

**Annexure - I**  
**Amendment - I**

**NIT No: SEC/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.	Section	Page No.	Clause	Original Version	Amendment
1	General Conditions of Contract (GCC)	30 of 77	32.1.2	Contractor confirms that it has entered into this Contract on the basis of proper examination of the data relating to the Facilities provided by the c and assessed by himself at the site location, after proper due diligence relating to the Facilities prior to bid submission. The Contractor acknowledges that any failure to obtain or acquaint itself with all such data and information shall not relieve its responsibility for properly estimating the difficulty or cost of successfully performing the Scope of Work.	Contractor confirms that it has entered into this Contract on the basis of proper examination of the data relating to the Facilities provided by the contractor and assessed by himself at the site location, after proper due diligence relating to the Facilities prior to bid submission. The Contractor acknowledges that any failure to obtain or acquaint itself with all such data and information shall not relieve its responsibility for properly estimating the difficulty or cost of successfully performing the Scope of Work.
2	Special Conditions of Contract (SCC)	7 of 10	10 A (ii)	ii) Seventy percent (70%) payments shall be paid on Pro rata basis against supply, receipt and acceptance of Materials at site on submission of documents (except Advance Bank Guarantee) indicated under clause i) above, Contractor's detailed invoice & packing list identifying contents of each shipment, evidence of dispatch (GR/ LR copy), Copies of certificates to the effect of payments of State/ Central Goods and Service Tax etc, Certified copy of Insurance policy/Insurance Certificate, Manufacturer's/ Contractor's Guarantee certificate of Quality, submission of the certificate by the Employer's authorized representative that the item(s) have been received and MDCC (Material Dispatch Clearance Certificate) issued by Employer's authorized representative in original.	ii) Seventy percent (70%) payments shall be paid on Pro rata basis against supply, receipt and acceptance of Materials at site on submission of documents (except Advance Bank Guarantee) indicated under clause i) above, Contractor's detailed invoice & packing list identifying contents of each shipment, evidence of dispatch (GR/ LR copy), Manufacturer's/ Contractor's Guarantee certificate of Quality, submission of the certificate by the Employer's authorized representative that the item(s) have been received and MDCC (Material Dispatch Clearance Certificate) issued by Employer's authorized representative in original.
3	Scope of Work and Technical Specifications (SoW & TS)	86 of 105	38.2.1	(ii) Air conditioned area (with provision of split A/C unit of adequate capacity) for SCADA room (min. 12m2) & Conference room ( min. area 20m2) (iii) Supervisor cabin and office area (min. area 25m2)	(ii) Air conditioned area (with provision of split A/C unit of adequate capacity) for SCADA room (min. 12m2), Conference room ( min. area 20m2) & Supervisor cabin and office area (min. area 25m2)
4	Scope of Work and Technical Specifications (SoW & TS)	87 of 105	39	SCADA Room, Control cum Office Room, Supervisor Room, and Lobby- 40 mm thick Heavy duty vitrified tile (8mm thick) flooring with matching 100m high skirting	SCADA Room, Control cum Office Room, Supervisor Room, and Lobby- 40 mm thick Heavy duty vitrified tile (8mm thick) flooring with matching 100mm high skirting
				Battery Room - Acid/ Alkali resistant tile flooring and dado 2100 high, Floor and dado tiles - 20mm and 12 mm thick respectively. However, if the batteries are maintenance free then 40 mm thick Heavy duty vitrified tile (8mm thick) flooring with matching 100m high skirting.	Battery Room - Acid/ Alkali resistant tile flooring and dado 2100mm high, Floor and dado tiles - 20mm and 12 mm thick respectively. However, if the batteries are maintenance free then 40 mm thick Heavy duty vitrified tile (8mm thick) flooring with matching 100mm high skirting.
