**Clarification 01 for setting up of 02 MW solar PV power plant with 01 MWh BESS at KAZA**

| Sr. No. | Section/Page/ Para/ Clause | | Description As per NIT | Queries/Comments/Concerns | Clarification |
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| 1 | Section No.<br>Page No.<br>Clause No. | 51<br>98<br>51.1 | Change in Laws and Regulations If, after the date seven (7) days prior to the date of Bid submission, in the country where the Site is located, any law, regulation, ordinance, order or by-law having the force of law is enacted, promulgated, abrogated or changed (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the costs and expenses of the Contractor and/or the Time for Completion, the Contract Price shall be correspondingly increased or decreased, and/or the Time for Completion shall be reasonably adjusted to the extent that the Contractor has thereby been affected in the Performance of any of its obligations under the Contract. However, these adjustments would be restricted to direct transactions between the Executing Agency//Owner and the Contractor/assignee of Foreign Contractor (if applicable). This adjustment shall not be applicable on procurement of raw | As majority of the items are bought out items, being dispatched diretly from vendor works to site, the impact of change in law will be considerable. We request SECI/HRL to consider adjustment of the Contract Price on account of change in law for bought out items as well. | Tender document condition shall prevail |
| 2 | Section No.<br>Page No.<br>Clause No. | 93<br>121<br>93.4 | GST :in case of Bought out Items supplied in the Project execution, there would be two transactions viz. one between "Third Party/Subcontractor/Supplier" and the "Contractor" and second between "Contractor and Owner/Employer". **In such case, statutory variation in taxes levied/to be levied between the former transactions would not be reimbursed, however, same would be reimbursed for the later transaction** | We request that any statutory variation in taxes and duties may please be reimbursed at actuals for bought out items as well. | Tender document condition shall prevail |
| 3 | Section No.<br>Page No.<br>Clause No. | SCC<br>139<br>10 A(i) | Interest bearing adjustable initial advance (OPTIONAL) of 10% of the Contract Value. | We request for interest free advance. | Tender document condition shall prevail |
| 4 | Section No.<br>Page No.<br>Clause No. | SCC<br>140<br>10(B) | advance for services | We request for interest free advance for the services portion of the contract as it is critical for site mobilization given the logistics and environmental constraints associated with the project site. | Tender document condition shall prevail |
| 5 | General | | Form-5 | We assume that HRL will issue Form-5 in the name of the sub-contractors working at site for the purpose of obtaining labour license. Please confirm | HRL will issue Form-5. |
| | Section No.<br>Page No. | GCC<br>88 | | Right of Way issues are time consuming and sometimes get into legal tangles which further | Tender document condition shall prevail |

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| 6 | Clause No. | 32.1.5 | The Contractor shall acquire in its name all permits..... that are necessary for the Performance of the Contract, including, but not limited to, the right of way for the access to site and for erection of transmission lines as applicable.....The Contractor shall acquire all other permits, approvals and/or licenses that are not the responsibility of the Owner/ Executing Agency and that are necessary for the Performance of the Contract. | leads to time loss and stoppages in contract execution. It is therefore requested that SECI/HRL obtains and passes on clear title of Land, free from all encumbrances and right of way to the Contractor on the date of NOA/LOA.<br><br>Further, kindly also inform us regarding the "other permits, approvals and/or licenses that are not the responsibility of the Owner". We again request HRL that all statutory approvals and clearances may please be in owner's scope. | |
| 7 | Section No.<br>Page No.<br>Clause No. | IFB<br>7<br>F,G | Tender Processing Fee: INR Rs. 1,06,200/-<br>EMD: INR Rs. 36,00,000/- | Bidder being a PSU requests for waiver from submission of Tender Processing Fee and EMD. | Tender document condition shall prevail |
| 8 | Section No.<br>Page No.<br>Clause No. | SCC<br>137<br>6(2) and note after point 8 | The Performance security shall be furnished 30 days prior to completion of first 2.5 years of O&M and value of the Contract Performance Security shall be 5% of the Contract Value (i.e., total sum of the Supply Contract & Service Contract) and will remain valid 90 (Ninety) days beyond the balance O & M Period, i.e. 2.5 (Two and Half). Henceforth, 5% Contract Performance Security needs to be furnished for the last 5 (five) of the O & M period.<br>Contract Performance Security submitted shall be released to the Contractor without any interest not later than 75 (Seventy- Five) days after the successful completion of the complete O&M period (5 Years) subject to the approval and acceptance of the O&M period deliverables by the Engineer in | Bidder understands that the EMD BG submitted for the first 2.5 years of O&M shall be released to the Bidder at the end of 2.5 years and grace period. Please confirm. | Performance Security furnished for first 2.5 years of O&M shall be released to the Bidder at the end of 2.5 years and after getting due verification and confirmation from the concerned Banker for the Performance security furnished for next 2.5 years i.e Second Stage. |
| 9 | General | | O&M period LD capping | kindly provide the O&M period LD capping. | Tender document condition shall prevail |
