

Amendment I**Annexure II****Clarifications to Queries raised during Pre-Bid Meeting on 17.07.2017****NIT No: SECI/C&P/NIT/2017/BDL/5MW-2**

**Tender for Design, Engineering, Supply, Construction, Erection, Testing & Commissioning of 5 MW (AC) Solar PV
Power Plant with Indigenous Cells & Modules including 5 Years Plant
O&M under Domestic Competitive bidding at Bharat Dynamics Limited, Ibrahimpatnam (Telangana)**

Sl. No.	Queries	Category	Clarifications
1	At clause 14.3.2, two other methods of earthing given. We understood that earthing method can be used either of this three given at clause 14.3.2 or 14.3.3. Request client to confirm the same if there is any other concern.	Technical	Both Clause 14.3.2 and 14.3.3 explains the same method of earthing of module.
2	Request waive off requirement of Test certificates for OFC and RS 485 cables as manufacturers are unable to provide type test certificates for these cables for less quantities.	Technical	Terms & Conditions of the Tender Document shall prevail.
3	In case of outdoor inverter, request client to confirm can we use pre Engineering building/shed for datalogger, UPS, battery or other indoor components.	Technical	As per client's requirement only Indoor Inverter is to be considered (refer amendment).
4	Request Client to confirm to use FRP underground water tank to reduce the execution time and project cost.	Technical	Terms & Conditions of the Tender Document shall prevail.
5	Irradiance & temperature variation are a major factors to estimate CUF. So, request client to consider temperature & irradiance variation in CUF formula.	Technical	The bidder has to consider irradiance and temp effect while bidding, No consideration of the same in CUF formula, Terms & Conditions of the Tender Document shall prevail.
6	Request extend completion of time for project as "D + 12 months" view timeframe required for approval of drawings by SECI. The drawings are submitted by the contractor to SECI for approval as per Tender requirements, however, to cater for drawings approval, the time required for completion of the project be extended to D + 12 months	Technical	SECI will ensure the timely approval of drawings/ Documents as per NIT conditions therefore no extension in project timeline would not be provided.
7	Please clarify if any concessions granted by MNRE for importing equipment for setting up of Solar plant will be allowed to be availed by the contractor ?	Contract	Arranging any kind of concessions/exemptions and their related documentation will be in the scope of bidders only.
8	Suggest Engineer-in-charge to forward the bills to employer for payment within 3 days after due verification. 10 days is too long for verification time. If we take Clause 81.1.3 and 81.1.4 together then the max time the employer can take for payment of bill would be 40 days from the date of submission of bills which is heavily biased in favour of the Employer	Contract	Terms & Conditions of the Tender Document shall prevail.
9	Suggest amend the payment to be made within 15 (fifteen) days from the date of certification.	Contract	Terms & Conditions of the Tender Document shall prevail.
10	It is understood that there are various procedures for obtaining various clearances etc. relating to payment, entry to site etc. at BDL sites. It is therefore requested that all internal clearances be assigned to the Employer appointed Project Manager/Engineer-in-Charge. The Contractor's personnel shall facilitate obtaining such clearances but will not interact with any other department of the Employer which shall be the sole responsibility of the Employer appointed PM/Engineer-in-Charge. A single point responsibility from the Employers side would be beneficial to avoid conflicts.	Technical	Owner will facilitate all intra-departmental coordination for any approval/ permission required.
11	Kindly specify the reputed make suppliers for each item which the employer may suggest to avoid any ambiguity later on during the execution time. The word "Reputed make" is too broad. Suggest give accepting condition for acceptance of the material. However, please note that such clauses will only delay the project as there are bound to be disagreements between the contractor and the Employer view ambiguous wordings in the Tender.	Technical	No particular make/ vendor shall be specified by Employer/Owner
12	Request clarify dispatch to where ? It is understood that the contractor will store the construction material at one place on the site. Will he have to take written permission of the Employer to move it to the construction site ? This clause will only add to the unending paper work required for Government projects which should be minimized. Suggest removal of this clause as once the material reaches the site, it shall be used by the contractor to meet the requirement of the project specifications as it is.	Technical	Terms & Conditions of the Tender Document shall prevail.
