3.1 AN fin 3.2, figures from FY18-9, FY17-18 and FY 16-17 are only to be specified and not FY 19-20.	Financial	The terms and conditions of Bidding Document will prevail
542	Price schedule	0	Schedule-1/2	Price schedule for 132 KV Substation scope at PV plant end.	<p>Line item for Plant end 132 kV Substation scope -is not mentioned in price schedule. Pls confirm that same shall be included in PV Plant BoS or shall be added separately.</p> <p>We suggest it to NOT to be included in BoS as BOS and step-up sub-station are charged at different GST rates.</p>	Contractual	Bidders are required to fill the relevant portion/Parts/Line items/scope of the respective Price Schedules only. In case, any line item is left blank by the bidder, it will be deemed assumed by the Employer that such portion/Parts/line item/Scope has been considered by the bidder suitably somewhere else in the Price schedules. In no case, the change/deviation in the Schedule of Rates is allowed.

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543	Price schedule	0	Schedule-1	132 Kv Double Circuit Double Circuit (D/C) Series Overhead Transmission line of approx 33 Kms from Plant substation to CSPTCL 220/132 Kv Telkadih substation	We understand that at Telkadih substation, each circuit will have twin conductor. EPC may select conductor type based on line loading requirement.. Pls confirm.	Technical	Conductor type may be selected as per CSPTCL requirement.												
544	ANNEXURE A: Employer's Requirements A.1. SCOPE OF WORKS	Page 3 of 15	Project Particulars	<table border="1"> <tr> <td>Electrical Interconnection Details</td> <td>Construction Water</td> <td>It is the responsibility of the EPC contractor.</td> </tr> <tr> <td>Interconnection Voltage Level</td> <td>Construction Power</td> <td>It is the responsibility of the EPC contractor.</td> </tr> <tr> <td></td> <td>till S/S</td> <td></td> </tr> <tr> <td>Distance to connecting substation (approx.)</td> <td colspan="2">31 kMs.</td> </tr> </table>	Electrical Interconnection Details	Construction Water	It is the responsibility of the EPC contractor.	Interconnection Voltage Level	Construction Power	It is the responsibility of the EPC contractor.		till S/S		Distance to connecting substation (approx.)	31 kMs.			Technical	Minimum Solar Inverter Capacity shall be 140 MW as per revised Plant Capacity. BESS shall be rated 40MW/120 MWh. Please refer S. No. 57 of Amendment 1
Electrical Interconnection Details	Construction Water	It is the responsibility of the EPC contractor.																	
Interconnection Voltage Level	Construction Power	It is the responsibility of the EPC contractor.																	
	till S/S																		
Distance to connecting substation (approx.)	31 kMs.																		
545	ANNEXURE A: Employer's Requirements A.1. SCOPE OF WORKS	Page 3 of 15	Project Particulars	Substation Details -220/132 kV Telkadih Substation	We understand that EPC scope of work is to terminate 132 KV D/C line on I/C gantry at 220/132 Telkadih Substation. The gantry & bay is already constructed & available at the substation, Pls confirm.	Technical	The construction of 02 Nos of 132kV feeder bay at 220kV Telkadih Substation is not in the scope of bidder. SECI has applied for construction of 02nos of feeder bay to CSPTCL on deposit work basis for which CSPTCL has given the approval. SECI will bear the cost of construction of the 2 nos of bay. However design , approval & construction of necessary infrastructure at substation end for interconnection of the transmission line to these 02 nos of feeder bay and complying all the rules and regulation of the state/central utility is in the scope of bidder												
546	ANNEXURE A: Employer's Requirements A.1. SCOPE OF WORKS	Page 3 of 15	Project Particulars	Power Transformer Capacity -2*50 MVA	We understand that EPC need to construct 132/33 KV Substation at PV plant end with 2*50 MVA Power transformer capacity. Due to un-availability of SLD for Substation, We purpose to go with Single busbar arrangement with bus sectionalizer as the substation bus configuration with 2 nos 132 KV Line & 2 nos Power transformer bay. Pls confirm our understanding.	Technical	SLD of the connecting Substation at Telkadih is uploaded with Amendment 1.												