| 10 | Section No.<br>Page No.<br>Clause No. | Annexures to BDS<br>3(6)<br>1.2 | If the BESS provider is participating as a subcontractor to the bidder then the Bidder shall submit the list of proposed BESS makes they intend to provide along with the submission of Technical documents, also with the credentials for all those makes and all such mentioned makes shall satisfy the Qualification requirements mentioned in the bidding document. During the execution of the Project, the supplied make of the BESS by the bidder shall have to be mandatorily among the list of makes submitted by the bidder during the Techno commercial stage. | Bidder being a PSU has to finalize/shortlist the vendor for supply of the major item of the project through tendering process only. Bidder request that proposed vendors name shall be furnished along with the bid, however, during detailed engineering stage, acceptance of new/more vendors meeting the tender requirements , subject to customer's approval may please be accepted. Thereafter, on finalization of the sub-contractor, subcontracting agreement shall be submitted in line with the tender condition. | There is no restriction on number of BESS providers that can be proposed during bid submission. However, all such providers shall satisfy the Qualification requirements mentioned in the bidding document. |
| 11 | | | Qualification requirement | Whether foreign company are allowed to participate in the bid | Yes allowed, |

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| 12 | | | financial eligiblity criteria | In order to meet financial eligiblity criteria, can a bidder use account of its ultimate parent company | Tender document condition shall prevail |
| 13 | | | Due date of Bid submission | We request to extend the due date of bid submission by atleast 30 days | Kindly be updated from TCIL/SECI website |
| 14 | SCC 8 | 5 of 9 | For every 0.01 shortfall in PR below 0.78 by the bidder, a penalty of 0.1% of the total Contract Value (i.e., total sum of all the Supply Contract, Service Contract and absolute value of O & M Contract) shall be levied. In case the Plant PR result is 0.05 below 0.78, i.e., 0.73 or lower, the total Contract Performance Security submitted by the bidder will be forfeited. | We understood that the maximum LD for PG test failure will be the Performance Guarantee. | Kindly see the Amendment 01 |
| 15 | SCC 8 | 5 of 9 | Difference in units derived from committed and achieved CUF<br>x Rs. 7.37; for period after commissioning till the O&M contract closure. | Requesting SECI to provide a maximum LD limit. | Kindly see the Amendment 01 |
| 16 | Section No.<br>Page No.<br>Clause No. | Technical requirements<br>203<br>2.2 | Module Wattage | Request you to specify the minimum wattage of the PV modules for the project. | Minimum wattage can be derived from minimum efficiency requirement (18% for mono-crystalline & 17% for multi-crystalline) and area of module. |
| 17 | Section No.<br>Page No.<br>Clause No. | Technical requirments<br>203<br>2.2 | Module Efficiency:<br>More than 18% for mono-crystalline | The module efficiency is on a higher side as compared to standard practice in SECI/NTPC tenders. We request you to kindly consider the Module Efficiency:<br>More than 17% for mono-crystalline | Terms and conditions of the bidding document prevail. |
| 3 | Section No.<br>Page No.<br>Clause No. | GCC<br>87<br>32.1.4 | In the matter of connectivity of Plant to DISCOM's substation, ……"coordination with DISCOM for Bay allocation, technical/regulatory compliance for interconnection including payment of Fee or any other charges to the state agencies/DISCOM as the case may be shall be taken care by the Contractor. Bidders are advised to include these cost in their final offer/Price BID." | We understand that the project is for microgrid application and therefore no such approval and payment of fee to DISCOM or any other state agency for interconnection is required. Please confirm. | The project is not for microgrid application; it shall be connected to the existing 22kV substation (SLD attached) located about 200m from the site.<br>Terms and conditions of the bidding document prevail. |
| 4 | Section No.<br>Page No.<br>Clause No. | statutory approvals<br>190<br>6.1 | Obtaining statutory approvals /clearances on behalf of the Employer from various Government Departments, not limited to, the following:<br>6.1.1 Pollution control board clearance, if required<br>6.1.2 Mining Department, if required<br>6.1.3 Forest Department, if required<br>6.1.4 All other approval, as necessary for setting up of a solar power plant including CEIG/ CEA, connectivity, power evacuation, railways, PTCC etc. as per the suggested guidelines | We understand that Railway/PTCC is not required. Request the clause to be amended suitably to address relevant approvals only.<br><br>Contractor shall take CEIG clearance. All other statutory approvals and clearances required may please be in HRL scope. | All applicable clearances/approvals shall be taken by the Contractor. Tender conditions shall prevail. |
| 5 | Section No.<br>Page No.<br>Clause No. | Solar and DC cable<br>208<br>4.5(ii) | The average voltage drop in the cables (Modules to Inverter) shall be limited to 1.5 %<br>of the rated voltage | We request you to consider limiting the average voltage drop from Modules to Inverter to 3% of the rated voltage as per standard industry practice. | Terms and conditions of the bidding document prevail. |
| | Section No.<br>Page No. | 1.2<br>200 | Trackers can also be used for tracking the sun on | | |

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| 6 | Clause No. | 1.2.2 | daily or seasonal basis. In case of fixed tilt, the tilt angle shall be defined in such a way that optimum generation is achieved at all times. | We understand that seasonal tilt is also allowed. Please confirm. | Yes. Seasonal tilt is also allowed. |
