

SOLAR ENERGY CORPORATION OF INDIA LIMITED
NEW DELHI

Ref No. SECI/C&P/OP/11/0001/26-27/Amendment-01

Date: 24-08-2026

Amendment-01 to Balance of System Tender for Setting up of grid-connected 88 MW Ground mounted Solar PV plant at Chitradurga, Karnataka

RfS No. SECI/C&P/OP/11/0001/26-27 dated 08.05.2026

S. No.	Section No.	Clause No.	Existing Clause	Amended Clause
Contractual Tender Document				
1.	Section-I Invitation for Bids (IFB)	General	INVITATION FOR BIDS (IFB) FOR DESIGN & ENGINEERING, PROCUREMENT & SUPPLY OF EQUIPMENT AND MATERIALS (EXCLUDING PV MODULES), TESTING AT MANUFACTURERS WORKS, MULTI – LEVEL INSPECTIONS, PACKING AND FORWARDING, SUPPLY, RECEIPT, UNLOADING AND STORAGE AT SITE, ASSOCIATED CIVIL WORKS, SERVICES, PERMITS, LICENCES, INSTALLATION AND INCIDENTALS, INSURANCE AT ALL STAGES, ERECTION, TESTING AND COMMISSIONING FOR 88 MW (AC) SOLAR PV POWER PROJECT, AND PERFORMANCE DEMONSTRATION WITH ASSOCIATED EQUIPMENT AND MATERIALS ON TURNKEY BASIS ALONG WITH 5 (FIVE) YEARS COMPREHENSIVE OPERATION AND MAINTENANCE FROM THE DATE OF COMMISSIONING (SUPPLY OF MODULES IS UNDER OWNER’S SCOPE)	INVITATION FOR BIDS (IFB) FOR DESIGN & ENGINEERING, PROCUREMENT & SUPPLY OF EQUIPMENT AND MATERIALS (EXCLUDING PV MODULES), TESTING AT MANUFACTURERS WORKS, MULTI – LEVEL INSPECTIONS, PACKING AND FORWARDING, SUPPLY, RECEIPT, UNLOADING AND STORAGE AT SITE, ASSOCIATED CIVIL WORKS, SERVICES, PERMITS, LICENCES, INSTALLATION AND INCIDENTALS, INSURANCE AT ALL STAGES, ERECTION, TESTING AND COMMISSIONING FOR 88 MW (AC) SOLAR PV POWER PROJECT, AND PERFORMANCE DEMONSTRATION WITH ASSOCIATED EQUIPMENT AND MATERIALS ON TURNKEY BASIS ALONG WITH 5 (FIVE) YEARS COMPREHENSIVE OPERATION AND MAINTENANCE FROM THE DATE OF OPERATIONAL ACCEPTANCE (SUPPLY OF MODULES IS UNDER OWNER’S SCOPE)
2.	Section-I Invitation for Bids (IFB)	1.4	The selection of the Contractor for the “Design & Engineering, Procurement & Supply of Equipment and Materials (excluding PV Modules), Testing at Manufacturers Works, Multi – Level Inspections, Packing	The selection of the Contractor for the “Design & Engineering, Procurement & Supply of Equipment and Materials (excluding PV Modules), Testing at Manufacturers Works, Multi – Level Inspections, Packing

			and Forwarding, Supply, Receipt, Unloading and Storage at Site, Associated Civil Works, Services, Permits, Licences, Installation and Incidentals, Insurance at all Stages, Erection, Testing and Commissioning for 88 MW (AC) Solar PV Power Project, and performance demonstration with associated equipment and materials on turnkey basis along with 5 (five) years comprehensive Operation and Maintenance from the date of Commissioning” will be carried out by Solar Energy Corporation of India Limited (A Government of India Enterprise) incorporated under the Companies Act, 2013, having its Registered Office at 6th Floor, Plate-B, NBCC Office Block Tower-2, East Kidwai Nagar, New Delhi-110023 (hereinafter referred to as ‘SECI’ or EMPLOYER or OWNER).	and Forwarding, Supply, Receipt, Unloading and Storage at Site, Associated Civil Works, Services, Permits, Licences, Installation and Incidentals, Insurance at all Stages, Erection, Testing and Commissioning for 88 MW (AC) Solar PV Power Project, and performance demonstration with associated equipment and materials on turnkey basis along with 5 (five) years comprehensive Operation and Maintenance from the date of Operational Acceptance” will be carried out by Solar Energy Corporation of India Limited (A Government of India Enterprise) incorporated under the Companies Act, 2013, having its Registered Office at 6th Floor, Plate-B, NBCC Office Block Tower-2, East Kidwai Nagar, New Delhi-110023 (hereinafter referred to as ‘SECI’ or EMPLOYER or OWNER).
3.	Section-I Invitation for Bids (IFB)	1.6	SECI, therefore, invites bids from eligible bidders to participate in the tender for Design & Engineering, Procurement & Supply of Equipment and Materials (excluding PV Modules), Testing at Manufacturers Works, Multi – Level Inspections, Packing and Forwarding, Supply, Receipt, Unloading and Storage at Site, Associated Civil Works, Services, Permits, Licences, Installation and Incidentals, Insurance at all Stages, Erection, Testing and Commissioning for 88 MW (AC) Solar PV Power Project, and performance demonstration with associated equipment and materials on turnkey basis along with 5 (five) years comprehensive Operation and Maintenance from the date of Commissioning as per the aforementioned details.	SECI, therefore, invites bids from eligible bidders to participate in the tender for Design & Engineering, Procurement & Supply of Equipment and Materials (excluding PV Modules), Testing at Manufacturers Works, Multi – Level Inspections, Packing and Forwarding, Supply, Receipt, Unloading and Storage at Site, Associated Civil Works, Services, Permits, Licences, Installation and Incidentals, Insurance at all Stages, Erection, Testing and Commissioning for 88 MW (AC) Solar PV Power Project, and performance demonstration with associated equipment and materials on turnkey basis along with 5 (five) years comprehensive Operation and Maintenance from the date of Operational Acceptance as per the aforementioned details.
4.	Section-I Invitation for Bids (IFB)	10.(ii)	Performance demonstration with associated equipment and materials on turnkey basis along with 5 (five) years comprehensive Operation and Maintenance from the date	Performance demonstration with associated equipment and materials on turnkey basis along with 5 (five) years comprehensive Operation and Maintenance from the date

			of Commissioning.	of Operational Acceptance.
5.	Section-I Invitation for Bids (IFB)	Bid Information Sheet (A)	Design & Engineering, Procurement & Supply of Equipment and Materials (excluding PV Modules), Testing at Manufacturers Works, Multi – Level Inspections, Packing and Forwarding, Supply, Receipt, Unloading and Storage at Site, Associated Civil Works, Services, Permits, Licences, Installation and Incidentals, Insurance at all Stages, Erection, Testing and Commissioning for 88 MW (AC) Solar PV Power Project, and performance demonstration with associated equipment and materials on turnkey basis along with 5 (five) years comprehensive Operation and Maintenance from the date of Commissioning. The detailed scope of work is given in Section VII: Scope of Work, specifications and Drawings of these bidding documents.	Design & Engineering, Procurement & Supply of Equipment and Materials (excluding PV Modules), Testing at Manufacturers Works, Multi – Level Inspections, Packing and Forwarding, Supply, Receipt, Unloading and Storage at Site, Associated Civil Works, Services, Permits, Licences, Installation and Incidentals, Insurance at all Stages, Erection, Testing and Commissioning for 88 MW (AC) Solar PV Power Project, and performance demonstration with associated equipment and materials on turnkey basis along with 5 (five) years comprehensive Operation and Maintenance from the date of Operational Acceptance. The detailed scope of work is given in Section VII: Scope of Work, specifications and Drawings of these bidding documents.
6.	Section-II Instruction to Bidders (ITB)	32.4.2.7.b.i	The Clause stands modified as follows: Contract Price Adjustment due variation in the offered PV module: Contract price variation due to variation in the efficiency of offered PV modules shall be adjusted as per the formula below: Contract Price for the entire 123.2 MWp plant capacity based on 605Wp module quoted by the contractor = CP_{quoted} Percentage Variation in Contract Price (ΔCP) for different efficiency of modules offered by Owner is calculated as- $\Delta CP(\%) = -1.53 \times (\eta_{offered} - \eta_{ref})$ Where, ΔCP : Contract Price Variation in % due to variation in module efficiency offered to BoS Contractor η_{ref} : Reference (%) efficiency for 605 Wp Module (Tender) = 22.380	

