

Amendments**Date: 02/08/2016****SECTION-I: INVITATION FOR BIDS (IFB)**

Clause	Page No.	Existing Clause	Amended Clause.
1	3 of 7	Solar Energy Corporation of India Limited (SECI) on behalf of Bharat Dynamics Limited (BDL), The Employer, invites online bids from eligible bidders on Single stage – Two envelop bid system in the prescribed forms and formats	Solar Energy Corporation of India Limited (SECI) on behalf of Bharat Dynamics Limited (BDL), The Employer, invites online bids from eligible bidders on Two stage – Two envelop bid system in the prescribed forms and formats
3.3.2	5 of 7	Bid processing fee of INR 2,30,000/- (Rupees two Lac Thirty Thousand only) inclusive of Service Tax in form of DD drawn in favour of “Solar Energy Corporation of India Limited” payable at New Delhi for each package.	Bid processing fee of INR 2,30,000/- (Rupees two Lac Thirty Thousand only) inclusive of Service Tax in form of DD drawn in favour of “Solar Energy Corporation of India Limited” payable at New Delhi.
4.2	5 of 7	The bidder should have designed, supplied, erected/supervised erection and commissioned/supervised commissioning of Solar Photo Voltaic (SPV) based grid connected power Plant(s) of following cumulative installed capacity of 5 MW. Out of which at least two Plants should have been of 1 MWp capacity or above. The reference two Plants of 1 MWp or above capacity must have been in successful operation for at least Six months prior to the scheduled date of techno commercial bid opening.	The bidder should have designed, supplied, erected/supervised erection and commissioned/ supervised commissioning of Solar Photo Voltaic (SPV) based grid connected power Plant(s) of following cumulative installed capacity of 5 MW. Out of which at least two Plants should have been of 1 MW capacity or above. The reference two Plants of 1 MW or above capacity must have been in successful operation for at least Six months prior to the scheduled date of techno commercial bid opening.

SECTION-II: INSTRUCTIONS TO BIDDER (ITB)

Clause	Page No.	Existing Clause	Amended Clause.
1.2.1	5 OF 31	The Successful bidder shall furnish a Bank Guarantee of Rs.20,00,000/- (Rupees Twenty Lakh only) before issue of LOI/NTP/PO, in favour of Bharat Dynamics Limited (BDL), as per the format attached as APPENDIX-23 of Section-VI (Forms & Formats)	INTEGRITY PACT BANK GUARANTEE (IPBG) of Rs.20,00,000/- (Rupees Twenty Lakh only) & Integrity Pact Agreement as Per Appendix-22 & 23 must be submitted by the bidders along with Techno-commercial BID in original as well as online. BID documents not having IPBG of requisite amount as mentioned above shall be treated as nonresponsive. Returning of IPBG for unsuccessful bidders shall be in line with returning procedure for returning of Performance Bank

			Guarantee as per ITB Clause: 2.10.6, Validity of IPBG shall be governed as per Appendix-23
1.2.1 PBG & OMBG (ii)	6 OF 31	Performance bank guarantee for EPC: The Contractor shall furnish within 14 days from the date of issue of Letter of Intent (LOI), an unconditional and irrevocable bank guarantee for due Performance as per Format attached and which shall be for 10% of the total Contract Value (i.e., total sum of all the supply contract, erection contract and civil works contract) and shall be valid up to 90 days beyond defect liability period.	Performance bank guarantee for EPC: The Contractor shall furnish within 14 days from the date of issue of Letter of Intent (LOI), an unconditional and irrevocable bank guarantee for due Performance as per Format attached and which shall be for 10% of the total Contract Value (i.e., total sum of all the supply contract, erection contract and civil works contract) and shall be valid up to 30 days beyond Operational Acceptance. PBG against EPC shall be released after submission & acceptance of following; (i) O&M BG (confirmed by issuing bank), (ii) As built drawings of all components of the Plant, (iii) O&M manuals of the Plant along & (iv) Settlement of any claim by Employer towards EPC part of Project. (v) Acceptance of Punch-Points by the Contractor as submitted by the Employer. During O&M Period, till the time of submission of O&M BG, in case of any breakdown/occurrence of fault/ failure in Energy Generation/Liquidated Damage etc., Performance Bank Guarantee for EPC shall also be treated as O&M Bank Guarantee also, and encashment shall take place in line with GCC Clause 50.3/SCC Clause 25 as applicable. In case Contractor fails to submit O&M BG within 30 days from the expiry of PBG, the PBG may be encashed to the extent of value of O&M BG, due for submission.
3.4.2(xxxi)	18 of 31	NIT Documents along with clarifications, amendments & addendums if any. (To be submitted online only)	NIT Documents along with clarifications, amendments & addendums if any. (To be uploaded online only)
3.20 {2, (b)}	29 OF 31	At the start of e-auctioning process, the bid along with the list of short listed bidders shall be displayed as their first round bid along with the NPV value of O&M quotation per year submitted and calculated as per Appendix -3 of Section VI. The auctioning shall be on the EPC price quoted	At the start of e-auctioning process, the bid along with the list of short listed bidders (only Pseudo Name) shall be displayed as their first round bid along with the NPV value of O&M quotation per year submitted and calculated as per Appendix -3 of Section VI. The auctioning shall be on the EPC