547	ANNEXURE A: Employer's Requirements A.1. SCOPE OF WORKS	Page 3 of 15	Project Particulars	Distance to connecting substation (approx.)-31 kMs.	Pls provide the route survey of proposed 31 KM line to assess the requirement of 132 KV D/C Line from PV plant to 220/132 KV Telkadih Substation. Also please confirm the TL length i.e. 31KM or 33kM.	Technical	SECI has not carried out any route survey for transmission line. However the length will be about 33km approx. Bidders are required to carefully access the length of transmission line from project site till 220/132kV CSPTCL's Telkadih substation and quote accordingly as the complete scope design, approval, ROW, construction of transmission line is in the scope of contractor/developer												
548	ANNEXURE A: Employer's Requirements A.1. SCOPE OF WORKS	Page 5 of 15	Design and Engineering	3.2 All documents and drawings shall be submitted to the Employer both in soft as well as hard copies (5 nos.) for review and approval.	We understand that the document & drawing approval will be done by SECI or its consultant , Pls confirm.	Technical	All the document and drawing approval will be done by SECI.												
549	ANNEXURE A: Employer's Requirements A.1. SCOPE OF WORKS	Page 6 of 15	Design and Engineering	Geo technical investigation data and Topographical survey report including topographical survey data in digital format (Excel file) and Contour plan of the area.	A. We understand that the document related to following - will be provided by SECI along with Bids & same shall be used for bidding & detail engineering purpose. Pls confirm. 1. Geotech report 2. Topography survey 3. Countor Layouts 4. ERT report 5. TRT report B. Above documents & plot boundary (CAD Files) are missing from RFB document. Request you to provide same.	Technical	A. Based on preliminary site survey carried out by SECI, Contour Survey drawings of the project sites/plots are being uploaded for information purposes only. The Contractor is advised to inspect the site and study the topography and other conditions to decide the extent of scope of area grading, ground compaction etc. to be provided before submission of the Bid. The Employer shall not be responsible for any variations, between information provided herein and detailed investigations to be carried out by the Contractor during contract execution. All surveys/studies shall be in scope of contractor. B. Plant boundary and Contour Drawings are uploaded with Amendment 1.												

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		Clarifications to Queries		Answers to Queries			
550	ANNEXURE A: Employer's Requirements A.1. SCOPE OF WORKS	Page 9 of 15	5.1.6	Installation, Testing and Commissioning of ABT meters with all necessary metering rated CTs and PTs as per CEA Metering Regulation 2006 as amended time to time and state metering code.	We understand that the ABT meters for off billing purpose will be installed on both 132 KV O/G lines from PV Plant with Main & Check arrangement. Pls confirm our understanding. We understand theirs is no scope of work associated to be carried out at 132 KV Side of 220/132 kV Telkadih Substation. Pls confirm.	Technical	Installation, Testing and Commissioning of ABT meters (Main, Check and standby) with all necessary metering rated CT's and PT's at the plant take off point as well as at the substation as per CEA Metering Regulation 2006 as amended time to time and state metering code.
551	ANNEXURE A: Employer's Requirements A.1. SCOPE OF WORKS	Page 12 of 15	7.11	Availability of vehicles for Employer staff during construction and O&M period as per requirement may be ensured, failing which Employer shall have full right for alternate arrangement at the risk & cost of the contractor.	EPC request to confirm no. of vehicles requirement for Employers staff during construction & O&M period for better understanding of requirement.	Technical	SECI will arrange its own vehicle for their own employee during complete construction and O&M period.