			• η_{offered} : Efficiency (%) of PV module offered to BOS Contractor by SECI Contract Price after efficiency adjustments, $CP_{\text{adjusted}} = CP_{\text{quoted}} \times (1 + \Delta CP)$ Note: The percentage change in the total contract price shall be limited to +/- 10% during the execution of contract for change in quantities/ scope variation at the quoted rates. <u>Illustration:</u> Reference (%) efficiency Considered for 605 Wp Module (Tender), $\eta_{\text{ref}} = 22.380\%$ Assuming, Contract Price quoted by bidder for the 123.2 MWp plant capacity based on 605 Wp module, $CP_{\text{quoted}} = 200 \text{ Crore}$ Considering SECI offered modules with different efficiency of 23.000%, $\eta_{\text{offered}} = 23.000\%$ ΔCP, CP_{adjusted} and FCP for efficiency of modules offered by SECI is calculated as per formula mentioned above: $\Delta CP (\%) = -0.949\%$ $CP_{\text{adjusted}} = \text{INR } 198.102 \text{ Crore}$ Final Contract Price after adjustments for all offered modules, FCP = INR 198.102 Crore Note: All values for calculation purpose would be rounded off to 3rd Decimal Place only.
7.	Annexure to Bid Data Sheet (BDS) Qualifying Requirements	1	Addendum to the Clause: In order to avail the exemption in Tender Processing Fee in case of consortium/ JV, all the members should be registered as MSE Vendors under NSIC/ Udyog Aadhaar Category/DIC. In case the consortium/JV proposes to meet the qualifying requirements based on the credentials of its Parent/Holding/Subsidiary/Affiliate and any of its

			Parent/Holding/Subsidiary/ Affiliate is not an MSE, the consortium/JV will not be eligible for exemption of Bid Processing Fees and EMD.	
8.	Annexure to Bid Data Sheet (BDS) Qualifying Requirements	2 Route III IIIA	The Bidder should have executed an Industrial project either as developer or as EPC Contractor in the area of Power/ Steel/ Oil and Gas/ Petro-Chemical/Fertilizer/Cement/Coal mining including Coal handling plant / Infrastructure (Roads, highways, bridges, tunnels, railways, airports, and seaports, Water treatment plants, sewage systems, electrical grids, and power stations, Waste management systems, flood defence, and urban smart city developments) and/ or any other process industry, of a value of INR 117.25 Crores or more in a single project or single work or above in last seven years and till last date of bid submission. However, such project capacity must have been in satisfactory operation for at least six (06) months prior to the last date of bid submission.	The Bidder should have executed an Industrial project either as developer or as EPC Contractor in the area of Power/ Steel/ Oil and Gas/ Petro-Chemical/Fertilizer/Cement/Coal mining including Coal handling plant / Infrastructure (Roads, highways, bridges, tunnels, railways, airports, and seaports, Water treatment plants, sewage systems, electrical grids, and power stations, Waste management systems, flood defence, and urban smart city developments) and/ or any other process industry, of a value of INR 234.50 Crores or more in a single project or single work or above in last seven years and till last date of bid submission. However, such project capacity must have been in satisfactory operation for at least six (06) months prior to the last date of bid submission.
9.	Annexure to Bid Data Sheet (BDS) Qualifying Requirements	3.a	Minimum Average Annual Turnover (MAAT): The MAAT of the bidder in the last three financial years (i.e. FY 2024-25, 2023-24 & 2022-23) should be INR 70.35 Crore. MAAT shall mean Revenue from Operations as incorporated in the profit & loss account excluding other income, e.g. sale of fixed assets. This must be the individual Company's turnover and not that of any group of Companies. A summarized sheet of average turnover, certified by a practicing Chartered Accountant/Statutory Auditor should be compulsorily enclosed along with corresponding annual accounts.	Minimum Average Annual Turnover (MAAT): The MAAT of the bidder in the last three financial years (i.e. FY 2025-26, FY 2024-25 and FY 2023-24) should be INR 70.35 Crore. MAAT shall mean Revenue from Operations as incorporated in the profit & loss account excluding other income, e.g. sale of fixed assets. This must be the individual Company's turnover and not that of any group of Companies. A summarized sheet of average turnover, certified by a practicing Chartered Accountant/Statutory Auditor should be compulsorily enclosed along with corresponding annual accounts. It is clarified that wherever applicable, audited accounts for FY 2025-26, FY 2024-25 and FY 2023-24 will be required to be submitted to meet the qualification requirements. In

				case the audited annual accounts of FY 2025-26 are not available, then audited annual accounts of FY 2024-25 may be submitted instead. In such case, the submission of documents against MAAT demonstration shall include audited financials for FY 2024-25, FY 2023-24 and FY 2022-23.
10.	Annexure to Bid Data Sheet (BDS) Qualifying Requirements	3.c	Working Capital: The bidder should have a minimum Working Capital (WC) of INR 39.08 Crore as per the last audited annual financial year statement. If the bidder's working capital is inadequate, the bidder should supplement this with a letter from the bidder's bank, (having net worth not less than INR 500 Crores), confirming availability of the line of credit for more than or equal to INR 39.08 Crore to meet the working Capital requirement of this particular Project.	Working Capital: The bidder should have a minimum Working Capital (WC) of INR 33.50 Crore as per the last audited annual financial year statement. If the bidder's working capital is inadequate, the bidder should supplement this with a letter from the bidder's bank, (having net worth not less than INR 500 Crores), confirming availability of the line of credit for more than or equal to INR 33.50 Crore to meet the working Capital requirement of this particular Project.
11.	Section-IV General Conditions of Contract (GCC)	43.1.a	For Delay: In case of delay in Erection, testing and commissioning beyond the project commissioning timeline, Contractor shall pay a sum equivalent to half percent (0.5%) per week of the unexecuted value of the contract Price as liquidated damages for such default subject to the maximum limit of five percent (5%) of First Contract Price.	Not used.
12.	Section-V Special Conditions of Contract (SCC)	SCC No. 3 Definitions (GCC clause 1)	The Time for Commissioning for the cumulative capacity of 88 MW Ground mounted Solar PV Power Plant at Chitradurga, Karnataka along with other associated equipment as per this tender document in total shall be 18 (Eighteen) Months from the Date of the signing of Contract Agreement or as mentioned in Notification of Award. Further Contractor is also to provide Operation & Maintenance Contract of Solar Photo Voltaic Plant for a	The Time for Commissioning for the cumulative capacity of 88 MW Ground mounted Solar PV Power Plant at Chitradurga, Karnataka along with other associated equipment as per this tender document in total shall be 21 (Twenty-One) Months from the Date of the signing of Contract Agreement or as mentioned in Notification of Award. Further Contractor is also to provide Operation & Maintenance Contract of Solar Photo Voltaic Plant for a