		by the bidder. The NPV value of O&M price Bid shall remain fixed.	price quoted by the bidder. The NPV value of O&M price Bid shall remain fixed.
3.20 {2, (d)}	29 OF 31	Bidders can only quote any value lower than their minimum EPC price quoted by any bidder at that point of time during E-Auctioning. However, at no stage, increase in EPC price will be permissible.	Bidders can only quote any value lower than lowest EPC price of E- Auctioning at that point of time, (consistent with ITB Clause 3.20 {2,(c)}. However, at no stage, increase in EPC price will be permissible.
SECTION-III: General Conditions of Contract (GCC)			
Clause	Page No.	Existing Clause	Amended Clause.
Definitions	4 of 50	“Bid Price” shall mean the price bid submitted by the bidders comprising of 1) EPC Price bid (Firm value of the financial proposal as the sum of individual Bid value of supply, erection and civil works Including all Taxes and Duties) and 2) O&M Price bid including all Taxes and Duties.	“Bid Price” shall mean the price bid submitted by the bidders comprising of 1) EPC Price bid (Firm value of the financial proposal as the sum of individual Bid value of supply, erection and civil works Including all Taxes and Duties) and 2) O&M Price bid excluding all Taxes and Duties.
Definitions	6 of 50	Final Acceptance” means acceptance of Facilities by the Employer at the end of O&M period, as stated in this NIT, from the date of Commissioning or demonstration of minimum annual CUF whichever comes later which certifies the Contractor’s fulfilment of the Contract in respect of Functional and Plant Performance Guarantees of the Facilities	Final Acceptance” means acceptance of Facilities by the Employer at the end of First Year of O&M period, as stated in this NIT, from the date of Operational Acceptance or demonstration of minimum annual CUF whichever comes later which certifies the Contractor’s fulfilment of the Contract in respect of Functional and Plant Performance Guarantees of the Facilities
6.2.4.1	12 of 50	The Employer and the Contractor shall each appoint one arbitrator, and these two arbitrators shall jointly appoint a third arbitrator, who shall chair the arbitration panel. If the two arbitrators do not succeed in appointing a third arbitrator within twenty-eight (28) days after the latter of the two arbitrators has been appointed, the third arbitrator shall, at the request of either party, be appointed by the Appointing Authority for arbitrator designated in the SCC.	Third arbitrator shall be appointed in accordance with the Arbitration and Conciliation Act, 1996.
12.3.1	17 of 50However, in case of delay in demonstration of the Performance Test (PR test) and Operational Acceptance, the validity of all the contract Performance BankHowever, in case of delay in demonstration of the Performance Test (PR test) and Operational Acceptance, the

