Maha-Metro

Corrigendum-II: Reply to Bidders' Queries

Tender No: N1EG-35/2022, dtd 11/07/2022

E-Tender Portal SN: 305

Name of Work: Survey, Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of 6.0 MWp Rooftop mounted Solar PV projects under RESCO Model including Operation and Comprehensive Maintenance (O&M) for a period of 25 years after commissioning at 13 Nos. Stations, two Depot buildings and Track wall of Nagpur Metro Rail Project

SN	Section/ Volume	Clause no.	Description/Clause Description	Bidders' Queries	Maha-Metro's Reply to Bidders' queries
1	Section II	2.2 i)	The tender is for 6.0 MWp Rooftop Mount & track wall top Solar PV Power System. The above work shall be awarded to a technically qualified bidder. The work as specified above shall be awarded to L-1 (Lowest evaluated bidder) as per clause 6.3 of RFP documents.	Bidder should be allowed to participate and bid for segments i.e. Metro Station, Depots, Track Wall and Metro Bhavan individually with capacity and rates	The query is being discussed at Maha-Metro and will be notified seperately by another corrigendum.
2	NIT	Completion Period (a)	a) Execution/Erection Period: 1.5 Years (including Monsoon Period) from the date of issue of LOA	Please allow 24 months' time after signing of PPA, allocation and availability of sites for the execution of work.	The clause is ameded as- a) Execution/Erection Period: i) 1.5 Years (including Monsoon Period) from the date of signing of PPA ii) Time period assigned for incomplete site (if any) shall be 3 months from the date of handover, if site is handed over after 1.5 yeras . iii) PPA is to be signed within a month from the date of LoA.
3			General	Please clarify Net Billing/Metering Arrangements and available/spare sanctioned capacity segment-wise.	At present Maha-Metro have 4 connections from MSEDCL and at all 4 locations net-metering arrangement is in place. The upcoming 6 MWp capacity is to be connected under net-billing arrangement with MSEDCL. (Net-billing as per Ministry of Power Guidelines is requested to be made applicable to Maha-Metro from MERC, reply on the same is awaited from MERC). After, the said reply, this tender will be finalized.
4			Roof access	MMRCL to provide permanent access to roof at each Site	A permennet roof acces is already in place at most of the sites. The bidders are suggested to carry out detailed site surveys. If any additional access (other than present access) is required by the bidder then same will be in bidder's scope and the additional location (if any) will be jointly decided.

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5			Earthing – can we connect to MMRCL existing earthing	MMRCL should allow Developer to connect earthing of Solar PV plant to the existing MMRCL earthing at each Site. This has been allowed in other Metro station installations also and such sites are operating without any issues related to earthing. However, if MMRCL mandates separate earthing for solar PV system, then the requisite approval from traffic police/ corporation and local authorities w.r.t. Right of Way, permission to work (construct earth pits at road/ground level etc) shall be in MMRCL scope. Since MMRCL is a government entity, MMRCL is in best position to get such approval.	The developer have to connect the solar PV system to a separate earthing for which space will be provided by Maha-Metro in its premises only and no seperate permission is required from other authorities.
6			Cable Trays	Will MMRCL allow existing cable tray at site to be used to lay/ route AC cable from ACCB to Delivery Point?	Existing cable trays wherever available can be used by the developer. At other locations, developers have to provide cable trays for cable routing and if the cable trays are fixed on elevation of the building (after joint survey), same is to be coverd and painted with building colour.
7			Spare Feeder	MMRCL to confirm if spare feeder of required rating is available at each Site. What we have observed during the site survey is that the breaker rating available is not suitable for evacuation on some of depot buildings location and couple of stations. Please share the list of spare feeder availability on each location	A spare feeder of 400A is available at every metro station and if higher size feeder (MCCB) is required as per the PV capacity, the developer can replace the same with 600A MCCB at the same location. At depot buildings, spare feederes availability is privided in Annexure -1 and the developer can connect solar PV capacity to each spare feeder seperately as per the requirement.
8			Water supply arrangement	Please specify the pressure at which water supply will be available at the tapping point provided by MMRCL at each Site. Also kindly specify, the arrangement available at each site to maintain the water pressure in the line after tapping water for solar Operation and Maintenance.	The developer can tap water from the existing water tank at each metro station and as per earlier installations, a one HP motor can be installed by the developer for cleaning purpose.
9			Work timing for station and depot	MMRCL to specify the daily timing allowed for Developer execution team to work on roof at: 1.Metro Station Roof 2. Depot Roof	PTW will be provided at stations from 11 p.m. to 5 a.m. and developer can work at depot rooftops without any restrictions. At track walls, the developer can work in day time / night time with resticated access from the track side with proper safety.
10			PTW	Will PTW be given for block of 15 or 30 days per month or on daily basis? Kindly define procedure for PTW also	A schedule for PTW will be provided 7 days in advance and PTW will be availed by Maha-Metro staff daily for the respective metro stations.