			period of 05 (Five) years from the date of Operational Acceptance of the Plant.	period of 05 (Five) years from the date of Operational Acceptance of the Plant.
13.	Section-V Special Conditions of Contract (SCC)	3.2	Date of successful commissioning: D + 18 Months	Date of successful commissioning: D + 21 Months
14.	Section-V Special Conditions of Contract (SCC)	SCC No. 9 Contract Performance Security (GCC clause 24)	... 1. First Stage (Supply and Services): The value of the Contract Performance Security shall be 10% (Ten percent) of the Contract Value (i.e., total sum of the Supply & Service Contract). This Performance security will be valid for a total period of 81 Months (18 Months Project commissioning period + prescribed O & M Period, i.e., 60 Months + 03 Months additional) from the date of its issuance. The successful bidder can submit Contract Performance Security with initial validity of 36 months and the same may be extended after every 36 months till completion of the total 81 months period. ...	... 1A. First Stage (Supply and Services): The value of the Contract Performance Security shall be 10% (Ten percent) of the Contract Value (i.e., total sum of the Supply & Service Contract). This Performance security will be valid for a total period of 36 Months (21 Months Project commissioning period + 12 months DLP + 03 Months additional) from the date of its issuance. 1B. Second Stage (O&M): The Contractor shall at least 15 days prior to the part or full commissioning of the Project, provide performance security for O&M Contract for the value of 10% of the O&M Contract Value including GST for a total period of 63 Months (60 Months Project O&M period + 03 Months additional) from the date of commissioning of full project. Further, the Contractor shall, at least 30 days prior to the expiration of Contract Performance provided in the First Stage, shall enhance the amount of this security to 10%*INR3.56/kWh*Annual Generation in units (kWh). This Bank Guarantee shall be taken from the Contractor by way of enhancement of value of Contract Performance Security for O&M Contract. Further, the Contract Performance Security of First

			Stage will only be returned to the Contractor only after the enhancement of Contract Performance Security provided against the O&M Contract to the amount as mentioned above. During the O&M period, if the security or part thereof is encashed due to shortfall in generation, the Contractor shall within 03 months, shall enhance the security to the value as specified above and this shall be applicable till the end of O&M Contract. Envisaging the difficulty in obtaining the longer tenure of CPS in the form of BG, the successful bidder can submit Contract Performance Security in the form of Bank Guarantee with initial validity period of 36 Months and the same may be extended for the balance period or further 36 months, within 60 days of expiry of the original CPS. ...
15.	Section-V Special Conditions of Contract (SCC)	SCC No. 15 Schedule of Rates & Payments (GCC clause 80.1)	The Clause stands modified as follows: <u>Add following to the existing clause:</u> All payment shall be made against invoices raised in line with the approved billing. All payment shall be made against invoices raised in line with the approved billing break up under individual heads of Supply, Services and Civil works. Following general payment terms will be followed which will be payable after complying the provision of ALMM clause only. A. The payment for the Supply Portion of the First Contract (Supply Contract) shall be made as per the following terms and conditions: i) Interest free initial advance (OPTIONAL) of 10% (ten) of the Contract Value (i.e., total sum of all the Supply Contract) shall be released to the contractor upon receipt of unconditional acceptance of CA, detailed Performa invoice

