

ASSAM POWER GENERATION CORPORATION LIMITED

Corrigendum / Clarification No 2

**Corrigendum cum clarification issued to E-Tender no. APGCL/CGM NRE/PROJ/NAMRUP SOLAR EPC/2023/T4-2570 dated 01.02.24
Name of Work: Selection of EPC Contractor for Design, Engineering, Supply, Construction, Erection, Testing and Commissioning on turnkey basis of 25 MWac Ground Mounted Solar PV Power Projects at Namrup in the state of Assam with Comprehensive Operation & Maintenance for five (5) year's period**

Ref: Pre bid Meeting dated 16.02.2024

Clause No. of the Section Reference of Tender document	Clause as given in the Tender document	Description of queries raised	APGCL Reply
3.1.1 General Eligibility Conditions:	The Bidder should be a body incorporated in India under the Companies Act, 1956 or 2013 including any amendment thereto, who are registered and incorporated in India and Limited Liability Companies engaged in the business of Power/Infrastructure. Limited Liability Partnerships, Proprietorships, Partnerships, NGOs, Charitable Trusts, and Educational Societies; are not allowed to participate in the bidding process (either individually or in JV/ Consortium).	Permit Module Manufacturing Companies	Bid condition Prevails. Eligibility clause 3.1.1 does not restrict module manufacturing companies to participate subject to meeting eligibility requirements as specified in 3.1.2 and 3.1.3
3.1.2 (a)	The Bidder should have executed cumulative EPC contracts of design, procurement, supply, installation, testing and commissioning including at least one year of operation &	Most of the Govt. companies/organizations such as GSECL, NTPC, SJVNL etc. and also major private companies keep the supply of Modules in their own scope and Balance of Systems are off-loaded to the	Bid condition prevails

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	maintenance satisfactory for grid connected ground mounted PV solar power plant in India of cumulative installed capacity of minimum 25 MWac, in last 7(seven) financial years as on last date of bid submission	EPC Companies on turnkey basis. We therefore request to amend pre-qualification criteria as under: EPC Projects with solar PV modules supplied by developer/owner as free issue item to EPC contractor shall also be considered eligible for pre-qualification	
3.1.2 (b)	The bidder having experience of minimum one year O&M of grid connected ground mounted solar PV project at least 10 MW capacity at single location shall be eligible to participate in this tender.	Most of the Govt. companies/organizations such as GSECL, NTPC, SJVNL etc. and also major private companies does not ask for the O&M experience. We therefore, request to either drop this requirement or shall not be a mandatory condition.	Bid condition prevails.
2.8 (Pg:26), 3.1.4 (Pg:52)	Participation of Joint Venture ("JV") / Consortium is not allowed. Bids from JV & Consortium shall not be considered.	In the case the bidder does not meet technical experience specified at 3.1.2 above at its own, the bidder should associate with firm(s) to form a JV/Consortium and the JV/Consortium shall collectively meet the requirement as per 3.1.2 Technical Eligibility Condition: (Pg.:50)	Bid condition prevails.
3.1.3 Financial Eligibility Conditions	The Minimum Average Annual Turnover (MAAT) of the bidder in the last three financial years (i.e. FY 2020-21,2021-22,2022-23) should be INR 60,00,00,000/- (Indian Rupees Sixty Crores only). MAAT shall mean Revenue from Operations as incorporated in the profit & loss statement excluding other income, e.g. sale	Relaxation in Bidder Annual Turnover	Refer Amended Clause 3.1.3 Financial Eligibility Conditions: The Minimum Average Annual Turnover (MAAT) of the bidder in the last three financial years (i.e. FY 2020-21,2021-22,2022-23) should be INR 36,00,00,000/- (Indian Rupees Thirty-Six Crores only). MAAT shall mean Revenue from Operations as incorporated in the profit & loss statement excluding other income, e.g. sale of fixed assets, interests income, dividends etc. This must be the