| 7 | Section No.<br>Page No.<br>Clause No. | 38.2<br>280<br>38.2.1/38.2.2 | LCR/ MCR Building - Unless otherwise specified elsewhere, all buildings except Security room/ cabin shall have RCC framed structure | We request SECI/HRL to consider PEB/containerised solution for IR/Control Room. | Terms and conditions of the bidding document prevail. |
| 8 | Section No.<br>Page No.<br>Clause No. | SCC<br>138<br>7(1) | every 0.01 shortfall in PR below 0.78 by the bidder, a penalty of 0.1% of the total Contract Value (i.e., total sum of all the Supply Contract, Service Contract and absolute value of O & M Contract) shall be levied. In case the Plant PR result is 0.05 below 0.78, i.e., 0.73 or lower, the total Contract Performance Security submitted by the bidder will be forfeited | It is requested that contractor should only be penalised by means of PR shortfall LD and not by means of forfeiting total Contract Performance Security. Please consider. | Terms and conditions of the bidding document prevail. |
| 9 | Section No.<br>Page No.<br>Clause No. | 51<br>98<br>51.1 | Change in Laws and Regulations If, after the date seven (7) days prior to the date of Bid submission, in the country where the Site is located, any law, regulation, ordinance, order or by-law having the force of law is enacted, promulgated, abrogated or changed (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the costs and expenses of the Contractor and/or the Time for Completion, the Contract Price shall be correspondingly increased or decreased, and/or the Time for Completion shall be reasonably adjusted to the extent that the<br>Contractor has thereby been affected in the Performance of any of its obligations under the Contract.<br>However, these adjustments would be restricted to direct transactions between the Executing Agency//Owner and the Contractor/assignee of Foreign Contractor (if applicable). 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.** | As majority of the items are bought out items, being dispatched diretly from vendor works to site, the impact of change in law will be considerable. We request SECI/HRL to consider adjustment of the Contract Price on account of change in law for bought out items as well. | HRL shall award the contract based on EPC price discovered through bidding process. Only tax implications arised on account of agrement between HRL and the contractor shall be adjusted and not on input cost. Hence, Tender conditions shall prevail. |
| 13 | General | | Form-5 | We assume that HRL will issue Form-5 in the name of the sub-contractors working at site for the purpose of obtaining labour license. Please confirm. | HRL will issue Form-5. |
| 14 | General | | PR test | Please specify month-wise reference radiation for PR test or indicate meteonorm/NASA data as reference. | PR test does not require reference radiation to be indicated. |
| 15 | Section No.<br>Page No.<br>Clause No. | Scope of works<br>186<br>3.2 | Design calculations and sheets (licenced software as well as design templates) | Detailed design docuemnts shall be provided in line with the approved Master Document List. Kindly specify the requirement of licensed software. | Software licenses, wherever required, for design calculations shall be the responsibility of the Contractor. |
| | Section No. | SCC | For every 0.01 shortfall in PR below 0.78 by | | |

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| 16 | Page No.<br>Clause No.<br>Section No.<br>Page No.<br>Clause No. | 138<br>8<br>Scope of work<br>185<br>1.1 | ……..For every 0.01 shortfall in PR below 0.78 by the bidder, a penalty of 0.1% of the total Contract Value…….<br>PR : 80% | We understand the desired PR is 0.78. Please confirm. | Kindly refer Amendment-1. |
| 17 | General | | Evacuation Point | Power evacuation point for the respective project sites is not clear. Kindly provide the requisite details. | Power evacuation point shall be 22kV bus at Rongtong Power House (marked as 'POWER HOUSE' in the countour map attached) which is located about 200m from the proposed site. Single line diagram of existing substation is also attached. |
| 18 | Section No.<br>Page No.<br>Clause No. | Annexures to BDS<br>4(6)<br>1 . 3 | A summarized sheet of average turn over certified by a practicing CA/ Statutary Auditor should be compulsorily enclosed along with corresponding annual accounts. | Audited Financial statement extracted from the Annual Reports of relavant years shall be furnished by the bidder. Same may please be considered | Terms and conditions of the bidding document prevail. |
| 19 | Section No.<br>Page No.<br>Clause No. | Bid information Sheet<br>6<br>1.9 | Data acquisition system with remote monitoring facilities. Provision for specific data transfer to the State Load Dispatch Centre (SLDC) shall also be provided. | Bidder shall provide the SCADA and HMI interface at the site for monitoring/controlling the Site parameters. Further Bidder understands that for data transfer to the SLDC, dedicated communication link from site MCR to SLDC will be provided by Customer for data transmission. | Terms and conditions of the bidding document prevail. |
| 20 | Section No.<br>Page No.<br>Clause No. | Annexures to BDS<br>3(6)<br>1.2 | If the BESS provider is participating as a subcontractor to the bidder then the Bidder shall submit the list of proposed BESS makes they intend to provide along with the submission of Technical documents, also with the credentials for all those makes and all such mentioned makes shall satisfy the Qualification requirements mentioned in the bidding document. During the execution of the Project, the supplied make of the BESS by the bidder shall have to be mandatorily among the list of makes submitted by the bidder during the Techno commercial stage. | Bidder being a PSU has to finalize/shortlist the vendor for supply of the major item of the project through tendering process only. Bidder request that proposed vendors name shall be furnished along with the bid, however, during detailed engineering stage, acceptance of new/more vendors meeting the tender requirements , subject to customer's approval may please be accepted. Thereafter, on finalization of the sub-contractor, subcontracting agreement shall be submitted in line with the tender condition. | Terms and conditions of the bidding document prevail. |