13	However, in case re-inspection is necessitated on account of no acceptance of item(s) due to failure on Factory Acceptance Test(s), the cost of associated travel and accommodation borne by the Employer/Owner shall be on account of the Contractor. This clause is not fair as the failure to comply with the standards cannot be fully attributed to the Contractor. There can be some other environmental/technical reasons for failure of tests. It will be the endeavour of the contractor to complete the acceptance of the tests in one visit at the factory, however, this clause is ambiguous as it does not specify as to what all can be attributed to the contractor for non acceptance of the material. Kindly be specific about the conditions under which the Contractor can be held liable. Also, please give a clear list of equipment which will be inspected at Factory.	Technical	Terms & Conditions of the Tender Document shall prevail.
14	As per clause 94.10, the contractor is to provide ESIC for all workers which covers all risks/accidents in case of any mishap at site. Providing additional Insurance coverage as per clause 94.5 is not understood. Please clarify. This is duplication of insurance requirement for the workers and not required.	Contract	Clause No 94.10 of the GCC will prevail.

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Sl. No.	Queries	Category	Clarifications
15	Please clarify the applicability of "The Mines Act" in this work. This is a construction contract and hence applicability of this act is not understood.	Contract	It's a standard bidding document and relevant clauses will be applicable wherever applicable.
16	Could you please clarify the definition of Chartered Engineer	Contract	A Chartered Engineer is an Engineer who has become professionally registered with the Engineering Council or with the concerned Council of repute & standard.
17	There is no estimation given for the Transmission line works. If the contractor has to undertake all the transmission line works including ROW then 6 months time given for completion of the project is too short. The DISCOM takes lot of time for giving approvals which are beyond the control of the contractor. Request amend the project completion time to 12 months.	Technical	Terms & Conditions of the Tender Document shall prevail.
18	Request clarify if there is a requirement of a boundary wall or Fencing as the cost for building both of them is different.	Technical	It is mentioned in the tender document that either boundary wall or fencing.
19	Request include a separate chapter/section on the documentation required for clearing the contractors bills. It has been our experience that new requirements are projected as there is no clarity on the exact documents required to be submitted along with the bills. This delays contractors bill payments leading to financial crunch. Please clarify specifically what are the "requisite documentation" as mentioned in the clause.	Technical	Refer SCC clause 10A(a)(ii) on page no. 7 of 10.
20	Generally, Solar DC Cable have flame retardant properties but for DC Cables from SMU to Inverter, there is not requirement of FRLS properties. Request client to remove FRLS for this cable. It can cause cost implication of entire project.	Technical	Terms & Conditions of the Tender Document shall prevail.
21	We understood that the voltage drop will limit by 1.5% of the rated voltage at 25 deg STC condition when will be the solar PV generation will be maximum. Request client to confirm the same.	Technical	Terms & Conditions of the Tender Document shall prevail.
22	It shall be as per the inverter certification at 25°C. It is mentioned as per vendor standard practice.	Technical	Terms & Conditions of the Tender Document shall prevail.
23	We understood that SECI/BDL will witness the test if the test reports conducted by NABL is not available during detailed engineering.	Technical	Terms & Conditions of the Tender Document shall prevail.
24	For Inverter, IP 54 is mentioned on page-221 of 313 & for HT Panel, it is as per this clause. By referring this, we understood that Inverter & HT Panel can be installed outdoor by providing canopy as well. Request client to confirm the same.	Technical	Refer amendment for inverter and HT panel respectively.
25	Generally, for all AC Cables, there is not requirement of FRLS properties. Request client to remove FRLS for this cable. It can cause cost implication of entire project.	Technical	Terms & Conditions of the Tender Document shall prevail.