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	of fixed assets, interests income, dividends etc. This must be the bidder's turnover on standalone basis and not the consolidated amount at group level. A summarized sheet of average turnover, certified by a practicing Chartered Accountant/Statutory Auditor should be compulsorily enclosed along with corresponding annual accounts.		bidder's turnover on standalone basis and not the consolidated amount at group level. A summarized sheet of average turnover, certified by a practicing Chartered Accountant/Statutory Auditor should be compulsorily enclosed along with corresponding annual accounts
4.1.4	Bidders must also submit a hard copy of their technical bid documents to CGM(NRE), APGCL on or before technical bid opening date.	<p>Kindly Confirm: - Bidder understands the total set of technical bids required for hard copy submission.</p> <p>If total set of technical bid is not required to submit hard copy, then kindly provide us the list of document which is required to submit hard copy.</p>	The total set of technical bids are to be submitted. Refer Bid Response Sheet 2(checklist) pg 251 and complete Clause 4.0 (pg-12,13,14) in the Tender document.
2.18.8	EMD envelope containing the original Bank Guarantee should be submitted in physical form but only after opening of tender , within 07 days thereafter	You are requested to confirm the date of submission of required hard copy (i.e. EMD & Other required documents) within 07 days thereafter	<p>Hard copy (i.e. EMD & Other required documents) is to be submitted on or before technical bid opening date. Bidders to refer amended tender clause 2.18.8(b)</p> <p>"EMD envelope containing the original Bank Guarantee should be submitted in physical form on or before tender opening date. APGCL reserves the right to seek confirmation of a bank guarantee from the issuing bank."</p> <p>Amended Clause 2.1 C "EMD is to be submitted by the bidder either through net banking/RTGS/NEFT and/ or uploading of scanned copy of BG on website at the time of submission of etender. Bidder has to select the</p>

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			<p>payment option as "Online" to pay the tender fee/EMD and processing Fee "online" as applicable. In case, if bidder is submitting requisite EMD in the form of Bank Guarantee, then bidder has to submit separate envelope containing original documents regarding EMD. This envelope should be properly super-scribed that "EMD of Rs. 2,00,00,000/- (Rupees Two Crore only) in the form of BG against tender No. APGCL/CGM NRE/PROJ/NAMRUP SOLAR EPC/2023/T4-2570 along with due date & time of tender opening as per NIT. This EMD envelope containing the original Bank Guarantee should be submitted in physical form on or before tender opening date. The T&C bids of such bidders shall be considered for evaluation only after receipt of original BG in physical form & its verification."</p>
2.12.7	<p>All the Bank Guarantees including BG of EMD issued by the bank must be routed through SFMS platform as per following details:</p> <p>(i) MT/IFN 760/MT/IFN 760 COV for issuance of Bank Guarantee</p> <p>(ii) MT/IFN 760/MT/IFN 767 COV for amendment of Bank Guarantee</p> <p>The above message/intimation may be sent through SFMS to Axis Bank, Paltanbazar Branch, IFS code-UTIB0000375, Branch Address-AXIS Bank Ltd., Commercial Building, A.T. Road, Guwahati-781001, India.</p>	<p>You are requested to confirm that, the earnest money deposit (EMD) in the form of BG required to submit as per format Annexure-II in favopur of The Chief General Manager (F&A), Assam Power Generation Corporation Limited 3rd Floor, Bijulee Bhawan, Paltanbazar, Guwahati-781001</p> <p>Also you are requested to confirm the bank details for preparing EMD-BG as below:- Axis Bank, Paltanbazar Branch, IFS code-UTIB0000375, Branch Address-AXIS Bank Ltd., Commercial Building, A.T. Road, Guwahati-781001, India.</p>	<p>Confirmed</p> <p>Confirmed</p>

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3.1.2 (a)	The Bidder should have executed cumulative EPC contracts of design, procurement, supply, installation, testing and commissioning including at least one year of operation & maintenance satisfactory for grid connected ground mounted PV solar power plant in India of cumulative installed capacity of minimum 25 MWac, in last 7(seven) financial years as on last date of bid submission	<p>With reference to the above, we would like to inform you that we have successfully completed 3 No. Project 10 MW(AC) which is in line with your qualification criteria. But in our one of the completion certificate and LOA it is mentioned as 10 MWp, but we have executed and hand over the same project of 10 MW(AC).</p> <p>We have discussed the matter with concern customer for the same project and they are agreeing to issue a declaration letter against that completion certificate mentioning the executed work is in 10 MW(AC).</p> <p>Kindly accept the completion certificate along with declaration letter and LOA so that we can participate the said tender.</p> <p>In this regard a line of confirmation is requested so that we can proceed further to participate in this tender.</p>	Accepted only on production of declaration from the Client, Commissioning Certificate issued by the concern authority/Completion certificate and LOA.
5.1 (xix), Page 130 of 339	ABT Metering Set with CT- PT Set having accuracy of 0.2s class (Metering Cubicle) with Main & Check Meter at solar plant and at switch yard in line with Assam Grid code.	Please provide the ABT Meter Make and Model Number recommended	Bidders to refer tender clause 6.24 METRERING ARRANGEMENT
5.2 WEATHER MONITORING STATION (WMS), Page 131 of 339	One Solar Observatory includes testing facilities at project site is included in the scope.	Testing facility for the Solar Observatory is not possible as all the required WMS equipment presently imported items only to be used the testing bench only available at OEM laboratory. Please clarify	It is to clarify that, the testing facilities means measurement and recording facilities only