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11			Site Handover schedule	MMRCL should specify the schedule for handover of Operation, non-operational and under construction of Site. This is important for planning the execution timeline, request is to handover the sites immediately upon roof sheeting.	As on date all metro stations except two metro stations (viz., Cotton Market and Indora chowk) are ready . The developer can work at all other sites as per tender. The COD for solar system for incomplete 2 stations, please refer clarification at Sr. No.2 above.
12			Access to electrical room	MMRCL to clarify whether access to electrical room will be provided when required by Developer, with prior intimation to MMRCL, free access to authorized team members of AMP is required to such areas.	Access to the authorised memebers to ASS rooms will be provided as per requirement of the developer .
13			Manpower at Site on rooftop	MMRCL to clarify if there is any limitation of number of manpower who can work on roof at a time	No such limitation however, dead load & live load carrying capacity of the roof to be considered while working on the roof with all safety precautionds. Safety of the workers will be the responsibilty of the developer. (Station PEB structure is designed with 30kg/sq.m as load of solar panel and 75kg/sq.m as Live load.)
14			Single point contact	MMRCL may appoint a single point of contact for - solar project execution - safety and to co-ordinate for execution activities on daily basis	DGM/ Solar will be the single point of contact for the execution of the project and for co-ordination.
15			Drawing approval -- delay beyond 15 days should allow SCOD extension	If approval of drawings by Electrical, Civil or other teams of MMRCL is delayed beyond 15 days from submission by Developer, MMRCL should allow extension of COD for the duration of delay in drawing approval.	The drawings / revised drawings as per comments / mofications will be approved within 15 days and without delay.
16			Access to RCC roof (arm)	MMRCL to provide appropriate access to RCC roof (arm) from the platform level	An access to the RCC roof is already provided. Please refer reply at Sr. No. 4 above.
17			Statutory approvals for starting work at Site and for commissioning of site	MMRCL to specify the statutory approvals required to start work at site and for commissioning of each site	EIG approval for each site, MSEDCL approval for connecting the solar PV system to its grid under Net-billing arrangement etc.
18			What safety precaution is mandated for working on roof	MMRCL to clarify the safety precautions mandated for working on station roof	The developer should install life-line at required sites before start of the work. Further, walkways are to be installed initially before actual installation of PV module starts as per approved layout. General standard industry safety prectices (PPE , use of life line etc.) are to be followed all the time.
19			Material storage	MMRCL to provide small enclosed room/ storage area at each station/ site for the duration of project execution, to store consumables and small critical items.	The developer to arrange the same with proper security at its own cost, and open space may be provided free of cost wherever available. However, the developer can store consumables and small critical items at ASS rooms of each metro station or at depot buildings at its own risk.

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20			Permission to use Crane	MMRCL to provide permission to use large crane to shift heavy material (eg: modules) from road level to arm (RCC roof)	Developer to arrange the same. However, as per experience of previous installations, wherever possible (if there is no restriction to movement of general public) it can be done in day time, otherwise can be carried out in night time at the sites with due permission of local administrative authority.
21	Section V	2.4 Size of Project		Please confirm if post detailed site survey of rooftop and track wall capacity, if any building/ roof/wall is not found feasible / suitable for setting up of the project in that case Nagpur Metro will allocate alternate roofs to the developer and provide extension to compensate the time spent in this process. Also, the bidders will not get penalized and the capacity to execute the project shall be revised or reduced accordingly.	The final PPA capapcity will be jointly decided in writing with a joint survey at specific / required locations.
22	Section V	26 vi)	For the DC cabling, XLPE or, XLPO insulated and sheathed, UV-stabilized single core multi-stranded flexible copper cables shall be used; Multi-core cables shall not be used. Cables sizes up to 10 sqmm shall be Copper Conductor and above 10 sqmm Aluminium conductor may be used.	Please allow both PVC and XLPE cables	Tender condition prevails.
23	Section V	14.1.2 g) iv)	I-V (Current–Voltage) curves at STC (standard test conditions) should be provided by bidder	I-V curves for a sample 10-20 modules shall be provided.	I-V curves for a sample 10-20 modules for each site shall be provided.
24	Section V	15 a)	a)Hot dip galvanized MS mounting structures may be used for mounting the modules/ panels/arrays….....	A combination of HDG, Galvalume and Aluminum as per requirement may be used.	a) Hot dip galvanized MS mounting structures / Galvalume / Aluminium structure as per requirement may be used for mounting the modules/ panels/arrays….....
25	Section V	15 b)	b)The Mounting structure shall be so designed to withstand the speed for the wind zone of the location where a PV system is proposed to be installed. It may be ensured that the design has been certified by a recognized Lab/ Institution in this regard and submit wind loading calculation sheet to MAHA-METRO. Suitable fastening arrangement such as grouting and clamping should be provided to secure the installation against the specific wind speed. A third-party verification of the system at each premise for the wind load & stability from a government institution / organization shall need to be submitted before commissioning.	Please remove the clause of certification from recognized lab/institution. If required, certification from chartered engineer for the same may be submitted. Module mounting design for similar profile of roofs will be standard. Bidder will share module mounting structure analysis report with UDL on roof of metro sheds/RCC buildings. Certification of strength of civil structure of metro stations and depot building should not be included in scope of bidder.	The clause is amended as below- b) The Mounting structure shall be so designed to withstand the speed for the wind zone of the location where a PV system is proposed to be installed. It may be ensured that the design has been certified by a Chartered Engineer with approval of Maha-Metro and submit wind loading calculation sheet to MAHA-METRO. Suitable fastening arrangement such as grouting and clamping should be provided to secure the installation against the specific wind speed. A third-party verification of the system at each premise for the wind load & stability from a government institution / organization shall be submitted by the developer before EIG approval / commissioning. Certification of strength of civil structure of metro stations and depot building is not included in scope of bidder, only the strenght of Solar Systems and its mounting structure is to be ensured.

