

**C4 -E&M-05**  
**CMRL/Phase-2/SYS/C4-E&M-05/2022 E-Procurement Id - 2022\_CMMDB\_667818\_1**  
**Pre-Bid Queries and Responses summary**

S. No	Part / Section No	Clause No	Description / Original Bid Condition	Bidder's Queries	CMRL Response	Addendum Issued (YES/ NO)	Addendum Reference
1	Part 1 Section IV B	VAC - BOQ - S. No 3	Fan Pressure shown in the BOQ are minimum, contractor have to verify and validate the total pressure drop calculation with VAC layout/drawings size the equipment without any extra cost to employer	We do not find the drawings in the Tender, hence we shall quote the equipemnt with BOQ mentioned pressure. Kindly conform	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
2	Part 1 Section IV B	VAC - BOQ - S. No 6	VRF outdoor units shall be capable of working at 52Deg C	Kindly conform the capacity mentioned in the BOQ are designed after the deration or we have the take the deration while selecting the machines as per OEMs	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
3	Part 1 Section IV B	VAC - BOQ - S.No 30-46	Copper Piping	Kindly conform the Gauge (Thickness) of the copper piping	Refer Specification. Tender Condition Prevails.	NO	
4	Part 1 Section IV B	VAC - BOQ - S. No 81	Control/Communiication cable with GI conduit between indoor & outdoor units	Kindly conform the thickness of the GI conduit	Refer Specification. Tender Condition Prevails.	NO	
5	Part 1 Section IV B	VAC - BOQ - S. No 84 - 89	Drain Pipes - UPVC with Nitrile Rubber insulation and wrapped with treated owen glass cloth	Protection for insulation is stated wrapped with treated glass cloth, In addition AL cladding is asked in the next line item for 90SQM. Glass cloth wrapping itslef sufficient for the protection. Kindly conform	Tender Condition Prevails.	NO	
6	Part 1 Section IV B	VAC - BOQ - S. No - 90	Ducting	Kindly conform TDF flanges can be used for ducting	Refer Specification. Tender Condition Prevails.	NO	
7	Part 1 Section IV B	VAC - BOQ - S. No - 147	Fire Rated Axial Fan	Kindly conform the fire rating of the fans	Refer Specification. Tender Condition Prevails.	NO	
8	Part 1 Section I	Part 1 - Bidding Procedure	Tender Submission	Page No - 18 stated the tender submission is hard copy or through email before the end date, where Page no 32 & 33 stated the tender submission is on the CPP portal, Kindly conform the mode of tender submission.	Please refer Part 1 Section II, Bid Data Sheet ITB 21.2, ITB 22.1 and ITB 23. Tender Condition Prevails.	NO	
9	Part 1 Section I	Part 1 - Bidding Procedure - Page no 45	Eligibility	We request you to accept eligibility for the values mentioned without SCADA as several projects do not require SCADA.	Refer Addendum - 1	YES	Part 1, Sl. No.6
10	Part 1 Section III	EQC 2.3.3	For a Joint venture bidding , it is given that Lead member should meet 40 % of the requirement and other member is shown as N/A. .	Pls clarify in case of a JV with two members , what is the value limit separately for Lead member and for second member in case of 1) One work of value of 100 Cr or above 2) Two works of value of Rs. 63 or above 3 ) Three works of value Rs. 50 cr or above.	Refer EQC. Tendor conditions Prevails. (Minimum requirement for lead member is 40%)	NO	
11	Part 1 Section III	Notes to Bidders	Experience certificate issued by project client will only be considered. The certificate issued by Main contractor or any other member will not be considered.	We would like to submit our point that as per practise over the last many years , all major high value projects are tendered out as a combined single package for the entire works including , Civil , E & M works , Bms/ Scada , Plumbing etc. Hence all works are executed by a single Main contractor and E & M services are executed by specialist Contractors for the Main contractor as their sub contractor. So Completion certificates for such projects shall be from the Main contractor only. Hence we would request that Bonafide completion certificates for such projects from Main contractors should be accepted for the purpose of pre-qualification.	Tender Condition Prevails.	NO	
12	Part 1 Section IV B	Electrical BoQ	B.2.19 Relay based Lighting Control system	Please share technical specification	Refer Specification. Tender Condition Prevails.	NO	
13	Part 1 Section IV B	BOQ	B6.3 - Supply, laying, termination, Testing and commissioning of PVC insulated, FRLSH, Copper Cables for Earthing in green colour, as per IS 7098 and Specifications, for interconnecting the earth station with METs of the following sizes in trenches/surface/wall/ground complete with accessories as per specifications & drawing as required. B.6.3.1 - 1Cx150 Sq. mm, Cu Cable B.6.3.2 - 1Cx95 Sq. mm, Cu Cable B.6.3.3 - 1Cx70 Sq. mm, Cu Cable B.6.3.4 - 1Cx35 Sq. mm, Cu Cable	Please Confirm whether we need to quote for Armoured/Unarmoured cable	Refer Addendum - 1	YES	Part 1, Sl. No. 36
14	Part 1 Section IV B	B-10.1- Pipes	Supply and installation RCC hume pipes(Class NP-4) in road crossings and below paved areas complete as required including road cutting and making good the damages etc 300 mm dia RCC hume pipes(Class NP-4) 200 mm dia RCC hume pipes(Class NP-4) 80 mm dia RCC hume pipes(Class NP-4)	80mm dia RCC hume pipe will not available from manufacture, Hence can we quote for 100mm dia. Pls clarify	Tender Condition Prevails.	NO	

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15	Part 1 Section IV B	B.4 CONDUIT WIRING	B.4.1 - Supply, laying & Termination of wiring (in GI conduit / raceway)for the following light / Sockets/ Exhaust Fan / Bracket fan point/Signage with 3 x 2.5 sq. mm, 1100 Volt grade as per IS-694 FRLSH copper conductor wires.(excluding the cost of Conduit, switches, sockets & switch boxes) B.4.1.1 - First point controlled by one switchboard / 10A MCB	Please confirm whether MCBs with necessary accessories to be considered here.	Refer Addendum - 1	YES	Part 1, Sl. No. 33
16	Part 1 Section IV B	B.4 CONDUIT WIRING	F.4.5 - Supply, laying & Termination of wiring (in GI conduit / raceway) for the following 16A Industrial socket outlet point with 3 x 6 sq. mm, 1100 Volt grade as per IS-694 FRLSH copper conductor wires. (excluding the cost of Conduit, switches, sockets & switch boxes) F.4.5.1 - One no. 16A socket outlet point controlled by 16A DP MCB.	Please confirm whether MCBs with necessary accessories to be considered here.	Refer Addendum - 1	YES	Part 1, Sl. No. 93
17	Part 1 Section IV B	BOQ	F.3.9 - Supply & Installation for closing of wall and floor penetrations which has multiple non combustible penetrants with Mortar based UL listed firestop system to provide 2 Hr Fire rating.	Please share model no. for fire stopper/Sealeant	Refer specification. Tender Condition Prevails.	NO	
18	Part 1 Section IV B	BOQ	F.3.10 - Supply and installation for closing of wall and floor penetrations which has cable tray penetrants with intumescent sealant based UL listed firestop system to provide 2 Hr Fire rating and water resistant properties.	Please share model no. for fire stopper/Sealeant	Refer specification. Tender Condition Prevails.	NO	
19	Part 1 Section IV B	F.3.5 - Cable Trays	Trays shall be supported adequately at minimum 0.3 m distance from the building structure / ceiling by means of galvanized (as specified) MS structural members secured to the structure by dash fasteners or by grouting. This support should be capable of withstanding the weight equivalent of 3m length of the cables that can be laid in the trays. At turns the support has to be double and at both ends of the bend.	Should we need to quote with MS supports along with cable trays rate, As we understand separate line item is provided. Please clarify	Tender Condition Prevails.	NO	
20	Part 1 Section IV B	BOQ	B.3.7 - Supply, installation and testing of sheet steel two-compartment raceways in floor, fabricated from 1.5 mm thick GI with minimum coating thickness 275 gm / sq. meter on both sides with removable cover plate complete with counter sunk cadmium /steel-plated brass screws, bends, tee-junctions, cross junctions, etc. rendered electrically continuous as approved and of following sizes:	We understand both the tray body and cover to be provided are of the same thickness, please confirm, if covers are to be provided with more thickness please specify the same	Tender Condition Prevails.	NO	
21	Part 2 Section VI A Appendix-6	Make list	LT Panels: BLOKSET, ArTuk, SIVACON, Ti, RITTAL, EL STEEL	Should we need to quote with OEM panels only or OEM certified panels	Refer specification. Tender Condition Prevails.	NO	
22	Part 1 Section III	EQC 2.4.2 (a)	Experience in construction in the role of Prime Contractor(i) (single entity or JV member(ii)) or sub-contractor must have been satisfactorily(iii) or substantially completed(iv) during the last ten (10) years from the last day of the month prior to bid submission deadline. Supply, Installation, Testing and commissioning of Electrical, Fire Alarm & Detection, Fire Fighting System and Ventilation & Airconditioning and SCADA works involving a minimum number of	We request you to you to modify this clause as under Experience in construction in the role of Prime Contractor(i) (single entity or JV member(ii)) or subcontractor must have been satisfactorily(iii) or substantially completed(iv) during the last ten(10) years from the last day of the month prior to bid submission deadline. Supply, Installation, Testing and commissioning of Electrical, Fire Alarm & Detection, Fire Fighting System and Ventilation & Airconditioning and SCADA / BMS works involving a minimum number of	Refer Addendum - 1	YES	Part 1, Sl. No. 6

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23	Part 1 Section III	EQC 2.4.2(b)	For the works stated in 2.4.2 (a) above or other contracts completed and under implementation as prime contractor (single entity or JV Member) or subcontractor during the last ten (10) years from the last day of the month prior to bid submission deadline a minimum experience in the following key activities:  Supply, Installation, Testing and commissioning of Electrical, Fire Alarm & Detection, Fire Fighting System and Ventilation & Airconditioning and SCADA works of At least three Elevated Metro stations / one Underground Metro Station. OR One Railway Workshop or Metro Depot. OR Execution of E&M (Electrical, HVAC, Fire protection and Integrated building management system) similar works of minimum 2000 KVA and above capacity for large multistory building such as Airport, Hospital, Hotel, IT Park, commercial mall, any industrial project, factory etc.,	We request you to modify this clause as under For the works stated in 2.4.2 (a) above or other contracts completed and under implementation as prime contractor (single entity or JV Member) or subcontractor during the last ten (10) years from the last day of the month prior to bid submission deadline a minimum experience in the following key activities: Supply, Installation, Testing and commissioning of Electrical, Fire Alarm & Detection, Fire Fighting System and Ventilation & Airconditioning and SCADA works of At least three Elevated Metro stations / one Underground Metro Station/ Highway Tunnel or One Railway Workshop or Metro Depot / or Execution of E&M (Electrical, HVAC, Fire protection and Integrated building management system) similar works of minimum 2000 KVA/ 800TR chiller capacity and above capacity for large multistory building such as Airport, Hospital, Hotel, IT Park, commercial mall, any industrial	Tender Condition Prevails.	NO	
24	Part 1 Section III	2.4.2 (a) & 2.4.2 (b)	For the works stated in 2.4.2 (a) above or other contracts completed and under implementation as prime contractor (single entity or JV Member) or subcontractor during the last ten (10) years from the last day of the month prior to bid submission deadline a minimum experience in the following key activities: Supply, Installation, Testing and commissioning of Electrical, Fire Alarm & Detection, Fire Fighting System and Ventilation & Air-conditioning and SCADA works of At least three Elevated Metro stations / one Underground Metro Station. OR One Railway Workshop or Metro Depot. OR Execution of E&M (Electrical, HVAC, Fire protection and Integrated building management system) similar works of minimum 2000 KVA and above capacity for large multistory building such as Airport, Hospital, Hotel, IT Park, commercial mall, any industrial project, factory etc.,	For Eligibility and Qualification criteria for similar 1. FOR E&M Works: Supply, Installation, Testing and commissioning of Electrical, Fire Alarm & Detection, Fire Fighting System and Ventilation & Air-conditioning works. 2. For SCADA/BMS: The E&M Contractor shall supply the SCADA/ BMS from its OEM. The complete supply and installation testing commissioning will be the responsibility of OEM. In lieu of the same the CONSENT/ WILLINGNESS Certificate from the Eligible Associates will be submitted as a part of qualification.	Refer Addendum - 1	YES	Part 1, Sl. No. 6, 7
25	Part 2 Section VI C	1.14.5.1	wet cylinder liners	Cylinder liners shall be as per manufacturer standard. Please confirm	Refer Specification. Tender Condition Prevails.	NO	
26	Part 2 Section VI C	1.14.5.7	The DG Set shall also be suitable for continuous operation for at least Eight (8) Hours of operation	Standard DG set shall have 990 lts fuel tank, which is suitable for 5 hours of continuous running. Please confirm	Refer Specification. Tender Condition Prevails.	NO	
27	Part 2 Section VI C	1.14.6	Basic engine	Engine material of construction shall be as per manufacturer standard. Please confirm.	Refer Specification. Tender Condition Prevails.	NO	
28	Part 2 Section VI C	1.14.7.5	Twin heavy-duty air intake filters	Air intake filters shall be as per OEM standard. Please confirm.	Refer Specification. Tender Condition Prevails.	NO	
29	Part 2 Section VI C	1.14.9.5	the silencers shall be contained entirely within the Acoustic Enclosure	Silencer shall be mounted on the top of the enclosure. Please confirm.	Refer Specification. Tender Condition Prevails.	NO	
30	Part 2 Section VI C	1.14.11.2, Fuel System	Engine fuel system shall include Two-Stage Fuel Filtration through primary and secondary fuel filters.	as per manufacturer standard simplex type filter shall be provided, there is no provision of primary & secondary fuel filters. Please confirm.	Refer Specification. Tender Condition Prevails.	NO	
31	Part 2 Section VI C	1.14.12.3	manual adjustment / The automatic electrical over speed trip shall operate at 120% of the rated speed. Resetting of the Over Speed Trip shall be possible manually	As per the manufacturer standards, electronic governor provided on the engine has built in protection against over-speed. Separately manually adjustable mechanical over speed protection is not required.	Refer Specification. Tender Condition Prevails.	NO	
32	Part 2 Section VI C	1.14.12.2	Governing Class G3	As per the manufacturer standards Governor shall have G2 class governing. Please confirm.	Refer Specification. Tender Condition Prevails.	NO	

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33	Part 2 Section VI C	1.14.18. 7	The alternator shall be capable of continuous operation with a phase current imbalance of 33% of rated current	As per BS/IS alternator can withstand up to 125% unbalance between phase provided when none of the phase exceeds rated current.	Refer Addendum - 1	YES	Part 2, Sl. No. 32
34	Part 2 Section VI C	1.14.18. 10	The design should confirm capability to handle non- linear type electronic loads of not less than 40% of rated capacity.	Kindly provide details of nonlinear load.	Refer Specification. Tender Condition Prevails.	NO	
35	Part 2 Section VI C	1.14.18.14	Voltage drop of the alternator should be adjustable up to (+/-) 3% of the rated voltage.	As per manufacture standard voltage variation shall be ±5%. Please Confirm.	Refer Specification. Tender Condition Prevails.	NO	
36	Part 2 Section VI C	1.14.18.15	The output voltage of the alternator should be manually adjusted within a range of 415 V ± 5 % AC.	As per manufacture standard Digital type automatic AVR shall be provided & hence there is no requirement of manual control. Please confirm	Refer Specification. Tender Condition Prevails.	NO	
37	Part 2 Section VI C	1.14.35.1.2 Constructio n Features, 9 (a)	In order to ensure safety of Fuel tank it shall be embedded into a wall closet / enclosure on all four sides for which required interfacing with the civil contractor shall be done by DG set Contractor	As per standards Fuel tank shall be placed outside enclosure.	Refer Specification. Tender Condition Prevails.	NO	
38	Part 2 Section VI C	1.14.35.1.2 Constructio n Features, 9 (c)	Genset controller & isolator panel shall be preferably inside the sound attenuating enclosure.	As per Manufacturer standards Isolator panel shall be placed outside the enclosure. Please confirm.	Refer Specification. Tender Condition Prevails.	NO	
39	Part 2 Section VI C	1.14.35.1.2 Constructio n Features, 9 (d)	This enclosure should be for IP-65 rating.	As per manufacturer standard there is no IP defined for enclosure. However, DG set is suitable for outdoor applications. Please confirm.	Refer Specification Clause No. 1.14.4 Housing for DG set Enclosure. Tender Condition Prevails.	NO	
40	Part 2 Section VI C	1.14.37.1	A supply line fuel filter shall be fitted and shall be of the twin replaceable element type	As per manufacture standard simplex type fuel filter shall be provided. Please confirm	Refer Specification. Tender Condition Prevails.	NO	
41	Part 2 Section VI C	1.14.40 Technical datasheet for DG Set , 2.8	Transient response & : Max. 20% dip on application of full load at stated P.F and recovery in 20 cycles.	Kindly provide complete load details such as motor load, starting method, starting current, starting P.F, base load, etc. enabling us to comment on TVD.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
42	Part 2 Section VI C	1.14.40 Technical datasheet for DG Set , 4.0.A	Air Circulation System: Type Axia Flow Fan	As per manufacture standard DG set provided shall be self-ventilated if placed in open area and also there is no requirement of Axial Flow fans. Please confirm.	Refer Addendum - 1	YES	Part 2, Sl. No. 34
43	Part 2 Section VI C	1.14.40 Technical datasheet for DG Set , 4.B	SILENCER HOOD INTAKE: Air Intake Hood	As per manufacturer standard there is no provision of air intake silencer. Please confirm.	Refer Addendum - 1	YES	Part 2, Sl. No. 34
44	Part 1 Section IV B	F.11.2 - DG AMF PANEL	F.11.2 - DG AMF PANEL (IP 65)	We propose to approve IP 54 for AMF panel. Please consider.	Refer Specification. Tender Condition Prevails.	NO	
45	Part 1 Section IV B	F.11.2 - DG AMF PANEL	i) 3 Nos. CTs 1250/5A, 15VA, CT5P10 in the Panel for IDMT, Instantaneous, Overcurrent, Earth Fault, Under/Over voltage, Reverse Power relay protection.	As per DG Set OEM standards Under/Over voltage protection feature is already present in DG controller as inbuilt protection. So, there is no need to provide separate protection features inside AMF panel. Please Confirm.	Refer Specification. Tender Condition Prevails.	NO	
46	Part 1 Section IV B	F.11.2 - DG AMF PANEL	ii) 1 No. Reverse power protection relay	As per DG Set OEM standards reverse power protection relay is already present in DG controller as inbuilt protection. So, there is no need to provide separate protection features inside AMF panel.	Refer Specification. Tender Condition Prevails.	NO	
47	Part 1 Section IV B	F.11.2 - DG AMF PANEL	DG controller with PLC unit, for logic and control operations complete with all hardware and software.	Amf is feature any additional PLC not required.	Refer Specification. Tender Condition Prevails.	NO	
48	Part 1 Section IV B	F.11.2 - DG AMF PANEL	SCADA CONNECTIVITY	SCADA connectivity RS-485 port is available at ACB / MFM any other switch/software is not in our scope of supply.	Refer Specification. Tender Condition Prevails.	NO	
49	Part 1 Section IV B	F.11.2 - DG AMF PANEL	Transducers & wiring upto Marshalling Box for all relevent I/O points for the above panel for SCADA connectivity.	PI specify transducer type req. like A/V/PF/Freq./KW?	Refer Specification. Tender Condition Prevails.	NO	
50	Part 2 Section VI C	1.12.3.3	The equipment shall be designed to provide rated output at the extreme environmental conditions specified above.	As per OEM standards UPS System is designed at 40 Deg C. Please include design temperature in specs.	Refer Addendum - 1	YES	Part 2, Sl. No. 30
51	Part 2 Section VI C	1.12.3.3	Design Life The design life of the UPS system shall be at least 20 years and Battery system shall be at least 15 years.	As per OEM Standards UPS System is designed for around 10 years life. Please modify the clause accordingly.	Refer Addendum - 1	YES	Part 2, Sl. No. 30