| 21 | Section No.<br>Page No.<br>Clause No. | Annexures to BDS<br>3(6)<br>1.2 | The bidder should have experience in development of Grid Connected Solar Projects on Turnkey basis including Design, Supply, Installation & Commissioning of at least 02 (Two) Grid connected Solar PV Power Plant Project having an individual capacities of 200 (Two Hundred) kW or above in last Seven Financial years and till last date of bid submission. However, such Solar PV Power Plant and Solar Systems capacity must have been in satisfactory operation as on the last date of bid submission for at least six (06) months from the date of commissioning | BESS started picking up the pace in India very recentrly and najority of the projects have come up in last 12 months only. Hence, it is impractical for majority of the bidders to obtain such experience before hand. It is requested to shortlist the bidders based on their experience of execution of EPC projects in the field of power/solar projects only. Hence, the PQC may please be amended accordingly. | Terms and conditions of the bidding document prevail. |
| | | | | Please share Geo-technical reports, topographical survey and contour details. Same | Contour map (.dwg) is attached. Geo-technical report |

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| 22 | General | | Site related | topographical survey and contour details. Same will enable the Bidders for preparing a competitive offer. | contour map (dwg) is attached. Geo-technical report is not available. |
| 23 | Section No.<br>Page No.<br>Clause No. | scope of works<br>186<br>3.2 | Transmission line drawings and erection plans as per DISCOM/ STU guidelines | Bidder understands that the power evacuation point for the plant will be provided at the site location itsely by the customer. Please confirm. Alternatively, please elaborate on the requirement of Transmission lines at the site. Scope Clarity requested. | Power evacuation point shall be 22kV bus at Rongtong Power House (marked as 'POWER HOUSE' in the countour map attached) which is located about 200m from the proposed site. Single 22kV cable from plant till Rongtong Power House shall be provided. Kindly refer Clause 4 (Interconnection) of Annexure-A to Technical Specifications. |
| 24 | Section No.<br>Page No.<br>Clause No. | Tech Spec<br>203<br>2.1 | IEC 62716 : Ammonia Corrosion Testing | Contractor may please be exempted from this certification as Ammonia Corrosion comes into effect if the power plant is near to any chemical/fertilizer industry or poultry farm. | Terms and conditions of the bidding document prevail. |
| 25 | Section No.<br>Page No.<br>Clause No. | Tech Spec<br>204<br>2.3.7 | Bar code scanner and database of all the modules containing the following information shall also be provided - S.No. (i) to (x) | Bar code information will be provided as per MNRE guidelines which doesn't include S.No. (iii) of 2.3.7 | Terms and conditions of the bidding document prevail. |
| 26 | Section No.<br>Page No.<br>Clause No. | Table 2: Supply-Specific Ratings and Requirements<br>301<br>71.1 | 4000 cycles at rated energy capacity at 80% Depth of Discharge (DoD) at 25oC and C/3 Rate of Discharge | The Rate of Discharge should be 1C & not C/3. Plz clarify. | Kindly refer Amendment-1. |
| 27 | Section No.<br>Page No.<br>Clause No. | Table 2: Supply-Specific Ratings and Requirements<br>301<br>71.1 | 1 MW, continuous<br>1 MWh at 1 MW net ac output at the beginning of life and not less than 80% of this capacity at any point of time up to End of Battery Life. | Kindly consider End of Life (EOL) to be same as O&M period | EOL shall be same as O&M Period i.e. 5 years. Please refer Amendment-1 |
| 28 | Section No.<br>Page No.<br>Clause No. | Warranties<br>304 | Ten (10) year parts and labour warranty for the entire BESS and its constituent equipment. | Warranty of battery system should be same as O&M period .i.e., 5 years | Terms and conditions of the bidding document prevail. |
| 29 | Section No.<br>Page No.<br>Clause No. | 73.5<br>313<br>73.5.1 | Battery End of life shall be not less than 10 years from the date of Commissioning. | EOL can only be guaranteed for allowed O&M period | Kindly refer Amendment-1. |
| 30 | Section No.<br>Page No.<br>Clause No. | 73.3<br>312<br>73.3.2 | Containers shall be designed and constructed to meet IP54 and NEMA 3R requirements, which protect the equipment inside from harmful effects resulting from the ingress of water, dirt, dust, and wind | Battery container size allowed is 20ft or 40 ft | Terms and conditions of the bidding document prevail. |
| 31 | Section No.<br>Page No.<br>Clause No. | 70.4<br>300 | "IEC 61850/DNP3 Communications networks and management systems. (It shall be ensured that PV Plant SCADA and the BESS control system communicate with each other over the protocol and the combined parameters are accessible | Inplace of a specific protocol IEC 61850/DNP3 it should be any standard communication protocol. | Terms and conditions of the bidding document prevail. |
| 32 | General | | Load Details | Load details are required for effective designing of the BESS | BESS size shall be as specified in the Tender Technical Specifications. |