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26	Section V	15 f)	f)Regarding civil structures the bidder need to take care of the load bearing capacity of the roof and need arrange suitable structures based on the quality of roof	Client to share load-bearing capacity for each roof. Please revise it to 75 kg/sqm.	PEB structures at stations are designed with 30kg/sq.m as load of solar panel and 75kg/sq.m as Live load
27	Section V	15 h)	h)The minimum clearance of the structure from the roof level should be 300 mm.	Minimum 75 mm clearance to be allowed for Metal shed.	Designing of the solar PV system will be in scope of the developer.
28	Section V	16	JUNCTION BOXES (JBs)	JBs are not required for the currently available string inverters as there is in-built isolation feature	Designing of the solar PV system will be in scope of the developer.
29	Section V	17	DC DISTRIBUTION PANEL BOARD (DCDB)	DC distribution boards are not required for the currently available string inverters as there is in-built isolation feature.	Designing of the solar PV system will be in scope of the developer.
30	Section V	18	a) All switches and the circuit breakers, connectors should conform to IEC 60947, part I, II and III/ IS 60947 part I, II and III.	Can AC Distribution Panel Board have Aluminum Bus-bars with suitable current rating ?	Tender condition prevails.
31	Section V	18 c)	The change over switches, cabling work should be undertaken by the bidder as part of the project.	Changeover switch not required.	To be executed as per the tender condition if required.
32	Section V	19 a)	The combined wattage of all inverters should not be less than rated capacity of power plant under STC (Standard test conditions).	Requesting to allow PCU:array size ratio to be 1:1.4	Designing of the solar PV system will be in scope of the developer.
33	Section V	20 f)	Successful Bidder shall be responsible for limiting dc injection into the grid and load as per the CEA/state regulations	In case net metering is not possible , Nagpur metro to ensure consumption of 100% solar power. Provision of RPR at grid side will not be in scope of bidder	Please refer clarification at sr. No. 3 above.
34	Section V	20 g)	a) In PCU/Inverter, there shall be a direct current isolation provided at the output by means of a suitable galvanic isolating transformer. If Isolation Transformer is not incorporated with PCU/Inverter, there shall be a separate galvanic Isolation Transformer of suitable rating provided at the output side of PCU/PCU units for capacity more than 100 kW.	Galvanic isolation not required.	Since, earthing of station and solar PV system is different, Galvanic Isolation to be provided by Bidder. Hence, tedner condition prevails.