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52	Part 2 Section VI C	1.12.3.3	General System Features : Overload Capabilities The UPS shall be able to supply 110 % for 60 minutes, 125 % rated load for at least 10 minutes and 150% rated load for at least 1 minutes.	Small rating systems comes with overload as under: 105 % for 60 minutes, 125 % rated load for at least 5 minutes and 150% rated load for at least 1 minutes. Please amend the clause accordingly.	Tender Condition Prevails.	NO	
53	Part 1 Section IV B	S.no 1051, S.no 1061, S.no 1071, S.no 1115	K 13, copper Galvanic Isolation Transformer at Incoming supply side of UPS.	There is no requirement of K-13 rated transformer at input of UPS System. K-1 aluminum transformer is appropriate at Input of UPS System. Please modify the clause ``accordingly	Refer specification. Tender Condition Prevails.	NO	
54	Part 2 Section VI C	1.5.3.5	Fire Sealant material/ fire Stopping.	as per clause 1.5.3.5 under Fire sealant it mentions both intumescent pillow heat sealed fire hydrant bag and fire sealant with rock wool insulation. Ass per our understanding the gaps can be sealed with sealant and Rockwool as per UL 1479 standards.	Refer specification. Tender Condition Prevails.	NO	
55	Part 1 Section IV B	D.7 - Central Controller, point 12	Compatible with SCADA / BMS operation through MODBUS protocol	We propose to accept BACNET Protocol in lieu of MODBUS Protocol. Please confirm.	Tender Condition Prevails.	NO	
56	Part 2 Section VI C	1.7.4- LED Driver, pt. no.9	Drivers	For all major lighting fixtures including platform, Indoor and outdoor application drivers with THD <5% to be benchmarked since this is way forward for better system performance and less fault. Please advice	Tender Condition Prevails.	NO	
57	Part 2 Section VI C	1.7.5.2	Housing, if not used as a heat sink shall be made of at least 0.5mm thick CRCA sheet Steel/ Extruded Aluminum (min 1.6mm thick) or PDC (min 1.8mm thickness)..	Please confirm that for the light fittings having CRCA sheet steel. What will be the criteria of measuring CRCA sheet thickness. (Whether measurement will be before or after powder quoting)	Refer Specification. Tender Condition Prevails.	NO	
58	Part 2 Section VI C	1.7.4- LED Driver, pt. no.9	Total harmonic Distortion <10% for DALI and Electronic Drivers	As per Industry norms and followed by prominent driver manufacturers for DALI drivers allowed THD should be <20%.	Tender Condition Prevails.	NO	
59	Part 1 Section IV B	1.7.4.7	F.5.5 - SITC of Surface mounted LED down lighter of ≤ 7W, 230 Volts, .....	As per clause 1.7.4.7 of Light fixtures specification the driver efficiency shall be > 85% in respective of any wattage of fixtures. But as per industrial standards for Light fittings <10 watt shall have inefficiency 80% and for light fixtures > 11 wattage shall have efficiency grater that 85%. Please confirm.	Tender Condition Prevails.	NO	
60	Part 1 Section IV B	1.7.3.7	F.5 - INDOOR LIGHTING AND FANS	In Lighting subhead for both Station and Depot part mostly CCT of 4000K- 5700K is mentioned. But few of the lights in Depot Pat like item no. F.5.1,F.5.2, F.5.5, F.5.6, F.5.7, F.5.8, F.5.29, F.5.26 CCT 6500K is written. Also, as per technical specification CCT defined as in between 4000K-5700K. We understand that CCT for all the light fixtures shall range from 4000K- 5700K. Please confirm.	Refer Addendum - 1	YES	Part 1 Sl. No. 94,95,96,97, 98, 99, 107, 108
61	Part 1 Section IV B	1.7.5.3	Heat sink used to be extruded Aluminum or Pressure Die Cast Aluminum having high conductivity preferably ADC 12 or LM6	For BOQ street light fittings items, We propose to PDC housing with ADC-12 should be allowed in place of LM6. Please confirm.	Refer Specification. Tender Condition Prevails.	NO	
62	Part 1 Section IV B	Depot	F.5.7 - SITC of LED high bay symmetric beam luminaire with housing made of die-cast aluminum of system wattage not more than 157W. The luminaire shall be with dedicated optics to provide precise light distribution of symmetric wide beam angle of FWHM 110°	Beam Angle 90 degree shall be allowed because for higher heights precise angle helps achieve desired lux level and purpose. Please confirm	Tender Condition Prevails.	NO	
63	Part 1 Section IV B	Depot	F.5.27 - Supply Installation Testing & Commissioning of 20w LED PIT light with integral control gear made of Extruded aluminum housing comprising of White (WH) LEDs connected in series and parallel. F.5.29 - Supply Installation Testing & Commissioning of 16w LED PIT light with integral control gear made of Die cast aluminum housing comprising of White (WH) LEDs connected in series and parallel.	In PIT lighting wen propose to accept PDC for housing of light fittings.	Tender Condition Prevails.	NO	

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64	Part 3 Section VIII	PART A - CONTRACT DATA	The Performance Security will be in the form of a Bank guarantee, from a Public Sector Bank in India or from a Scheduled Commercial Bank or from such foreign bank which has tie up with a PSU bank in India for an amount of 7.5% of the Accepted Contract Amount (excluding GST and Provisional sum) and in the same currency of the Accepted Contract Amount.	As per the standard industry practices, We request you to please amend the performance security at 5% instead of 7.5%.	Tender Condition Prevails.	NO	
65	Part 1 Section IV B	BoQ	FIRE PUMPS AND MOTORS EQUIPMENT	We understand that the equipment foundation of fire Pumps and motors shall be in the scope of civil agency. Please confirm.	Refer Addendum - 1	YES	Part 1 Sl. No. 50, 128
66	Part 2 Section VI A Appendix-6	LOM	LV Panel: Blokset, Artuk, SIVACON, Ti, RITTAL, EL STEEL	Please Replace as: LV Panel: Blokset, Ar Tuk, SIEPAN, Ti, RITTAL, EL Steel	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO	
67	Part 2 Section VI A Appendix-6	LOM	Bus Duct: C&S, L&T, Anand Power, Schneider	Please add Goodrej, EAE as well	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO	
68	Part 2 Section VI A Appendix-6	LOM	Cable Trays: INDIANA, OBO, PROFAB, NIEDAX, RUKUMANI	Please consider the as equivalent brands for cable Trays	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO	
69	Part 2 Section VI A Appendix-6	LOM	UPS: Schneider, Delta, VERTIV, EATON, ABB, FUJI	Please consider Numeric as equivalent brand for UPS system.	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO	
70	Part 2 Section VI A Appendix-6	LOM	VRF Units	Please add BLUESTAR in approved make list.	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO	
71	Part 2 Section VI A Appendix-6	LOM	Electrical Fire Pumps and Diesel Engine Fire Pumps	Please add Xylum make in approved List of makes.	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO	
72	Part 2 Section VI A Appendix-6	LOM	LT Power Cables/ Control Cable/ Cu Flexible Wires/ Fire Survival cable	Please add Havells, SBEE , Bonton make in approved List of Makes.	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO	
73	Part 1 Section IV B	B.8	30 Meter Busduct is considered for only 1 station,	GA drawing required.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
74	Part 2 Section VI D	B.7.3.2	Lightning Protection - Down Conductor quantity on SET item?	Since no drawings available length for down conductor is not identify, please share building drawings.	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57
75	Part 1 Section IV B	B.3.2	Copper Cables-Fire Survival CABLE - 240 TO 10 SQ. MM.	SLD & building layout requierd.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
76	Part 1 Section IV B	B.3.3	Aluminium XLPE Insulated, armoured, Flame Retardant Low Smoke Halogen Type Cables - 240 TO 35 SQ. MM.	SLD & building layout requierd.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
77	Part 1 Section IV B	B.3.4	Copper XLPE Insulated, armoured, Flame Retardant Low Smoke Halogen Type Cables - 16 TO 6 SQ. MM.	SLD & building layout requierd.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
78	Part 3 Section VII	Priority of Documents	What is superseeding details BOQ, Specification or Drawing.	Drawings required.	Refer Part-3, PCC. Tender Condition Prevails.	NO	
79	Part 2 Section VI D	Employer Drawings	Required Electrical SLD & Drawings not shared with Tender.	Drawings required.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
80	Part 2 Section VI D	Employer Drawings	MEPF Drawings required.	Drawings required.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
81	Part 2 Section VI D	Employer Drawings	Relay based Lighting Control system	Lighting drawing and schematic required.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
82	Part 1 Section IV B	B.2 & F.2	DISTRIBUTION BOARDS - Considered as panel?	It is fabricated panel / DB? We have considered Panel.	Refer Specification. Tender Condition Prevails.	NO	
83	Part 1 Section IV B	B.5 & F.5	In case of contradiction between specifications and description in BOQ, the most stringent of the conditions will prevail.	FYI	Tender Condition Prevails.	NO	
84	Part 1 Section IV B	B.5 & F.5	The product shall be of proven design, shall have performance certificate (if available) & type test certificate from the NABL accredited Third Party laboratory/UL laboratory.	FYI	Tender Condition Prevails.	NO	
85	Part 1 Section IV B	B.7 & F.7	LA - Material- SS 304 & TESTED as per Standard EN 62561-2.	LA & Design schematic drawings required.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
86	Part 1 Section IV B	B.9.1	2 x 30 KVA UPS STATION - 11 Nos.	SLD, LOAD details & Distribution details required for HT & LT Distribution.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	

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87	Part 1 Section IV B	B.9.2	2 x 40 KVA UPS STATION - 6 Nos.		Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
88	Part 1 Section IV B	B.9.3	2 x 50 KVA UPS STATION - 1 Nos.		Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
89	Part 1 Section IV B	F.9.1	2 x 120 KVA - UPS DEPOT 1 Nos.		Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
90	Part 1 Section IV B	B.8.1.1	1000A Sandwich Bus duct with short circuit withstand of 50kA for One sec -STATION	GA drawing required to verify the length.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
91	Part 1 Section IV B	F.10.1.1	3200A Sandwich Bus duct with short circuit withstand of 50kA for One sec -DEPOT		Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
92	Part 1 Section IV B	F.10.1.2	1600A Sandwich Bus duct with short circuit withstand of 50kA for One sec -DEPOT		Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
93	Part 1 Section IV B	F.10.3.1	25A 8P Lighting Bus Trunking -DEPOT	Drawing required.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
94	Part 1 Section IV B	F.11	DG set -750kVA-DEPOT	Drawing required.	Refer Addendum - 1	YES	Part 2 Sl. No. 122
95	Part 2 Section VI D	F.11.6	FUEL OIL PIPING - suitable size of Class B MS (4.85 mm thick as per IS 1239) pipes :- Lengths not specify	Drawing required & Piping length required.	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57
96	Part 2 Section VI C	5	Supervisory control and data acquisition (SCADA) for CMRL Metro Depot Phase-2	IO Schedule for SCADA for Depot required.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
97	Part 2 Section VI C	5.18	BMS For Elevated Station	IO Schedule for BMS for Stations required.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
98	Part 2 Section VI C	BoQ		Water tank level sensor not considered in BOQ, however it required as per BMS for Stations requirement.	Water tank level sensor wil be provided by interface contractor. Tender Condition Prevails	NO	
99	Part 2 Section VI C	2.13.21.4	Fire Alarm Contractor shall provide each zone wise control modules to the CCTV contractor.	We have 2 loop FACP for Station & 8 Loop FACP for Depot, shall we consider 1 control module per zone?	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
100	Part 1 Section III	EQC 2.4.2.(a)	Experience in construction in the role of Prime Contractor(i) (single entity or JV member(ii)) or sub-contractor must have been satisfactorily(iii) or substantially completed(iv) during the last ten (10) years from the last day of the month prior to bid submission deadline.  Supply, Installation, Testing and commissioning of Electrical, Fire Alarm & Detection, Fire Fighting System and Ventilation & Airconditioning and SCADA works involving a minimum number of  1.One work of value INR 100 Crores or above :  OR 2.Two works of value INR 63 Crores or above  OR 3.Three works of value INR 50 Crores or above.	We would like bring into your kind attention related to the change in definition of "Construction experience for consideration as eligibility criteria (EQC) for TENDER No: TENDER No. C4-E&M-05 We would like to request you to kindly consider the Experience in construction as: - "Experience in construction" for this contract shall be: Supply, Installation, Testing and commissioning of Electrical, Fire Alarm & Detection, Fire Fighting System and Ventilation & Airconditioning and SCADA works involving a minimum number of 1. One work of value INR 72 Crores or above OR 2. Two works of value INR 35 Crores or above OR 3. Three works of value INR 28 Crores or above	Tender Condition Prevails.	NO	