552	ANNEXURE A: Employer's Requirements A.1. SCOPE OF WORKS	Page 12 of 15	7.7	Procurement of spare parts, overhaul parts, tools & tackles, equipment, consumables, etc. required for smooth operation and maintenance of the plant as per prudent/ standard utility practices, OEM recommendations and warranty clauses for the entire O&M period.	EPC request to provide list of spares requirement or EPC can recommend spare list based on their experience which shall be treated as final during handover. Pls confirm.	Technical	List of mandatory spare is a provided in Annexure-D. In addition to the this, spares recommended by the OEM shall be provided by the EPC for smooth O&M of plant. Kindly refer annexure-1 to Amendment 1.
553	Annexure A A.2. Technical Specifications	Page No. 13 of 182	2.2.3	Every SMU input shall be provided with fuses on both positive and negative side.	We propose to provide fuses on positive side only.	Technical	Refer S. no. 23 of amendment 1
554	Annexure A A.2. Technical Specifications	Page 42 of 182	10.3.2	Capacity-100% UPS load for 2 hours	We understand that 2 hrs. UPS backup requirement is at Main Control building & at Inverter blocks UPS shall be designed for lower back up time of say 30 min., Pls confirm.	Technical	Terms and conditions of the tender document will prevail.
555	Annexure A A.2. Technical Specifications	Page 63 of 182	16.9.1	Radiators provided shall have sufficient cooling surface to limit the temperature rise to the values as specified in the 'Technical Requirements'. The radiators shall be seamless and made of mild steel/CRCA with minimum thickness not less than 1.2mm. It shall be suitably braced to protect them from mechanical shock	We proposed to consider radiator thickness of 1.0 mm instead of 1.2 mm. Pls confirm.	Technical	Terms and conditions of the tender document will prevail.
556	Annexure A A.2. Technical Specifications	Page 103 of 182	6.1	Suitable approach road (as applicable) from nearest public road up to plant Main gate.	EPC request to provide land details & layout to assess the approach road requirement.	Technical	Plant land boundary is already provided as annexure. Bidders are requested to carefully assess the length and road connectivity.
557	Annexure A A.2. Technical Specifications	Page 106 of 182	8.1	The plant peripheral boundary shall be provided with either Chain link or barbed wire fencing or masonry boundary wall as specified.	We understand that we have to provide only Chain Link Fence as per the Drawings given in the RFB document for Plant Periphery Boundary. No Precast Concrete Boundary Wall is required for the same. Please Confirm.	Technical	Plant boundary shall be as per the chain link fence drawing provided as annexure to Amendment 1.
558	Annexure A A.2. Technical Specifications	Page 118 of 182	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	EPC request to remove minimum thickness criteria for MMS members. The same shall be taken care during detail engineering considering full proof solution based on wind speed, module & land profile as per standard IS-2629, 4759 & 4736 as applicable. Pls confirm.	Technical	For members other than purlin, Terms and conditions of tender document shall prevail. For purlin members. Kindly refer S.No. 5 of amendment 1.
559	Annexure A A.2. Technical Specifications	Page 119 of 182	13.16	The MMS structure shall be hot dip galvanized with minimum GSM 610 kg/ sqm	EPC request to remove minimum thickness criteria for MMS. The same shall be taken care during detail engineering considering full proof solution as per standard IS-2629, 4759 & 4736 as applicable. Pls confirm.	Technical	For members other than purlin, Terms and conditions of tender document shall prevail. For purlin members. Kindly refer S.No. 5 of amendment 1.

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560	Annexure A A.2. Technical Specifications	Page 123 of 182	16.2.2 LCR/ ICR	The plinth supporting the ICR/LCR equipment shall have RCC framed structure with foundations, columns and beams up to plinth level (FFL).	Clarifications to Queries raised during Pre-Bid Meeting on 30.09.2020 We Proposed to us outdoor Skid arrangement with canopy at Inverter / trafo stations for placement of Inverter, MV panel, scada /data logger panel / UPS & other equipment. Pls confirm same is acceptable.	Technical	Terms and conditions of tender document shall prevail.