		of contractor and against submission of unconditional & irrevocable Advance Bank Guarantee in form of Bank Guarantee/Payment on Order Instrument (POI)/Insurance Surety Bond (ISB) (Form F-33/F-33A/F-33B) with a validity period up to date of final commissioning total amounting to 110% of total advance amount. The ABG needs to be submitted in addition to the Contract Performance Security. SECI may reduce the above-mentioned advance payment security on pro-rata basis proportion to the value of the 10% advance on payment adjusted against plant and equipment delivered to the site, as evidenced by shipping and delivery documents. The cumulative reduction at any point in time shall not exceed 90% of the advance bank guarantee amount. ii) Fifty (50%) payments shall be paid against dispatch of Material from Manufacturer's work 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, Manufacturer's/ Contractor's Guarantee certificate of Quality and MDCC (Material Dispatch Clearance Certificate) issued by Employer's authorized representative in original. iii) Twenty (20%) 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 Executing Agency's authorized representative that the item(s) have been received and MDCC (Material Dispatch Clearance Certificate) issued by Employer's authorized representative in original. *In case the Interest free initial advance (OPTIONAL) of 10% of the Contract Value is not availed by the contractor, then this 10% payment amount will be payable along with the point No A iii) payment milestone against supply, receipt and acceptance of Materials at site. *In case the interest free advance is availed by the Contractor and no progress/work is executed at site till the commissioning period or if the contract is terminated due to default of contractor as mentioned under the Contract/tender, thereby not adjusting the advance amount timely, the entire advance amount will be recovered from the Contractor along with one-year SBI MCLR rate. The advance bank guarantee may be reduced in proportion to the value of the 10% advance payment adjusted against plant and equipment delivered to the site, as evidenced by shipping and delivery documents. (iv) Seven and Half percent (7.5%) payments shall be paid against successful erection, testing and pre-commissioning
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		of equipment(s)/Project duly certified by Engineer-in Charge/Head of Project on pro rata basis. (v) Two and Half percent (2.5%) payments shall be paid against successful commissioning of project on pro rata basis. (vi) Ten percent (10 %) payment of Supplies shall be paid against submission of the BG of the equivalent amount & against the Operational Acceptance of the plant Facility pursuant to successful O&M Target Generation Test including submission of all as-built drawings and O&M manual. This BG shall be valid initially for a period of 18 (Eighteen) months from the date of its issuance & will be released after operational acceptance of the Plant, pursuant to the submission of all requisite documentation up to the operational acceptance of the Plant facilities. However, in case of any delay, the BG shall be extended suitably. B. The payment for the Service Portion of the First Contract (Services Contract) shall be made as per the following terms and conditions. No Initial Advance Payment shall be made against the Service Portion Part. i) For Freight and Insurance Portion, the payment shall be made in line with Supply Portion of the First Contract, as described in point A(ii) of this clause, without releasing any initial advance. The complete payment of the freight will be done along with the respective deliveries of the supply portion at site. ii) For Erection, Testing and Commissioning Portion, the payment shall be made as detailed below: (a) Eighty-Five Percent (85%) of the total price of Design, Engineering, Erection, Testing and Commissioning shall be paid on pro-rata basis on completion of installation of equipment on certification by the Engineer-In-Charge/ Project Manager for the quantum of work completed after successful clearance of quality check points involved in the quantum of work billed. (b) Ten Percent (10%) of the total price of Design, Engineering, Erection, Testing and Commissioning shall be paid against successful commissioning of the plant on pro rata basis for the capacity commissioned. (c) Final Five percent (5%) payment of Services shall be paid against submission of the BG of the equivalent amount & against the Operational Acceptance of the plant Facility pursuant to successful O&M Target Generation Test including submission of all as-built drawings and O&M manual. This BG shall be valid for a period of 18 (Eighteen) months from the date of its issuance & will be released after operational acceptance of the Plant, pursuant to the submission of all
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			requisite documentation up to the operational acceptance of the Plant facilities. However, in case of any delay, the BG shall be extended suitably. Bidders are advised to price their bids in such a manner that the total bid price inclusive of GST in Schedule No. 2. Freight, Design, Civil & Installation and Other Services should not be less than 15% of total bid price inclusive of GST in Schedule No. 1. Plant and Mandatory Spare Parts Supplied from Within the Employer's Country. In case the Price of Schedule No. 2. Freight, Design, Civil & Installation and Other Services is below the minimum 15 percentage specified above, the amount by which it is lower shall be retained proportionately from the total price inclusive of GST of Schedule No. 1. Plant and Mandatory Spare Parts Supplied from Within the Employer's Country while releasing payments due on receipt of equipment, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid on pro-rata basis upon completion of installation of the respective equipment and its certification by the Project Manager. iii) For Civil & Allied works portion, of the First contract, the payment shall be made as detailed below: (a) Eighty-Five Percent (85%) of the total price of Civil Works shall be paid progressively on certification by the Project Manager/ Engineer In - Charge for the quantum of work completed/ Milestones achieved after successful clearance of quality check points involved in the quantum of work. (b) Ten Percent (10%) of the total price of Civil Works shall be paid against successful commissioning of the plant on pro rata basis for the capacity commissioned. (c) Final Five percent (5%) payment of Civil Works shall be paid against submission of the BG of the equivalent amount & against the Operational Acceptance of the plant Facility pursuant to successful O&M Target Generation Test including submission of all as-built drawings and O&M manual. This BG shall be valid for a period of 18 (Eighteen) months from the date of its issuance & will be released after operational acceptance of the Plant, pursuant to the submission of all requisite documentation up to the operational acceptance of the Plant facilities. However, in case of any delay, the BG shall be extended suitably. C. For the Second Contract (Operation & Maintenance Part), the payment shall be made as detailed below:
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			(a) Operation and Maintenance of the entire Project payment will be released on quarterly basis at the end of every quarter for each year till 05 (Five) years. (i) Year 1: OM -1 (ii) Year 2: OM -2 (iii) Year 3: OM -3 (iv) Year 4: OM -4 (v) Year 5: OM -5 In case of any default, non-performance or breach of contractual conditions of the O&M contract during the O&M period, the penalties/deductions, if applicable will be liable to be deducted from the Quarterly O&M payments first & then from the Contract Performance Security. Bidders shall quote their yearly absolute O&M charges inclusive of GST as minimum 1.5% per year i.e. 7.5 % for five (05) years of their total quoted price including GST and excluding absolute O&M Charges (i.e., Schedule No. 1. Plant and Mandatory Spare Parts Supplied from Within the Employer's Country inclusive of GST + Schedule No. 2. Freight, Design, Civil & Installation and Other Services inclusive of GST). In case O&M Charges are below the minimum percentage of 7.5 % as mentioned, the amount by which it is lower shall be retained from the Schedule No. 1. Plant and Mandatory Spare Parts Supplied from Within the Employer's Country while releasing payments due on receipt of equipment, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid on pro-rata basis upon completion of O&M period and its certification by the project manager. D. The required ESI/PF Challans/any other mandatory compliance will also be provided by the Contractor during any of the Service (Services + O&M) related payments. E. All the payment shall be released from Owner's Head Office upon submission of Original Documents like MDCC, delivery challan, warranty certificate, LR, WCC, MRN, commissioning certificate, handing over certificate, Insurance, PF, ESI, etc as required and mentioned against each Milestone payment, duly certified by the authorized representative of the Employer/Owner.
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16.	Section-VIII Schedule of Rates (SOR)	-	New Clauses: 16. The e Reverse Auction will be carried out the Evaluated Bid Value inclusive of GST. It must be noted that the GST rate quoted by the bidder during the submission of the initial bid under the Schedule of Rates (SOR) shall be considered fixed for the entire tendering process and shall not be subject to any change by SECI throughout the tendering process. 17. During the Techno-Commercial Evaluation and the e-Reverse Auction (e-RA), the GST rate quoted by the bidder during bid submission shall remain fixed and L1 will be determined on total evaluated bid value inclusive of GST and reverse auction will also be conducted on evaluated bid value inclusive of GST. For the successful bidder post the e reverse auction, GST rate quoted in the original bid will be deemed to be included in the final value. 18. Further, upon the conclusion of the e-RA, the successful bidder shall be awarded the Contract based on the Contract Price (considering the absolute value of O&M) as emerged after the e-RA. At the end of the e-RA, the final discount offered by the bidder, in the form of a price reduction on the EPC price and the NPV value of the O&M price, shall be applied proportionately to all SOR line-item prices (EPC Price + NPV of O&M Price) quoted by the bidder in the initial financial bid. Accordingly, the revised reduced price for all SOR line items relating to the EPC and the NPV of O&M shall be derived. This proportionate price reduction shall be applicable to both the EPC price and the NPV value of the O&M price, on which the e-RA has been conducted. No change shall be made to the GST rate quoted by the successful bidder while applying such pro-rata reduction. 19. However, at the time of Contract Execution, the GST rate considered for payment shall be the lower of: (i) the GST rate quoted by the bidder in the initial bid; and (ii) the GST rate applicable on the date of billing. In such a case of change in applicable GST rate, the Contract Price shall be revised accordingly by way of an amendment to the Contract Agreement. 20. In the event of any such change in the GST rate (except for changes covered under the Change in Law provisions) during the execution of the Contract, the revised Contract Value resulting from such change in the GST rate shall not exceed the original awarded Contract Value (i.e., the sum of the Supply Price, Service Price, and the absolute value of the O&M Price). 21. Bidders are advised to price their bids in such a manner that the total bid price inclusive of GST in Schedule No. 2. Freight, Design, Civil & Installation and Other Services should not be less than 15% of total bid price inclusive of
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			GST in Schedule No. 1. Plant and Mandatory Spare Parts Supplied from Within the Employer’s Country.	
			22. In case the Price of Schedule No. 2. Freight, Design, Civil & Installation and Other Services is below the minimum 15 percentage specified above, the amount by which it is lower shall be retained proportionately from the total price inclusive of GST of Schedule No. 1. Plant and Mandatory Spare Parts Supplied from Within the Employer’s Country while releasing payments due on receipt of equipment, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid on pro-rata basis upon completion of installation of the respective equipment and its certification by the Project Manager.	
			23. Bidders shall quote their yearly absolute O&M charges inclusive of GST as minimum 1.5% per year i.e. 7.5 % for five (05) years of their total quoted price including GST and excluding absolute O&M Charges (i.e., Schedule No. 1. Plant and Mandatory Spare Parts Supplied from Within the Employer’s Country inclusive of GST + Schedule No. 2. Freight, Design, Civil & Installation and Other Services inclusive of GST).	
			24. In case O&M Charges are below the minimum percentage of 7.5 % as mentioned, the amount by which it is lower shall be retained from the Schedule No. 1. Plant and Mandatory Spare Parts Supplied from Within the Employer’s Country while releasing payments due on receipt of equipment, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid on pro-rata basis upon completion of O&M period and its certification by the project manager.	
17.	Section-VIII Schedule of Rates (SOR)	General	“ Revised Format for Schedule of Rates ” enclosed herewith shall replace the “Format for Schedule of Rates”.	
Technical Tender Document (Section-VII)				
18.	Table of Contents	-	GA-I as Quality Assurance & Inspection of Civil Works	GA-K: Quality Assurance & Inspection of Civil Works
19.	Sub-Section A: Scope of Work	1	Supply of PV Modules: Supply of PV Modules at the Project Site shall be in the Scope of the Owner. The Owner shall deliver PV Modules at the Project site. However, for the purpose of bidding contractor may consider 585Wp TOPCon module of 21.65% efficiency with dimensions 2382mm x 1134mm.	Supply of PV Modules: Supply of PV Modules at the Project Site shall be in the Scope of the Owner. The Owner shall deliver PV Modules at the Project site. However, for the purpose of bidding contractor may consider 605Wp TOPCon module of 22.38% efficiency with dimensions 2382mm x 1134mm.