26	We understood by this clause that LT switchgear panel can be installed outdoor because asking for IP 54 outdoor protection rating. Request client to confirm the same.	Technical	Refer amendment for the clarification
27	Request client to confirm the battery type & battery backup requirement because generally lead acid battery is used for more backup & also for solar PV plant 30 minutes backup is sufficient to preserve the data & other auxiliary requirements.	Technical	Refer TS Clause no. 12.2 and 12.3.1.
28	Generally, protection level is selected based on lightning protection risk analysis & for this site location Level-IV is also sufficient. Request client to confirm the protection level because it is unnecessary cost implication of entire project.	Technical	Terms & Conditions of the Tender Document shall prevail.
29	Guy wire is unnecessarily occupy the space. So, request client to consider the standalone GI mast to install ESE air terminal.	Technical	Terms & Conditions of the Tender Document shall prevail.
30	We understood that Lighting Panels shall be earthed by two separate connection to AC earthing grid, but for street light pole it is quite confusing because street light poles is earthed by earthing conductor but switch boxes, lighting fixtures, etc, are physically mounted on Street light pole, so, there is no requirement to run separate earth continuity conductor. Request client to clarify and confirm.	Technical	Terms & Conditions of the Tender Document shall prevail.
31	At Control room & equipment room are generally worked during day time. So, 200 Lux is sufficient for this rooms. For office, etc. LUX level requirement is ok but mentioned 150 LUX for Battery & other rooms means for all other rooms like Pantry or wash room, this much LUX level will be not requires at this other rooms. Request client to recheck the LUX level requirement as per practical usage & confirm the same.	Technical	Terms & Conditions of the Tender Document shall prevail.
32	The mentioned coefficient of utilization maintenance factor (of 0.7 or less) for conventional lights like Helogen, CFL, etc. Generally for LED lights it shall be 0.9 or less. Request Client to change this coefficient of utilization maintenance factor as 0.9 or less by considering above.	Technical	Terms & Conditions of the Tender Document shall prevail.

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33	Request client to change this parameters as follow. LED chip efficacy > or = 130 lumens per watt Luminaire efficacy > or = 90 lumens per watt Colour Temperature 4000o K (cool day light) Cool day light temperature of LED is around 4000 o K to 4500 o K. For your information, at 5700 o K, it will be bluish light instead of cool day light.	Technical	Terms & Conditions of the Tender Document shall prevail.
34	We under stood that by referring the specification of fire fighting system specification, need to provide the fire extinguisher & other accessories as per tender specification, there will be no requirement of water hyderant system, etc. in future. If it will be required in future, the cost of water hydrant system & its accessories will be paid extra by client. Request client to confirm the same.	Technical	Terms & Conditions of the Tender Document shall prevail.
35	1)Request client to provide preliminary details of the geotechnical information , land profile and available topographical data to estimate the civil scope of work for the project if available. 2)Request client to confirm that hot rolled section if utilised shall also be designed as per WSD utilising IS 800 instead of LRFD method . Please confirm the same. 3)Our understanding is that sag rods are not required for the purlins considering the lateral restrained provided by the solar panels to the purlins. Request client to confirm that our understanding is correct and sag rods are not required for the purlins. 4)Request client to confirm that during design stage of MMS structure we can utilize IS875 Part III 2015 -latest edition standard including the reduction factor specified within code for calculating the wind loads consider the height and other parameters for MMS structure.	Technical	1)Employer/Owner will provide the marked site details for preliminary analysis but detailed topographical survey and soil testing report shall be in successful bidder's scope. Refer SECI's official website for update. 2)Terms & Conditions of the Tender Document shall prevail. 3)Terms & Conditions of the Tender Document shall prevail. 4) Point incorporated in the amendment.
36	We understood that the minimum area given at this clause is tentative & will be reduced based on practical requirement during detailed engineering. It is suggested that the areas be reduced as these take a lot of time for construction and increases the project cost. Request client to confirm for the same.	Technical	Sufficient land has been provided (approx 30 acres)and Terms & Conditions of the Tender Document shall prevail.