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35	Section V	22 ii)	Data Logging Provision for plant control and monitoring, time and date stamped system data logs for analysis with the high quality, suitable PC. Metering and Instrumentation for display of systems parameters and status indication to be provided or to be integrated Maha-Metro BMS system.	PC will not be in bidder's scope	The data / information and monitoring of the same to be provided at existing Maha-Metro PC at respective site. Data Logging Provision for plant control and monitoring, time and date stamped system data logs for analysis to be provided at existing site PC of Maha-Metro. Metering and Instrumentation for display of systems parameters and status indication to be provided or to be integrated with Maha-Metro BMS system.
36	Section V	22 xvi)	Provision for Internet monitoring and download of data shall be also incorporated.	Shall be offered through GPRS enabled Sim cards. In case of network jammers/network issues, the client shall intimate beforehand.	The data can be provided through GPRS eanabled sim however, the monitoring of network issues or any other issues shall be in scope of the developer.
37	Section V	22 xviii)	The bidders shall be obligated to push real-time plant monitoring data on a specified intervals (say 15 minute) through open protocol at receiver location (cloud server) in XML/JSON format, preferably. Suitable provision in this regard will be intimated to the bidders.	Web based remote monitoring shall be offered. The client to ensure their own internet and monitoring screens for the same.	Data Logging Provision for plant control and monitoring, time and date stamped system data logs for analysis to be provided at existing site PC of Maha-Metro. Metering and Instrumentation for display of systems parameters and status indication to be provided or to be integrated with Maha-Metro BMS system.
38	Section V	22 xix)	The SPV BIDDERS must install necessary equipment at each Corridor to continuously measure solar radiation on module plane, ambient temperature, wind speed and other weather parameters and simultaneously measure the generation of DC power as well as AC power generated from the plant. They will be required to submit this data to MAHA-METRO and/ or through a report on regular basis every month for the entire lifetime of the Project.	Please remove requirement of wind sensor	The clause is amended as- The SPV BIDDERS must install necessary equipment at each Corridor to continuously measure solar radiation on module plane, ambient temperature and simultaneously measure the generation of DC power as well as AC power generated from the plant. They will be required to submit this data to MAHA-METRO and/ or through a report on regular basis every month for the entire lifetime of the Project.
39	Section V	25.4.b)	A manual disconnect 4pole isolation switch beside automatic disconnection to grid would have to be provided at utility end to isolate the grid connection by the utility personnel to carry out any maintenance. This switch shall be locked by the utility personnel.	4-pole switch shall be provided prior to interconnection with client's LT panel for each inverter. No extra isolation/disconnect switch shall be in Amp's scope.	Tender condition prevails.
40	Section V	Cables 26 i)	Shall meet IEC 60227/IS 694, IEC 60502/IS1554 standards	Please include Is 7098-1 for XLPE insulated Aluminium cables	Tender condition prevails.
41	Section V	26 v)	v.Flexible Sizes of cables between array interconnections, array to junction boxes, junction boxes To Inverter etc. shall be so selected to keep the voltage drop (power loss) of the entire solar system to the minimum (2%)	DC cables shall be as per EN50618.	Tender condition prevails.

42	Section V	26 xvi)	vi.For the DC cabling, XLPE or, XLPO insulated and sheathed, UV-stabilized single core multi-stranded flexible copper cables shall be used; Multi-core cables shall not be used. Cables sizes up to 10 sqmm shall be Copper Conductor and above 10 sqmm Aluminium conductor may be used.	DC cables flexible copper as per EN 50618 , AC cables Aluminum, armored, as per IS 7098-1	Tender condition prevails.
43	Section V	26 xix)	The total voltage drop on the cable segments from the solar grid inverter to the building distribution board shall not exceed 2.0%.	Please allow for 2.5%	Tender condition prevails.
44	Section V	27)	CONNECTIVITY	For all individual station's/depot/track to be allowed at LT (415 V) evacuation, requisite spare breaker and electrical infrastructure at evacuation point(s) to be provided by Nagpur Metro. Nagpur metro to clearly specify LT evacuation point for each location. Nagpur metro to ensure evacuation of each solar plant at same building, maximum distance of evacuation point from solar combiner box should not be more than 150 meters.	All the evacuations at all sites will be at 415 V at the same premises where solar PV is installed. The length may increase in case of evacution from track wall solar system. The bidders to carry out details site surveys before submission of the bid.
45	Section V	28 b)	A list of requisite spares in case of PCU/inverter comprising of a set of control logic cards, IGBT driver cards etc. Junction Boxes. Fuses, MOVs / arrestors, MCCBs etc along with spare set of PV modules be indicated, which shall be maintained. A minimum set of spares shall be maintained in the plant itself for the entire period of warranty and Operation & Maintenance which upon its use shall be replenished. On completion of contract period, the same shall be handed over to MAHA-METRO.	List to be provided by client prior to bidding. Client to share list of spares prior to bidding. Also. Safe Store room to be provided by client for the same.	Spares are to be maintained by the developer to avoid any time lag between a fault and its rectification. However, as the developer is bound to provide minimum gauranteed generation, the stock of required spare and its maintainance will be responsibility of the developer as per need during operation.
46	Section V	35.1 b) ii)	Walkway shall be installed on the rooftop before the start of actual solar installation work, so that the safety of worker can be ensured and also damage to roof sheet can be avoided.	Railing along with walkway is not required as there is already requirement of lifeline in tender.	Tender condition prevails. Developers can visit existing solar PV system for more details. Developer shall make suitable arrangement to ensure convinenance and sfatey of its workers during execution and O&M at his own cost.
47	Section V	35.1 f)	The solar developer shall provide adequate lifeline runners, fall arresters & safety nets to be installed. The details of the same shall be submitted to Maha-Metro safety department before installation	Fall arrestor is not required there is already requirement of lifeline in tender.	Developer shall make suitable arrangement to ensure convinenance and sfatey of its workers during execution and O&M at his own cost.
48	Section V	37	Considering the limitation of time for carrying out O&M activities on the Metro Stations, the developer shall strive to install an automatic cleaning system, which shall become an integral part of solar installation	Please allow manual cleaning for all locations , as for all existing metro projects developers are implementing manual water cleaning at site.	Automatic cleaning is optional.