			<u>Note:</u> Variation in contract price due to actual module supplied by Owner shall be calculated as per Contract Price Variation Clause of this Tender Document mentioned elsewhere.	<u>Note:</u> Variation in contract price due to actual module supplied by Owner shall be calculated as per Contract Price Variation Clause of this Tender Document mentioned elsewhere.																						
20.	Sub-Section A: Scope of Work	1	Cumulative Inverter (PCU) AC Capacity (Solar): XX MVA to deliver 88 MW with PF range -0.95 to +0.95 at 50°C at Point of Interconnection (POI) .	Cumulative Inverter (PCU) AC Capacity (Solar): XX MVA to deliver 88 MW with PF range -0.95 to +0.95 at 50°C at Point of Grid Interconnection (POGI) .																						
21.	Sub-Section A: Scope of Work	1	... <table><tr><th colspan="2">Power Evacuation</th></tr><tr><td>Point of Interconnection (POI)</td><td>220 kV Bay at 765/400/220 kV Davangere PGCIL Substation Co-ordinates- 14.4884°N, 76.2955°E</td></tr><tr><td>Evacuation at POI</td><td>88 MW</td></tr><tr><td>Plant Metering Point</td><td>At the Point of Interconnection Refer SA-B: Indicative SLD</td></tr><tr><td>Plant End Substation Switching Scheme (220 kV)</td><td>Double Bus Scheme with Bypass-Isolator Refer SA-B: Indicative SLD</td></tr></table> ...	Power Evacuation		Point of Interconnection (POI)	220 kV Bay at 765/400/220 kV Davangere PGCIL Substation Co-ordinates- 14.4884°N, 76.2955°E	Evacuation at POI	88 MW	Plant Metering Point	At the Point of Interconnection Refer SA-B: Indicative SLD	Plant End Substation Switching Scheme (220 kV)	Double Bus Scheme with Bypass-Isolator Refer SA-B: Indicative SLD	... <table><tr><th colspan="2">Power Evacuation</th></tr><tr><td>Point of Interconnection (POI)</td><td>220 kV Bay at Intermediate Substation (Not in Contractor Scope) Distance from Plant: Approx. 32 km Co-ordinates: To be shared subsequently</td></tr><tr><td>Point of Grid Interconnection (POGI)</td><td>220 kV Bay at 765/400/220 kV Davangere PGCIL Substation Co-ordinates- 14.4884°N, 76.2955°E</td></tr><tr><td>Evacuation at POGI</td><td>88 MW</td></tr><tr><td>Plant Metering Point</td><td>At the Point of Interconnection Refer SA-B: Indicative SLD</td></tr><tr><td>Plant End Substation Switching Scheme (220 kV)</td><td>Double Bus Scheme with Bypass-Isolator Refer SA-B: Indicative SLD</td></tr></table> ...	Power Evacuation		Point of Interconnection (POI)	220 kV Bay at Intermediate Substation (Not in Contractor Scope) Distance from Plant: Approx. 32 km Co-ordinates: To be shared subsequently	Point of Grid Interconnection (POGI)	220 kV Bay at 765/400/220 kV Davangere PGCIL Substation Co-ordinates- 14.4884°N, 76.2955°E	Evacuation at POGI	88 MW	Plant Metering Point	At the Point of Interconnection Refer SA-B: Indicative SLD	Plant End Substation Switching Scheme (220 kV)	Double Bus Scheme with Bypass-Isolator Refer SA-B: Indicative SLD
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22.	Sub-Section	3.9	The Contractor shall submit the detailed and plant level	The Contractor shall submit the detailed and plant-level																						

	A: Scope of Work		Equivalent PSS/E Model of the SPV Plant to demonstrate performance under steady-state and dynamic state at the Point of Interconnection in accordance with requirements for connectivity under GNA Regulations notified by CERC. This model will be provided to Grid India / CTUIL for analysis before grant of First Time Charging (FTC) clearance from Grid India/ CTUIL.	Equivalent PSS/E Model of the SPV Plant to demonstrate performance under steady-state and dynamic conditions at the Point of Grid Interconnection in accordance with the requirements for connectivity under the GNA Regulations notified by CERC. The Contractor shall develop the Project model up to the Point of Interconnection and carry out the requisite studies considering the composite model of the plant as well as the external network beyond the Point of Interconnection, as facilitated by the Employer. This model shall be provided to Grid-India/CTUIL for analysis before grant of First Time Charging (FTC) clearance from Grid-India/CTUIL. Since the external network also comprises a 187 MW Plant developed by M/s Adyant Enersol (entity with whom SECI has a bay sharing agreement), for the purpose of the Grid Interconnection Studies, the existing 187 MW Solar PV Plant developed by M/s Adyant Enersol shall be considered as commissioned and in service.										
23.	Sub-Section A: Scope of Work	4.1	Supply of Solar PV Modules is not in the scope of the EPC Contractor. It shall be the responsibility of the Owner to supply PV Modules at Project site, between 11 (eleven) to 13 (thirteen) months from date of award of the Contract. However, for the purpose of bidding, the EPC Contractor may consider PV Modules of power rating and efficiency as per Project Particulars of the scope of works as per the specifications provided in this document.	Supply of Solar PV Modules is not in the scope of the EPC Contractor. It shall be the responsibility of the Owner to supply PV Modules at Project site, between 14 (fourteen) to 16 (sixteen) months from date of award of the Contract. However, for the purpose of bidding, the EPC Contractor may consider PV Modules of power rating and efficiency as per Project Particulars of the scope of works as per the specifications provided in this document.										
24.	Sub-Section B: Technical Specifications - Electrical System	4.1	... <table><tr><th>Standard</th><th>Description</th></tr><tr><td>IS 2026, IEC 60076</td><td>Specification of Power Transformers</td></tr><tr><td>IS 11171, IEC 60076</td><td>Dry-Type Power Transformers</td></tr></table>	Standard	Description	IS 2026, IEC 60076	Specification of Power Transformers	IS 11171, IEC 60076	Dry-Type Power Transformers	... <table><tr><th>Standard</th><th>Description</th></tr><tr><td>IS 2026, IEC 60076</td><td>Specification of Power Transformers</td></tr></table>	Standard	Description	IS 2026, IEC 60076	Specification of Power Transformers
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26.	Sub-Section B: Technical Specifications - Electrical System	4.3.20	New Clause: Auxiliary transformer shall have 5-star BEE rating as per BIS guidelines.																																														
27.	Sub-Section B: Technical Specifications - Electrical System	5.3.15	Minimum 10% spare feeders of each rating shall be provided in pooling switchgear.	4 additional feeder panels of 630 A rating shall be provided for future augmentation. In addition, minimum 10% spare feeders of each rating shall be provided in pooling switchgear.																																													
28.	Sub-Section B: Technical	5.4.4	Each circuit breaker shall be provided with two tripping coils operated through two independent DC supplies. Each	Each circuit breaker housed in the Main 33 kV Combiner Panel shall be provided with two tripping coils operated																																													

	Specifications - Electrical System		trip coil shall have its own actuating contacts	through two independent DC supplies. Each trip coil shall have its own actuating contacts. However, circuit breakers installed in the ICR 33 kV Panels may only be provided with one tripping coil operated through the designated DC tripping supply, with its actuating contacts provided accordingly.
29.	Sub-Section B: Technical Specifications - Electrical System	12.2	Protection level for the entire plant shall be Level-III.	Protection level for the entire plant shall be Level-IV.
30.	Sub-Section B: Technical Specifications - Electrical System	15.2	... Provisions shall be enabled for the PPC to take voltage and current of POI as a reference to Power Plant Controller for giving command to individual PCUs...	... Provisions shall be enabled for the PPC to take voltage and current of POGI as a reference to Power Plant Controller for giving command to individual PCUs...
31.	Sub-Section B: Technical Specifications - Electrical System	-	New Clauses: Technical Specifications for SVG, Harmonic Filter and PMU are enclosed as “ Additional Clauses to Sub-Section B_Technical Specifications ”.	
32.	Sub-Section C: Technical Specifications – Civil, Mechanical and Plumbing Works	11.3	Min. depth of foundation for all buildings and plinth for open installations shall be 1.5 m below NGL. Min. depth of foundation for steps in brick and concrete masonry shall be min. 450mm below FGL. For all other structures, min. depth of foundation shall be 1.0 m unless specified otherwise.	Unless noted otherwise, depth of foundation shall be as per the recommendations of the geotechnical investigation report. Min. depth of foundation for steps in brick and concrete masonry shall be min. 450 mm below FGL.