		Guarantees shall be extended by the period of such delay plus ninety days.....	validity of all the Contract Performance Bank Guarantees shall be extended by the period of such delay
50.3	45 of 50	Whenever a fault occurs, the Contractor has to attend to rectify the fault & the fault must be rectified within the 24 hours from the time of occurrence of fault, failing which the Contractor will be liable for additional liquidated damages as per reference to the generation parameters accumulated in similar/ associated equipment of the Plant (for example if a block consists of 4 inverters and one inverter is down for more than 24 hours, then the generation for faulty inverter shall be calculated as the average of accumulated generation for the other 3 inverters over the 24 hours duration of fault as the deemed generation) and the LD shall be levied on the deemed generation as per the tariff of Rs. 5.50 per unit	Whenever a fault/failure/breakdown/malfunctioning occurs , the Contractor has to attend to rectify the fault & the fault must be rectified within the 48 hours from the time of occurrence of fault, failing which LD will be applicable in line with SCC Clause 25.2 or 25.4 depending upon nature of fault/failure/defect/ breakdown/malfunctioning.
SECTION-IV: Special Conditions of Contract (SCC)			
Clause	Page No.	Existing Clause	Amended Clause.
3	3 of 14	Appointing Authority of Adjudicator and Arbitrator shall be CMD, Bharat Dynamics Limited Trust	Appointing Authority of third Adjudicator shall be CMD, Bharat Dynamics Limited.
7.3	3 & 4 of 14	As the PR of the Plant is dependent on the quality of Plant equipment and optimum design of the Plant, the bidders shall demonstrate the PR of 0.78 as per the procedure mentioned at TS Clause 7 for Operational Acceptance of the Plant.	As the PR of the Plant is dependent on the quality of Plant equipment and optimum design of the Plant, the bidders shall demonstrate the PR of 0.78 as per the procedure mentioned at TS Clause 10 for Operational Acceptance of the Plant.
7.4	4 of 14	The initial acceptance of the Plant will be evaluated during commissioning by measuring PR for continuous 7 days. However, contractor must demonstrate the PR for a period of 30 days as per the PR test procedure specified in TS Clause 7.	The initial acceptance of the Plant will be evaluated during commissioning by measuring PR for continuous 7 days. However, contractor must demonstrate the PR for a period of 30 days as per the PR test procedure specified in TS Clause 10.
14.1.1 (iii)	6 of 14	10 % of the total price of supplies of Plant and Equipment shall be paid after Operational Acceptance of the Facility pursuant to successful Guarantee Tests and demonstration of PR and submission of all requisite documentation. However, this Payment may also be	10 % of the total price of supplies of Plant and Equipment shall be paid after CUF demonstration on completion of first year of O&M of the Facility pursuant to successful Guarantee Tests and demonstration of PR and submission of all requisite documentation. However, this Payment may

		released on the submission of Bank Guarantee of equivalent amount. The BG is valid up to demonstration of CUF for the successful first year of Operation. However, in case of delay, the BG shall be extended suitably.	also be released after demonstration of PR and submission of all requisite documentation on the submission of Bank Guarantee of equivalent amount. The BG shall be valid up to demonstration of CUF for the successful first year of Operation. However, in case of delay, the BG shall be extended suitably.
14.1.2 (iii)	7 of 14	10% of the total price of Erection, Testing and Commissioning shall be paid after Operational Acceptance of the Facility pursuant to successful guarantee Tests and demonstration of PR. However, this Payment may also be released on the submission of Bank Guarantee of equivalent amount. The BG is valid up to demonstration of CUF for the successful first year of Operation. However, in case of delay, the BG shall be extended suitably	10% of the total price of Erection, Testing and Commissioning shall be paid after CUF demonstration after first year of O&M of the Facility pursuant to successful Guarantee Tests and demonstration of PR and submission of all requisite documentation. However, this Payment may also be released after successful Guarantee Tests and demonstration of PR and submission of all requisite documentation on the submission of Bank Guarantee of equivalent amount. The BG shall be valid up to demonstration of CUF for the successful first year of Operation. However, in case of delay, the BG shall be extended suitably.
14.1.3 (iii)	7 of 14	10% of the total price of Civil Works shall be paid shall be paid after completion of all the civil works including finishing and debris removal. However, this Payment may also be released on the submission of Bank Guarantee of equivalent amount. The BG is valid up to demonstration of CUF for the successful first year of Operation. However, in case of delay, the BG shall be extended suitably.	10% of the total price of Civil Works shall be paid shall be paid after CUF demonstration after first year of O&M of the Facility pursuant to completion of all the civil works including finishing and debris removal. However, this Payment may also be released after completion of all the civil works including finishing and debris removal on submission of Bank Guarantee of equivalent amount. The BG shall be valid up to demonstration of CUF for the successful first year of Operation. However, in case of delay, the BG shall be extended suitably.
18	9 &10 of 14	Apart from adhering to special provision made in the specification regarding submission of samples, the Contractor shall within 10 days of its receipt of Letter of Intent, provide to the Employer samples along with detailed literature of all materials it proposes to use irrespective of the fact that specific make/material might	the Contractor shall within 30 days of issue of Letter of Intent/NTP, provide to the Employer detailed Technical literature &/or test certificates of all major materials it proposes to use irrespective of the fact that specific make/material might have been stipulated. The Employer