37	We submit that the in-house technical capability of a parent company or its 100% owned subsidiary companies, for undertaking solar plant EPC related activities should be treated at par with the technical capability of any other company engaged in providing EPC services. SECI may seek relevant information to ascertain the technical capability. Accordingly, the work executed by a parent company/100% owned subsidiary company having in-house Engineering, Procurement, Construction & Operations capabilities, which have commissioned solar plants in time bound manner within PPA timelines should qualify	Contract	Terms & Conditions of the Tender Document shall prevail.
38	We request you to kindly reduce MAAT requirement to maximum INR 4,00,00,000/- (INR Four Crore only)	Contract	Terms & Conditions of the Tender Document shall prevail.
39	As discussed during pre-bid meeting, please provide copy of the soil report, geo-technical report and Topology survey for the proposed site	Technical	Refer SECI's official website for update.
40	As discussed during pre-bid meeting, please provide copy evacuation/transmission line feasibility report from the concerned utility	Technical	Refer SECI's official website for update.
41	Request to clarify the scope of approvals/Clearances that will be obtained by Owner and the approvals to be obtained by the bidder.	Technical	All the approvals/clearance are to be obtained by the successful bidder on behalf of Owner. However Owner will facilitate with all necessary supporting documents in getting these clearances
42	Following permits are considered in Owners scope, kindly confirm. 1) Village Panchayt NOC /Layout approval and required Fees 2) DT&CP Approval 3) Factory Approval under Factory Act 4) Ground Water Approval for Bore Wells. 5) Consent to Operate if Applicable and Other approvals as applicable under TSIPASS Single window process.	Technical	Terms & Conditions of the Tender Document shall prevail.
43	We request bid submission deadline be extended by at least 6 Weeks from date of issue of site related documents, amendments and response to prebid queries to give bidders enough time to prepare response to bid.	Contract	Suitable time extension for the submission of bids have already been incorporated in the tender document.
44	For Array layout design request to share the plot area, Proposed Solar Plant boundary details, Site Contour map, Soil Investigation report and Geotechnical Report that are available with the Owner.	Technical	Refer SECI's official website for update.
45	Annexure -B: Performance Guarantee Test Procedure is not given in the Tender, request to provide the same	Technical	Added as attachment.
46	In SCC Clause 8 PR is given as 0.78, Where as in Scope of work Minimum PR is given as 0.77. Kindly Clarify	Technical	Kindly refer amendment for this clarification'
47	Request to release final 5% payment of Supply/Service after demonstration of PR, Instead after 1st year of O&M.	Contract	Terms & Conditions of the Tender Document shall prevail.
48	Considering the site conditions with extensive vegetation, Boulders, Site approach road Strengthening and ROW with multiple crossings, we request time for completion of at least 12 months from date of issuance of NOA/LOI/LOA	Technical	Terms & Conditions of the Tender Document shall prevail.
49	Please provide word version of Forms & Formats	Contract	Word version of the forms and formats will be uploaded along with this document.

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50	Request waiver of Grid outage Certification from STU/Discom, as the same can be recorded through SCADA and shared by Bidder during O&M.	Technical	Terms & Conditions of the Tender Document shall prevail.
51	Considering first year module degradation is not factored in CUF calculations request to revise AC CUF to 19.5% for first year.	Technical	Terms & Conditions of the Tender Document shall prevail.
52	Request to specify Borewells present in the site and the drawl capacity for the same.	Technical	Arrangement of water for construction work and labour camp is the responsibility of Contractor (See clause 2.3 of GCC)
53	Request Employer to upload Grid Feasibility approval obtained from TSSPDCL for evacuation of 5 MW Solar Power to 33 /11 KV Mangalpally Substation	Technical	Refer SECI's official website for update.