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101	Part 1 Section III	EQC 2.4.2.(b)	For the works stated in 2.4.2 (a) above or other contracts completed and under implementation as prime contractor (single entity or JV Member) or subcontractor during the last ten (10) years from the last day of the month prior to bid submission deadline a minimum experience in the following key activities:  Supply, Installation, Testing and commissioning of Electrical, Fire Alarm & Detection, Fire Fighting System and Ventilation & Airconditioning and SCADA works of At least three Elevated Metro stations / one Underground Metro Station. OR One Railway Workshop or Metro Depot. OR Execution of E&M (Electrical, HVAC, Fire protection and Integrated building management system) similar works of minimum 2000 KVA and above capacity for large multistory building such as Airport, Hospital, Hotel, IT Park, commercial mall, any industrial project, factory etc.,	We would like bring into your kind attention related to the change in definition of "Construction experience for consideration as eligibility criteria (EQC) for TENDER No: TENDER No. C4-E&M-05 We would like to request you to kindly consider the Minimum Key Experience as:- "Minimum Key Experience " for this contract shall be: Supply, Installation, Testing and commissioning of Electrical, Fire Alarm & Detection, Fire Fighting System and Ventilation & Airconditioning and SCADA works of At least three Elevated Metro stations / one Underground Metro Station. OR One Railway Workshop or Metro Depot. OR Execution of E&M (Electrical, HVAC, Fire protection and SCADA Works) similar works of minimum 2000 KVA and above capacity for large multistory building such as Airport, Hospital, Hotel, IT Park, commercial mall or any industrial project, factory etc.	Refer Addendum - 1	YES	Part 1 Sl. No. 7
102	Part 2 Section VI D	Station Electrical / Drawing no (DDC-P2C4-05-MEP-DR-SVP-63004-02) / REV.A	Vadapalani station single line diagram sheet 02 of 02  Sub main power panel	The sub main power panel shown in the tender Electrical SLD (DDC-P2C4-05-MEP-DR-SVP-63004-02) / REV.A / page no : 48 of 261 is not available in the BOQ. Please check and confirm However we have considered LV switchboard / DB as per tender BOQ.	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57
103	Part 1 Section IV B	BOQ -2 / Station Electrical / B.3 LV cabling, 849	B.3.1 - Supply, Laying, Testing and commissioning at the site of work of 1.1KV grade, Copper /Aluminium Conductor, XLPE Insulated, armoured, Flame Retardant Low Smoke Halogen Type Cables conforming to IS-7098 Part 1 and specifications, of the following sizes on existing trays/ walls/ columns /indoor /trenches including the cost of supports with suitable clamps, saddles, hooks, bolts etc. and including the cost of proper dressing of cables, markers providing identification tags, earthing of glands armouring etc. conforming to the specifications, as required and as below.	We presume that, the cost of cable tray supports like horizontal and vertical support with suitable clamps, saddles, hooks, bolts, GI angle ,threaded rods and etc., are covered under the Cable tray & raceway BOQ mentioned in the S.no 895 / B.3.5.  Hence tray support cost are not covered in the BOQ section B.3. LV cabling. Kindly confirm  The same is applicable for BOQ-6 Dept electrical.	Tender Condition Prevails.	NO	
104	Part 1 Section IV B	BOQ -2 / Station Electrical / B.5 indoor lighting and fan, 978	<u>B.5.1.9 - Luminaires with Pole and accessories</u>  1:3:6 concrete foundation and pedestal coping 300 dia of height as per specification and relevant IS and as required. Contractor to obtain approval of foundation design before proceeding further.	kindly note that, the complete civil works are not in E&M works contractor. Hence the concrete foundation and pedestal required for street light pole are not considered in bidder scope.	Refer Specification. Tender Condition Prevails.	NO	
105	Part 1 Section IV B	BOQ -2 / Station Electrical / B.6 Earthing	B.6 - Protective earthing	Any civil works related to earthing system like excavation , back filling and etc., are not considered in bidder scope.	Refer Specification. Tender Condition Prevails.	NO	
106	Part 1 Section IV B	BOQ-12	BOQ-12 G.7.3 Panel flooding system for Transformer enclosure (Aerosol based) and VAC	BOQ -12 sheet is not covered in the overall BOQ summary sheet . Please check and confirm.	Refer Addendum - 1	YES	Part 1 Sl. No. 145
107	Part 2 Section VI C	1.1.4	Type testing, routine testing and endurance tests will be carried out as per relevant standards	As per tender part-2/ section VI A / clause no: 9.2.6.1/ page no. 102 of 1481, already conducted type test certificate for identical equipment (which is not older than 5 years) shall be provided. Type test will not be conducted.  Also we request you to accept the similar / higher rating equipment type test certificate for the above.	Tender Condition Prevails.	NO	
108	Part 2 Section VI C	1.1.4	Quantities shown in the BOQ are best estimates. The rate for each item shall be self-sustaining such that any variation in the estimated quantities shall not vitiate the tender	All the equipment shall be considered as per tender BOQ.	Tender Condition Prevails.	NO	
109	Part 1 Section IV B	--	Cable tray supports	Please provide the BOQ for cable tray supports and structure (if any)	Refer BoQ. Tender Condition Prevails.	NO	
110	Part 1 Section IV B	BOQ -2 / Station Electrical / B.3 LV cabling, 861	Copper Cables-FS CABLE	As per tender part-2/ section VI C / clause no : 1.4.4/ page no. 980 of 1481, Cable sizes up to 16 sq mm shall be with copper conductor and sizes including 25 sq mm & above shall be with Aluminium conductor . Please confirm	Refer BoQ. Tender Condition Prevails.	NO	



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111	Part 2 Section VI A Appendix-6	7	List of approved make - Electrical HPFC panel	Please approve the L&T make in HPFC panel	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO		
112	Part 2 Section VI A Appendix-6	14	List of approved make - Electrical MCB distribution board	Please approve the L&T make in MCB DISTRIBUTION BOARDS.	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO		
113	Part 2 Section VI A Appendix-6	28	List of approved make - Electrical LED lighting fittings	Please approve the CGL/SYSKA make in the LED light fittings	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO		
114	Part 2 Section VI A Appendix-6	37	List of approved make - Electrical Cable trays	Please approve the Ratan engineering ltd make in the Cable trays	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO		
115	Part 2 Section VI D	--	VAC drawings	Please provide HVAC Preliminary shop & schematic tender drawings	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO		
116	Part 1 Section IV B	--	Scope of equipment.	All the equipment shall be considered as per tender BOQ.	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO		
117	Part 2 Section VI A Appendix-6	BOQ_702856 & Part_2, 80.00/86.00/91.00 & 10	UL/FM approved gate valves / butterfly valve / check valve & KIRLOSKAR / LEADER/ SANT/ KARTAR/ADVANCE/ LEHRY/ ZOLOTO	Please note that provided following vendors are Non-UL/FM approved valves suppliers, but approval is required as per tender BOQ description, hence please confirm whether bidder to quote as per approved below vendors as Non-UL/FM approved valves or please provide the alternate UL/FM approved valves supplier list instead of below mentioned list. KIRLOSKAR / LEADER/ KARTAR/ADVANCE/ ZOLOTO	Refer Addendum - 1	YES	Part 2 Sl. No. 6	
118	Part 2 Section VI A Appendix-6	1	ELECTRICAL FIRE PUMPS AND DIESEL ENGINE FIRE PUMP : KIRLOSKAR / MATHER & PLATT / GRUNDFOS / NAFFCO / ARMSTRONG / LUBI	Bidder is requested to include the following fire water pump vendors also Make : FLOWMORE / CRI PUMP	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO		
119	Part 2 Section VI A Appendix-6	14	HYDRANT VALVE - NEWAGE / MINIMAX /TYCO	Bidder is requested to add the below mentioned fire hydrant system suppliers, Make: Sukan / Arihant / AAAG	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO		
120	Part 2 Section VI A Appendix-6	2.0	MAIN CONTROL PANEL / SUB ALARM CONTROL PANEL/ REPEATER PANEL/ GAS RELEASE PANEL:	Bidder is requested to include the following fire alarm system make also, Make : Ravel & GST	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO		
121	Part 1 Section I	ITB 23.1	Bidders shall enclose the original of the Technical Bid, the original of the Price Bid, and each copy of the Technical Bid and of the Price Bid, Including alternative Bids, if permitted in accordance with ITB 13, in separate sealed envelopes, duly marking the envelopes as "TECHNICAL BID - ORIGINAL", "PRICE BID - ORIGINAL", "TECHNICAL BID - COPY", "PRICE BID - COPY", and "ALTERNATIVE" as appropriate. These envelopes containing the original, the copies and the alternative(s), if any, shall then be enclosed in one single envelope. The rest of the procedure shall be in accordance with ITB 23.2 through 23.5	Clauses in Part-1, Section – I, ITB 23.1 & Part-1, Section – II, ITB 22.1 regarding bid submission are contradictory	Please refer Part 1 Section II, Bid Data Sheet ITB 21.2, ITB 22.1 and ITB 23. Tender Condition Prevails.	NO		
122	Part 1 Section II	ITB 22.1	The Bid submission is through E-tender portal of CPP only. In addition to the original of the Bid, the number of copies to be submitted is: None.	Kindly confirm that bidder has to upload their Technical and Price bid through E-tender portal of CPP only. Hard copy submission is not required except for the EMD and Tender fees in original.	The bidder has to upload their Technical and Price bid through E tender portal only. Tender Condition Prevails.	NO		
123	Part 1 Section III	1.1.1	Personnel Experience in Similar Positions (Minimum number of years)	Kindly confirm that "Experience in <u>Similar Positions</u> (Minimum number of years)" can be read as "Experience in <u>Similar work</u> (Minimum number of years)"	Tender Condition Prevails.	NO		
124	Part 1 Section III	1.1.1	Personnel 6. Chief OHS&E Manager - M. E/ M. Tech in Industrial Safety	We request you to accept Minimum educational qualification for Chief OHS&E Manager as BE in Fire and Safety Engg., BE / B.Tech in Any Engineering with PG Diploma in Safety Engg from DOTE* or CSP or Diploma in NEBOSH.	Refer Addendum - 1	YES	Part 1 Sl. No. 2	
125	Part 1 Section III	2.4.2 (a) & (b)	Supply, Installation, Testing and commissioning of Electrical, Fire Alarm & Detection, Fire Fighting System and Ventilation & Airconditioning and SCADA works involving a minimum number of	As Metro E&M work installations under operation are with Building Management Systems (BMS). We request you to accept SCADA or BMS works. Hence; kindly confirm that the clause can be read as "Supply, Installation, Testing and commissioning of Electrical, Fire Alarm & Detection, Fire Fighting System and Ventilation & Air-conditioning and <u>SCADA or BMS</u> works involving a minimum number of"	Refer Addendum - 1	YES	Part 1 Sl. No. 7	

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S. No	Part / Section No	Clause No	Description / Original Bid Condition	Bidder's Queries	CMRL Response	Addendum Issued (YES/ NO)	Addendum Reference
126	Part 1 Section III	2.4.2 (b)	Execution of E&M (Electrical, HVAC, Fire protection and Integrated building management system) similar works of minimum 2000 KVA and above capacity for large multistory building such as Airport, Hospital, Hotel, IT Park, commercial mall, any industrial project, factory etc.,	Kindly confirm that "minimum 2000 KVA and above capacity" implies 2000 KVA load and not necessarily transformers rating.	Refer Addendum - 1	YES	Part 1 Sl. No. 7
127	Part 1 Section IV A	5.14 Form MAN	Manufacturer's Authorization	Manufacturer's Authorization is a specific requirement in tenders where the key equipments such as Turbine, Power Transformer, GIS etc. are of substantial value and major part of the contract. Hence; manufacturer's authorization may not be required for this tender. Kindly confirm.	Refer Addendum - 1	YES	Part 1 Sl. No. 5
128	Part 1 Section IV A	9	9. Undertaking for Minimum Local Content We hereby jointly and severally certify in accordance with clause '9.a' of the Order no. P-45021/2/2017-PP (BE-II) of Ministry of Commerce and Industry, Department of Promotion of Industry and Internal Trade (DPIIT) (formerly Department of Industrial Policy and Promotion (DIPP)), Government of India dated 28.05.2018 that the item(s) offered meets the minimum local content of 80% (as specified in Section V).	As per revised vide Order No.I-14011/08/2017/MRTS-Coord Government of India, Ministry of Housing and urban affairs (MRTS Coord Desk) dated 14.10.2020 minimum local content shall be 60%. Kindly confirm.	Refer Addendum - 1	YES	Part 1 Sl. No. 12
129	Part 1 Section IV B	A2.6	Project Management Information Systems (The contractor to manage the system for their contract package as required and share the cost of Cloud, Primavera and any other software required to manage the information other than PMIS basic software)	Kindly explain / elaborate cost sharing the following clause: "share the cost of Cloud, Primavera and any other software required to manage the information other than PMIS basic software" We request you to provide the tentative cost for the same	Refer Addendum - 1. Refer Section IVB Pricing Schedule Clause 1.i)	YES	Part 1 Sl. No. 15
130	Part 1 Section IV B	7.4	Stage Payment Schedule of Contract Price: Price Centre. Description Appointment of the total contract price percentage% A Preliminaries 5% (5% of the summation of total amount executed against Price Centre B to K and payable as per Cl.no.7.2) B Supply, Installation, Testing & Commissioning and DLP 95% (95% of the summation of total amount executed against Price Centre B to K) TOTAL 100%	Contractual submissions (Insurance, BG's etc.), Engineers site office establishment and other activities, submissions, provisions etc. cost more than 5 % of contract value. Hence we request you to modify Stage payment as under: Price Centre. Description Appointment of the total contract price percentage% A Preliminaries 10% (5% of the summation of total amount executed against Price Centre B to K and payable as per Cl.no.7.2) B Supply, Installation, Testing & Commissioning and DLP 90% (95% of the summation of total amount executed against Price Centre B to K) TOTAL 100%	Tender Condition Prevails.	NO	
131	Part 1 Section IV B	Payment Structure	Stage payment structure for Price Centre B to K items (Supply, Installation, Testing, Commissioning and DLP):  Sr. No. Item Description % for Sub items Payment Schedule for Price Centre B to K items (95%) Supply, Installation, Testing, Commissioning and DLP 1 Vendor Submittal Approval, Factory Visit & FAT 5% 2 Manufacture, Supply and Delivery to Site 50%** 3 Installation 12.5% 4 Equipment/System Testing 10% 5 Integrated Testing & commissioning & handover 10% 6 Operation & Maintenance Manuals, Training of Operation & Maintenance Personnel 5% 7 Assistance for Maintenance till DLP 2.5% Total Percentage 95%	We request you to modify payment structure for Price Centre B to K items (Supply, Installation, Testing, Commissioning and DLP) as under:  Sr. No. Item Description % for Sub items Payment Schedule for Price Centre B to K items (95%) Supply, Installation, Testing, Commissioning and DLP 1 Vendor Submittal Approval, Factory Visit & FAT 5% 2 Manufacture, Supply and Delivery to Site 65%** 3 Installation 10% 4 Equipment/System Testing 5% 5 Integrated Testing & commissioning & handover 5% 6 Operation & Maintenance Manuals, Training of Operation & Maintenance Personnel 2.5% 7 Assistance for Maintenance till DLP 2.5% Total Percentage 95%	Tender Condition Prevails.	NO	
132	Part 2 Section VI D	BOQ 2 & BOQ 6, Sr. No. 10	LV Switchgear	There is discrepancy between BOQ and SLD on rating and No. of switchgears. Please confirm whether BOQ shall prevail over SLD. For Example 1. In MDB 1 (BOQ 2) there is 11 no. Of outgoing as per BOQ and in SLD there is 12 no of outgoing.	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57

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133	Part 1 Section IV B	BOQ 2 & BOQ 6, Sr. No. 21	The switchboard shall have min 20% spare space and 20% spares breaker or as shown in SLD whichever is higher for future expansion and as per Technical Specifications.	Kindly confirm that BOQ shall prevail over SLD.	Tender Condition Prevails.	NO	
134	Part 1 Section IV B	BOQ 2, Sr. No. 874 & BOQ 6 Sr No 868	B.3.3 - Supply, Installation and Terminations conforming to specifications for..... including the cost of supplying, fixing and crimping Al/Cu lugs, double compression Flame proof brass glands, shrouds, insulation tape etc. .... plate complete as per specifications and as required.	As per BOQ glands are double compression flame proof; but as per specification clause no. 1.4.18.3 glands are double compression dust & weather proof. Kindly confirm whether glands shall be Flameproof or Weather proof	Refer Addendum - 1	YES	Part 1 Sl. No. 28, 88 and Part 2 Sl. No. 23
135	Part 1 Section IV B	BOQ 2, Sr. No. 874 & BOQ 6 Sr No 868	B.3.3 - Supply, Installation and Terminations conforming to specifications for..... including the cost of supplying, fixing and crimping Al/Cu lugs, double compression Flame proof brass glands,shrouds, insulation tape etc. .... plate complete as per specifications and as required.	As per BOQ Lugs are Al. / Cu. but as per specification clause no. 1.4.18.3 Lugs are Copper.  As cable conductor is either Aluminum or Copper & Panel bus bar are Copper, we suggest; that lugs for Aluminum cable termination should be Bi-metallic	Refer Addendum - 1	YES	Part 1 Sl. No. 28, 88 and Part 2 Sl. No. 23
136	Part 1 Section IV B	BOQ 2, Sr. No. 923 and 926	B & F.4.1 Supply, laying & Termination of wiring (in GI conduit / raceway)for the following light / Sockets/ Exhaust Fan / Bracket fan point/Signage with 3 x 2.5 sq. mm, 1100 Volt grade as per IS-694 FRLSH copper conductor wires.(excluding the cost of Conduit, switches, sockets & switch boxes)	As per BOQ Sr. No. 923 & 926 (BOQ 2) and 927 & 930 (BOQ 6) rate shall be excluding the cost of Conduit; but as per Notes BOQ Sr. No. 938 (BOQ 2) & 942 (BOQ 6) cost of conduit shall be included in item rates.	Tender Condition Prevails.	NO	
137	Part 1 Section IV B	BOQ 2, Sr. No. 927 and 930	B & F.4.2 - Supply, laying & Termination of wiring (in GI conduit / raceway) for the following light / Sockets/ Exhaust Fan / Bracket fan point/Signage with 3 x 2.5 sq. mm, 1100 Volt grade as per IS-694 (for wires) & BS 6387 (for cables) FS copper conductor wires.(excluding the cost of Conduit, switches, sockets & switch boxes)	Kindly confirm that cost of conduit shall be exclusive.	Tender Condition Prevails.	NO	
138	Part 1 Section IV B	Sr. No 1065 (BOQ 6)	F.7.6 - SITC of plate earthing station with 1200 mm x 1200 mm x 6.3 mm G. I. plate electrode, 50 mm dia G.I.watering pipe, GI funnel with wire mesh earth enhancing compound Material, all earth work, masonry enclosure with frame, Heavy duty RCC top cover plate having locking arrangement,Disconnecting links, complete as per IS 3043:1987 for earthing.(Including civil work)	As per BOQ size of earthing plate is 1200mm x 1200mm x 6.3 mm but as per specification clause no. 1.10.18.1 size of earthing plate is 1200mm x 1200mm x 12mm. Please confirm requirement	Refer Addendum - 1	YES	Part 1 Sl. No. 114