		have been stipulated. If certain items proposed to be used are of such nature that samples cannot be presented or prepared at Site, detailed literature / test certificate of the same shall be provided instead. The Employer shall check the samples and give his comments and/or approval to the same.	shall check the compliance of the proposed items and give its comments and/or approval to the same.
25.1	11 of 14	During the Operational Acceptance any shortfall in the Performance Ratio (PR) as determined through the PR Test Procedure specified in Clause 7 of Section V: Technical Specification	During the Operational Acceptance any shortfall in the Performance Ratio (PR) as determined through the PR Test Procedure specified in Clause 10 of Section V: Technical Specification
Insert Clause 25.3 (a)	12 of 14	In case the Project fails to generate any power continuously for 1 month any time during the O&M period, apart from the force majeure and grid outages as certified by competent authority from STU/ CTU, it shall be considered as “an event of default”. In the case of default the entire O&M Bank Guarantee will be encashed	
25.4	12 of 14	The Liquidated Damages specified on account of delays, as specified in GCC Clause 34 and LD specified on account of deviations in Functional Guarantees as specified in SCC Clause 25 above shall be assessed independent of each other.	The Liquidated Damages specified on account of delays, as specified in GCC Clause 34 and LD specified on account of deviations in Functional Guarantees as specified in SCC Clause 25 above shall be assessed independent of each other. Liquidated Damages specified under SCC Clause 25.1, 25.2, 25.3 & 25.4 are also independent of each other.
SECTION-V: Technical Specifications (TS)			
Clause	Page No.	Existing Clause	Amended Clause.
3.2.7	9 of 122	33kV / 415V auxiliary transformer (s).	33kV / 415V auxiliary transformer (s). However LV of Auxiliary Transformer may also be taken as output Voltage of Inverter, subject to compliance of DISCOM's/STU's requirement & system compatibility.
3.2.11	9 of 122	33 kV indoor/ outdoor panels having incoming and outgoing feeders with VCBs, CTs, PTs, Bus bars, cables terminals kits and Bus coupler having Main and transfer Bus. Each bay shall consist of VCB, CT, Isolators with earth switch, LAs and PT's etc.	33 kV indoor/ outdoor panels having incoming and outgoing feeders with VCBs, CTs, PTs, Bus bars, cables terminals kits and Main Bus. Each bay shall consist of VCB, CT, Isolators with earth switch, LAs and PT's etc.
3.2.24 (III)	10 & 11 of 122	One circuit out of these two lines shall be transmission line for the power generated by Solar PV Plant & other circuit	One circuit out of these two lines shall be transmission line for the power generated by Solar PV Plant & other circuit

		shall be the replacement of 33 kV, 100 square mm (ACSR Conductor) existing line.	shall be the replacement of 33 kV, 100 square mm (AAA Conductor) existing line. Conductor to be used as replacement of existing line as well as Transmission line for Power Evacuation from 5 MW Solar PV Plant should be of AAA Conductor. Size of replacement conductor should be 100 sq. mm, while for Power Evacuation line appropriate size of AAA conductor instead of ACSR shall be taken. All other specifications/ Technical requirement remaining same. Dismantled materials from existing transmission line (conductor, insulators, poles etc.) shall be handed over to DISCOM.
3.5.3	12 of 122	Construction and erection of perimeter fence/ boundary wall and main/ security gate(s). As there will be some explosive testing activities will be happening on southern side of the plot, it is mandatory to construct Reinforced brick boundary wall of width not less than 12 cm & height 2.4 meters on southern side of the Plot, as highlighted in Annexure-A.	Construction and erection of perimeter fence/ boundary wall and main/ security gate(s). As there will be some explosive testing activities will be happening on southern side of the plot, it is mandatory to construct Reinforced brick boundary wall on southern side of the Plant, of width not less than 9 " brick wall & height 2.4 meters with beam support on bottom and top sides, having columns at every 3 m span with fine plastering and weather proof painting, as highlighted in Annexure-A. Tentative length of such boundary wall will be 520 m, however this may change as per actual orientation of the Plant.
3.5.8	13 of 122	Construction of Office cum stores cum control room building with Supervisor room, pantry, wash room, conference room etc along with requisite furniture, workstations, air conditioning, Fire detection & protection system, internal and external illumination, other equipment as per the specifications. The minimum floor area of the control room building shall be 500 sqft.	Construction of Office cum stores cum control room building with Supervisor room, pantry, wash room, conference room etc along with requisite furniture, workstations, air conditioning, Fire detection & protection system, internal and external illumination, other equipment as per the specifications. The minimum floor area of the control room building shall be 1500 sqft.
8	28 of 122	Power Conditioning Unit (PCU)	Clause-8 shall be read as "Power Conditioning Unit (PCU) & PV Array Field" instead of "Power Conditioning Unit (PCU) "
8.20.1	33 of 122	Only terminal cable joints shall be accepted. No cable joint to join two cable ends shall be accepted. Necessary bimetallic connectors have to be used for connecting cu	Only terminal cable joints shall be accepted. No cable joint to join two cable ends shall be accepted. Necessary bimetallic connectors have to be used for connecting cu bus