33.

Sub-Section
C: Technical
Specifications
– Civil,
Mechanical
and Plumbing
Works

13.7

The Clause stands modified as follows:

Material specifications & coating for structural steel works:

A. Hot-rolled/Cold-formed steel sections				
Members	Reference code	Min. Yield Strength (in MPa)	Coating reference code	Min. Thickness (mm)
Column/ Vertical Post	IS 2062	350	80 microns minimum (IS 4759/ IS 4736/ IS 2629)	2
Bracing/ Rafter/ Beam/ Purlin				2
Steel tubes in all sections	IS 1161	310		2
Hollow steel in all sections	IS 4923	310		2
Coupler/ Plate/ Cleat Splice/ Sag Angle	IS 2062	350		2
NOTE:	1. Min. elongation % shall be as per relevant Standard and Code. 2. Materials shall be fabricated in the shop. 3. Min. coating requirement is mentioned in the above table. 4. No negative tolerance shall be permitted on Base Metal Thickness (BMT). 5. The galvanization of all members shall be done after fabrication of members and cutting of holes to ensure galvanization of all cut/ exposed edges.			

B. Hot-dip Aluminium- Zinc Alloy Coated Steel Strips and Sheets				
Members	Reference Code	Yield Strength (in MPa)	Min. Coating Class Designation	Min. Thickness (mm)
Rafter	IS 15961	350-550	AZ 200 (IS 15961)	1.5
Purlin	IS 15961	350-550	AZ 200 (IS 15961)	1.2

			NOTE: 1. Minimum elongation % shall be as per relevant Standard and Code. 2. Materials shall be fabricated in the shop. 3. Minimum coating requirement is mentioned in the above table. 4. No negative tolerances shall be permitted on Base Metal Thickness (BMT). 5. All the sections of the base metal exposed after cutting of members and punching of holes shall be provided with sprayed aluminium-zinc alloy coating corresponding to Grade – A (service life >20 years) conforming to IS:5905 suitable to corrosion class at project site environment.															
			C. Hot-dip Zinc-Aluminium-Magnesium Alloy Coated Steel Sheets, Plates and Strips<table><tr><th>Members</th><th>Reference Code</th><th>Min. grade of steel</th><th>Min. Coating Class Designation</th><th>Min. Thickness (mm)</th></tr><tr><td>Rafter</td><td>IS 18513</td><td>IZMC420S or IZMH450S</td><td>ZM 180 (IS 18513)</td><td>1.5</td></tr><tr><td>Purlin</td><td>IS 18513</td><td>IZMC420S or IZMH450S</td><td>ZM 180 (IS 18513)</td><td>1.2</td></tr></table> NOTE: 1. Minimum elongation % shall be as per relevant Standard and Code. 2. Materials shall be fabricated in the shop. 3. Minimum coating requirement is mentioned in the above table. 4. No negative tolerances shall be permitted on Base Metal Thickness (BMT). 5. All the sections of the base metal exposed after cutting of members and punching of holes shall be provided with sprayed aluminium-zinc alloy coating corresponding to Grade – A (service life >20 years) conforming to IS:5905 suitable to corrosion class at project site environment. 6. The steel shall be of structural quality steel conforming to IS 18513.	Members	Reference Code	Min. grade of steel	Min. Coating Class Designation	Min. Thickness (mm)	Rafter	IS 18513	IZMC420S or IZMH450S	ZM 180 (IS 18513)	1.5	Purlin	IS 18513	IZMC420S or IZMH450S	ZM 180 (IS 18513)	1.2
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Purlin	IS 18513	IZMC420S or IZMH450S	ZM 180 (IS 18513)	1.2														
			Additional Note: For materials specified under Table B & Table C, wherever Coating Adhesion, Coating Adherence test and Mechanical property (% Elongation) requirements have not been specified in the corresponding standard and code, the requirements specified for the next lower Grade Designation/Designation shall be applicable.															
34.	Sub-Section C: Technical Specifications – Civil, Mechanical and Plumbing Works	14.3	Cement higher than 43 Grade shall not be used in construction. Not used.															
35.	Sub-Section C: Technical	14.5	Reinforcement steel shall be of high strength thermo mechanically treated (TMT) bars of grade Fe500D Reinforcement steel shall be of high strength thermo mechanically treated (TMT) bars of grade Fe500D (Min.)															

	Specifications – Civil, Mechanical and Plumbing Works		conforming to IS: 1786.	conforming to IS: 1786.
36.	Sub-Section C: Technical Specifications – Civil, Mechanical and Plumbing Works	14.7	MS Angles of minimum size 50 x 50 x 6 mm with 8 mm dia - 150mm long MS lugs @ 150mm c / c shall be provided for edge protection around all cutouts / openings in RCC floor slabs / walls, edges of drains supporting grating / pre-cast covers, edges of manhole supporting covers, around periphery of all removable pre-cast covers and any other place where breakage of corners of concrete is expected.	MS Angles of minimum size 40 x 40 x 4 mm with 8 mm dia - 150mm long MS lugs @ 150mm c / c shall be provided for edge protection around all cutouts / openings in RCC floor slabs / walls, edges of drains supporting grating / pre-cast covers, edges of manhole supporting covers, around periphery of all removable pre-cast covers and any other place where breakage of corners of concrete is expected.
37.	Sub-Section C: Technical Specifications – Civil, Mechanical and Plumbing Works	16.1.4	The contractor shall submit the proposed equipment layout drawings to the Engineer for approval before development of Architectural drawings. The building layout, exterior elevations shall be aesthetically designed following good architectural practices to get a pleasant look. Horizontal/ vertical bands through projections/ groves in external plaster may be provided to break the monotony. Roof slab shall have projection of 450mm beyond the external walls with 230 THK brick parapet wall of 450 mm clear height all-around which shall form a projected band at roof level. For weather protection all doors and windows shall be provided with 450mm wide RCC chajja. However, chajja for rolling shutter shall be 750mm wide.	The contractor shall submit the proposed equipment layout drawings to the Engineer for approval before development of Architectural drawings. The building layout, exterior elevations shall be aesthetically designed following good architectural practices to get a pleasant look. Horizontal/ vertical bands through projections/ groves in external plaster may be provided to break the monotony. Roof slab shall have projection of 450mm beyond the external walls with 230 THK brick parapet wall of 600 mm clear height all-around with additional 600mm height SS Handrail (Total height 1200mm) which shall form a projected band at roof level. For weather protection all doors and windows shall be provided with 450mm wide RCC chajja. However, chajja for rolling shutter shall be 750mm wide.
38.	Sub-Section C: Technical Specifications – Civil,	16.2.1	MCR Buildings For operation & maintenance of SPV Plant, unless otherwise specified elsewhere, Control room cum office	MCR Buildings For operation & maintenance of SPV Plant, unless otherwise specified elsewhere, Control room cum office