561	ANNEXURE A.3 Special Technical Conditions	Page 3 of 4	9	Main Entry gate for each plot shall be as per the drawing provided in this section.	We understand that we need to provide Main Entry Gate in all the 10 villages plot. Please Confirm.	Technical	Main Entry gate shall be provided for all the land patches as per the revised drawing provided with amendment 1.
562	ANNEXURE A.3 Special Technical Conditions	Page 3 of 4	20	Security cabins shall be provided in every patch as per specifications provided in ANNEXURE A.2	We understand that we need to provide Security Cabins in all the 10 villages plot. Please Confirm.	Technical	Security gate and cabins shall be provided in every patch. Location and number of security cabin shall be finalized during detailed engineering. Kindly refer S.No. 18 of amendment 1.
563	Environmental and Social Due Diligence Report	Page 33 & 34	0	Table 3-7 List of Project Affected Villages	Kindly provide all the villages plot auto cad file along with KMZ file for layout preparation.	Technical	Plant boundary and Contour Drawings are uploaded with Amendment 1.
564	General	0	0	0	Please confirm the location of PV Plant Substation to be considered in which plot out of 10 village plots or it can be decided by EPC during construction phase.	Technical	EPC contractor may finalize the location of substation in any of the plot.
565	ANNEXURE A: Employer's Requirements A.1. SCOPE OF WORKS	Page 3 of 15	Cumulative Inverter Capacity (min)	175 KVA	When the Solar AC capacity is 100MW and the BESS capacity is 50MW, what is the rationale behind selecting 175MVA inverter?	Technical	Solar Inverter size has been specified as per the Plant DC Capacity.
566	Annexure A A.2. Technical Specifications	Page 151 of 182	2.3	IEC 62485-2: Safety requirements for secondary batteries and battery installations - to meet requirements on safety aspects associated with the erection, use, inspection, maintenance and disposal: Applicable for Lead Acid and NiCd / NiMH batteries	This is not applicable for Lithium Ion Battery. Request to remove this requirement.	Technical	The standard applies to Lead Acid batteries only, as specified.
567	Annexure A A.2. Technical Specifications	Page 152 of 182	3.1	Rated No of Cycles (Minimum): 4000 cycles at rated energy capacity at 80% Depth of Discharge (DoD) at 25o C and up to C/3 Rate of Discharge	The DOD is a function of several factors like cycles per day, ambient conditions, C rate, years of usage etc. And DOD is calculated as an output during sizing. Actual DOD may be more than or less than 80% and the same can be confirmed during bid submission. Kindly accept.	Technical	Battery Parameters are not considered in bid evaluation. However, if the Bidder proposes a solution with higher no. of cycles (say 6000), the DoD (shall be minimum 80%) corresponding to 4000 cycles for such solution shall be acceptable for sizing purposes provided all other performance critria related to dispatchable energy, RtE, End of Life etc. as per tender specifications including OEM warranties remain the same. Please refer S. No.80 of Amendment.