				Passage/Corridor- 40 mm thick Heavy duty vitrified tile (8mm thick) flooring with matching 100m high skirting	Passage/Corridor- 40 mm thick Heavy duty vitrified tile (8mm thick) flooring with matching 100mm high skirting
				Toilet- 40 mm thick Ceramic tile (8mm thick) flooring and glazed tile (6mm thick) 2100 height dado	Toilet- 40 mm thick Ceramic tile (8mm thick) flooring and glazed tile (6mm thick) 2100mm height dado
5	Scope of Work and Technical Specifications (SoW & TS)	90 of 105	44.1.9	The toilet block shall have a provision for installation of Water Cooler.	Pantry shall have a provision for installation of Water dispenser.
6	Scope of Work and Technical Specifications (SoW & TS)	92 of 105	49.1	All internal trenches shall be of RCC. The min. wall and base slab thickness shall be 100mm for depth ≤ 750mm and 150mm for depths > 750mm. The trench shall be designed for lateral load due to external soil fill, ground water table at FGL and 50 KN/ Sqm surcharge. External trenches shall be kept min. 100mm above FGL to avoid entry of rain water.	All internal trenches shall be of RCC. The min. wall and base slab thickness shall be 100mm for depth ≤ 750mm and 150mm for depths > 750mm. The trench shall be designed for lateral load due to external soil fill, ground water table at FGL and 50 KN/ Sqm surcharge. External trenches if RCC shall be kept min. 100 mm above FGL to avoid entry of rain water.
7	Scope of Work and Technical Specifications (SoW & TS)	96 of 105	55.1	Minimum values of PR and CUF of the plant after netting off the auxiliary consumption. PR : 0.77 CUF : 20.4%	Minimum values of PR and CUF of the plant after netting off the auxiliary consumption. PR : 0.78 CUF : 20.4%
8	Scope of Work and Technical Specifications (SoW & TS)	41 of 405	10.3.1	The panel shall be metal enclosed, free standing, floor mounted, modular type with compartmentalized construction having degree of protection of IP 54 as per IS 2147. All doors and covers shall be provided with neoprene gaskets to prevent entry of vermin and dust.	The panel shall be metal enclosed, free standing, floor mounted, modular type with compartmentalized construction having degree of protection of IP 2X (Indoor) as per IS/IEC 60529. All doors and covers shall be provided with neoprene gaskets to prevent entry of vermin and dust.
9	Scope of Work and Technical Specifications (SoW & TS)	12 of 105	2.3.7	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 RFID tag which is embedded inside the module lamination and must be able to withstand harsh environmental conditions. The RFID data base shall contain the following information. RFID scanner and database of all the modules containing the following information shall also be provided.
10	Scope of Work and Technical Specifications (SoW & TS)	19 of 105	5.2	Technical Requirements :- Degree of protection IP 20 (Indoor)/IP 54 (Outdoor)	Technical Requirements :- Degree of protection IP 20 ( Indoor)
11	Scope of Work and Technical Specifications (SoW & TS)	81 of 105	34.3	In case the contractor proposes to provide pile foundation for support of module mounting structure (MMS); 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 300 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 times the diameter of the pile or shall have total minimum length of 1800 mm.	In case the contractor proposes to provide pile foundation for support of module mounting structure (MMS); 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 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 or shall have total minimum length of 1200 mm.
12	Scope of Work and Technical Specifications (SoW & TS)		59.1.18	New clause	The Contractor will construct/provide a separate temporary office with Lavatory facility/ arrangement at site(including office furniture, computer with internet facility and printer, vehicle etc) to be used by the officials of the Employer/ Owner a the time of construction of the Solar Power Plant. All the temporary facilities constructed for the purpose of execution of the contract shall be removed after taking necessary permissions from the Employer/Owner immediately after Operational Acceptance
13	Scope of Work and Technical Specifications (SoW & TS)	27 of 88	7.3.8	Degree of protection shall not be less than IP 5X for auxiliary circuit compartment. However, for remaining compartments it shall not be less than IP 5X.	Only indoor panels shall be provided. Degree of protection shall not be less than IP 5X for auxiliary circuit compartment. However, for remaining compartments it shall not be less than IP 4X.