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| 33 | 2.1 | 210 | IEC 61215-1:2016 Ed.1 & IEC 61730-1:2016 Ed.2 required | New editions for 61215 & 61730 are under lab testing. Kindly approve earlier editions as well. | Terms and conditions of the bidding document prevail. |
| 34 | 2.3.2 | 211 | Elongation at break > 100% | Machine-extrusion direction (MD) >100%<br>Transverse direction (TD) >80% | Terms and conditions of the bidding document prevail. |
| 35 | | 211 | Interlayer adhesion strength > 5 N/cm | Interlayer adhesion strength > 4 N/cm | Terms and conditions of the bidding document prevail. |
| 36 | 2.3.7 | 212 | Each PV Module shall be provided a bar code which is embedded inside the module lamination and must be able to withstand harsh environmental conditions | All the required infomration shall be available in RFID | Terms and conditions of the bidding document prevail. |
| 37 | 2.6.2 | 213 | The Employer shall perform material inspection at the Manufacturer's factory before the start of proposed manufacturing schedule. | The inspection at manufacturer's place shall be as per their COC | Terms and conditions of the bidding document prevail. |
| 38 | 2 | 210 | PV Modules | Kindly confirm if bidders are allowed to procure modules from countries other than India. | Yes. Terms and conditions of the bidding document prevail. |
| 39 | 5.2.3 | 218 | The PCU output shall always follow the grid in terms of voltage and frequency | Kindly confirm the status & source of grid availability | The project shall be connected with 22kV grid at Rongtong Power House (marked in the countour map attached). |
| 40 | 5.2.2 | 218 | Maximum power point tracker (MPPT) shall be integrated in the PCU to maximize energy drawn from the Solar PV array. | Kindly allow separate MPPT units as well. | Terms and conditions of the bidding document prevail. |
| 41 | 22 | 258 | The developer has to carry out soil investigation through any Govt. Approved laboratory for designing of the civil foundations, structures, control room building, invertor building etc. | Kindly approve reputed laboratories also other than government ones for soil investigation. | Kindly refer Amendment-1. |
| 42 | 62.4 | 289 | Reinforcement steel shall be procured only from main steel producers and Mill test certificates (MTC) shall be obtained and submitted to the Engineer for correlation. | MTC shall be submitted of the main steel producer. However, it should be allowed to procure the steel from the dealers / traders. | Terms and conditions of the bidding document prevail. |
| 43 | 69.1 | 295 | 4000 cycles at rated energy capacity at 80% Depth of Discharge (DoD) at 25°C and C/3 Rate of Discharge | Kindly allow 2700 - 3000Cycles @ 50% DoD at 27Deg C & 1500 - 1800 Cycles @ 80% DoD at 27Deg . So, we have various options avaialble. | Terms and conditions of the bidding document prevail. |
| 44 | 70 | 297 | PCU vs PCS | Tender somewhere states PCU & somewhere PCS. Kindly confirm what is the exact requirement. | Kindly refer to the relevant technical specification for requirement. |
| 45 | 71.1 | 301 | Nameplate watt-hour rating, ac (B) MWh at 1 MW net ac output at the beginning of life and not less than 80% of this capacity at any point of time up to End of Battery Life. | kindly confirm if this 1MWh BESS rating is the battery rated energy i.e. considering all losses or this much energy is to be dispatched from battery & we need to consider losses over the said rating & decide the size of battery. | 1 MWh is the dispatchable energy capacity of BESS after considering all losses and shall be measured at the PCC. |
| 46 | - | 338 | SLD of 22 kV Substation at Rangreek | SLD is not getting clear. Kindly share the visible SLD. | Attached. |

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| 47 | 56.1 | 291 | Galvanized 220 kV and 132 kV Transmission Line towers, Tower extensions & accessories and 11 kV, 22kV, 22kV & 33 kV transmission poles, towers & accessories shall be designed | We understand from tender the evacuation is planned at 22KV. Kindly confirm requirement of 220KV & 132 KV transmission line tower. | The tender clause is generic for transmission infrastructure. Evacuation for this project will be at 22kV only. |
| 48 | | | Technical criteria | Can a company use the technical experience of its parent company | Terms and conditions of the bidding document prevail. |
| 49 | | | List of Sub- contractors | requirement of submission of list of sub-contractors should be withdrawn | Terms and conditions of the bidding document prevail. |
| 50 | 2.1.b | 78 | Contractor, if necessary, shall build other temporary access roads to the actual site of construction for his own work at his own cost. | This should be taken care by client itself. | Terms and conditions of the bidding document prevail. |
| 51 | 2.3 | 78 | Contractor will have to make his own arrangements for supply of water along with water quality check to his labour camps and for works. | We request the client to provide the construction water & drinking water. | Terms and conditions of the bidding document prevail. |
| 52 | 2.4 | 79 | Contractor has to arrange for the construction power supply of their own. However, subject to availability, Executing Agency/ Owner may provide access to the nearest available point in his location for supply power | We request the client to provide the construction power. | Terms and conditions of the bidding document prevail. |
| 53 | 1.2 | 63 | If the BESS provider is participating as a subcontractor to the bidder then the Bidder shall be required to establish subcontracting agreement with the BESS supplier in the format as provided by the Owner within 90 days from the effective date of the Contract Agreement. | Can the BESS provider be part of the OEMs or is the sub-contractor agreement mandatory? | The BESS provider can either be the main bidder or a part of the JV or a sub-contractor provided the QR conditions as specified are met. In case BESS Supplier is sub-contractor, the agreement, in the format attached shall be mandoatory. |