	Mechanical and Plumbing Works		area of MCR building shall provide following facilities: • Air-conditioned area (with provision of split A/C unit of adequate capacity) for SCADA room (min. carpet area 32 m²), Conference room (min. carpet area 32 m²) & Supervisor cabin (15 m²) and office area (min. carpet area 25 m²) • Switchgear, equipment room(s) as per OEM requirements (can be in a separate building adjacent to the MCR) • Tool room (12.5 m²) • Store cum record room (min. carpet area 15 m²) • Battery room as per requirement (can be in a separate building adjacent to the MCR) • Toilet block with separate gents and ladies washroom facilities (min. total carpet area 12 m²) • Pantry with service platform and utensil washing facilities (min. carpet area 5 m²) • Suitable provision for passage (for smooth movement of O & M personnel), cable trenches, operating area etc. (min. clear width 1500 mm) • GI Ladder with handrail for roof access • MCR Building shall be RCC Framed Structure	area of MCR building shall provide following facilities: • Air-conditioned area (with provision of split A/C unit of adequate capacity) for SCADA room (min. carpet area 32m²), Conference room (min. carpet area 32 m²) & Supervisor cabin (15 m²) and office area (min. carpet area 25 m²) • Switchgear, equipment room(s) as per OEM requirements (can be in a separate building adjacent to the MCR) • Tool room (12.5 m²) • Store cum record room (min. carpet area 15 m²) • Battery room as per requirement (can be in a separate building adjacent to the MCR) • Toilet block with separate gents and ladies washroom facilities (min. total carpet area 12 m²) • Pantry with service platform and utensil washing facilities (min. carpet area 5 m²) • Suitable provision for passage (for smooth movement of O & M personnel), cable trenches, operating area etc. (min. clear width 2000 mm) • RCC Staircase with SS handrail for roof access • MCR Building shall be RCC Framed Structure • Handrails and ladder pipes shall be 32 mm nominal bore SS pipes (medium class) with SS 304 Grade
39.	Sub-Section C: Technical Specifications – Civil, Mechanical and Plumbing Works	18.1	Doors, windows, louvers and ventilators shall be made of AL sections (minimum average thickness 2.5mm), industrial grade, anodized (grade AC25, min. thickness 25 micron conforming to IS: 1868) or with polyester powder coating (Total DFT 50 microns conforming to IS: 13871) and shall be of approved make & colour shade. All sections, fittings and fixtures shall be anodized (min.	Doors, windows, louvers and ventilators shall be made of AL sections (minimum average thickness 2.5mm), industrial grade, anodized (grade AC25, min. thickness 25 micron conforming to IS: 1868) or with polyester powder coating (Total DFT 50 microns conforming to IS: 13871) and shall be of approved make & colour shade. All sections, fittings and fixtures shall be anodized (min.

			thickness of coating 20 micron). The window and door shutters shall be of clear float/ wired/ ground glass as per design/ functional requirements. The doors in toile area shall be of steel frame with solid core (MDF) flush shutter, 35mm thick, with laminated finish on both sides conforming to IS: 2202.	thickness of coating 20 micron). The window and door shutters shall be of clear float/ wired/ ground glass as per design/ functional requirements. The doors in toilet area shall be uPVC flush door with a uPVC frame reinforced core, a wall thickness of 2.5 mm to 3 mm, and panel thicknesses between 24 mm and 30 mm.
40.	Sub-Section D (General Annexure-H): Functional Guarantee Test Procedure	5.1	one-minute and 15 intervals for the 90 (Ninety) days....	one-minute and 15-minute intervals for the 90 (Ninety) days....
41.	Sub-Section E (Specific Annexure B): Indicative Single Line Diagram (SLD)	SA-B	“ Revised SA-B: Indicative Single Line Diagram (SLD) ” enclosed herewith shall replace the “Indicative Single Line Diagram (SLD) - 220 kV Plant End Substation”	
42.	Sub-Section E (Specific Annexure C): Project Specific Technical Details	5.4	New Clause: <u>In case of shortfall during target generation test (i.e., OTF<1):</u> In case, the shortfall during OTGT is due to the Non-performance of the PV Modules, contractor shall be responsible for bringing the issue to the notice of the Employer at the earliest with necessary evidence should be provided to the Employer, clearly showing that the shortfall in generation during OTGT is due to PV Modules and not attributable to the Systems supplied by the contractor, erection issues and/or O&M practices followed by contractor during OTGT.	
43.	Sub-Section E (Specific Annexure C): Project Specific	5.5	New Clause: In case the Contractor fails to demonstrate that shortfall is due to non-performance of the PV Modules, supply, testing and commissioning of additional plant capacity (approved by the Employer), including PV Modules and Balance of Plant to meet the target generation shall be in the scope of the Contractor.	

	Technical Details		Alternatively, the Contractor shall be liable for Liquidated Damages for shortfall in generation over the Plant life as per relevant clause of this document.	
44.	Sub-Section E (Specific Annexure C): Project Specific Technical Details	5.6	New Clause: Once module non-performance is established, generation guarantee assessment shall be proportionately adjusted to the extent of module degradation; however, shortfall attributable to inadequate O&M practices (including module cleaning), BoS equipment failure, or operational/scheduling deficiencies shall remain within Contractor scope and LD shall apply as per O&M Agreement.	
45.	Sub-Section E: Specific Annexure D	-	New Annexure: Plant area KMZ File is enclosed as “ SA-D_Chitradurga 100 MW Land.kmz ”	
46.	Sub-Section F: O&M Agreement	1	 and unless terminated earlier as set forth herein, shall continue through and including the tenth (10th) anniversary of the Effective Date...	 and unless terminated earlier as set forth herein, shall continue through and including the fifth (5th) anniversary of the Effective Date...
47.	Sub-Section F: O&M Agreement	1.C	Note: Kindly refer to GA-J: O&M Target Generation Test Procedure	Note: Kindly refer to GA-H: FG Test Procedure

**PROFORMA OF PAYMENT ON ORDER INSTRUMENT FOR ADVANCE
PAYMENT**

(To be stamped in accordance with Stamp Act, the Non-Judicial Stamp Paper of Appropriate Value should be in the name of the issuing Agency, if applicable)

No.
SECI,

Date
Registered

_____,

Reg: M/s _____ (insert name of the Bidder) (Tender No. _____ (insert project ID issued by SECI) – Issuance of Payment on Order Instrument for an amount of Rs. _____

Dear Sir,

1. We refer to the Contract ("the Contract") signed on(insert date of the Contract) between you and M/s (Name of Contractor),
(or)
vide purchase/service order issued on (insert date of the notification of award) by you to M/s (Name of Contractor) having its Principal place of business at (Address of Contractor) and Registered Office at (Registered address of Contractor) ("the Contractor") concerning (Indicate brief scope of work) for the complete execution of the (insert name of Package alongwith name of the Project)
2. Whereas, in accordance with the terms of the said Contract, the Owner has agreed to pay or cause to be paid to the Contractor an interest-free Advance Payment against furnishing of an irrevocable Payment on Order Instrument for an amount of (*Amount in figures and words*)which is equal to 110% of the amount of Advance Payment.
3. At the request of M/s _____, on behalf of _____ (insert name of the Contractor), this Payment on Order Instrument (POI) for an amount of Rs. _____ (Rupees _____ (in words)). This Payment on Order Instrument comes into force immediately.
4. As per the terms of the Tender, the _____ [insert name & address of PFC/REC] hereby agrees unequivocally, irrevocably and unconditionally to pay to SECI at [Insert Name of the Place from the address of the SECI] forthwith on demand in writing from SECI or any Officer authorized by it in this behalf, any amount up to and not exceeding Rupees----- [Total Value] only, on behalf of M/s _____ [Insert name of the successful bidder].
5. In consideration of the above facts, REC/PFC, having its registered office at _____, agrees to make payment for the sum of Rs. _____ lakhs (in words.....) to SECI on the following conditions: -