54	During Site visit it is observed that the access Road from BDL main gate to the proposed Solar site distance of approx 1.7 KM is not suitable for Heavy Vehicle movement as width of the road is around only 6Ft. The road extension upto 15 Ft width is required, Owner to confirm the same.	Technical	The width of approach road to the solar site inside BDL-IBP complex can be extended wherever required by Hard Moram sand by bidder to enable the movement of Heavy vehicles or alternatively the heavy consignment may be downloaded near the gate or wherever convenient inside BDL-IBP complex and further taken to site by small vehicles by the bidders.
55	Details pertaining to the HT Line crossings and length of Transmission line to be shared. As the route survey is not done. For benefit of bidders we request Owner to specify TL length to be considered.	Technical	In successful bidder's scope.
56	Since the Technology used in Grid Synchronisation and implementation of Solar PV Power Plant doesn't vary much for Rooftop and Ground Mounted system. We request you to consider Rooftop Projects also in addition to Ground Mounted Systems as the eligibility criteria and amend the clause to Rooftop/Ground Mounted Systems.	Contract	It's a conscious decision taken by the management, hence, Terms & Conditions of the Tender Document shall prevail.
57	In the page no. 298 it is mentioned that Minimum values of PR and CUF of the plant after netting off the auxiliary consumption. PR : 0.77 CUF : 20.4% .Please clarify the PR value to be considered for successful PG Test / Operational acceptance	Technical	Refer amendment for clarification
58	5 Technical 6.2 Inverter Transformer - Voltage Ratio 33 kV/ Inverter output voltage. We understand this is a step up transformer where the voltage from Inverter o/p will step up to 33 KV .Please confirm our understanding	Technical	Terms & Conditions of the Tender Document shall prevail.
59	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. The bar code data base shall contain the following information. Bar code scanner and database of all the modules containing the following information shall also be provided' 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. The bar code data base shall contain the following information. Bar code scanner and database of all the 14 Commercial DLP Please mention the DLP	Technical	Refer amendment for clarification
60	Please specify the formula for measuring PR and also the measuring point of PR	Technical	PG test procedure (annexure B) added as attachment.
61	Kindly consider the arrangement of ROW in Client's scope	Technical	Terms & Conditions of the Tender Document shall prevail.
62	Kindly consider the voltage drop to be 2%	Technical	Terms & Conditions of the Tender Document shall prevail.
63	Please provide the flood level of the area	Technical	Detailed geotechnical survey is in the scope of the successful bidder.
64	Please provide a Map for the tentative lay out & route lay out for evacuation	Technical	Refer SECI's official website for update.
65	Please share the topo sheet marking the transmission line and lines crossings inside and outside of the plot	Technical	In successful bidder's scope.
66	Please share contour and soil report as it is available with SECI	Technical	Refer SECI's official website for update.
67	Please confirm if Bay extension space will be made available for the bidder to connect the SPV Fdr.	Technical	Kindly refer clause 32.1.4 of GCC.
68	Please confirm if fencing is required at the starting point of the available land.	Technical	The length and layout of boundary wall/fence shall be as decided by the owner during detailed engineering after approval of topography work. (See clause 31.1 of SoW & TS)
69	Considering the DCR category, request you to consider glass thickness of 3.2 mm for 72 cells which are commonly available in Indian Market under this category	Technical	Terms & Conditions of the Tender Document shall prevail.
70	Please mention the separate GST rates for Supply, I&C, Civil & O&M	Contract	Bidders have to mention the same as per the actual applicability of GST on respective parts.
71	Bidder apprehension regarding following Technical specifications : Material thickness 295 +/- 5% micron, Water vapour transmission rate< 2,5gr/sqm x day, Elongation at break (MD) > 85%, Adhesion strength with encapsulate > 40 N/cm, In place of the Interlayer adhesion strength > 5 N/cm it should be > 6.0 N/15 mm, VSL to share their internal test reports of this back sheet - PCT and Extended reliability	Technical	Terms & Conditions of the Tender Document shall prevail.