| 54 | 3. ii. | 336 | The land for the proposed Project is presently Govt. Forest land that shall be transferred to HPSEBL and access rights shall be given to the Contractor for the purpose of execution of the Contract. | The proposed land being Forest land Kindly confrim if there are existing trees on the site that needs to cut. If yes, the approval for the same should be arranged by HPSEB. Kindly confirm. | There are no trees on the land. |
| 55 | 8 | 147 | For every 0.01 shortfall in PR below 0.78 by the bidder, a penalty of 0.1% of the total Contract Value (i.e., total sum of all the Supply Contract, Service Contract and absolute value of O &M Contract) shall be levied. In case the Plant PR result is 0.05 below 0.78, i.e., 0.73 or lower, the total Contract Performance Security submitted by the bidder will be forfeited. | Kindly revise the PR limit liable for LD penalty below 75% | Kindly refer Amendment-1. |
| 56 | - | - | - | **Kindly confirm what is the load profile. We need hourly load profile to optimize the battery storage system.** | BESS size shall be as specified in the Tender Technical Specifications. |
| 57 | - | - | - | **Kindly confirm basis of BESS rating selection 1MW/1MWh** | BESS has been sized for application use cases as specfied in the Tender. |

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| 58 | Technical specification | In the Peak Management Use Case scenario, power generated during the early and midday periods shall be stored in the BESS and released later in the day, during peak demand. In this case, the BESS shall be discharged in the Peak Limiting profile in the late afternoon. To the extent that the total energy dispatched does not exceed the nameplate watt-hour rating, the BESS may be further discharged in Constant Power Mode after Part 01 (Solar PV Plant) is no more generating. | As the clause says that the BESS shall be designed to operate/discharge in the late afternoon in the Peak Limiting Profile. We would request SECI to specify the exact operation time (from when to when) during the day for us to understand if there is sufficient time available to charge the battery | Please refer to the details of operation for this use case in Clause |
| 59 | Technical specification | **Grid Charging**<br>Allowed with the discretion of grid operator. If the BESS is charged through the grid, the energy consumed shall be considered part of the Auxiliary power and shall be metered. | As the clause says, Grid charging of the battery system would be allowed on chargebale basis. We would like to understand the following -<br>- in case, we consider charging of battery from the grid then what would be the unit charge for such consumption. | Grid charging, if allowed by the grid operator, shall be billed as per extant tariff rules. |
| 60 | Technical specification | **Use case requirements:**<br>Peak Management<br>Voltage Support<br>Frequency Regulation (demonstration only)<br>Intermittent Resource Support | The clause says that the function of Frequency Regulation is for demonstration Purpose only. So we understand that the BESS need not to be designed to operate the Frequency Regulation Operations. Pls confirm<br><br>Also pls confirm if there is any order of precedence for these applications in case there is requirement of more then one application at any moment | The BESS need not be sized for FR. The order of precedence shall be decided during detailed engineering stage. |
| 61 | Technical specification | Compensate for all changes in intermittent resource output power level that exceed 10% per second and in which the new power level remains for at least 5 seconds.<br><br>Voltage Flicker<br>In a voltage flicker control scenario, the BESS shall be dispatched to control rapid but small (such as 2% to 5%), potentially frequent changes in voltage on the utility feeder that produce voltage flicker at other customer loads on the feeder | As for the voltage flicker application, the two clauses defines different scenerios. The first clause defines the BESS to compensate/regulate the o/p power levels that exceeds 10% per second whereas the second clause defines the BESS to dispatch/regulate the rapid but small changes in the range of 2%-5% in volatge.<br><br>we would like to understand what principal we should follow to design the this application in BESS | The BESS shall be designed for this Use case as provided in Table 4: Additional Information and Requirements for Intermittent Resource Support Use Case. The later clause is intended to cite an example scenario only. |

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| 62 | Technical specification | In the Peak Management Use Case scenario, power generated during the early and midday periods shall be stored in the BESS and released later in the day, during peak demand. In this case, the BESS shall be discharged in the Peak Limiting profile in the late afternoon.<br><br>In that event that two discharges are required in a day, the maximum number of days per year that the system would operate with two daily discharges is one-half the number of days in single-daily-discharge mode. In the case of two discharges in a single day, it may be desirable for the Host Utility to charge the battery between the two discharges (opportunity charging) and the BESS shall permit such operation. For example, a morning and afternoon peak may<br>be shaved, with a partial (or complete) recharge taking place during the day between the morning and evening peaks | As for the Peak Management Application, the specs defines the two scenerios where the BESS has to discharge during peak demand in the later part of the day & the other scenerio defines the discharge happening during & morning & during evening time (2 cycles).<br><br>We would request clarity on which scenerio to consider while designning the BES System. | The BESS shall be designed for 1 or 2 cycles per day for up to 365 cycles in a year for this application. Grid Charging is allowed on chargeable basis. |