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5.8 MAIN POWER, UTILITY AND WATER ARRANGEMENT Page 133 of 339	Construction Power & Water as required for this contract are to be arranged by the Bidder.	Please provide the Power and water on chargeable basis . Please provide the rate per Unit of the same . Also please allow to make bore well/Tube well to Manage the day by day Construction activities requirement	<p><u>Water for Construction</u> Water for construction shall be provided by APGCL at a single point of connection @ Rs 100 per KL (1000 litres). The maximum quantum shall be 32000 litre/day. The water shall be provided 2-3 times a day. Water will be made available at an access point, which is at a distance of approximately 200 m from the project site. Therefore, the contractor has to make necessary arrangement for piping or carriage of water through water tank and store the same.</p> <p>APGCL do not envisage bore well/tube well. However, if any borewell/tube well is constructed by the contractor, it has to adhere to statutory norms prevalent in the region. APGCL does not have any objection in setting up of bore well/tube well at designated place.</p> <p><u>Construction Power</u> EPC contractor has to apply for new connection for construction power from APDCL (state discom). It is estimated that 4 KW (permanent connection) from nearby Distribution Transformer, within Namrup Thermal Power Station will suffice the construction power requirement. For a 4 KW connection, approximate Rs 20000 will have to be submitted to APDCL as one time load security and other charges. Electricity bill per month will have to be paid by contractor as per actual. Fixed charge for 4 KW is Rs 150/KW/month and unit rate is Rs 7.90. However, Bidders are advised to make their own assessment for load requirement and onward payment. Contractors are encouraged to install roof-top solar facility with net metering.</p>

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			<p><u>Accommodation</u></p> <p>6 numbers of old quarter (2nos of type C-4BHK and 4 nos of type IV-2BHK) will be made available to the EPC contractor. Minor repairing may be required that will be in the scope of EPC contractor to make it suitable for them. Bidders are advised to make their own assessment during site visit for suitability and repairing cost.</p> <p>Type C and Type IV shall be charged as Rs 3700/- and Rs 2400/- per month respectively. However, any reasonable repairing/improvement cost may be adjusted against rent payable if such repairing any improvement are permanent in nature and available for APGCL at the time of handing over. This will be done at the sole discretion of APGCL NRE, HQ.</p> <p>Water & electricity is available in the quarters and will be charged as per actual.</p> <p><u>Security</u></p> <p>As the proposed project is within a Protected Power Plant area, any security engaged by the contractor shall be from authorized security agency approved and engaged by APGCL. Contractors should take dedicated security guard round the clock for their stores, offices and project site. Unarmed home guard shall be charged at Rs 22000/guard/month and for security in-charge (ex-service men) shall be Rs 28000/guard/month approx.</p> <p>Any engagement of such security personnel has to</p>