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Sl. No.	Section	Page No.	Clause	Original Version	Amendment
14	Invitation for Bids (IFB) & Special Conditions of Contract (SCC)	8 of 9 (IFB) & 6 of 10 (SCC)	5 of IFB & 9 of SCC	<p>NOA/ LOI/ LOA for LSTK (Lump Sum Turn Key)/ EPC (Engineering, Procurement &amp; Commissioning) job shall be issued to successful bidder(s). The NOA/ LOI/ LOA for LSTK/ EPC job shall be awarded in following respective parts as mentioned briefly below: -</p> <p>(i) First Contract: FOR destination basis Supply including Transportation for delivery at site and Insurance of all Equipments and materials including mandatory spares and any other supplies specified in the Contract Documents.</p> <p>(ii) Second Contract: For providing all services i.e., including Unloading, Storage, Handling at Site, Civil Works, Erection, Installation, Testing and Commissioning including Performance Testing in respect of all the Equipments supplied under the "First Contract" and any other services specified in the Contract Documents.</p> <p>Both contracts will contain a cross fall breach clause specifying that breach of one will constitute breach of the other</p> <p>(iii) Third Contract: For providing Comprehensive operation &amp; maintenance of the Solar PV plant for 5 (Five) years from the date of commissioning or Operational Acceptance, whichever is later, as detailed in technical specification including supply and storage of all spare parts, consumables, repairs/ replacement of any defective equipment etc</p>	<p>NOA/ LOI/ LOA for LSTK (Lump Sum Turn Key)/ EPC (Engineering, Procurement &amp; Commissioning) job shall be issued to successful bidder(s). The NOA/ LOI/ LOA for LSTK/ EPC job shall be awarded in following respective parts as mentioned briefly below: -</p> <p>(i) <b>First Contract:</b> FOR destination basis Supply including Transportation for delivery at site and Insurance of all Equipments and materials including mandatory spares and any other supplies specified in the Contract Documents &amp; providing all services i.e., including Unloading, Storage, Handling at Site, Civil Works, Erection, Installation, Testing and Commissioning including Performance Testing in respect of all the Equipments supplied under the scope of Supply and any other services specified in the Contract Documents.</p> <p>(ii) <b>Second Contract:</b> For providing Comprehensive operation &amp; maintenance of the Solar PV plant for 5 (Five) years from the date of commissioning or Operational Acceptance, whichever is later, as detailed in technical specification including supply and storage of all spare parts, consumables, repairs/ replacement of any defective equipment etc</p>
15	Invitation for Bids (IFB)	8 of 9	Point J of BIS	OFFLINE & ONLINE BID-SUBMISSION DEADLINE, 30/10/2017 up to 1800 HRS	OFFLINE & ONLINE BID-SUBMISSION DEADLINE, 03/11/2017 up to 1800 HRS
16	Invitation for Bids (IFB)	8 of 9	Point K of BIS	OFFLINE & ONLINE BID OPENING, 31/10/2017, 1100 HRS (IST) onwards	OFFLINE & ONLINE BID OPENING, 06/11/2017, 1100 HRS (IST) onwards
17	Instruction to Bidders (ITB)	12 & 50 of 54	11.II.XIII & 5.2.XIII of the Annexure II of ITB	<p>Sealed and signed/ digitally signed, Blank copies (WITHOUT PRICES) of SOR-1 &amp; SOR-2 mentioning "QUOTED" for all the items of Respective SORS.</p> <p>Bidder should explicitly note that no prices are to be mentioned in any of the SOR here &amp; only needs to write "QUOTED".</p>	<p>Sealed and signed/ digitally signed, Blank copies (WITHOUT PRICES) of SOR-1 &amp; SOR-2 mentioning "QUOTED" for all the items of Respective SORS indicating that bidders have quoted all the items mentioned in the SOR and have not missed any of the items.</p> <p>Bidder should explicitly note that no prices are to be mentioned in any of the SOR here &amp; only needs to write "QUOTED" in words. Bidders mentioning price here will be out rightly rejected &amp; will not be considered for the further tendering process.</p>