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49	Section V	38.1 c)	The following type of land transport shall be provided from the date of signing the Power Purchase Agreement (PPA) till commissioning of the project. One saloon car having an engine capacity of 1200 CC (equivalent to Swift Desire).	Please remove requirement of car from bidders scope.	Tender condition prevails.
51	Section II	2.2	Sites of MAHA-METRO Approx. Total Capacity (KWp) 1.Maha-Metro station rooftops 13 Nos (1 No. of Reach-1,6 Nos of Reach-2 and 6 Nos. of Reach-3) - 2000 KWp 2.Mihan and Hingna Depot buildings-2800 kWp 3.Track Wall-1200 kWp 4.Metro Bhavan-50 kWpThe above capacity is indicative only, Bidder however has to maximize as per site availability. 25% variation can be operated in these sites to the capacity mentioned in above table	Is the variation of 25% with respect to each location or with respect to total capacity of 6MWp. Our request would be that capacity of 6MWp with +25% be for entire capacity and not specific to each site. We would prefer to maximise the roof installations and avoid less installation capacity on Trackwall & Metro Bhavan	There may be variation in total solar PV capapcity the proposed sites. However, the bidder should strive to maximize the solar PV capacity at each site. Further, Please refer clarification at sr. No. 21 above.
52	Section II	3.17.8	The Performance Bank Guarantee (PBG) shall be submitted and shall be valid as follows: Time Period- First five years from date of issue of LOA (Years 05)- 30 lakh Next five years (6-10)- 25 lakh Next five years (11-15)- 20 lakh Next five years (16-20)- 15 lakh Next five years (21-25)-10 lakh	We request the validity of Performance guarantee be for 1 year and renewal in every subsequent year as per five years block. Renewal to be done 1 month prior to expiry of the validity.	Following is being added to the existing clause- The Performance Gaurantee of each block of five years may be with a validity of one year, which shall be renewed one month prior to expiry of the validity otherwise, Maha-Metro shall encash the BG if validity not extended within the stipulated time.
53	Section III	3.16.2.1	The Project cost shall include all the costs related to above Scope of Work detailed in Section V. Bidder shall quote for the entire facilities on a "single responsibility" basis such that the total Bid Price (Tariff) covers all the obligations mentioned in the Bidding Documents in respect of Survey, Design, Engineering, Manufacture, Supply, Storage, Civil work, Erection, Testing & Commissioning of 6.0 MWp Rooftop mounted Solar PV projects under RESCO Model including Operation and Comprehensive Maintenance (O&M) for a period of 25 years after commissioning at 13 Nos. Stations, two Depot buildings and track wall of Nagpur Metro Rail Project, goods and services including spares required if any during O&M period. The Bidder has to take all permits, approvals and licenses, Insurance etc., provide training to O&M staff and such other items and services required to complete the scope of work mentioned above. The Tariff shall remain firm and fixed and shall be binding on the Successful Bidder till completion of Contract irrespective of his actual cost of execution of the project. No escalation will be granted on any reason whatsoever. The bidder shall not be entitled to claim any additional charges, even though it may be necessary to extend the completion period for any reasons whatsoever.	Since there is no subsidy component, we request you to delete the Project cost details asked in the RFP	Tender condition prevails.