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			<p>be approved from APGCL NRE, HQ in writing. As a part of adequate safety, contractors are encouraged to deploy wifi connected CCTV camera at strategic places. Engagement of vehicles etc should be finalised only after due approval from APGCL NRE, HQ with details of vehicle, vehicle owner, documents, insurance and safety arrangement etc.</p> <p>Sub-contracting For sub-contracting in any nature including labour contracts and casual labours will have to be pre-approved by name with background details from APGCL NRE, HQ. In case of any labour camp established, adequate health and safety protocol including portable toilets (preferably Hot wash portable toilets) and water facility etc has to be established. NTPS project has got basic hospital facility, which will be extended at free of cost except medicine etc.</p>
5.22 STATUTORY & OTHER CHARGES _ Page 139 of 339	Post commissioning, all statutory charges like CEIG annual charges, annual meter testing charges, joint certification charges, O & M charges for dedicated transmission line, lease rental charges etc. or any other charges as may be required to be paid to such statutory agencies shall be quoted in the bid as applicable 7 days prior to Bid Closing Date. These charges will be paid by the Purchaser from time-to-time post commissioning of project limited to the amount	Please confirm the value of Annual testing charges , Joint Certification charges, O&M Charges for dedicated Transmission line if already pre-decided from Purchaser end	<p>Not pre-decided from Purchaser end. Bidder has to explore all such charges and indicate the charges along with evidentiary documents.</p> <p>The clause is amended as under:</p> <p>Post commissioning, all statutory charges like CEIG annual charges, annual meter testing charges, joint certification charges, O & M charges for dedicated transmission line, lease rental charges etc. or any other charges as may be required to be paid to such statutory agencies shall be indicated in Bid Response Sheet No 24 of the bid as applicable 7 days prior to Bid Closing Date. These charges will be paid by the Purchaser from time-to-time post</p>

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	quoted. For such payment's contractor has to inform one month in advance to the Purchaser. Any penalties claimed by the concerned authorities due to delay in providing information to Purchaser about the same, the penalties shall be borne by/recovered from the contractor.		commissioning of project limited to the amount quoted. For such payment's contractor has to inform one month in advance to the Purchaser. Any penalties claimed by the concerned authorities due to delay in providing information to Purchaser about the same, the penalties shall be borne by/recovered from the contractor.
6.1.11, page No.144 of 339	Fixed tilt/Seasonal tilt of SPV arrays such that SPV arrays produce maximum energy.	Bidder understand Fixed Tilt MMS system to be implemented please clarify	<p>Fixed tilt MMS is not envisaged. Bidder to propose (refer amended BRS No 11) type of MMS (Seasonal Tilt/ Tracking) based on its own design to meet the minimum capacity utilization factor (CUF)/Energy.</p> <p>Technical specification 6.28.14 Module Mounting Structure has to be complied for the quoted type of MMS.</p> <p>Consequential Amendment to Annexure VIII/Part A/after sr. no 4</p> <p>The Bidder shall clearly mention the technology used i.e., Seasonal Tilt/ Tracking (Single/Dual axis): (please specify) as per BRS 11.</p>
6.2.18, Page 147 of 339	<p>(i) For PV Modules with back sheet, toughened low iron glass with minimum thickness of 4.0 mm for 72 cell module and 3.2 mm for 60 cell modules for mono-crystalline modules.</p> <p>(ii) In the case of glass-glass Modules, glass thickness</p>	Bidder have option to Use Glass-Glass Module or Mono PERC Module please clarify	<p>Bidders to refer amended tender clause 6.2.18. Component Specifications</p> <p>(i) For PV Modules, minimum thickness of the glass shall be 3.2 mm for 144 half cut mono PERC cells.</p> <p>Bidder to propose type of MONO PERC solar module (Full/Half cut cell). It is to clarify, bidder can choose any glass arrangement (Glass to Glass /</p>