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139	Part 1 Section IV B	BOQ 2, Sr. No 1038 & BOQ 6, Sr. No. 1108	B.7.3.2 & F.8.3.2 - Down Conductor of Diameter Ø- 8 mm, Cross-section- 50 mm2, of Material- SS 304 & Complied as per Standard EN 62561-2	The unit of measurement (UOM) is erroneously mentioned as "set". We request you to change the UOM as "meter".	Refer BoQ. Tender Condition Prevails.	NO	
140	Part 2 Section VI C	BOQ 3 Sr. No.21	C.1.2 Supply, installation, testing & commissioning of diesel Engine driven common stand by pump, horizontal centrifugal end suction pumping set with CI body, bronze impeller, SS Shaft / CS shaft and sleeve and gland packing and connected by means of a flexible coupling to a water cooled diesel engine capable to deliver 2280 LPM (137 m³/ Hr) / 2850 LPM (171 m³/ Hr) . The pump shall be coupled to suitable HP of Diesel engine radiator water cooled type with speed of 1500 / 2900 RPM	As per BOQ Diesel Engine is radiator water cooled type, whereas as per technical specification Diesel Engine is with heat exchanger type cooling.  Kindly confirm that Diesel Engine shall be radiator water cooled type	Refer Addendum - 1	YES	Part 2 Sl. No. 35
141	Part 1 Section IV B	BOQ 3 Sr. No.21	C.1.2 Supply, installation, testing & commissioning of diesel Engine driven common stand by pump, horizontal centrifugal end suction pumping set with CI body, bronze impeller, SS Shaft / CS shaft and sleeve and gland packing and connected by means of a flexible coupling to a water cooled diesel engine capable to deliver 2280 LPM (137 m³/ Hr) / 2850 LPM (171 m³/ Hr) . The pump shall be coupled to suitable HP of Diesel engine radiator water cooled type with speed of 1500 / 2900 RPM	As speed shall be a function of LPM delivery and it may vary with the make of Diesel Engine; kindly confirm that the speed shall be within 1500 to 2900 RPM.	Refer Addendum - 1	YES	Part 1 Sl. No. 50, 128
142	Part 1 Section IV B	BOQ 3 Sr. No.212, 213 & 214	G.7.2 - 150 Kg Cylinder with Novec 1230 and Accessories G.7.3.- 120 Kg Cylinder with Novec 1230 and Accessories G.7.4. - 80 Kg Cylinder with Novec 1230 and Accessories	Maximum cylinder capacity available is 140 Ltr. which can accumulate max. 120 kg. gas. Please confirm requirement.	Refer Addendum - 1	YES	Part 1 Sl. No. 56
143	Part 1 Section IV B	BOQ 7, Sr. No. 9	G.1.1 - Supplying Installation, testing and Commissioning of electric driven main fire pump suitable for automatic operation and consisting of following Complete in all respect as required. Horizontal type, single centrifugal, split casing pump of cast iron body and bronze impeller with stainless steel shaft along with anti-vibration mounting, gland packing to Developing adequate head so as to ensure a minimum pressure of 3.5 Kg/Sq.cm. at highest and farthest outlet at specified flow of 2850 LPM at 135 Metres head conforming to IS 1520 / IS: 12469 -1988.	Split case pump for 135 mtr. head with single stage may not be available. Hence we request you to accept double stage pump @ 1500 rpm for electrical motor driven and 1800 rpm for Engine driven.	Refer Specification. Tender Condition Prevails.	NO	
144	Part 1 Section IV B	BOQ 4, Sr. No 28 & BOQ 8, Sr. No. 40	All piping shall be properly laid in covered perforated Cable tray & supported with Galvanised steel hanger as per specification and typical installation drawings. (Copper tubes shall comply with ASTM B 280-16).	Kindly confirm that the Cable tray shall be separately paid in BOQ 4, Sr. No. 68-75 of station BOQ and BOQ 8, Sr. No. 81 to 86 of Depot BOQ.	Refer BoQ. Tender Condition Prevails.	NO	
145	Part 2 Section VI C	1.2.3.1	Type tested or design verification certificate validity for fully assembled LV switch boards shall be within last 5 years as per required rating.	As per latest CEA Guidelines certification validity for LV panels is 10 years. We request you to amend the validity of Type tested or design verification certificate to 10 Years.	Tender Condition Prevails.	NO	
146	Part 2 Section VI C	1.2.12	Each Panel shall be provided with two rubber mats of ribbed surface, complying to BS 921 or equivalent Indian standards, laid in front of and at the rear of the switchboard.	Kindly confirm that the Rubber mat shall be paid separately in BOQ 2, Sr. No. B.1.11.1 of station & BOQ 6 Sr. No. F.1.23(a) of Depot.	Refer BoQ. Tender Condition Prevails.	NO	
147	Part 2 Section VI C	1.2.14.1	Furnish and install automatic transfer switches (ATS) with number of poles, amperage, voltage, withstand and close-on ratings as shown on the plans. Each automatic transfer shall consist of an inherently double throw power transfer switch mechanism and a microprocessor controller to provide automatic operation.	Double throw arrangement is a particular vendor specific requirement. Hence, we request you to accept single throw mechanism. Kindly confirm.	Tender Condition Prevails.	NO	
148	Part 2 Section VI C	1.5.3.2.7	Prefabricated earth flat clamp at every 1.5-2.0 m shall be placed along the cable tray. Earth flat shall be installed along the earth flat clamps and earth flat inside the cable shall not be permitted.	Kindly confirm that the earth flat clamp shall be paid separately in BOQ 2, Sr. No. B.3.11.	Refer Specification. Tender Condition Prevails.	NO	
149	Part 2 Section VI C	1.6.4.1	The front plates of lighting and appliance switches shall be made of stainless steel with mat satin finish except for those in plant rooms which shall be stove enameled aluminium finish.	We request you to accept modular front plates to be PVC / Plastic based, as Stainless Steel / stove enameled Aluminium finish plates are usually installed in underground metro.	Tender Condition Prevails.	NO	
150	Part 2 Section VI C	1.6.4.1	Every switch controlling an appliance shall be labelled with the name of the appliance it controls and shall be fitted with a 0.5 W neon indicating lamp.	Kindly confirm that the indicating lamp can be either LED or Neon.	Refer Addendum - 1	YES	Part 2 Sl. No. 25
151	Part 2 Section VI C	1.6.4.2	A) 6/16A sockets shall be connected in the form of ring circuits. B) The cover plate of the socket outlets shall be AISI Type 304 stainless steel in public areas and standard plastic for staff / back of house areas.	Requirements mentioned in Clause 1.6.4.2 A & B are underground metro installation specific. Hence we request that 6/16A sockets shall be Normal circuits instead of Ring circuits and cover plate shall be PVC / Plastic based instead of AISI Type 304 stainless steel.	Tender Condition Prevails.	NO	

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152	Part 2 Section VI C	1.8.3.1	The foundation for the poles shall be of 1:2:4 concrete. The foundation work shall be done by the Civil works Contractor as per the approved drawing.	As per specifications the foundation work of poles shall be done by civil contractor but as per BOQ foundation work is included in E&M contractor scope. Please clarify	Refer Addendum - 1	YES	Part 2 Sl. No. 28
153	Part 2 Section VI C	1.8.7.2	It shall have Wi-Fi control of ON/OFF, Wattage control, event logs, failure records, charging levels and status of battery. The Contractor shall select the WIFI router for all light fixtures in Stations and Depot premises considering the following in Co-ordination with Telecom Contractor .....	Kindly confirm requirement whether individual control system or Group control system. Please clarify on the autonomy required.	Refer Specification. Tender Condition Prevails.	NO	
154	Part 2 Section VI C	1.12.3.6	External Output Isolation Transformer with Delta Star connection (Pg. 1185 of 1752)	As per Clause 1.12.3.6 (pg 1185 of 1752); UPS is with External Output Isolation Transformer but as per specification (pg 1189 of 1752) and BOQ the isolation transformer is at input side. Kindly confirm that Isolation Transformer shall be on Input side only.	Refer Addendum - 1	YES	Part 2 Sl. No. 30
155	Part 2 Section VI C	1.13.4.8	Bus trunking system shall be provided with two independent earthing Copper conductors throughout the length of the system. The earth flats shall be effectively connected to the enclosure by riveting / bolting.	Kindly confirm that the Earth flats for Bus trunking system shall be paid separately from BOQ Sub Head B.6 (BOQ 2) & F.7 (BOQ 6).	Refer Addendum - 1	YES	Part 1 Sl. No 119
156	Part 2 Section VI C	1.13.4.8	Copies of the test certificates for same rating shall be submitted by successful tenderer at the time obtaining of vendor approval. This shall not be more than 5 years old.	As per latest CEA Guidelines certification validity is 10 years. We request you to amend the validity of Type tested or design verification certificate to 10 Years.	Tender Condition Prevails.	NO	
157	Part 2 Section VI C	1.14.39	The generator package shall include the supply, installation, termination, testing and commissioning of the following cables. All Power Cables shall be FS " Fire Survival" only.	Kindly confirm that the cable for DG system shall be separately paid in BOQ 6, Sub Head F.3 LV cabling.	Refer BoQ. Tender Condition Prevails.	NO	
158	Part 2 Section VI C	4.3.g	The compressor shall have integrated air cooled type refrigerant dryer in downstream of the compressor within the same canopy.	We request you to accept separate air cooled refrigerant dryer also. Your acceptance shall enable all the manufacturers in the list of approved makes to participate in the bidding process.	Refer Addendum - 1	YES	Part 2 Sl. No. 49
159	Part 2 Section VI C	4.1 & 4.3b	The compressor shall comprise stationary type, electric motor driven, oil free noiseless screw type. And Single stage self lubricated rotary screw compressor having high efficiency and reliability shall be provided.	Kindly confirm whether single stage self lubricating compressor or oil free compressor is required.	Refer Addendum - 1	YES	Part 2 Sl. No. 47, 48
160	Part 2 Section VI C	3.4.4.8 & 3.4.4.9	d) Fire dampers shall be certified by AMCA for air performance (AMCA-500 D) and the label shall be provided d) MSD shall be certified by AMCA for air performance (AMCA-500 D) and the label shall be provided	AMCA certification is an OEM / Vendor specific requirement. Hence, we request you to accept performance test to be verified in AMCA certified lab and in such a case, certification may not be required. Kindly confirm.	Refer Specification. Tender Condition Prevails.	NO	
161	Part 2 Section VI C	3.4.4.11	j) The curve shall be certified by the third-party accredited testing laboratory or the VCD shall be AMCA certified for air performance	AMCA certification is an OEM / Vendor specific requirement. Hence, kindly confirm that instead of AMCA certification; testing of these VCD can be done at manufacturers AMCA certified lab.	Refer Specification. Tender Condition Prevails.	NO	
162	Part 2 Section VI C	3.4.4.14.1 & 3.4.4.14.2	f) Frame shall be provided with marine grade extruded aluminium with minimum of 1.6mm thickness g) Cores / Blade shall be provided with marine grade extruded aluminium with minimum of 1.2mm thickness	Kindly accept frame with 1.2 mm thick extruded aluminium with 1mm thick extruded aluminium blade as per most of the manufacturers manufacturing practices.	Refer Specification. Tender Condition Prevails.	NO	
163	Part 2 Section VI C	3.4.4.14.3	b) AMCA certified louvers should be provided.	AMCA certification is an OEM / Vendor specific requirement. Hence, kindly confirm that instead of AMCA certification; testing of these louvers can be done at manufacturers AMCA certified lab.	Refer Specification. Tender Condition Prevails.	NO	
164	Part 2 Section VI C	3.4.6.5	10. Special Items for Air Distribution shall be measured by the cross-section area perpendicular to airflow as identified herewith a to g	We request you to accept the min. billable area as under:- Fire Damper - 0.3 sqm VCD/ Louvers - 0.2 sqm Grilles /Diffusers - 0.1 sqm	Refer BoQ. Tender Condition Prevails.	NO	
165	Part 2 Section VI C	3.6.2.10	Engineer / Employer shall select minimum 1 No. of AHU for the factory acceptance test as per EN 13053 and EN 1886. All test as applicable to EN 13053 and EN 1886 shall be demonstrated at test laboratory.	As per tender requirement, we will offer Eurovent certified AHU. Hence, kindly waive off factory acceptance test.	Refer Specification. Tender Condition Prevails.	NO	

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166	Part 2 Section VI A	19.6.f	Chapter 19 - Scope of Defects Liability Period f. Manpower deployment during DLP for EM-01 contract package  Minimum Qualification criteria .....experience in the role of Electrical / Mechanical Maintenance works in Underground Metro Stations or infrastructure projects	As the project scope comprise of E&M work of Elevated stations and Depot we request you to modify Minimum qualification criteria as ".....experience in the role of Electrical / Mechanical Maintenance works in Elevated Metro / Underground Metro Stations or infrastructure projects like Railway Workshop or Metro Depot, large multistory building such as Airport, Hospital, Hotel, IT Park, commercial mall, any industrial project, factory etc	Refer Addendum - 1	YES	Part 2 Sl. No. 9
167	Part 2 Section VI A	19.6.f	2. DLP Supervising Engineer - Electrical: 4 Nos.  3. DLP Supervising Engineer - Mechanical - 4 Nos	We request you modify No. of positions for DLP supervising Electrical & Mechanical Engineers to 1 Nos. each as no. of positions given in the tender seems to be slightly on higher side. The Contractor can deploy DLP technicians assisted with Skilled and Unskilled labour sufficiently.	Refer Addendum - 1	YES	Part 2 Sl. No. 9
168	Part 1 Section IV B	BOQ 2 Sr. No. 595	B.1.10.1 - FPP (SVP): 1 nos. 45kW, Soft starter comprising 3 Nos. TPN contactor AC-3 duty contacts for remote monitoring and control. Necessary control wiring from pressure switch and tank to panel.	Kindly confirm that control wiring from pressure switch and tank to panel shall be paid separately in BOQ 2 Sub Head B.3.	Refer BoQ. Tender Condition Prevails.	NO	
169	Part 1 Section IV B	BOQ 2 Sr. No. 905 & BOQ 6 Sr. No. 907	B.3.6 & F.3.6 - Supply & installation of cable ladder type tray with factory prefabricated horizontal & vertical bends, reducers, tee's, cross covers. The rung size shall be of 30x15x2mm suitable for fixing the cable clamps & the space between the rungs shall be maximum 300 mm, as required.	Kindly confirm the runner size of ladder type tray as the same is missing in the BOQ and specifications.	Refer Specification. Tender Condition Prevails.	NO	
170	Part 1 Section IV B	BOQ 2, Sr. No 1079	B.10.1 Pipe	The unit of measurement (UOM) is erroneously mentioned as "No". We request you to change the UOM as "Meter".	Refer Addendum - 1	YES	Part 1 Sl. No. 44
171	Part 1 Section IV B	BOQ 6, Sr. No 1131	F.10.3 - Lighting Trunking	We observe that the Lighting Bus Trunking (LBT) 2890 mtr. is given in the BOQ 6 (Depot) only. Kindly confirm that the LBT shall not be installed at stations.	Refer BoQ. Tender Condition Prevails.	NO	
172	Part 1 Section IV B	BOQ 4, Sr. No 130 to 134	D.18 - Controller with Temperature Sensor  BOQ Sr. No. D.18.1.1 to D.18.1.4 – 25A DP MCCB, 10 kA as incomer	Kindly confirm that incomer of the Control panel shall be 25 A MCB instead of MCCB as DP (Double Pole) is not available in MCCB's. Accordingly, in Control panel Sr. No. 18.1.4 incomer 25 A, 4P MCCB shall be read as 25 A MCB.	Tender Condition Prevails.	NO	
173	Part 1 Section IV B	BOQ 8, Sr. No 140	H.20.2.1 - Supply, installation, testing & commissioning of temperature based fan control panel to ON/OFF and cyclic Operation of propeller fans, consisting of temperature sensors, control panel with 25 A DP MCCB, 10 kA as incomer and outgoing as 4 nos. 16A DP MPCB with contactor and 2 nos temperature sensor, on/off indication lamps and one controller to start /stop fans with help of temperature sensor, necessary power and control wiring etc.	Kindly confirm that incomer of the Control panel shall be 25 A MCB instead of MCCB as DP (Double Pole) is not available in MCCB's.	Tender Condition Prevails.	NO	
174	Part 2 Section VI C	3.8.4.1.ff	Axial fan:- Sound power level shall not exceed 50 dBA measured 1m from the fan	We request you to accept sound level of 65dBA - 70dBA; as sound level of 50dBA or below may not be possible to achieve even with a circular sound attenuator.	Refer Addendum - 1	YES	Part 2 Sl. No. 44
175	Part 2 Section VI C	3.8.4.6.j	In-line Centrifugal Duct Fan:- Fan sound power when measured at 1m distance shall not exceed 55 dBA	We request you to accept sound level of 65dBA - 70dBA; as sound level of 50dBA or below may not be possible to achieve even with a circular sound attenuator.	Refer Addendum - 1	YES	Part 2 Sl. No. 45
176	Part 2 Section VI C	4.8	All the compressed air piping shall be SS304 pipe. The SS pipe of various sizes i.e. 50mm, 15mm dia shall be provided wherever required. The SS304 pipes shall be seamless type	We request you to accept compressed air piping in MS / GI pipes as compressed air piping work for almost all Metro Depot projects are executed with MS / GI pipes.	Tender Condition Prevails.	NO	
177	Part 2 Section VI C	4.8	All the compressed air piping shall be SS304 pipe. The SS pipe of various sizes i.e. 50mm, 15mm dia shall be provided wherever required. The SS304 pipes shall be seamless type	In case of SS 304 pipe, kindly confirm whether seamless SS 304 pipe shall be as per Schedule 40 or Schedule 10.	Refer BoQ. Tender Condition Prevails.	NO	
178	Part 1 Section IV A	Clause No. 3.2	Contract Price payable to the contractor, in accordance with the Contract, shall be subject to adjustment during performance of the Contract to reflect changes in the cost of labour and material components and other inputs to the Works, in accordance with the following general formula specified, $P_n = a + b (L_n/L_o) + c (S_n/S_o) + d (C_n/C_o) + e (A_n/A_o) + f (F_n/F_o)$	Request to kindly consider standard IEEMA formulae for Price Variation for Transformers, Cables and other equipment covered under IEEMA.	Refer Addendum - 1	YES	Part 1 Sl. No. 11