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54	Section III	3.16.2.3	The Tariff shall remain firm and fixed and shall be binding on the Successful Bidder till completion of Contract irrespective of his actual cost of execution of the project. No escalation will be granted on any reason whatsoever. The bidder shall not be entitled to claim any additional charges, even though it may be necessary to extend the completion period for any reasons whatsoever.	Revision in tariff to be allowed in case of change in law from the day of bid submission	The quoted tariff by bidder shall be as per the present tax structure & law of GoI & GoM. Any changes in the tax structures or law in future shall be adjusted in both way (Recovery and / or reimbursement).
55	Section III	3.26	METERING AND GRID CONNECTIVITY	Since, the Maha Metro already has existing Solar Plant under Net metering scheme of 1MWac at each of the 4 Metering points of MSEDCL, in such a case any further expansion in capacity at all these 4 locations, will result in losing the net meter system status and the bidder will have to convert it into Behind the meter system where zero export of units from the solar power plant will be applicable. In such a scenario, when no load or insufficient load conditions occurs, deemed generation shall be applicable. We request to share the SLD of the entire connected stations and depots with the 4 MSEDCL metering points. As per current policy, behind the meter would be the best solution for Nagpur metro for metering	Please refer clarification at sr. No. 3 above.
56	Section III	3.27	PLANT PERFORMANCE EVALUATION The successful bidder shall be required to meet minimum guaranteed generation with acceptable Performance Ratio at the time of commissioning and related Capacity Utilization Factor (CUF) as per the Global Horizontal Irradiance (GHI) levels of the location during the O&M period. Performance Ratio should be shown minimum of 75% at the time of inspection for initial commissioning acceptance. Maintenance of Minimum CUF shall be deemed to have been achieved based on the units generated per KWp installed capacity at any site as per the year wise generation table given in Schedule IV of PPA. The bidder should send the periodic plant output details to Maha-Metro for ensuring the CUF. The Performance Ratio will be measured at Inverter output level during peak radiation conditions.	Minimum CUF is not defined in the RFP. However, guaranteed generation table is mentioned in the RFP, Hence, we request to delete the minimum CUF criteria	Tender condition prevails.
57	Section III	3.36.9.	3.36.9. HANDING OVER OF SITE Maha-metro shall handover the identified sites for installation of the Project, as and when available, in a phased manner to the Contractor. Any delay due to reasons whatsoever, the contractor shall not have any claims/damages for this delay.	Effective date of PPA should be after handing over the site with all the pre requisites like safe access to the roof, supply of auxiliary power, etc	Please refer clarification at sr. No. 2 above.
58	SECTION-IV	6.4	6.4.1 MAHA-METRO reserves the right to increase/decrease the Bidder Allocated Capacity by up to twenty five percent (25%) for each station/site or any other site at the sole discretion of MAHA-METRO.	Since 25% variation is on a higher side and the locations being scattered, increase or decrease by 25% can have varying implications on the cost. It should be on mutual basis.	Please refer clarification at sr. No. 51 above.

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59	SECTION-IV	6.7.5	If the Bidder fails to commission the sanctioned project within specified time, Liquidated damages (LD) on per day basis calculated for the Performance Security upto period of 9 month's period would be levied. After nine (09) months, the project will be liable for cancellation and the total Performance Security would be forfeited.	Request to limit to 6 months period	Tender condition prevails.
60	SECTION-IV	8	LIQUIDATED DAMAGES (LD) FOR DELAY IN PROJECT IMPLEMENTATION 8.1.MAHA-METRO will issue the sanction letter(s) for the Project (s) indicating the subsidy/incentive amount(s) which will be disbursed in line with the provisions of the RFP document. The Bidder shall complete the design, engineering, manufacture, supply, storage, civil work, erection, testing & commissioning of the project within 1.5 Years from the date of issue of sanction letter.	It should be from the effective date post hand over of the site	Please refer clarification at sr. No. 2 above.
61	Section V	19 a	a) The combined wattage of all inverters should not be less than rated capacity of power plant under STC (Standard test conditions).	To be removed. The DC:AC ratio should be up to the developer as the minimum guaranteed generation is already defined in the RFP and also, there is no subsidy as per current policies.	Please refer clarification at sr. No. 32 above.
62	Section VI		PBG Format	Below will be added by the bank: NOTWITHSTANDING ANYTHING CONTAINED HEREINABOVE: a. Our liability under this Bank Guarantee shall not exceed _____ (Amount of BG in words and figures); b. This Bank Guarantee shall be valid up to ..... (BG Expiry Date); and c. We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us and we receive a written claim or demand on or before ..... (Claim Expiry Date); The bank shall be relieved and discharged from all its liabilities thereafter irrespective of whether or not the original bank guarantee is returned to us.	The draft format of BG shall prevail as per bid document. Any addition / modification at last para may be permitted as per Reserve Bank Of India guidelines, which does not affect the intesrest of Maha-Metro.
63	Section VII	2	This Agreement shall be effective on the day that falls one Business Day after the date of signing of this Agreement.	The effective date should be from site handover	Tender condition prevails.