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	on each side shall be minimum of 2 mm. It shall be laminated using a laminator with a symmetrical structure, i.e., heating plates on both sides.		Glass to back sheet) having thickness as specified in the technical specification
6.2.18.3, Page 147 of 339	The Purchaser reserves the right to conduct Pressure Cooker (PC) test/ Highly Accelerated Stress Test (HAST) to confirm the durability of the back sheet in accelerated conditions	As per Input from the Module Manufacturer this test is not conducted by any back sheet supplier, Hence its not possible to conducted please clarify	Bid condition prevails. Pressure cooker test and HSAT test are type test hence test report of the same model and type would be acceptable. In case of doubt, owner reserves the right to get it tested from NABL accredited laboratory. Any additional cost for the same may be included in bid price.
6.2.25.4, page No.150 of 339	The cells used for module making shall be free from all defects like edge chipping, breakages, printing defects, discoloration of top surface etc. Only Class A solar cells shall be used.	Class A meaning DCR Content solar Cells to be used please clarify	Class A cell means highest quality solar cell not DCR content. ALMM included approved solar modules shall be supplied.
6.3 , page 150 of 339	String Combiner box or Array Junction Box - Not Applicable	String Combiner or String Monitoring box is required for Connect the Central Grid connected inverters. Its required please clarify.	Bidder to propose string inverters only. Central Inverters are not envisaged, Bidders to refer Bid Response sheet no 16 (S. No 2).
6.16.1 & 6.16.2 page 189,190 of 339	Power Evacuation through Over head or under ground	Bidder understand that the power evacuation will be done through 33KV Voltage level but requested to confirm whether over head or underground. Also, bidder understand that there was no ROW issue, if It is there the same has to be cleared by Purchaser please confirm	Bidders to refer tender clause 1.2.3 and 6.16.2 for 33 kV underground cable. No ROW is envisaged.
6.28.9.3 & 6.28.9.4 page 215 of 339	Chain Link fencing /Boundary wall	Purchaser kept both the option open for Boundary wall or Boundary fence. Request to allow on Boundary fence	Bidders to refer Appendix-I. Chain Link Fencing/Boundary wall not envisaged under EPC scope.

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6.28.37, page No.240 of 339	Under Ground RCC Water tank	Bidder request to allow to use Above ground PVC Water tank of required capacity	PVC tank (UV Resistant) with canopy shed shall be acceptable.
2.11.6 Pg 27 of 339	Except principal, no other participating bidder shall be allowed to submit their offer with condition that in the event of qualification of their offer for placement of award, the order be issued on the name of different entity.	The Principal can submit the tender through their Authorized Channel Partner with proper notarized legal agreement. The Principal will however have to stand guarantee for the annual CUF guarantee and Performance ratio and the Comprehensive Operation & Maintenance for five (5) year's period as specified in tender document.	Bid Condition Prevails
Addition	Bid Response Sheet		Bid Response Sheet No. 24 is added.

All other terms and conditions of Tender Document remain unchanged.

Any extension/addendum/corrigendum etc. will be made available in <http://assamtenders.gov.in> only.

Sd/-
Chief General Manager (NRE)
APGCL

TECHNICAL PARTICULARS OF QUOTED SOLAR PV MODULE FOR 25 MWac
GROUND MOUNTED SOLAR POWER PROJECT

Technology offered: Monocrystalline/Bifacial/Monofacial Monocrystalline

Total DC capacity: MWp

Rated Capacity of Solar Module:..... Wp

MMS: Seasonal Tilt/ Tracking (Single/Dual axis):

Details of offered crystalline PV Modules

S. N.	Particulars	Offered
1.	PV Module Manufacture name & Country	
2.	PV Module type	
3.	Product Code	
4.	No. of PV cells per Module	
5.	Solar Module frame material	
6.	Module dimensions	
7.	Output Cables	
8.	Junction Box	
9.	Construction Front Back	
10.	Max Temperature rise of solar cells under severe working conditions over Max. Ambient Temp.	
11.	Nominal voltage	
12.	Nominal Wattage	
13.	Power Tolerance	
14.	Peak power voltage (Vmp)	
15.	Peak power current (Imp)	
16.	Open circuit voltage (Voc)	

S. N.	Particulars	Offered
17.	Short circuit current (Isc)	
18.	Weight of each module (Kg)	
19.	Fill Factor	
20.	Standards / Approvals from International Agencies	
21.	Module is suitable to operate at 50° ambient	
22.	Cell efficiency	
23.	Module efficiency	
24.	Temp cycling range	
25.	Maximum System Voltage 600/1000V	
26.	Temp coefficient of Isc	
27.	Temp coefficient of Voc	
28.	Temp coefficient of power	

Signature of the Bidder



Bid Response Sheet 24

**Statutory and Other Charges
 (Not part of evaluation)**

(In Rs.)

Statutory and other charges per annum for 25 MW Solar Power Project					
Particulars					
Year	CEIG Charges	Meter calibration charges	DISCOM/TRANSCO Charges	Any other charges, if any	Total Statutory and other charges
A	B	C	D	E	F=Sum of B to E
1 st					
2 nd					
3 rd					
4 th					
5 th					

Note: (i) All the above charges should be exclusive of GST.
 (ii) Supporting document shall be attached as evidence of price indicated

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