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179	Part 2 Section VI A Appendix-3	1. Key Dates	Station Specific Key Dates.	Kindly confirm that the taking over certificates for each stations completed is different and the DLP calculation will be carried out in stage wise manner depending on the completion of each stations.	Tender Condition Prevails.	NO	
180	Part 1 Section I	Clause No. 4.2 c)	Based on the "One Bid Per Bidder" principle, which is to ensure fair competition, a firm and any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm shall not be allowed to submit more than one Bid, either individually or as a member in a JV. A firm (including its affiliate) may participate in other Bids, only in that capacity.	Can an Original Equipment Manufacturer (OEM) participating in the Tender as Prime Contractor / Member of JV supports other Contractors with their quotes as a supplier/manufacturer Please clarify,	Tender Condition Prevails.	NO	
181	Part 1 Section IV A	Clause No. 5.14	Form MAN - Manufacturer's Authorization	Request to please clarify the items that requires MAN form to be filled. Is this form required at bidding stage or can it be submitted after the award of contract.	Refer Addendum - 1	YES	Part 1 Sl. No. 5
182	Part 1 Section IV B	Clause No.7.4	Stage payment structure for Price Centre B to K items (Supply, Installation, Testing, Commissioning and DLP): S2 : Manufacture, Supply and Delivery to Site : 50%	Request you to consider 80% of the payment for manufacturing supply and delivery to the site.	Tender Condition Prevails.	NO	
183	Part 1 Section II	ITB 9.1	A non-refundable Tender cost of INR. 40000/- (Rupees Forty Thousand Five Hundred only) or equivalent amount in USD shall be paid through a demand draft / NEFT/RTGS/SWIFT in the name of "Chennai Metro Rail Limited" payable at Chennai.	Please correct the Tender Cost written in words to Forty Thousand only	Refer Addendum - 1	YES	Part 1 Sl. No. 1
184	Part 2 Section VI D	Employer Drawings		Please provide Autocad drawings for better understanding.	Auto CAD drawings will be provided to successful bidder. Tender Condition Prevails	NO	
185	Part 2 Section VI C	DB Specifications		We are considering the DB related MCBs all are with C Curve. Please Confirm	Refer Addendum - 1	YES	Part 2 Sl. No. 17
186	Part 2 Section VI C	DB Specifications		We are considering the DB related RCBO/RCCB all are with Type AC only. Please Confirm	Refer Addendum - 1	YES	Part 2 Sl. No. 18
187	Part 2 Section VI C	DB Specifications		Some of the Vendors are not having RCBO directly. So can we use the MCB + RCCB combination. Please Clarify	Tender Condition Prevails.	NO	
188	Part 1 Section IV B	BOQ - 3 E - 7	BMS software	Request to provide the I/O Summary	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
189	Part 2 Section VI C	Low voltage main distribution boards	Type tests for components	whether Panel builders will comply type test reports for all ratings or standard ratings are sufficient, please confirm	Refer Specification. Tender Condition Prevails.	NO	
190	Part 2 Section VI C	1017 of 1752	For single core cable termination, non-magnetic type of gland plate with adequate thickness (min 3.2mm) and supports shall be provided.	3mm thk gland plate shall be provided.	Refer Addendum - 1	YES	Part 2 Sl. No. 11
191	Part 2 Section VI C	1026 of 1752	The cubicle section shall be constructed of angle iron type frames / Galvanized Iron frame with Multi fold (min 6 fold) structure and bolted/modular construction with all necessary removable covers.	Schneider Blokset panels are designed & constructed thorough Closed U bend with superior mechanical strength.	Refer Addendum - 1	YES	Part 2 Sl. No. 12
192	Part 2 Section VI C	1027 of 1752	The degree of Ingress Protection for Main LV Switchboards shall be IP 54 / IP 65 as specified in drawings & BOQ which shall not deteriorate with time.	Degree of protection of Main LV Switchboards complied with IP42 & IP54 only. IP54 will be complied.	Refer BoQ. Tender Condition Prevails.	NO	
193	Part 2 Section VI C	1028 of 1752	Connections: All the incoming / outgoing terminations shall be extended via fully insulated copper connections into a separate termination chamber adjacent to the front/rear of the switchboard. When busbars are used between switchboards, the internal busbars of the switchboard shall be in fully insulated copper bars of the suitable size. No linking with cables shall permitted in this case.	Construction of switchboard, busbar assembly will be followed as per Schneider type tested design / Type test Certificate.	Tender Condition Prevails.	NO	
194	Part 2 Section VI C	1029 of 1752	Bus Bar material shall be tinned electrolytic grade copper having current density of 1A/sq.mm and required calculations shall be submitted for approval to Engineer.	Busbar size will be followed ss per type tested design / Type test Certificate.	Tender Condition Prevails.	NO	

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195	Part 2 Section VI C	1030 of 1752	All bolted bus joints shall be silver plated or tin plated, and all joints shall be securely tightened to Manufacturer's standards for each size of hardware. Bolted, Nut and Washer for buses connection shall be high tension class and the contact point between buses and terminal pad shall be electrical compound painted.	Busbars will be provided with Tin plated only.	Tender Condition Prevails.	NO	
196	Part 2 Section VI C	1030 of 1752	All incoming and outgoing conductors between the main busbars, switchgear and cable terminations/ Busduct Terminations shall be of high conductivity copper bar, having a current rating ( 1A per Sqmm ) of not less than that of the frame size of the switchgear to which they are connected. The conductors shall be insulated, and colour coded for phase identification.	Busbar size will be followed ss per type tested design / Type test Certificate. Busbars with Phase identification as per Type tested design / Type test certificate.	Tender Condition Prevails.	NO	
197	Part 2 Section VI C	1031 of 1752	The maximum temperature rise of the busbars and the bus connections shall not exceed 85°C.	Complied as per IEC 61439 standard.	Refer Addendum - 1	YES	Part 2 Sl. No. 14
198	Part 2 Section VI C	1016 of 1752	The LV Switch Boards shall be type tested assemblies (TTA) complete design verified all type tests as defined in IEC 61439-1 and 2, form 4b type 6 built up from compartments housing circuit breakers, control gear, relays, busbars, controls and other items of equipment.	We have considered Form-4b by metal partitions in order to achieve internal arc containment as per IEC 61641.	Tender Condition Prevails.	NO	
199	Part 2 Section VI C	1016 of 1752	The LV Switch Boards shall also comply the internal arc fault containment tests in accordance with IEC 61641 and type test certificates for the same shall be submitted.	The LV Switch Boards complied to the internal arc fault containment tests - Type C in accordance with IEC 61641 at system design fault level on HBB, VBB, Cable chamber and type test certificates for the same shall be submitted. Class-C is highest safety level in internak arc protection.	Refer Standard. Tender Condition Prevails.	NO	
200	Part 2 Section VI C	1017 of 1752	The Panel manufacturer shall submit Design Verification certificates for panel of similar construction as per IEC 61439-1 & 2 from VDE, ASTA, ASEFA, DEKRA or type test reports by an accredited testing body such as CPRI, ERDA or anyother NABL accredited testing laboratories.	We are provding ASTA certified IEC 61439 type tested assembly. This certificate provides the verification of all the rated characteristics of the equipment whereas type test reports issued by CPRI / ERDA not verified and not validated.	Tender Condition Prevails.	NO	
201	Part 2 Section VI C	1026 of 1752	ARC chutes / ARC Flaps and ventilating outlets shall be so situated that any emission of flame or hot metal particles shall not cause electrical breakdown and shall be directed away in such a manner as to avoid endangering the operator.	For internal arc protection panel design should be robust enough to withstand the Internal arc developed. Providing Arc chutes and flaps are old design and does not ensure safety of people and facility around and does not even confirms Class-A minimum criteria of personnel safety.	Tender Condition Prevails.	NO	
202	Part 2 Section VI C	1050 of 1752	Rated short-circuit making capacity (Icm): shall be at least 2.1 times of ultimate short circuit breaking capacity at 0.25 power factor.	Not applicable for MCCB	Tender Condition Prevails.	NO	
203	Part 2 Section VI C	1.2.5	Double break MCCB is not mentioned in specification	MCCBs rating up to 630Amp shall be current limiting type having an encapsulated double break design having two fixed contacts, one moving contact and two arc chutes per pole. The design is required to minimize the effects of short circuit currents i.e. limit the let through energy and improve the life of cables.	Tender Condition Prevails.	NO	
204	Part 2 Section VI C	Make list		NSXm MCCB - It is the extended version of MCCB in NSX family. Approval is required.	Tender Condition Prevails.	NO	
205	Part 2 Section VI C	1051 of 1752	200A and below shall be with adjustable thermal & adjustable magnetic release with the range of 70-100%.	We will consider upto 200A MCCB with TM trip unit - Thermal adjustable and short circuit fixed. From 250A and above microprocesor based trip unit - Thermal and short circuit setting both are adjustable, considering above combination total discrimination shall be achieved.	Refer Specification. Tender Condition Prevails.	NO	
206	Part 2 Section VI C	1051 of 1752	Clear indication of type of fault when tripped shall be indicated for all MCCB's.	All MCCB with microprocessor based LSIG trip unit shal lhave LCD display to indicate 1.Type of fault, 2.Affected phase, 3.Fault current	Tender Condition Prevails.	NO	
207	Part 2 Section VI C	1090 of 1752	Distribution boards for miniature circuit breakers shall be of sheet steel construction with a minimum thickness of 2 mm	Approval required for 1.6mm thickness	Tender Condition Prevails.	NO	
208	Part 2 Section VI C	1227 of 1752	LT Bus Duct shall be of Copper Conductor, current rating & fault level shall be as per BOQ and SLD	Fault level is unclear on SLD. Pls confirm the same.	Refer BoQ. Tender Condition Prevails.	NO	



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209	Part 2 Section VI C	1227 of 1752	Temperature rise at any point in the bus duct shall not exceed 55°C over ambient temperature of 50°C	Pls confirm what is the Temp Rise for Enclosure - Temp rise for Conductor - Temp rise for external connection - required at 50 Deg Ambient, given limits are different than those specified as per IEC 61439 1&6	Refer Addendum - 1	YES	Part 2 Sl. No. 31
210	Part 2 Section VI C	1.3	Fire resistant LT Bus duct	Pls confirm testing and verification standard applicable for fire resistance requirement	Refer Specification. Tender Condition Prevails.	NO	
211	Part 2 Section VI C	1.3	Earthing provision of BBT TPN+50% Internal earth bus	SLD does not specify if internal or integral earth is required. Pls confirm if integral earth systems are acceptable.	Refer Specification. Tender Condition Prevails.	NO	
212	Part 2 Section VI C	1020 of 1752	BMS/SCADA interface terminals shall be provided in the panel as per SCADA I/O schedule.	I/O schedule required for detailed designing.	Refer Specification. Tender Condition Prevails.	NO	
213	Part 2 Section VI C	1021 of 1752	e. Status of HMI of MDB 1 shall be able to access in the HMI of MDB 2 vice versa	What is the distance between MDB-1 & MDB-2? Where PLC to be located MDB-1 (or) MDN-2? Common PLC will be used for both MDB to achieve control logic. IO chart required.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
214	Part 2 Section VI C	1021 of 1752	Load flow analysis (Measuring activities)	No clarity in specification. Kindly elaborate.	Refer Specification. Tender Condition Prevails.	NO	
215	Part 2 Section VI C	1021 of 1752	Independent PLC shall be provided with HMI panel to perform the various interlock logics & Load management and shall be interfaced with HMI panel.	Common PLC will be provided for MDB-1 & MDB-2 to achieve the control logic provided. Independent HMI.	Refer Specification. Tender Condition Prevails.	NO	
216	Part 2 Section VI C	1023 of 1752	Description: Programmable logic Controller 1MB 24VDC, ETHERNET, 2xRS232/485, FBP, SD Card Slot, LCD Display	LCD Display shall be through HMI only.	Tender Condition Prevails.	NO	
217	Part 2 Section VI C	1023 of 1752	Display Type: LCD	LCD Display shall be through HMI only.	Tender Condition Prevails.	NO	
218	Part 2 Section VI C	1023 of 1752	Maximum Number of Digital I/O's: 320DI, 240DO/DC Local, max. 10 expansion modules	Require more clarification on the required IO. Pls elaborate on the required IO for each components with the IO chart	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
219	Part 2 Section VI C	1024 of 1752	e. Internal CAN communication with the DSP controller	DSP does not have CAN port. HMI has onboard Ethernet port.	Configuration subject to Employers Approval. Tender Condition Prevails	NO	
220	Part 2 Section VI C	1024 of 1752	10 Mbyte user memory, 256 KByte for recipes, message buffer (The HMI must save a minimum of 1,00,000-time stamped event logs)	HMI does not have memory to store ebent logs but can save in USB drive or SD card.	Tender Condition Prevails.	NO	
221	Part 2 Section VI C	1024 of 1752	The logs view must be password protected.	We can't see logged data in HMI.We can see the logg data in standard PC through Webgate application.	Tender Condition Prevails.	NO	
222	Part 2 Section VI C	1025 of 1752	Logs must be accessible for day wise for ease of navigation. Date can be selected easily through a calendar interface.	We can log day wise data in CSV file fo.rmat stored in HMI pendrive/SD card, and logged file can't be seen in HMI. We can see logged data in standrad PC through webgate application.	Tender Condition Prevails.	NO	
223	Part 2 Section VI C	1025 of 1752	Logs must be arranged in First In- Last Out fashion to display the latest events on top	The logs will be arranged on time base and the recent log will appear on top.	Tender Condition Prevails.	NO	
224	Part 2 Section VI C	1080 of 1752	Electronic (Thyristor based) contactors shall be used in installations, requiring Transient Free Switching or dynamic VAR compensation.	Pls clarify whether Thyristor based or contactor based. Contactor based switching is more Technically suitable for the application.	Tender Condition Prevails.	NO	
225	Part 2 Section VI C	1085 of 1752	b) IEC 60947-6-1 Low-voltage Switchgear and Control gear; Multifunction equipment; Automatic Transfer Switching Equipment- AC 33 utilization category for Mix Load Application.	We are considering AC33A Utilization category which is more robust and suiable for your application.	Tender Condition Prevails.	NO	
226	Part 2 Section VI C	1085 of 1752	a) The transfer switch shall be electrically operated and mechanically held. The electrical operator shall be a single-solenoid/motorized mechanism, monetarily energized in the event of normal supply failure, and can also be operated manually (on load) in the event of control circuit failure. The switch shall be mechanically interlocked to only three possible positions i.e., normal, emergency or Isolation.	The selected Transfer switch from Schneider has the provision for electrical & mechanical interlocked to 3 positions - Normal, Emergency, Center off.	Refer Addendum - 1	YES	Part 2 Sl. No. 20
227	Part 2 Section VI A Appendix-6	LIST OF MAKES / VENDORS FOR MEP - VAC	HVLS (HIGH VOLUME LOW SPEED) : GREENHECK/ KRUGER /KALE BRAYAN	kindly approve other reputed makes such as Kelley, Austar, helifan and equivalent.	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO	