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64	Section VII	3.1	The Power Purchaser can terminate the Agreement any time before handing over the premises (rooftop) for installation after giving a seven days' notice. The Power Producer shall not claim anything on account of such termination.	Post signing of PPA, site handover timeline should be defined. The sites needs to handed over to the bidder within 30days	Tender condition prevails.
65	Section VII	4.1 (b)	The Power Producer shall have access as reasonably permitted by the Purchaser to perform the Installation Work at the Premises in a manner that minimizes inconvenience to and interference with the use of the Premises to the extent commercially practical.	The work timings to be defined in the RFP for RCC roofs, Metro station roofs & trackwall	Please refer clarfication at Sr. No. 9 above.
66	Section VII	7.6	In case payment of any invoice is delayed by the Purchaser beyond its Due Date, a late payment surcharge shall be payable by Purchaser to the Power Producer at the rate of 1% per month ("Late Payment Surcharge") calculated on the amount of outstanding payment, calculated on a day to day basis for each day of the delay, compounded on monthly rates. Late Payment Surcharge shall be claimed by the Power Producer, through its subsequent invoice.	Late Payment surcharge at the prime lending rate of State Bank of India plus minimum of 1.25% (One Point Two Five Percent) p.a.	Tender condition prevails.
67	Section VII	8.1 C	The System shall meet minimum guaranteed generation with Performance Ratio (PR) at the time of commissioning and related Capacity Utilization Factor (CUF) as per the daily normalized irradiance levels of the location during the O&M period. PR shall be minimum of 75% at the time of inspection for initial Project acceptance.	To be deleted as minimum generation guaranteed is already mentioned in the PPA	Tender condition prevails.
68	Section VII	8.3 J	Water – Power Producer will be responsible for arranging water as per the requirements of the Power Producer, for periodic cleaning of the solar panels. Power Purchaser may provide Raw Water at an existing point at the premise as per availability on chargeable basis, as per the charges applicable to Maha-Metro.	To be provide defined minimum quantity of water free of cost / mention the water charges/L to be charged	The clause is amended as below: Water: Power Purchaser may provide Raw Water free of cost at an existing source at the premise as per availability. Arrangement for conveyance of water at required location shall be made by power producer at his own cost. The developer have to install water meter at each site for measuring the water consumed and the information to be shared every month with Maha-Metro.
69	Section VII	8.3 K	Auxiliary Power — The Purchaser shall provide sufficient auxiliary power to the Power Producer during installation, maintenance and operation of its system, if available and possible on chargeable basis, at the energy rates Purchaser is paying to the DISCOM or as per guidelines of Maha-Metro.	To be provided free of cost	Tender condition prevails. Please refer the attached guidelines of Maha-Metro at Annexure 2.
70	Section VII	11	PPA- Force Majeure	The PPA should provide non grant of consent as an FM event.	Tender condition prevails.

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71	Section VII	12.1 b iv	Upon the delivery of the Purchaser Termination Notice, this Agreement shall stand terminated. The Power Producer shall have the liability to-make payment within sixty (60) days from the date of Purchaser Termination Notice towards compensation to Purchaser equivalent to the difference between the Tariff and the grid rate notified by the relevant Government Authority for that point in time multiplied by the estimated Solar Power generated for a period of two years following the termination, considered on normative capacity utilization factor.	It should be maximum of 12 months loss of savings on guaranteed generation numbers for that specific year in case of event of default by Power Producer	Tender condition prevails.
72	Section VII	11	PPA- Force Majeure	In the event of a prolonged force majeure event, i.e., if the force majeure event continues for 6 months , then parties may mutually decide to further extend the timelines of the force majeure event. In case parties fail to agree on a mutually agreeable date then either party may terminate the PPA.	Tender condition prevails.
73	Section VII	14	Notwithstanding anything contained herein, the Power Producer has the right to assign all or any of its rights under this Agreement (including rights over any assets hereunder), to any third party including, though not restricted to any lender, equipment lessor or other party("Assignment"), with the consent of the Power Purchaser.	Free assignment rights to affiliates/ lenders and step in rights for the lender.	Tender condition prevails.
74	Section VII	17.7	The Parties agree that the courts in Nagpur shall have jurisdiction over any action or proceeding arising under the Agreement.	We request that the courts in Mumbai shall have jurisdiction over any action or proceeding arising under the agreement	Tender condition prevails.
75	SCHEDULE III		The Price reference taken for calculating the total cost of the system is as per RFP rates and has used the MNRE guidelines for arriving at the Project cost (The quoted cost should not be more than Rs. 39,080 per kWp excluding proposed subsidy/incentive and including taxes).	The benchmark project cost should not be valid as the prices of components have significantly changed now. And also, the MNRE guidelines, do not undertake the other financing costs. We propose deletion of this clause.	Tender condition prevails. However, before submission of the bid if MNRE revise the Project cost, the revised project cost will be applicable.
76	Section VIII Part A		Project Cost	To be deleted.	Tender condition prevails.