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568	Annexure A A.2. Technical Specifications	Page 152 of 182	3.1	<p>Clarifications to Queries raised during Pre-Bid Meeting on 30.09.2020</p> <p>Watt-Hour Rating (Dispatchable Capacity) 150 MWh ,dispatchable at the beginning of life (i.e. at the time of Commissioning) and minimum throughput capacity at the beginning of each year as per below table: Year 1 147 MWh Year 2 144 MWh Year 3 141 MWh Year 4 138 MWh Year 5 135 MWh Year 6 132 MWh Year 7 129 MWh Year 8 126 MWh Year 9 123 MWh Year 10 120 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.</p>	<p>Query 1: As per this table, linear annual degradation of 2% is acceptable. Generally, the degradation of Lithium Ion Battery in early years (year 1 to year3) is higher and then it reduces gradually to later years. Request you to accept following degradation scheme for better cost optimization.</p> <ol style="list-style-type: none"> 1. The throughput capacity in year 10 should be equal to or more than 120MWh. 2. Degradation in any of the years should not be more than 4% 3. Actual Degradation table shall be submitted during Detailed Engineering which adheres to point 1 and point 2 given above. <p>Query 2: Kindly confirm that the End of Battery Life in this clause is equal to 10 years.</p> <p>Query 3: Is the capacity mentioned in this table Including Auxiliary consumption or auxiliary consumption has to be separately accounted for?</p>	Technical	<p>Kindly refer S.No. 35 of amendment 1.</p> <p>Query 2: End of Battery Life in this clause is equal to 10 years.</p> <p>Query 3*: Battery capacities mentioned in this clause are dispatchable capacities after meeting all auxiliary loads of BESS, as measured at the PCC on the MV (33 kV) side.</p>
569	Annexure A A.2. Technical Specifications	Page 153 of 182	3.1	<p>Use Case Requirements: 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 during peak demand, for 3 hours, after solar generation hours.</p>	<p>Query 1: As the battery degrades over years, should the Discharge Rate of BESS (50MW) also reduce accordingly to be able to supply power for all three hours or the power (50MW) should remain constant and according the Battery Autonomy time will be reduced from 3 hours?</p> <p>Query 2: As per the application the BESS will only operate in grid-tied mode. In case of grid outage, the BESS need not be capable of providing any Black-Start/Grid-Formation support. In case of grid outage, the BESS will go on stand-by and await grid recovery. Kindly confirm.</p>	Technical	<p>Battery degradation is allowed to th extent allowed as per Clause 3.1.</p> <p>BESS is not envisaged to provide Black start support/ Grid support.</p>
570	Annexure A A.2. Technical Specifications	Page 154 of 182	3.2.1	<p>However, in no case will the energy discharged from the battery be greater than the nameplate watt-hour rating.</p>	<p>This clause basically means that an EMS (Energy Management System) shall monitor Discharged energy from battery and it will cut-off the battery after required energy from battery has been discharged. Is the understanding correct? Kindly confirm.</p>	Technical	<p>Yes, EMS (Energy Management System) shall monitor Discharged energy from battery and it will cut-off the battery after required energy from battery has been discharged.</p>
571	Annexure A A.2. Technical Specifications	Page 151 of 182	2.3	<p>IEC TS 62933-5-1:2017: Electrical energy storage (EES) systems - Part 5-1: Safety considerations for grid-integrated EES systems - General specification</p>	<p>Request to accept IEC 60812:2018 -Failure modes and effects analysis (FMEA and FMECA) which is a more generic standard.</p>	Technical	<p>Terms and Conditions of the Tender prevail.</p>

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572	II	58	ITB 20.1	<p>Clarifications to Queries raised during Pre-Bid Meeting on 30.09.2020 As per Gazette notification dated 23/03/2012 for Public Procurement Policy notified by Government of India. Those who registered in Ministry of Micro, Small and Medium Enterprises, MSME's under UAM are exempted for EMD, Document fee, etc.</p> <p>A Bid Security shall be required. A Bid-Securing Declaration shall not be required. The amount and currency of the Bid Security shall be 7 Cr (Indian Rupees Seven Crores only) or USD 0.9 M (US Dollars Point Nine Million only)</p>	<p>Also, as you are aware that the COVID Pandemic have affected the companies cash flow and projects very badly and its very difficult to submit that amount of BG.</p> <p>Since Our Company is registered with MSME, we would like avail benefits of EMD and tender fee exemption. We request SECI to exempt the MSME's from paying Applicable Bid Security and allow us to participate. Kindly Confirm.</p>	Contractual	This being a WB financed project, the procurement regulations as defined by WB will prevail. Hence, The terms and conditions of Bidding Document will prevail