		bus bar and AI cables or vice-versa. All wires used on the LT side shall conform to IS and should be of appropriate voltage grade. Only copper conductor wires compliant with IEC 60228, Class 5 of reputed make shall be used.	bar and AI cables or vice-versa. All wires used on the LT side shall conform to IS and should be of appropriate voltage grade. Only copper conductor wires (up to Array Junction Box) compliant with IEC 60228, Class 5 of reputed make shall be used.
Insert Clause 11.3	90 of 122	Total hours in a year considered in the CUF calculation formula (TS Clause 11.1) i.e. 8760 is for normal years, however for leap years this shall be considered as 8784.	
Insert Clause 11.4	90 of 122	Time of Grid outages during generation hours of Solar PV shall be reduced from total hours in a year (8760/8784) used in CUF calculation formula as specified under Clause-11.1 of TS. However Grid outage's timing & time period shall be established thru Grid Outage certification by competent authority of state Grid/DISCOM	
Civil, Mechanical & Plumbing Works	90 of 122	All design and construction of civil works shall conform to relevant Indian standards such as BIS, IRC, MORST, NBC etc. Design of steel structures shall conform to IS: 800, 802 or 802 as applicable.....	All design and construction of civil works shall conform to relevant Indian standards such as BIS, IRC, MORST, NBC etc. Design of steel structures shall conform to IS: 800, 801 or 802 as applicable.....
14.3	96 of 122The concrete mix design shall be carried out through LABL accredited Laboratory or any Gov. Engineering college as approved by the Employer.....The concrete mix design shall be carried out through NABL accredited Laboratory or any Gov. Engineering college as approved by the Employer.....
15.2	96 of 122	The access road connecting Main gate and MCR and internal access road(s) connecting MCR to various facilities/ buildings shall be 3.5m wide with 0.5m wide shoulders on either side while the peripheral road shall be 2.5m wide with 0.5m shoulders on either side. All roads including shoulders shall be of WBM. The top of road (TOR) elevation shall be minimum 200 mm above FGL to avoid flooding of roads during rains. The roads shall be provided with alongside drains as per design requirements of storm water drainage system. The roads shall be designed as per IRC 37 corresponding to design vehicular traffic of 20 million standard axles (msa) and critical field CBR value.	The access road connecting Main gate and MCR and internal access road(s) connecting MCR to various facilities/ buildings shall be 3.5m wide with 0.5m wide shoulders on either side while the peripheral road shall be 2.5m wide with 0.5m shoulders on either side. All roads including shoulders shall be of WBM. The top of road (TOR) elevation shall be minimum 200 mm above FGL to avoid flooding of roads during rains. The roads shall be provided with alongside drains as per design requirements of storm water drainage system. The roads shall be designed as per IRC 37 corresponding to design vehicular traffic of 5 million standard axles (msa) and critical field CBR value. However minimum Section dimensions as mentioned above must be complied.
21.14	102 of 122	Modules shall be clamped & bolted with the structure properly. The material of clamps shall be Al / Steel having	Modules shall be clamped & bolted with the structure properly. The material of clamps shall be Anodized Al /

		weather resistant properties. Clamp – bolt shall use EPDM rubber and shall be designed in such a way so as not to cast any shadow on the active part of a module.	Stainless Steel. Clamp/bolt shall use EPDM rubber and must be designed in such a way so as not to cast any shadow on the active part of a module. In case bolts are used, Spring Washers shall be used bolt head end and EPDM rubber shall be used in between Module & purlin.
42.3	115 of 122	The mechanical structures, electrical works and overall workmanship of the grid connected solar power Plant must be warranted for a minimum of 5 years.	The mechanical structures, electrical works and overall workmanship of the grid connected solar power Plant must be warranted for a minimum of 10 years.
SECTION-VI: Forms & Formats			
Clause	Page No.	Existing Clause	Amended Clause.
Appendix 4:	10 of 67	PR should be determined as per the formula and procedure specified in Clause 7 of Section V: Technical Specifications.	PR should be determined as per the formula and procedure specified in Clause 10 of Section V: Technical Specifications.