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S. No	Part / Section No	Clause No	Description / Original Bid Condition	Bidder's Queries	CMRL Response	Addendum Issued (YES/ NO)	Addendum Reference	
228	Part 2 Section VI A Appendix-6	LIST OF MAKES / VENDORS FOR MEP - VAC	VRF UNITS (INDOOR, OUTDOOR AND CONTROLLER) AND ACCESSORIES :LG, DAIKIN, CARRIER, TOSHIBA, HITACHI, MITSUBISHI,MIDEA, SAMSUNG	Kindly approve VRF units of Voltas make which is reputed Tata brand and Voltas make VRF are already installed in CMRL project.	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO		
229	Part 1 Section IV B	BOQ 4 VAC SI. NO : 90, 96, BOQ 8 VAC SI. NO : 104, 110	D.11 - Ducting D.12 - Fire Rated Ducting & Insulation ( Price shall include cost of Insulation) H.15 - Ducting H.15.2 - Fire Rated Ducting & Insulation ( Price shall include cost of Insulation)	Kindly confirm that ducting required is of rectangular type as the specifications mentions all other types such as Oval duct, Flexible insulated duct etc.	Please refer Employers Drawing Section VI D. Tender Condition prevails.	NO		
230	Part 2 Section VI A Appendix-6	LIST OF MAKES / VENDORS FOR MEP - VAC	FANS: KRUGER / GREENHECK / SYSTEM AIR/ZIEHL ABEGG/ EBM PAST / VTS / FLAKTWOOD	Kindly approve Nicotra, Caryaire makes for ventilation fans.	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO		
231	Part 2 Section VI A Appendix-6	LIST OF MAKES / VENDORS FOR MEP - VAC	REFRIGERANT COPPER PIPES & FITTINGS : MEHTA / RAJCO / MANDEV/UNIFLOW	Kindly approve Janya Make for refrigerant pipes.	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO		
232	Part 2 Section VI A Appendix-6	LIST OF MAKES / VENDORS FOR MEP - VAC	AHU : VTS/SYSTEMAIR/FLAKTWOOD/EDGETECH/ZECO/CARRIER	Kindly approve Waves make which is already installed in many underground metro projects in India.	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO		
233	Part 1 Section IV B	BOQ 4 VAC SI. NO : 98 BOQ 8 VAC SI. NO : 112	D.12.2 - Sheet Metal Duct wrapped with fire rated of 38 mm thick (single layer) and 96kg/m3 density encapsulated in aluminium scrim foil tested as per BS 476 Part 24 to provide 120 minutes of Stability, Integrity and Insulation as per the technical specification.	We understand that only fire wrap insulation is required as per BOQ for fire rated ducting. Kindly confirm.	Refer Specification. Tender Condition Prevails.	NO		
234	Part 2 Section VI C	3.9.2.4	Motors shall be of the brushless DC type for maximum efficiency and speed controllability.	Approved make Kale Brayon cannot provide BLDC motors for HVLS fans. Also please note that HVLS fan manufacturers does not manufacturer HVLS fans with BLDC motors in India and need to be imported which will be very expensive.Hence, Kindly approve PMSM motor or geared motor for HVLS fans.	Tender Condition Prevails.	NO		
235	Part 1 Section IV B	BOQ 4 VAC SI. NO : 81 BOQ 8 VAC SI. NO : 94	Supply, installation, testing and commissioning of 2 core / 3 core 1.5 sqmm cross section shielded Signal/Communication cable as recommended by OEM conforming IEC/IS standard, installed in perforated cable tray with GI conduits between indoor and Outdoor units.	BOQ mentions both 2 core and 3 core cabling. Kindly confirm which one to consider. Also please confirm that cable tray is not required to be considered in the same line item since separate line item for cable tray is already provided in BOQ.	Refer Addendum - 1	YES	Part 1 Sl. No. 61	
236	Part 1 Section IV B	BOQ 4 VAC SI. NO : 120 BOQ 8 VAC SI. NO : 134	Supply,installation,testing & commissioning of propeller fan complete with necessary supporting arrangements etc.Fans shall be provided with louvers,bird screens & fan guard. All equipment specifications and installation shall be complied to approved shop drawings and outline design/construction specifications.Fans shall be rated in accordance with the standard test code for air moving services and the test code for sound rating air moving devices of the AMCA. Fans Shall be quoted as per technical Specification and drawings.	We understand from BOQ and technical specifications that propeller fans are required to be AMCA certified and fire rating is not required for the same. Kindly confirm.	Tender Condition Prevails.	NO		
237	Part 1 Section IV B	BOQ 4 VAC SI. NO : 130 BOQ 8 VAC SI. NO : 139	Supply, installation, testing & commissioning of temperature based fan control panel to ON/OFF and cyclic Operation of propeller fans, consisting of temperature sensors, control panel with 25 A DP MCCB, 10 kA as incomer and outgoing as 4 nos. 16A DP MPCB with contactor and 2 nos temperature sensor, on/off indication lamps and one controller to start /stop fans with help of temperature sensor, necessary power and control wiring etc. as per control philosophy in Technical Specification. The system shall be BMS /SCADA compatible.(for ASS Rooms)	We understand that cables , cable tray & glands will be paid separately as per actual measurements in Electrical BOQ and need not to be considered in the given line item. Kindly confirm. If cables, cable tray & glands required to be considered in given line items, kindly provide the length and size of cables, cable trays to be considered.	Please refer Employers Drawing Section VI D. Tender Condition prevails.	NO		
238	Part 1 Section IV B	BOQ 8 VAC SI. NO : 149	Entire fan assembly shall be UL-Listed to Underwriters Laboratory (UL) Standard 507. HVLS Fans shall be quote as per technical specification including control panel, HMI, communication cable, tray or conduit with wiring and necessary vibration mounts with their supports etc.	We understand that cables , cable tray & glands will be paid separately as per actual measurements in Electrical BOQ and need not to be considered in the given line item. Kindly confirm. If cables, cable tray & glands required to be considered in given line items, kindly provide the length and size of cables, cable trays to be considered.	Please refer Employers Drawing Section VI D. Tender Condition prevails.	NO		
239	Part 1 Section IV B	BOQ 4 VAC SI. NO : 130 BOQ 8 VAC SI. NO : 139	Controller with Temperature Sensor	We understand that all sensors required for controllers are separately mentioned in the BOQ and need not to be considered along with controllers. Kindly confirm.	Please refer Employers Drawing Section VI D. Tender Condition prevails.	NO		

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240	Part 2 Section VI D	BOQ 8 VAC SI. NO : 149	HVLS Fans	1. What shall be the length of drop tube required (Height from ceiling to the fan blade) ? 2. On what type of structure is HVLS fan mounted? (I Beam, Steel truss, Concrete ceiling etc)	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57
241	Part 2 Section VI C	3.9.1.1, 3.9.1.2, 3.9.1.3	3.9.1.1 High volume, low speed (HVLS) propeller fans shall be licensed to bear the AMCA Certified Rating Seal for Circulating Fan Performance to ensure performance as catalogued in the field. Unlicensed HVLS fans shall not be accepted 3.9.1.2 Entire fan assembly shall be UL/UL-Listed to Underwriters Laboratory (UL) Standard 507 and CSA Standard 22.2 No. 113 to ensure compliance with the most current international testing standards. Intertek/ETL certification to UL Standard 507 and CSA Standard 22.2 No. 113 shall not be accepted. 3.9.1.3 Entire fan assembly shall bear the CE mark to ensure compliance with the most current international testing standards.	Please note that out of approved makes only Greenheck can provide UL listed, AMCA certified fans (without CE listing). Approved makes such as Kruger and Kale Brayan cannot provide UL & CE listed, AMCA certified HVLS fans. Kindly approve the HVLS fans without UL & CE listing, AMCA certification in order to avoid monopoly of single make.	Tender Condition Prevails.	NO	
242	Part 1 Section IV B	BOQ 4 VAC SI. NO : 148	D.20.1.2 - Ventilation Supply Fan (VSF) 2.8 cms, 400 Pa Total Pressure	We understand that mentioned fans are not required to be fire rated.	Tender Condition Prevails.	NO	
243	Part 1 Section IV B	BOQ 8 VAC SI. NO : 149	HVLS Fans shall be quote as per technical specification including control panel, HMI, communication cable, tray or conduit with wiring and necessary vibration mounts with their supports etc.	We understand that communication cable, tray or conduit with wiring will be separately paid as per actual measurements in Electrical BOQ and need not to be considered in the given line item. Kindly confirm.	Please refer Employers Drawing Section VI D. Tender Condition prevails.	NO	
244	Part 2 Section VI C	4.3.G	The compressor shall have an integrated air cooled type refrigerant dryer in the downstream of the compressor within the same canopy & the design shall make the installation more compact. The air drier shall stop working atomically when the compressor stops functioning	Providing Separate Refrigerated Air Dryer in the downstream of Air Compressor & Receiver is best engineering practice as per approved make OEMs. Kindly approve the same.	Refer Addendum - 1	YES	Part 2 Sl. No. 49
245	Part 2 Section VI C	4.3.H	The Contractor shall install two numbers of approx. 1500 litres reservoirs in an area downstream of the dryers.	Approved makes can provide Reservoir installed after Air Compressor & before Air dryer which is best engineering practice. Kindly approve the same.	Refer Addendum - 1	YES	Part 2 Sl. No. 50
246	Part 2 Section VI C	3.7.4.1 f)	3.7.4.1 f) i. Casing shall be made of Galvanised steel sheet (G.S.S) with minimum 0.8 mm thickness. Zinc coating thickness on G.S.S shall be of minimum 220 GSM.	Kindly approve casing thickness and zinc coating the same as per manufacturer's standard.	Tender Condition Prevails.	NO	
247	Part 2 Section VI C	3.7.4.1 h)	h) Cassette type unit i. Casing shall be made of Galvanised steel sheet (G.S.S) with minimum 0.8 mm thickness. Zinc coating thickness on G.S.S shall be of minimum 220 GSM.	Kindly approve casing thickness and zinc coating the same as per manufacturer's standard.	Tender Condition Prevails.	NO	
248	Part 2 Section VI C	3.7.4.1 i)	i) Filters: ii. Rated as Class II in accordance with UL 900	Please note that UL 900 certification is not available with some approved manufacturers. Kindly approve filters without UL900 certification.	Tender Condition Prevails.	NO	
249	Part 1 Section IV B	3.7.4.1 h)	iii. Secondary drain pan shall be provided for all high static concealed ducted type indoor units located within ceiling space of Technical rooms. Secondary drain pan made from 1.0mm thick Stainless steel sheet SS 304L as per ASTM A240 and supported independently. Size of the drain pan shall be 20 % more than on all sides than the overall size of the fan coil unit with 40mm depth as shown in typical installation drawings. Entire Drain pan shall be insulated at the bottom and sides using 12mm thick closed cell elastomeric insulation as per insulation specifications. The drain outlet from the drain pan shall be connected to nearest drain point by gravity. Union shall be provided at the connection which shall be used during maintenance. Drain pan shall be removed hassle free from the supports and drain connection during FCU/ IDU maintenance	As per specifications secondary drain pan is required for ductable units whereas as per BOQ 8 VAC SI. NO : 34 secondary drain pan is mentioned below cassette units which is not possible. Kindly confirm the secondary drain pan mentioned in BOQ 8 VAC SI. NO. 34 is applicable for ductable units and not for the cassette units.	Refer Addendum - 1	YES	Part 1 Sl. No. 138

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S. No	Part / Section No	Clause No	Description / Original Bid Condition	Bidder's Queries	CMRL Response	Addendum Issued (YES/ NO)	Addendum Reference	
250	Part 2 Section VI C	3.7.4.2 b)	Casing cabinet i. Casing shall be made from Galvanised steel sheet (G.S.S) with minimum 1.0 mm thickness. Zinc coating on G.S.S shall be of minimum 120 GSM. ii. Powder coating shall be applied on GSS with minimum of 80 -100 microns	OEMs can provide 1mm thick casing and 80 GSM zinc coating for casing cabinet. Also powder coating shall be ≥60 microns. Kindly approve the same.	Tender Condition Prevails.	NO		
251	Part 2 Section VI C	3.7.4.2 j)	j) Electronic Expansion Valve (EEV) Kit: iii. Available capacity range of single EEV must be 8 HP to 40 HP	EEV Kit capacity range varies from manufacturer to manufacturer based on their manufacturing standard. Kindly approve the same.	Tender Condition Prevails.	NO		
252	Part 1 Section IV B	BOQ 4 VAC SI. NO : 152 BOQ 8 VAC SI. NO : 176	MAINTENANCE CONTRACT FOR 3 YEARS AFTER DEFECTS LIABILITY PERIOD Maintenance of the system supplied, installed, commissioned by the successful bidder for 3 years beyond the Defects Liability Period for 2 year (DLP). This will include start up / commissioning routine servicing / regular maintenance, preventive maintenance of equipment and components and break down repairs as and when occurred, ensuring that system does not remain out of service for a period not more than 8 hours in case of major breakdowns and one hour in case of minor breakdowns due to any unforeseen break down. The rate shall include for all spares and consumables (except power) required for satisfactory maintenance of the installation and system. The described maintenance clause will be applicable for all A/c equipments furnish separately the manpower proposed to be deployed.	Kindly provide the manpower requirement for each station for each shift during AMC period. Also confirm number of shifts to be considered.	Tender Condition Prevails.	NO		
253	Part 1 Section IV B	C.3.2	Supply, Installation, Testing and Commissioning of UL listed / FM approved Gate Valves with rising stem (OS & Y) with grooved end of the following sizes as per Specifications. and Pressure rating of Gate valves Rising Type: max working pressure 300 psi(21 bar)	Approved makes cannot provide pressure rating of 300 psi. Kindly provide the alternate makes.	Refer Addendum - 1	YES	Part 1 Sl. No. 51	
254	Part 2 Section VI C	2.8.4	The valves shall conform to IS:13095	Approved makes cannot provide valves confirming to IS:13095. Kindly provide the alternate makes.	Tender Condition Prevails.	NO		
255	Part 2 Section VI A Appendix-6	2.8.8	Y-Strainers shall be of UL/FM approved.	Approved makes cannot provide FM approved Y strainers. Kindly provide the alternate makes.	Refer Addendum - 1	YES	Part 2 Sl. No. 6	
256	Part 2 Section VI A Appendix-6	C.3.6	Supply, Installation, Testing and Commissioning of UL listed / FM approved Ball Valves with screwed ends of the following sizes as per Specifications. suitable for pressure rating of 16Kg/sqcm.	Approved makes cannot provide UL listed Ball Valves. Kindly provide the alternate makes.	Refer Addendum - 1	YES	Part 2 Sl. No. 6	
257	Part 1 Section IV B	C.3.11	Supply and installation of UL listed / FM approved stainless steel Expansion Bellow, suitable for PN 16 requirements as per Specifications.	Approved makes cannot provide UL/FM approved Expansion Bellow. Kindly provide the alternate makes.	Refer Addendum - 1	YES	Part 1 Sl. No. 53 and Part 2 Sl. No. 38,	
258	Part 1 Section IV B	C.4.4	Providing and fixing Fire Man Axe conforming to IS : 926 : 1985 with Clamps.	Kindly provide the technical specification for Fire Axe.	Folow as per IS Standards. Tender Condition Prevails.	NO		
259	Part 1 Section IV B	2.5.4.1.1	Hose pipe shall be rubber lined woven jacketed and 63mm in diameter. They shall conform to Type A (Reinforced rubber lined) of IS:636 or IS: 8423.	As per BOQ, type B Hose pipes are required whereas specification ask for Type A Hose Pipes. Kindly confirm which type to consider for Hose pipe.	Refer Addendum - 1	YES	Part 1 Sl. No. 54	
260	Part 2 Section VI C	C.4.5	Providing and fixing Wall mounted Swinging type First - Aid Fire Hose Reel conforming to (IS 12585 : 1988 & IS : 884 : 1985 for drum - and Specifications having 25 mm diameter and 30 M length.	As per BOQ, 25 mm diameter fire hose reel is required whereas technical specification ask for 20 mm. Kindly confirm which diameter to consider for Fire Hose Reel.	Refer Addendum - 1	YES	Part 2 Sl. No. 36	
261	Part 1 Section IV B	C.4.5 -	Providing and fixing Wall mounted Swinging type First - Aid Fire Hose Reel conforming to (IS 12585 : 1988 & IS : 884 : 1985 for drum - and Specifications having 25 mm diameter and 30 M length.	As per BOQ, IS:12585 is required for Hose pipe whereas technical specification ask for IS:444. Kindly confirm which standard is to consider for Fire Hose pipe.	Tender Condition Prevails.	NO		
262	Part 2 Section VI D	C.5.6	Supply, Installation, Testing and Commissioning, Pressure reducing valve Min.reducing valve size 3/4 ", Min.Discharge size 1 "	Pressure reducing valve is not shown in the Tender drawings.	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57	

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263	Part 2 Section VI C	C.6.2	Providing and fixing portable fire extinguisher conforming to IS 15683 : 2018	The given standard is IS 15683 : 2018 and BIS 15683 : 2006 according to technical specification. Kindly confirm which we have to choose.	Refer Addendum - 1	YES	Part 2 Sl. No. 39
264	Part 1 Section IV B	C.7	Design, Supply, Installation & Commissioning of Novec 1230 Fire Suppression System Automatic Clean Agent Novec 1230 (UL/VDS/FM approved - Fire Detection & Suppression System, Consisting of the following Rooms as per Specification and drawings.	Quantity in kgs for Novec 1230 Clean Agent is missing. Kindly confirm the quantity.	Refer Addendum - 1	YES	Part 1 Sl. No. 56
265	Part 1 Section IV B	C.7	Design, Supply, Installation & Commissioning of Novec 1230 Fire Suppression System Automatic Clean Agent Novec 1230 (UL/VDS/FM approved - Fire Detection & Suppression System, Consisting of the following Rooms as per Specification and drawings.	In BOQ, the total Cylinder count is 108, but the sum of master cylinder and slave cylinder is 216. Hence it is mismatch in the quantities of cylinders. Kindly confirm the quantities of the cylinders.	Refer Addendum - 1	YES	Part 1 Sl. No. 57
266	Part 2 Section VI C	Clause 1.2.3.1 - General Requirements Pg. No. 1-16	The switchboard shall have min 20% spare or as shown in SLD for future expansion.	We presume 20% spare is already included in BOQ/SLD. Kindly confirm.	Tender Condition Prevails.	NO	
267	Part 2 Section VI C	Clause 1.2.3.9 - Busbars of Pg. No. 1-28	Bus Bar material shall be tinned copper having current density of 1A/sq.mm	As per IEC-61439-1&2 type test is done for specific rating with specific density. So current density shall be as per IEC-61439-1&2. Kindly confirm.	Tender Condition Prevails.	NO	
268	Part 1 Section IV B	Clause 1.2.5.2 - MCCB of Pg. No. 1-50	All MCCB's in the outgoing of MDB & incomer of sub panel are microprocessor based with LCD display and MODBUS communication facility. All other outgoing MCCB 250A and above shall be Microprocessor based release with (O/C & S/C) and 200A & below shall be with thermal magnetic (O/C & S/C) protection. & As per BOQ general notes S.No 26, all outgoing of MDB & incomer of sub panel are microprocessor based with LCD display and MODBUS communication facility. MCCB 250A and above shall be Microprocessor based release with (O/C & S/C) and 200A & below shall be with thermal magnetic (O/C & S/C) protection.	In UPS incoming & UPS outgoing Panel , outgoing MCCB below 200A is asked with microprocessor based release. However it shall be thermal magnetic based as per tender specification & BOQ general notes. Kindly confirm actual requirement.	Refer to BoQ and Employer Drawings Section VI D. Tender Condition Prevails.	NO	
269	Part 1 Section IV B	Lamp Test Push Button	In tender BOQ test push button is asked for indication lamp .	As per other metro experience and indication Lamp is LED type, Lamp test push button is not required. Kindly confirm.	Tender Condition Prevails.	NO	
270	Part 1 Section IV B	Busbar Sleeves	As per BOQ general notes S.No 42, RYB identification in Busbar & colour coding sleeves as per type test report shall be provided.	As per IEC-61439-1 & 2, busbar sleeve is not required. Its as per OEM design only. Kindly confirm.	Tender Condition Prevails.	NO	
271	Part 1 Section IV B	IP-65	External Lighting feeder Pillar & F01.19 Fire Pump Panel shall be asked with IP-65	We presume this panel will be installed inside, So IP-55 is enough to full fill the requirement. Kindly confirm.	Refer Addendum - 1	YES	Part 1 Sl. No. 83 and Part 2 Sl. No. 57
272	Part 1 Section IV B	Boq-B.1.10 - Fire Pump Panels (FPP) (IP 54)	In Fire Pump Panel , outgoing soft starter feeder is asked with 3nos. Power Contactor.	Since soft starter has inbuilt feature for Bypass so no external power contactor is required. Power contactor is required when it is Bypass with star delta starter. So please confirm the purpose of power contactor in soft starter.	Refer Addendum - 1	YES	Part 1 Sl. No. 25, 26 and Part 2 Sl. No. 57
273	Part 2 Section VI C	1.12.3.1	Operating ambient temperature: 0 to 45 0C • Relative humidity: Up to 95 % • Storage temperature: -25oC to 55 0C The equipment shall be designed to provide rated output at the extreme environmental conditions specified above.	As per OEM, UPS System is designed at 40 Deg C. We presume the design temperature is 40 Deg C. Kindly confirm.	Refer Addendum - 1	YES	Part 2 Sl. No. 30
274	Part 2 Section VI C	1.12.3.3 Design Life	Design Life The design life of the UPS system shall be at least 20 years and Battery system shall be at least 15 years.	As per OEM UPS System is designed for around 10 years life. We request you to modify the clause accordingly. Kindly confirm.	Refer Addendum - 1	YES	Part 2 Sl. No. 30