| 63 | Technical specification | **<u>Containerization and Transportability</u>**<br>The ESS shall be containerized, using either standard International Organization for Standardization (ISO) 668 shipping containers or custom-designed power equipment centres.<br>The container or containers shall be designed to be drop-shipped onto a properly prepared pad or foundation (such as compacted soil, concrete pad or platform, and so on). | As the Tender Clause specifies the BES system to be containarized system. Are Non Containerized system not allowed?<br>Also, since the location is a remote site, pls share in detail the condition of transport infrastructure availabe at the site so that the freight cost can be estimated. | The BESS shall be a containerized solution as provided in the Tender specifications.<br>It shall be the resposibility of the bidder to determine the details of transport infrastructure availabe prior to bidding. |
| 64 | Technical specification | Auxiliary Power<br>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. The auxiliary power system shall include all step-down transformers, breakers, fuses, motor starters, relaying, panels, enclosures, junction boxes, conduits, raceways, wiring, and similar equipment, as required for the BESS operation. | Pls confirm if the Auxiliary power requirements for the BES System is to be taken care by the Battery system itself or it would be fed from the solar generation.<br>In case it is to be fed by the BESS, then approriate capacity laoding would be done in BES System | Auxiliary power requirements for the BES System may be fed from the solar generation. |

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| 65 | Technical specification | | **BESS Response time:** shall be measured as the sum of the following two entities: 1-> The time elapsed between the instant when a command to change set point from rest to discharge is sent to the BESS (T0) and the instant when the BESS starts responding to the discharge command signal (T1), the BESS being in active standby state and 50% SOC at T0 i.e., T1-T0<br>2-> Time elapsed in seconds between the instant the ESS output transitions from no discharge i.e. 0% (T1) to discharge and the instant it attains rated power capacity(T2) (or from no charge (T1) to charge state and the instant it attains rated charge rate(T2)) i.e. T2-T1<br>**RT = (T2- T1) + (T1- T0) = T2- T0.....** | As the given clause defines the response time for the BES System to operate upon the requirement, it does not define any reference value for the this time RT (eg. BESS Energy capacity should not be less than 80% & BESS Round trip eficiency should be more than 80%).<br><br>We need to get the min. response time defined for the BESS as this is one of the BESS performamce assessment Criterion. | The BESS shall have suitable Response time for all the applications (including those for demonstration) as laid down in the Technical specifications. The same shall be measured and recorded as per the procedure laid down in this Clause. |
| 66 | Technical specification | | The Contractor guarantees that during the Guarantee Test, the Facilities and all parts thereof shall attain the Functional Guarantees specified under Technical Specifications, subject to and upon the conditions therein specified……<br><br>During the Operational Acceptance any shortfall in the Performance Ratio (PR) as determined through the PR Test Procedure specified Section VII, Scope of Work and Technical Specifications, Annexure – B “PERFORMANCE GUARANTEE TEST PROCEDURE”, will attract imposition of penalty. For every 0.01 shortfall in PR below 0.78 by the bidder, a penalty of 0.1% of the total Contract Value.... | As the clause speaks of the Functional Guarantees, however no Liquidated damages are clearly defined for any loss in the Functional guarantees.<br>Pls confirm what is the LD clause for the functional guarantees for this tender | Please refer to the Special Conditionsof Contract alongwith Amendments. |
| 67 | 73.17.1 | 53 of 76 | Solar PV Modules: Modules shall be warranted for a minimum period of 25 years in the Bidder’s detailed Warranty / Guarantee certificate. | The said warranty will be in the form of OEM warranty/ Guarantee Certificate | Terms and conditions of the bidding document prevail. |
| 68 | | | Irradiation data base | Kindly please confirm which data base of Solar irradiation to be used for energy generation analysis. | SECI does not recommend any irradation database as CUF calculation does not factor in irradiation correction. Kindly refer Clause 2.2 of Annexure-D to Technical Specifications. |
| 69 | | Page 188, Point 4.1.13 | Data acquisition system with remote monitoring facilities.<br>Provision for specific data transfer to the State Load<br>Dispatch Centre (SLDC) shall also be provided. | What is the existing arrangement of data transfer to SLDC. | The mode of transmitting data to the SLDC shall be in scope of the Contractor. |
| 70 | | Page 6, Point 1.11 | Spares & consumables, as required or recommended, for<br>The complete O&M period. | Is there already a specified list or bidder consider it as per OEM/Integrator’s recommendations. | Bidder shall consider as per OEM's recommendation where he list is not |
| 71 | | Page 189, Point 5.1.11 | | Bidder request Client to provide the internet facility for SCADA | Internet facility for SCADA shall be in the scope of the Contractor. |