- (a) REC/PFC agrees to make payment of the above-mentioned amount unconditionally, without demur and without protest upon receipt of request from SECI within the validity period of this letter as specified herein;
 - (b) The commitment of REC/PFC, under this Payment of Order Instrument will have the same effect as that of the commitment under the Bank Guarantee issued by any Public Sector Bank and shall be enforceable in the same manner as in the case of a Bank Guarantee issued by a Bank and the same shall be irrevocable and shall be honored irrespective of any agreement or its breach between REC/PFC or its constituents notwithstanding any dispute that may be raised by the against SECI;
 - (c) The liability of REC/PFC continues to be valid and binding on REC/PFC and shall not be terminated, impaired and discharged, by virtue of change in its constitution and specific liability under letter of undertaking shall be binding on its successors or assignors;
 - (d) The liability of REC/PFC shall continue to be valid and binding on REC/PFC and shall not be terminated/ impaired/ discharged by any extension of time or variation and alternation made given or agreed with or without knowledge or consent of the parties (SECI and Bidding Party), subject to the however to the maximum extent of amount stated herein and REC/PFC is not liable to any interest or costs etc.;
 - (e) This Payment of Order Instrument can be invoked either partially or fully, till the date of validity;
 - (f) REC/PFC agrees that it shall not require any proof in addition to the written demand by SECI made in any format within the validity period. REC/PFC shall not require SECI to justify the invocation of the POI against the successful bidder, to make any claim against or any demand against the successful bidder or to give any notice to the successful bidder;
 - (g) The POI shall be the primary obligation of REC/PFC and SECI shall not be obliged before enforcing the POI to take any action in any court or arbitral proceedings against the successful bidder;
 - (h) Neither SECI is required to justify the invocation of this POI nor shall REC/PFC have any recourse against SECI in respect of the payment made under letter of undertaking;
6. Notwithstanding anything contrary contained anywhere in this POI or in any other documents, this POI is and shall remain valid upto _____ and REC/PFC shall make payment thereunder only if a written demand or request is raised within the said date and to the maximum extent of Rs.....and REC/PFC shall in no case, be liable for any interest, costs, charges and expenses and REC's/PFC's liability in no case will exceed more than the above amount stipulated. SECI shall be entitled to invoke this POI till _____ [Insert a date which is at least 30 days beyond the expiry of the validity period].
7. In pursuance of the above, REC/PFC and SECI have signed an Umbrella Agreement dated ____ setting out the terms and conditions for issue of letter of undertaking by REC/PFC to SECI and the said terms and conditions shall be read as a part of this letter of undertaking issued for the project of the project of PP mentioned above.

Thanking you,

Yours faithfully
For and on behalf of

M/s. _____
(Name of the POI issuing agency).

()
General Manager (TS)

Copy to:-

M/s. __PP_____

_____ As per their request

()
General Manager (TS)

**PROFORMA OF PAYMENT ON ORDER INSTRUMENT FOR ADVANCE
PAYMENT**

(To be stamped in accordance with Stamp Act of India)

Insurance Surety Bond No.:

Date:

To

{Owner's Name

and

Address}

Dear Sir,

We refer to the Contract ("the Contract") signed on(insert date of the Contract) between you and M/s (Name of Contractor),

(or)

vide purchase/service order issued on (insert date of the notification of award) by you to M/s (Name of Contractor) having its Principal place of business at (Address of Contractor) and Registered Office at (Registered address of Contractor) ("the Contractor") concerning (Indicate brief scope of work) for the complete execution of the (insert name of Package alongwith name of the Project)

Whereas, in accordance with the terms of the said Contract, the Owner has agreed to pay or cause to be paid to the Contractor an interest-free Advance Payment against furnishing of an irrevocable Insurance Surety Bond for an amount of (Amount in figures and words)which is equal to 110% of the amount of Advance Payment.

We[Name & Address of the Insurer] having its Head Office at (hereinafter referred to as the 'Insurer', which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Owner, on demand any and all amount payable by the Contractor to the extent of as aforesaid at any time up to [days/month/year] without any condition, demur, reservation, contest, recourse or protest and/or without any reference to the Contractor. Any such demand made by the Owner on the Insurer shall be conclusive and binding notwithstanding any difference between the Owner and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The Insurer undertakes not to revoke this Insurance Surety Bond during its currency and or any period extended under the contract, without prior consent of the Owner and further agrees that the guarantee herein contained shall be enforceable till the Owner discharges this guarantee.

The Owner shall have the fullest liberty, without affecting in any way the liability of the Insurer under this Insurance Surety Bond, from time to time to extend the performance of the Contract by the Contractor for the purpose of which, the Insurer shall be liable to extend the validity of the present Insurance Surety Bond without any demur, condition, protest and the Insurer shall at no point in time have an option of revoking the same,

The Owner shall have the fullest liberty, without affecting this Insurance Surety Bond, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Contractor, and to exercise the same at any time in any manner, and either to enforce or to forbear to enforce any covenants, contained or implied, in the Contract between the Owner and the Contractor or any other course or remedy or security available to the Owner. The Insurer shall not be released of its obligations under these presents by any exercise by the Owner of its liberty with reference to the aforesaid or any of them or by reason of any other act or forbearance or other acts of omission or commission on the part of the Owner or any other indulgence shown by the Owner or by any other matter or thing whatsoever which under law would, but for this provision, have the effect of relieving the Insurer.

The Insurer also agrees and undertakes that the Owner at its option shall be entitled to enforce this Insurance Surety Bond against the Insurer as a Surety, in the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee that the Owner may have in relation to the Contractor's liabilities.

The Insurer hereby agrees and acknowledges that the SECI shall have a right to invoke this Insurance Surety Bond in part or in full, as it may deem fit.

The Insurer hereby expressly agrees that it shall not require any proof in addition to the written demand by SECI, made in any format, raised at the above-mentioned address of the Insurer, in order to make the said payment to SECI.

The Insurer shall make payment hereunder on first demand without restriction or conditions and notwithstanding any objection by _____ [Insert name of the Bidder] and/ or any other person. The Insurer shall not require SECI to justify the invocation of this Insurance Surety Bond, nor shall the Insurer have any recourse against SECI in respect of any payment made hereunder. SECI shall be entitled to invoke this Bond till _____ [Insert a date which is at least 30 days beyond the expiry of the validity period].

This Insurance Surety Bond shall not be affected in any manner by reason of merger, amalgamation, restructuring or any other change in the constitution of the Insurer.

The Insurer acknowledges that this Insurance Surety Bond is not personal to SECI and may be assigned, in whole or in part, (whether absolutely or by way of security) by SECI to any entity to whom SECI is entitled to assign its rights and obligations under the tender.

Notwithstanding anything contained hereinabove our liability under this Insurance Surety Bond is restricted to and it shall remain in force up to and including and shall be extended from time to time for such period (not exceeding one year), as may be desired by M/s{Contractor's Name} on whose behalf this Insurance Surety Bond has been given.

Dated this day of 20..... at.....

WITNESS :

1.
(Signature)(Signature)
.....

(Name) (Name)

.....

(Official Address) (Designation with Insurer Stamp)

Authorised Vide Power of Attorney No.....

Date.....

2.

(Signature)

.....

(Name)

.....

(Official Address)

Notes :

1. The Insurance Surety Bond shall be from an Insurer as per guidelines issued by Insurance Regulatory and Development Authority of India (IRDAI).
- 2.The Owner shall be the Creditor, the Contractor shall be the Principal debtor and the Insurance company/Insurer shall be the Surety in respect of the Insurance Surety Bond to be issued by the Insurer.
- 3.The Insurance Surety Bond should be on Non-Judicial stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the state(s) where the Insurance Surety Bond is submitted or is to be acted upon or the rate prevailing in State where the Insurance Surety Bond is executed, whichever is higher. The Stamp Paper/e-stamp paper shall be purchased in the name of Contractor/Insurer issuing the Insurance Surety Bond.
- 4.While getting the Insurance Surety Bond issued, the Contractor is required to ensure compliance to the points mentioned in Form of Bank Guarantee/ Insurance Surety Bond Verification Check List. Further, the Contractor is required to fill up this Form and enclose the same with the Insurance Surety Bond.