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275	Part 2 Section VI C	1.12.3.6 System Description.	General System Features : Overload Capabilities The UPS shall be able to supply 110 % for 60 minutes, 125 % rated load for at least 10 minutes and 150% rated load for at least 1 minutes.	As per OEM, Small rating systems comes with overload as under: 105 % for 60 minutes, 125 % rated load for at least 5 minutes and 150% rated load for at least 1 minutes. We request you to amend the clause accordingly. Kindly confirm.	Tender Condition Prevails.	NO	
276	Part 2 Section VI C	1.12.3.8.3	Inverter Voltage harmonic distortion : The inverter shall provide sine wave output having harmonic neutralization and filtering to limit the total harmonic distortion on the output voltage to less than 2 % of linear load and 3 % of non-linear load.	As per All OEMs, Harmonic distortion shall be 2 % of linear load and 5 % of non-linear load.	Tender Condition Prevails.	NO	
277	Part 2 Section VI C	BOQ	K 13, copper Galvanic Isolation Transformer at Incoming supply side of UPS.	As per OEM, to provide more economical system, K-1 aluminum transformer is enough to meet system requirement. Kindly confirm.	Tender Condition Prevails.	NO	
278	Part 1 Section IV B	BOQ	BMS BOQ. S.No- 17, 26,35 & 45 & 4. Schematic diagram of the BMS System Depot" & 4. Schematic diagram of the BMS System Depot" & I/O Schedule and Technical Specification.	As per the " BMS BOQ.Xls-S.No- 17, 26,35 & 45 the Qty is Mentioned as 3 No's , Kindly Confirm the same, since the same is not matching with the " 4. Schematic diagram of the BMS System Depot" & I/O Schedule and Technical Specification.	Tender Condition Prevails.	No	
279	Part 2 Section VI A Appendix-6	Appendix-6	LIST OF MAKES / VENDORS FOR MEP: LV PANELS - APPROVED MAKES 1 LV-BLOKSET, ArTuk, SIVACON, Ti, RITTAL, EL STEEL	We request you to accept Siemens With SIEPAN 8PU model against SIVACON, as the same is supplied & Approved in DMRC/KMRCL. Kindly confirm.	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO	
280	Part 2 Section VI D	BOQ	Boq S.No. 56	As per Schematic Diagram -Loc DCC Room , The Communication Switch is mentioned as 24 port, whereas in Boq S.No. 56.It is mentioned as 14 Port, Kindly confirm actual requirement.	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57
281	Part 2 Section VI C	BOQ		We presume Note Book as per Clause 5.6.1.6 Pg 16 of 58 of 1. Technical Specification SCADA is not required as per BMS Boq. Kindly confirm.	Refer Addendum - 1	YES	Part 2 Sl. No. 52
282	Part 2 Section VI C	BOQ		We presume, As per Clause Pg 23 – 24, Employer Demand of SIL2 Level PLC for VAC System shall not be applicable for this Package. Kindly confirm.	Refer Addendum - 1	YES	Part 2 Sl. No. 54
283	Part 1 Section IV B	BOQ		As per OEM, The IO module Density shall be Offered is (32/64 Ch for Digital I/O's & 8/4 Ch for Analog I/O's ) meeting the total I/O Requirement against BMS BOQ Clause of 24 /16 Ch Analog I/O Modules Kindly confirm.	Tender Condition Prevails.	NO	
284	Part 2 Section VI C	BOQ		We presume PLC Enclosure Sheet Thickness is 1.6mm & at load bearings is 2 mm. Kindly confirm.	Tender Condition Prevails.	NO	
285	Part 2 Section VI D	Boq & Drawings	Depot SCADA	As per given BOQ, standalone Engineering and Operator Station is required with commercial grade PC configuration. But, given Depot 2.5 SCADA DRAWINGS system architecture is showing Hot Redundant server-Client Architecture. Kindly confirm the exact requirement.	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57
286	Part 2 Section VI C	Boq & Drawings	Depot SCADA	As per given BOQ. Sr. no 12 & 13, J.4.1.6 - Serial Communication Module; J.4.1.7 - Communication Module is mentioned . Kindly provide the communication protocol for both the communication modules mentioned.	Refer Specification. Tender Condition Prevails.	NO	
287	Part 2 Section VI C	Boq & Drawings	Depot SCADA	Kindly provide the distance between PLC to RIO and RIO to RIO.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	

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S. No	Part / Section No	Clause No	Description / Original Bid Condition	Bidder's Queries	CMRL Response	Addendum Issued (YES/ NO)	Addendum Reference
288	Part 2 Section VI C	Boq & Specifications	5.11.1.4. The insulation shall be XLPE with FR-LSZH sheath, XLPE, suitable for use on copper conductor with a maximum operating temperature not less than 90°C. 5.11.1.5. The cores of control cable shall be twisted together (Only for twisted pair cable not core cable). Insulation shall be XLPE. Overall shielding shall be Aluminum & Mylar tape and annealed tinned copper drain wire. Shielding will be with 100% coverage and 25% over-lap. There will be another overall shielding of annealed bare copper braid. The copper braid shielding shall have minimum 85% coverage. The annealed copper braid shall be of at least 0.15mm thickness and substantially free from burrs. Inner Jacket for armoured Fire Alarm cable shall be of FR-LSZH material. 5.11.1.6. Armouring of steel wire as per BS 7846. Inner sheath of FR-LSZH. Outer Sheath of (FR-LSZH) compound having UV, Anti- rodent, Anti-Termite properties & Boq S.No-68 -J.12 - Control Cables (Refer technical specification Part 2 - SECTION VI C - SUB-SECTION - 5 - SCADA -Clause - 5.11.1) & As per Depot BMS IO Schedule Pg. 12- 17 of 19 , It is mentioned as ES Cable for FAE/SEA/SE/EE	We presume Boq S.No-68, all pair cables and core cables shall be as per BS7846 along with additional layer of copper braiding is required. Kindly confirm.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
289	Part 2 Section VI C	Clause No.1.2.3.6	The MDB/SMDBs shall be mounted on a robust base frame made up of steel channels with a minimum height of 80mm. The base frame shall be able to withstand the static and dynamic loads of the MDB/SMDBs. The steel channels shall be painted with epoxy polyester paint.	We request you to accept as per OEM manufacturer design. Kindly confirm.	Tender Condition Prevails.	NO	
290	Part 2 Section VI C	Clause No.1.2.3.6	Non-magnetic gland plates of not less than 3.2mm thick with bracing of suitable size shall be provided at the top and bottom of the LV main switchboards for the termination of incoming and outgoing power cables or bus ways.	As per standard gland plate shall be 3MM thick provided, kindly confirm	Refer Addendum - 1	YES	Part 2 Sl. No. 13
291	Part 2 Section VI C	Clause No.1.2.3.1	Type tested or design verification certificate validity for fully assembled LV switch boards shall be within last 5 years as per required rating.	As per CEA circular, we request you to accept type test validity of 10 years as on the date of the opening of the bid. Kindly confirm.	Tender Condition Prevails.	NO	
292	Part 3 Section VIII	General	The priority order of documents is as indicated (sorted from highest to lowest priority): a. Technical Specifications b. BOQ, c. Drawings d. General Specification e. International Standards Please referenced herein f. Indian Standards	In the event of a conflict between Technical Specification, BOQ & Drawings kindly confirm order of priority over which of the above shall prevail.	Refer Part-3. Tender Condition Prevails.	NO	
293	Part 2 Section VI C	Clause No.1.2.3.6	Connections: All the incoming / outgoing terminations shall be extended via fully insulated copper connections into a separate termination chamber adjacent to the front/rear of the switchboard. When busbars are used between switchboards, the internal busbars of the switchboard shall be in fully insulated copper bars of the suitable size. No linking with cables shall be permitted in this case.	For MCCB's of rating below 100A, linking with busbar is not possible due to space/ size constraints for termination, We request you to accept Cable connections for MCCB's below 100A rating. Kindly confirm.	Refer Specification. Tender Condition Prevails.	NO	
294	Part 2 Section VI C	Clause 1.2.3.1 - General Requirements Pg. No. 1-16	The switchboard shall have min 20% spare or as shown in SLD for future expansion. & The switchboard shall have min 20% spare space and 20% spares breaker or as shown in SLD whichever is higher for future expansion and as per Technical Specifications.	We presume 20% spare is already included in BOQ/SLD. We have to consider only 20% space provision. Kindly confirm.	Tender Condition Prevails.	NO	
295	Part 2 Section VI C	Clause No.1.4.4	Non-Fire survival power & control cables shall be conforming to IS 7098/Part1 Part 1 'Specification for 1100 V Cross linked polyethylene insulated thermoplastic sheathed cables" armoured cables having thermosetting insulation and Flame-Retardant Low smoke (FRLS) properties when affected by fire	We presume all cables armoured shall be provided with Flat strip armoured for Boq S.No-B.3.1, B.3.4, F.3.1, F.3.4, F.7.4. Kindly confirm.	Refer Specification. Tender Condition Prevails.	NO	

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296	Part 2 Section VI C	B.3.5 - Cable Trays & Raceways	Cable tray	We presume that cable tray are without cover. Please confirm.	Refer Specification. Tender Condition Prevails.	NO		
297	Part 2 Section VI C	B.3.5 - Cable Trays & Raceways	Hot dip galvanization thickness	We presume 65 micron for Hot dip galvanization. Kindly confirm.	Refer Specification. Tender Condition Prevails.	NO		
298	Part 2 Section VI C	Part-1, Section – IV B Pricing Schedule	Preliminaries (5% of the summation of total amount executed against Price Centre B to K and payable as per Cl.no.7.2)-5% Stage payment structure for Price Centre B to K items (Supply, Installation, Testing, Commissioning and DLP): S1-Vendor Submittal Approval, Factory Visit & FAT-5% S2-Manufacture, Supply and Delivery to Site-50% S3-Installation-12.5% S4- Equipment/System Testing-10% S5- Integrated Testing & commissioning & handover-10% S6-Operation & Maintenance Manuals, Training of Operation & Maintenance Personnel-5% S7- Assistance for Maintenance till DLP 2.5%	We propose following payment schedule for better cash flow of the project. Preliminaries (5% of the summation of total amount executed against Price Centre B to K and payable as per Cl.no.7.2)- 5% Stage payment structure for Price Centre B to K items (Supply, Installation, Testing, Commissioning and DLP): S1-Vendor Submittal Approval, Factory Visit & FAT- 5% S2-Manufacture, Supply and Delivery to Site-65% S3-Installation-10% S4- Equipment/System Testing-5% S5- Integrated Testing & commissioning & handover-5% S6-Operation & Maintenance Manuals, Training of Operation & Maintenance Personnel-2.5% S7- Assistance for Maintenance till DLP 2.5% Kindly confirm.	Tender Condition Prevails.	NO		
299	Part 2 Section VI C	Chapter 3	3.12 Design Verification and Validation Plan NOT USED	We understand that our scope is limited to Supply, Installation, Testing & Commissioning (SITC) of the works mentioned in the Scope and design verification & validation is not applicable. Kindly confirm.	Refer Addendum - 1	YES	Part 2 Sl. No. 8	
300	Part 2 Section VI C	Boq-B.5 & F.6	B.5 - INDOOR LIGHTING AND FANS	We request to provide the Equivalent catalog reference for all light fittings.	Tender Condition Prevails.	NO		
301	Part 2 Section VI C	Boq-B.4 CONDUIT WIRING	B.4.1.1 - First point controlled by one switchboard / 10A MCB B.4.1.2 - Secondary or looping points wiring as specified above using 3x2.5 copper (P+N+PE) wires (in GI conduit / raceway) for lights, fans, socket outlets.	We presume primary point length of 50 Mtr and secondary point length of 25 Mtr. Kindly confirm.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO		
302	Part 3 Section VII	General Conditions of Contract (GCC) 8.3	The Contractor shall submit a detailed time programme to the Engineer within 28 days after receiving the notice under Sub-Clause 8.1 [Commencement of Works]. The Contractor shall also submit a revised programme whenever the previous programme is inconsistent with actual progress or with the Contractor's obligations.	It is requested that the Programme shall be approved by the Engineer / Employer representative within 14 days of receipt of submission.	Tender Condition Prevails.	NO		
303	Part 3 Section VIII	General Conditions of Contract (GCC) 14.7	the amount certified in each Interim Payment Certificate within 56 days after the Engineer receives the Statement and supporting documents; or, at a time when the Bank's loan or credit (from which part of the payments to the Contractor is being made) is suspended, the amount shown on any statement submitted by the Contractor within 14 days after such statement is submitted, any discrepancy being rectified in the next payment to the Contractor	It is requested to amend the clause as below;  The Engineer shall certify the interim bills within 14 days of receipt of submission along with all necessary documents. And the Employer shall pay the amount certified by the Engineer within 14 days of certification of Bills to the Contractor.	Refer Addendum - 1	Yes	Part 3 Sl. No. 8	
304	Part 3 Section VIII	4.2	The Performance Security will be in the form of a Bank guarantee, from a Public Sector Bank in India or from a Scheduled Commercial Bank or from such foreign bank which has tie up with a PSU bank in India for an amount of 7.5% of the Accepted Contract Amount (excluding GST and Provisional sum) and in the same currency of the Accepted Contract Amount.	It is requested to reduce there Performance Security from 7.5% to 3%. As per Circular from Ministry of Finance dated 12th Nov 2020 it is decided to reduce performance security from existing 5-10% to 3%of the value of contract.	Tender Condition Prevails.	NO		
305	Part 3 Section VIII	14.3 ©	2.5% from each IPC	Request you not to deduct any amount from our running bills/interim payment towards retention money. We shall submit a Retention BG of 2.5% valid till the completion period of work before the submission of first RA bill.	Tender Condition Prevails.	NO		
306	Part 3 Section VIII	14.6	1% of the Accepted Contract Amount	It is requested to not to limit the slab of 1% for Interim Billing. The contractor shall raise the interim bills for the actual work done for the particular Months.	Tender Condition Prevails.	NO		
307	Part 3 Section VIII	8.7	10 % of the Contract Price	It is requested to reduce the delay damages to 5 % of contract price.	Tender Condition Prevails.	NO		