573	III	78	3.3	<p>3.3 Financial Resources: The Bidder must demonstrate access to, or availability of, financial resources such as liquid assets & lines of credit, other than any contractual advance payments to meet: (i) the following cash-flow requirement: INR 144 Crores (Indian Rupees One hundred & forty four Crores only) or USD 19 M (US Dollars Nineteen Million only)</p>	<p>We request to Kindly reconsider the Cash flow requirement as revise it to 50 Crore. As You are aware that in EPC projects there is not much margin to operate, so it is requested to revise the Cash flow requirement to INR 50 Crore so that bidder will able to qualify or SECI should allow meeting the 50% criteria by any member of JV and not lead bidder.</p>	Financial	The terms and conditions of Bidding Document will prevail
574	III	80	4.1	<p>4.1 General Experience: Experience in Renewable Energy under contracts in the role of contractor, subcontractor, or management contractor for at least the last 03 (Three) years starting Jan 1, 2015.</p>	<p>Please confirm that the experience of execution of Sub-stations for Normal projects and Renewable projects are accepted to meet this criteria.</p>	Contractual	The terms and conditions of Bidding Document will prevail. Only relevant RE project experience is required to be established here

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575	III	81	4.2(a) Specific Experience	<p>Bidders can participate in the qualifications to the below mentioned qualifying routes. The Bidder shall be considered meeting Technical Eligibility criteria either from Route I or Route II</p> <p>Route I: Participation as contractor, joint venture member, management contractor, or subcontractor: (A) Must have experience in EPC execution of Ground mounted Solar Projects on Turnkey basis including Design, Supply (Supply of Modules & Inverters can be inclusive or exclusive in the bidder's scope in the past experience), Installation and Commissioning of Grid connected Solar PV Power Plant(s) of total cumulative Capacity not less than 50 (Fifty) MW in last five years as on 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.</p> <p>(B) The bidder must have experience in EPC execution of Ground mounted Solar Projects on Turnkey basis including Design, supply (Supply of Modules & Inverters can be inclusive or exclusive in the bidder's scope in the past experience), installation & commissioning of at least 02 (Two) Grid connected Solar PV Power Plant Projects</p>	<p>Queries raised during Pre-Bid Meeting on 30.09.2020</p> <p>We request to please confirm that if Bidder submit details single plant of 50 MW to meet Route 1 (a), then for meeting Route 1 (b) Clause: 2 other plants need to show of 10 MW each or One plant of 50 MW and another plant of 10 MW acceptable.</p>	Contractual	Both points of Route 1 (a) and 1 (b) are to be met by the bidders on separate/standalone basis
576	III	87	2.5	2.5 Personnel: The Bidder must demonstrate that it will have the personnel for the key positions that meet the following requirements	<p>Please clarify that the list of personnel given in this clause: - Bidder should have all these employees in organization at time of Bid Submission or Bidder can hire the employees meeting these specific criteria post award of project.</p>	Technical	Original clause shall prevail and bidders must demonstrate the personnel for the key position as per the tender requirement during the time of bid submission.
577	X	309	PCC 8	<p>PCC 8. Time for Commencement and Completion PCC 8.2 The Time for Completion of the whole of the Plant Facilities shall be 18 (Eighteen) Months till commissioning from the Effective Date as described in the Contract Agreement or NTP, whichever is later.</p>	<p>We request to consider completion period of minimum 24 months in place of 18 Months considering ongoing Pandemic situation and also, being a hybrid project, finalization and engineering requires more time</p>	Technical	Original clause shall prevail.
578	0	0	0	Change in Law: BCD, Safe-guard duty, change in GST etc.	<p>We request to please clarify that if there will be any change in safe-Guard duty, levy of Basic custom duty and ADD etc, will that considered under change in law and the same will be pass on to Bidder.</p> <p>If the overall cost will be affected of project due to levy of additional duty, taxes etc, will SECI consider it under change in law or not and pay additional cost to Bidder.</p>	Contractual	Clause No 36 of the GCC amply clarifies about the Change in law provisions. Kindly refer the same. Introduction of any new law/regulation/Tax will be treated in line with the "Change in Law & Regulations" clause of the RfB.
579	ANNEXURE A	364	0	Cell/Module Technology Bifacial, Mono-crystalline PERC	Is there any restriction on Minimum wattage of Module.	Technical	No

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