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77	Section-II	3.4.2 (a)	If the Bidder is a **Sole Entity** he should have following experience of installation & commissioning- Grid connected Solar PV Projects of minimum 5 MWp (Cumulative Capacity) in one or multiple contracts, during last 5 years (i.e. FY 2017-18, FY 2018-19, FY 2019-20, FY 2020-21, FY 2021-22 or Calendar years 2017, 2018, 2019, 2020, 2021) And The above shall include at least One Grid connected Rooftop Solar PV Project of minimum 100 KWp at one single location in the last 5 years (i.e. FY 2017-18, FY 2018-19, FY 2019-20, FY 2020-21, FY 2021-22 or Calendar years 2017, 2018, 2019, 2020, 2021) (Note: In support of above, Bidder shall submit experience certificate from employer/client along with the Commissioning Certificate)	Can the Eligibility of 5MWp project can be from a group of companies?	Please refer clause No. 3.2 of Section II in the tender document..
78	Section-II	3.4.2 (b) Note:1	1. In support of above, Bidder shall submit experience certificate from employer/client along with the Commissioning Certificate. Simultaneously, the summary of experience shall be provided in Format – 10.	Should the commissioning certificate be for 5MWp or 100kWp Plant?	The commissioning cerfificates shall be for total 5 MWp, in which at least one site should be 100 kWp
79	Section-II	3.4.2 (b) Note:3	3. Work experience certificates issued by Central/State/Semi-Govt./Govt. PSU/Urban Local Bodies/ Listed Companies in BSE/NSE only, shall be considered.	Work experience certificates issued by Central/State/Semi-Govt./Govt. PSU/Urban Local Bodies/ Listed Companies in BSE/NSE only, shall be considered - What does that mean? Should we submit Commissioning certificates from Govt. Bodies ? What if we haven't done any Govt project? Will we be disqualified if no such certificate will be given?	The criterion also includes the project executed not only for Govt. companies but also for Urban Local bodies, Listed companies in BSE / NSE also. The clause is self explanatory.
80	Schedule V of the PPA	Government Approvals	1.To be obtained by the power producer All approvals including approvals/consents required under local regulations, building codes and approvals required from the distribution utility etc. relating to installation and operation of the system (including the government incentives/subsidies available for the project) and generation and supply of solar power from the Project. Permissions and coordination with DISCOM or any related organization for NET METERING / net-billing / behind the consumer meter.	Do we have to consider the Net-Metering system? If yes, do we have to consider costs for it or you will provide costs? Refer Schedule V it says all Govt.Approvals or Net-Meter Charge will be borne by Purchaser.	Please refer clarification at Sr. No. 3 above. Further, Bi-directional meters at all 4 locations are in operation and the upcoming 6 MWp along with existing 4 MW solar PV system is to be connected under Net-billing arrangement. Any modification / change required to existing meters as per requirement of MSEDCL and co-ordination / permission for the same along with the related charges will be in scope of the developer.
81			General	If we have to do site visits who will be the Point of contact. When can it be scheduled?	Point of contact is DGM/Solar Mr. Narendra Ahir (Ph. 9146020990). The site visits can be scheduled any time with prior information.
82			General	Is Power Purchaser going to give any BG / Security Deposit to the developers? If yes, please mention what is the %	The query is not relevant.

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83			General- Drawings to be provided	All 13 nos. stations plan view and elevation view (with LA and earthing strip position)	11 Nos. station drawings attached at Annexure-3. For more details may please visit respective sites.
84			General- Drawings to be provided	Depot Buildings plan view and elevation view (Mihan Depot- Building-5 and Building -2) & (Hingna Depot- RCC-1 and Shed-1)	Drawings attched at Annexure-4.
85			General- Drawings to be provided	Both depots master layout	Layouts attached at Annexure-5.
86			General-Information	Spare feeder details of all depot buildings	Please refer Annexure:2
87			General- Drawings to be provided	Metro bhawan drawings (Plan and elevation view)	Please visit Metro Bhavan Site for further details.
88			General	Track wall area proposed for solar. (With indication of all nearby obstructions and buildings/structures/poles in front of the wall)	Track wall top near New Airport and Khapari Metro station and boundary walls in Hingna & Mihan Depot is proposed to be considered in this tender. The bidders are suggested to carry out detailed site surveys for further details.
89			General- Drawings to be provided	Track wall with supporting structure drawing	Track wall drawing attached at Annexure-6.
90			General- Drawings to be provided	Track wall evacuation point and breaker capacity	The evacuation of power will be to nearest Metro station ASS room. Available feeder capacity at New Airport and Khapari Metro station is 800 A each. Further, at New Aiport and Khapari stations existing 113 kW and 68 kW solar PV systems are connected at same feeder. The upcoming capacity on track wall can be connected at the respective feeders. (Similar arrangement alredy exists at Airport south metro station). For more understaing site visits may be carried out.
91			General- Drawings to be provided	SLD of all stations and depot buildings	The SLDs attached at Annexure-7.

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