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| 72 | | Page 189, Point 5.1.15 | Construction of transmission line, from take-off point at plant to the delivery point at STU/DISCOM substation. | Who will provide RoW for Transmission line? | RoW permission, if any, shall be the responsibility of the Contractor. |
| 73 | | Page 201, Point 1.2.7 & Page 203, 2.2 | 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. | This statement is contradictory with technical requirement of PV modules. Please clarify. | Kindly refer Amendment -1. |
| 74 | | Page 203, 2.2 | Temperature co-efficient of power Not more than 0.4%/°C | Temperature coefficient of power for PV modules shall be in negative. | 0.4%/°C is absolute value. Negative sign for temperature coefficient of power should be understood as it is obvious for crystalline silicon PV module. |
| 75 | | Page 213, 5.6.2 | Reactive power control | Can PCU shall be provided with external reactive power controller incase this feature is not in-built | Tender conditions prevail. |
| 76 | | Page 214, 6.2 | Transformer technical requirement | Can bidder consider some other rating of transformer as per requirement of design? Please confirm. | Tender conditions prevail. |
| 77 | | Page 221, 7.3.3 | The panel enclosure shall be constructed with CRCA steel/Aluzinc sheet. The thickness of load bearing members shall be minimum 3 mm and that of non-load bearing members shall be minimum 2 mm. | Load bearing member of minimum 3mm and non-load bearing member of 2mm is a non-standard requirement. Standard requirement is 2mm for load bearing member and 1.6mm for non-load bearing member. Please accept the same. | Tender conditions shall prevail. |
| 78 | | Page 221, | Switchgear panel | Please specify fault current rating of 22kV BUS. | Switchgear panel fault current requirement will be finalized durign detailed engineering. |
| 79 | | Page 229, 8.5 | Maximum voltage drop in LT cable (from inverter to inverter transformer) shall be Limited to 0.5% of the rated voltage. | From Inverter to Transformer, how many runs of cable per phase is allowed? | Shall be determined during detailed engineering stage. |
| 80 | | Page 230, 8.9.2 | LT cable (from inverter to inverter transformer) shall laid through RCC cable trench with supports. | Please allow laying of LT cable from inverter to transformer via cable trays arrangement over the ground. | Kindly refer Amendment-1. |
| 81 | | Page 231, 10.2 | Rated system voltage – 415V +10% | System voltage shall be 415V with positive and negative 10% of tolerance. | Kindly refer Amendment-1. |
| 82 | | Page 235 | UPS output voltage 230V± 1% AC | UPS output voltage shall be 230V± 10% AC | Kindly refer Amendment-1. |
| 83 | | Page 258, 22.3 | The ROW for the TL/UG cable shall be obtained prior to the construction of the line from the Concerned authorities. | Bidder wants to know, who is the concerned authority? How much time it will take to get approval? | The concerned authority is Himachal Pradesh State Electricity Board Limited (HPSEBL.) |
| 84 | | Page 297, 69 | BESS interconnection | Please clarify to the bidder, at which point BESS will feed its power? | The BESS shall feed power at the PCC as defined in the Technical specifications. |
| 85 | | Page 299, | Electrical Infrastructure | Please mention the name of nearest substation? As per RfP, its 120km away. Please confirm. | Kindly refer Amendment-1. Power evacuation shall be at existing 22kV substation at Rongtong Power House which is located about 200m from the proposed site. |
| 86 | | Page 300, 70.2 | BESS Interconnection | Employer to convey regarding interconnection of BESS very clearly, as it may cause major commercial impact. | The BESS shall feed power at the PCC as defined in the Technical specifications. |
| 87 | | Page 336, 4 | At Rongtong power house both the buses at 415KV and 22KV | It should be 0.415kV and 22kV. Please confirm. | Kindly refer Amendment-1. |
| 88 | | Page 336, 4 | Rongtong power house | What is the source of power for Rongtong power house. | Rong tong Power house is a hydro power generating station. |
| 89 | | Page 262,25.8 | minimum grade of concrete shall be M25 | Concrete grade M20 with Minimum cement content of 300kg/m3 shall be permitted | Terms and conditions of the bidding document prevail. |

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| 90 | | Page 263, 25.17 | design consideration not more than 3 T/m2. | SBC minimum 5T/m2 shall be considered or As per soil test report. | Terms and conditions of the bidding document prevail. |
| 91 | | Page 264, 27.1 | | Pile cap proposed to be 100mm minimum | Terms and conditions of the bidding document prevail. |
| 93 | | Page 265, 27.5 | Land Lease | It is understood that land is already in possession of the Client | The land for the proposed Project is presently Govt. Forest land that shall be transferred to HPSEBL and access rights shall be given to the Contractor for the purpose of execution of the Contract. |
| 97 | | Page 265, 28.2 | | It is proposed Main road shall be 4.0m wide with 0.5m shoulder on both sides.<br>Peripheral road shall be 3.0m wide<br>Internal road shall be 3.0m wide with 0.5m shoulder on both sides.<br>Slope shall be provided in road to avoid flooding. Elevation shall be 150mm | Terms and conditions of the bidding document prevail. |
| 98 | | 266, 28.7 | pipes for road culverts shall be of minimum class NP3 conforming to | Hume pile class shall be as per design | Terms and conditions of the bidding document prevail. |
| 99 | | 268, 30.3.1 | | For chain link fencing spec is too high. Concrete grade should be M20 with minimum cement content of 300kg/m3 . We can look at reducing these as the area is far flung. | |
| 100 | | 271, 32.5 | | All factors and parameters shall strictly adhere to IS code | |