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308	Part 1 Section I	ITB 11.2.1.d	Copy of Power of Attorney (POA) of the bidder in case of 'Single Firm' or the 'Lead Member' in case of the Joint venture.	Form of Power of Attorney (POA) is not given in Tender.	Standard form of Power of Attorney can be followed. Tender condition Prevails	NO		
309	Part 1 Section I	Bidding forms	Physical Submission	Please Confirm What Documents to be submitted in Hard Copy and Number of copies of the same?	Please refer Part 1 Section II, Bid Data Sheet ITB 21.2, ITB 22.1 and ITB 23. Tender Condition Prevails.	NO		
310	Part 1 Section III	EQC 2.3.3	For a Joint venture bidding , it is given that Lead member should meet 40 % of the requirement and other member is shownas N/A. .	Pls clarify in case of a JV with two members , what is the value limit separately for Lead member and for second member in case of 1) One work of value of 100 Cr or above 2) Two works of value of Rs. 63 or above 3 ) Three works of value Rs. 50 cr or above.	Tendor Condition Prevails. (Minimum requirement for lead member is 40%)	NO		
311	Part 1 Section III	EQC	Experience certificate issued byproject client will only be considered. The certificate issued by Main contractor or any other member will not be considered.	We would like to submit our point that as per practise over the last many years , all major high value projects are tendered out as a combined single package for the entire works including , Civil , E & M works , Bms/ Scada , Plumbing etc. Hence all works are executed by a single Main contractor and E & M services are executed by specialist Contractors for the Main contractor as their sub contractor. So Completion certificates for such projects shall be from the Main contractor only. Hence we would request that Bonafide completion certificates for such projects from Main contractors should be accepted for the purpose of pre-qualification.	Tender Condition Prevails.	NO		
312	Part 1 Section IV B	BOQ-FPS	The quoted rate shall includes coupling gaurd, and other stanadard accessories, RCC foundation (as recommended by manufacturere) and foundation bolts, etc.	We uderstand that required foundation detials will be provided, construction of RCC foundation will be part of Civil scope.	Refer Addendum - 1	YES	Part 1 Sl. No. 50, 128	
313	Part 1 Section IV B	BOQ-FPS	Fuel tank with stand & gauge glass, Fuel tank shall be of 4mm thick sheet,Fuel piping with valves. The quoted rate shall includes coupling gaurd, and other stanadard accessories, RCC foundation (as recommended by manufacturere) and foundation bolts, etc. Rate shall also include Exhaust pipe of required length and size to discharge exhaust gases externally, with muffler,	Request you to define the Exhaust pipe length, diameter, pipe class & insualtion specification.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO		
314	Part 2 Section VI D	BOQ-FPS	C.3.10 - Providing and installation of UL listed / FM approved 150 mm dia, Brass, Pressure Relief Valve and Butterfly Valve to be fixed on Pump Delivery Line with by pass connection, pilot controlled, diaphragm type and angle pattern valve. It shall have adjustable setting in range suitable for operating range of the pump. The relief valve outlet shall be led back to the tank.	Request you to specify the arrangement or required butterfly valves need to be considered for the By bass arrangement.	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57	
315	Part 1 Section IV B	BOQ-FPS	C.5.5 - Supply, Installation, Testing and Commissioning of UL listed, SS 304 Flexbile Hose with Inlet and Outlet fitting, with nominal pressure of 16 bar. The inlet fitting shall be 25mm dia size, whereas outlet fitting shall be 15mm dia as per specification with necessary supports.	Please do confirm it is braided or un braided.	Refer Addendum - 1	YES	Part 1 Sl. No. 55	
316	Part 1 Section IV B	BOQ-FPS	C.6.6.2 - Self- contained open circuit type compressed air Breathing apparatus set confirming to EN-137: 2006, standard complete with one spare cylinder	Request you to share the cylinder capacity.	Refer Specification. Tender Condition Prevails.	NO		
317	Part 1 Section IV B	BOQ-VAC	D.8.1 - Supply, installation, testing and commissioning of 2 core / 3 core 1.5 sqmm cross section shielded Signal/Communication cable as recommended by OEM conforming IEC/IS standard, installed in perforated cable tray with GI conduits between indoor and Outdoor units.	Request you to define GI conduit & Cable tray with specific qty and size.	Tender Condition Prevails.	NO		
318	Part 2 Section VI D	BOQ Fire Alarm	Supply, Installation, testing, Commissioinig and development of Lifetime free BMS software meeting requirements given in I/O Summary, System Architecture and Employer requirements.	Request you to share the I/O summary, BMS architecture	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57	
319	Part 1 Section IV B	BOQ-VAC - Depot	H.1.1.1 - Air flow capacity - 4500 LPS (4.5 CMS), Cooling Load Capacity - 58 KW (17 TR), Total Pressure drop -1000 Pascal	Request you to share the VAC Drawings.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO		
320	Part 1 Section IV B	BOQ-VAC - Depot	VRF Outdoor Unit	we understand ODU are selected considering all the temperature and pipe length derations.	Refer Specification. Tender Condition Prevails.	NO		

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S. No	Part / Section No	Clause No	Description / Original Bid Condition	Bidder's Queries	CMRL Response	Addendum Issued (YES/ NO)	Addendum Reference
321	Part 1 Section IV B	BOQ-VAC - Depot	H.1 - Air Handling Units (Double Skin AHU with Plug fan AC Motor As per specifications) with compatible VFD	We understand VFD should be HVAC series with IP 55 protection with harmonics 35 to 40% at 100% load.	Refer to Specification and Employer Drawings Section VI D. Tender Condition Prevails.	NO	
322	Part 2 Section VI A Appendix-6	Tech Spec - VAC	List of makes	Request you to approve Fujitsu General make for VRF system	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO	
323	Part 1 Section IV B	BOQ-Elec	B.4.2.1 - First point controlled by one switchboard / 10A MCB	Pl.Specify the minimum length of point wiring.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
324	Part 1 Section IV B	BOQ-Elec	B.4.2.2 - Secondary or looping points wiring as specified above using 3x2.5 copper (P+N+PE) wires (in GI conduit / raceway) for lights, fans, socket outlets.	Pl.Specify the minimum length of point wiring.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
325	Part 1 Section IV B	BOQ-Elec	B.4.3.1 - One no. 16A socket outlet point controlled by one 16A Switch/MCB.	Pl.Specify the minimum length of point wiring.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
326	Part 1 Section IV B	BOQ-Elec	B.4.3.2 - Secondary or looping 2 Nos. 6A or 1 No. 16A socket outlet points wiring as specified in 4.3 above using 3 x 4 sq. mm copper (P+N+PE) wires.	Pl.Specify the minimum length of point wiring.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
327	Part 1 Section IV B	BOQ-Elec	B.4.4.1 - One no. 16A socket outlet point controlled by one 16A Switch/MCB.	Pl.Specify the minimum length of point wiring.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
328	Part 1 Section IV B	BOQ-Elec	B.4.4.2 - Secondary or looping 2 Nos. 6A or 1 No. 16A socket outlet points wiring as specified in 4.4 above using 3 x 4 sq. mm copper (P+N+PE) wires.	Pl.Specify the minimum length of point wiring.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
329	Part 1 Section IV B	BOQ-Elec	B.4.5.1 - One no. 16A socket outlet point controlled by 16A DP MCB.	Pl.Specify the minimum length of point wiring.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
330	Part 1 Section IV B	BOQ-Elec	B.4.5.2 - Secondary or looping 1 Nos. 16A socket outlet points wiring using 3 x 4 sq. mm copper (P+N+PE) wires	Pl.Specify the minimum length of point wiring.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
331	Part 1 Section IV B	BOQ-Elec	F.4.1.1 - First point controlled by one switchboard / 10A MCB	Pl.Specify the minimum length of point wiring.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
332	Part 1 Section IV B	BOQ-Elec	F.4.1.2 - Secondary or looping points wiring as specified above using 3x2.5 copper (P+N+PE) wires (in GI conduit / raceway) for lights, fans, socket outlets.	Pl.Specify the minimum length of point wiring.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
333	Part 1 Section IV B	BOQ-Elec	F.4.2.1 - First point controlled by one switchboard / 10A MCB	Pl.Specify the minimum length of point wiring.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
334	Part 1 Section IV B	BOQ-Elec	F.4.2.2 - Secondary or looping points wiring as specified above using 3x2.5 copper (P+N+PE) wires (in GI conduit / raceway) for lights, fans, socket outlets.	Pl.Specify the minimum length of point wiring.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
335	Part 1 Section IV B	BOQ-Elec	F.4.3.1 - One no. 16A socket outlet point controlled by one 16A switch.	Pl.Specify the minimum length of point wiring.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
336	Part 1 Section IV B	BOQ-Elec	F.4.3.2 - Secondary or looping 2 Nos. 6A or 1 No. 16A socket outlet points wiring as specified in 4.3 above using 3 x 4 sq. mm copper (P+N+PE) wires.	Pl.Specify the minimum length of point wiring.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
337	Part 1 Section IV B	BOQ-Elec	F.4.4.1 - One no. 16A socket outlet point controlled by one 16A switch.	Pl.Specify the minimum length of point wiring.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
338	Part 1 Section IV B	BOQ-Elec	F.4.4.2 - Secondary or looping 2 Nos. 6A or 1 No. 16A socket outlet points wiring as specified in 4.4 above using 3 x 4 sq. mm copper (P+N+PE) wires.	Pl.Specify the minimum length of point wiring.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
339	Part 1 Section IV B	BOQ-Elec	F.4.5.1 - One no. 16A socket outlet point controlled by 16A DP MCB.	Pl.Specify the minimum length of point wiring.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
340	Part 1 Section IV B	BOQ-Elec	F.4.5.2 - Secondary or looping 1 Nos. 16A socket outlet points wiring using 3 x 4 sq. mm copper (P+N+PE) wires	Pl.Specify the minimum length of point wiring.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	

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341	Part 1 Section IV B	BOQ-Elec	F.4.6 - Supply, laying & Termination of wiring (in GI conduit / raceway) for the following 3 phase 32 amp Industrial socket outlet point with 6 x 6 sq. mm, 1100 Volt grade as per IS-694 FRLSH copper conductor wires. (excluding the cost of Conduit, switches, sockets & switch boxes)	Pl.Specify the minimum length of each point.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO	
342	Part 1 Section IV B	BOQ-FA	E.1.1 .F.Amplifier Card	Amplifier Card Wattage Details Speaker Quantity required	Refer Addendum - 1	YES	Part 1 Sl. No. 62
343	Part 1 Section IV B	BOQ-FA	E1.2 -Graphical Interface software	Workstation /PC details are not mentioned.	Refer Specification. Tender Condition Prevails.	NO	
344	Part 2 Section VI C	BOQ-FA	E.4.1 - Commercial grade workstation CPU	Specification are not mentioned.	Refer Addendum - 1	YES	Part 2 Sl. No. 56
345	Part 2 Section VI A Appendix-6	BOQ-FA	E.7 - BMS Software	Pls Approve Distech Controls	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO	
346	Part 2 Section VI A Appendix-6	BOQ-FA	E.9-Wind Velocity Sensor	Makes not Available	Refer Addendum - 1	YES	Part 2 Sl. No. 6
347	Part 2 Section VI A Appendix-6	BOQ-FA	E.13 -Aspiration type Smoke Detection	Makes not Available	Refer Addendum - 1	YES	Part 2 Sl. No. 6
348	Part 2 Section VI C	BOQ-FA	E.13.4 -Off-gas sensors to sense lithium-ion battery	Specification Details and Makes are required	Refer Addendum - 1	YES	Part 2 Sl. No. 40
349	Part 2 Section VI D	Employer Drawings	Input/Output Interfcae	Pls share IO Summary	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57
350	Part 2 Section VI C	SCADA	Part 2 : Pg.No:1470.5.18.The contractor shall ensure that DDC to Main Switching network shall be through MODBUS TCP/IP Communication.	DDC Controllers are BACNet IP as per ASHRAE Standard.Pls confirm BACNet IP .	Refer Specification. Tender Condition Prevails.	NO	
351	Part 2 Section VI C	SCADA	Part 2 : Pg.No:1475.5.18.2.8 BMS Software should support ANSI/ISA-18.2 compliant alarm management.	It wnt applicable for BMS Alarm ,ANSI/ISA-18.2, Management of Alarm Systems for the Process Industries	Refer Specification. Tender Condition Prevails.	NO	
352	Part 1 Section IV B	BOQ-Depot FA	c ,Software & Graphics.	Software & Graphics are to be included in this line item with Workstation Pls clarify	Refer Addendum - 1	YES	Part 1 Sl. No. 144
353	Part 1 Section IV B	BOQ-Depot FA	I.1 .F.Amplifier Card	Amplifier Card Wattage Details Speaker Quantity required	Refer Addendum - 1	YES	Part 1 Sl. No. 144
354	Part 1 Section IV B	BOQ-Depot FA	OFC Single Mode 4 Core cable	Required Switches with rack line item are not available	Refer Specification. Tender Condition Prevails.	NO	
355	Part 3 Section VII	GCC- CI 8.6	Rate of Progress	The last sentence of the proposed addition, as extracted below to be deleted: "without generating, however, any other additional payment benefit to the Contractor"	Tender Condition Prevails.	NO	
356	Part 3 Section VIII	S.No: 15/CI- 6.5/ Contract Data	Round the clock, but subject to permission from the Relevant Authorities. Obtaining permission from the Relevant Authorities and planning the Works to complete within the Time of Completion shall be the Contractor's responsibility.	Employer may provide crucial documents which are needed for approvals. In such a case it is necessary to include the aspect of Employer to provide necessary assistance in obtaining such approvals as provided under CI- 2.2 of GCC.	Tender Condition Prevails.	NO	
357	Part 3 Section VIII	S.No: 32/CL- 20.2(iii)/ Contract Data	Each DB member shall be paid a retainer fees of INR 20,000/- per month. In addition to the retainer fees a sum of INR 20,000/- shall be paid per sitting / site visit. Apart from the above, if the member is from outstation return economy class airfare, 3 star hotel accommodation and a daily local conveyance allowance up to INR 3000/- shall be reimbursed per sitting/site visit against submission of original bills/vouchers.	Under the CI- 20.2(vi) of GCC, the DB members are empowered to consult experts and the same to be paid by the parties. Thus it is necessary to Elucidate the Renumeration of any expert whom the DB consults as stated in CI- 20.2(vi) of GCC	Tender Condition Prevails.	NO	
358	Part 3 Section VIII	PCC CL.No 7/CL- 1.1.3.15/ PC	Add a new Sub-Clause 1.1.3.15: "Factory Tests" means the tests required to be carried out in the factory premises on components, equipment, subsystem, system, etc. during and/or after manufacture in the factory	The CI- 1.1.3 (Dates, Tests, Periods and Completion) ends with CI- 1.1.3.9 after which CI- 1.1.3.10, 1.1.3.11 and 1.1.3.12 are inserted as per PCC CL.no- 4, 5 and 6 respectively , But the clauses 1.1.3.15 and 1.1.3.16 are inserted via this Condition by skipping CI- 1.1.3.13 and 1.1.3.14. Please clarify.	Refer Addendum - 1	YES	Part 3 Sl. No. 1, 2

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S. No	Part / Section No	Clause No	Description / Original Bid Condition	Bidder's Queries	CMRL Response	Addendum Issued (YES/ NO)	Addendum Reference	
359	Part 3 Section VIII	PCC CL.No 47/CI-8.2/PC	Add the following sub-clauses to the end of Sub-Clause 8.2 ; 8.2.1 Access for Others by Key Dates c) In the event the Contractor fails to provide access, occupation or handover in accordance with the Contract to an Interfacing Contractor for any part of the Works which is subject to a Key Date by the Key Date, the Contractor shall pay to the Employer the sum of money stated in Delay Damages as per clause 8.7 of GC and Part A - Contract Data of PART-3 Section VIII - Particular Conditions for every day which elapses between the Key Date and the date on which access, occupation or handover can be granted to an Interfacing Contractor in accordance with the requirements of the Contract.	The following has to be added at the end after the term contract, "Delay damages shall not be levied if the failure is not attributable to the Contractor"	Please read this clause with 8.2.1 (g) and (h). Tender Condition Prevails.	NO		
360	Part 3 Section VIII	PCC CL.No 49/CI-8.4/PC	Add the following to the end of Sub-Clause 8.4: However, the Contractor shall not be entitled to any extension of time where the instructions or acts of the Employer or the Engineer are necessitated by or intended to cure any default of or breach of Contract by the Contractor or where any delay is due to: a. the failure of sub-contractor, to commence or to carry out work in due time, b. inclement weather conditions, other than 1 in 50 year cycle and c. the Contractor not fulfilling his obligations under Sub-Clause 4.6.	This clause denies EOT for the sub clause thereunder. Where the Sub-Clause a & b are not attributable to contractor hence it is necessary to amend Sub Clause (a) such that to enable contractor to be eligible for EOT, provided the Contractor has taken necessary actions for carrying out the work by Sub-Contractor and when the Sub-contractor even after such actions fails to execute the work. To amend Sub Clause (b) such that by deleting "other than 1 in 50 year cycle"	Tender Condition Prevails.	NO		
361	Part 3 Section VIII	PCC CL.No 50/CI-8.7/PC	Add the following to the end of Sub- Clause 8.7:	Interfacing contractor's may have impact on our project work and site as they are to be given access every time including heavy vehicle (PCC CL 47). Such that it is necessary to amend and include that Delay damages shall not be collected from the contractor for delay effected by or attributable to Interfacing contractor's works.	Tender Condition Prevails.	NO		
362	Part 3 Section VIII	PCC CL.No 57/CI-13.7/PC	13.7 Adjustment for Changes in Legislation, Replace Sub-Clause 13.7 of GCC with the following:	To also include, Employer to compensate the Contractor for cost incurred due to any hike in duties, taxes, Cess, charges, fees, royalties and other levies vastly varies from the time of quoting tender, which is not attributable to contractor.	Tender Condition Prevails.	NO		
363	Part 3 Section VIII	PCC CL.No 64/CI-16.2/PC	Add the following to the end of Sub-Clause 16.2: In cases where the Employer has issued a notice under GCC Sub-Clause 15.1 to correct, the Contractor cannot invoke GCC Sub-Clause 16.2 without compliances to such notice. However, he may initiate a notice under GCC Sub-Clause 16.1 and thereafter only he can take steps under GCC Sub-Clause 16.2.	Bidder seeks deletion of the proposed addition as it restrains legitimate remedy of the Contractor.	Tender Condition Prevails.	NO		
364	Part 1 Section II	ITB 21.1/ BDS	The amount and currency of the Bid Security shall be INR 1,26,00,000 (Indian Rupees, One Crore and Twenty Six Lakhs Only) or USD 168,000 (US Dollars One Hundred and Sixty Eight Thousand Only)	As per the office memorandum dated 12.11.2020 issued by Ministry of Finance, Bidder requests replacement of bid security/EMD with Bid Security Declaration.	Tender Condition Prevails.	NO		
365	Part 3 Section VIII	S.No. 14/CI 4.2/Contract Data	The Performance Security will be in the form of a Bank guarantee, from a Public Sector Bank in India or from a Scheduled Commercial Bank or from such foreign bank which has tie up with a PSU bank in India for an amount of 7.5% of the Accepted Contract Amount (excluding GST and Provisional sum) and in the same currency of the Accepted Contract Amount.	As per the office memorandum dated 12.11.2020 issued by Ministry of Finance, Bidder requests to reduce the value of PBG to 3% of the Accepted Contract Amount.	Tender Condition Prevails.	NO		
366	Part 2 Section VI D	POWER HOUSE STATION SINGLE LINE DIAGRAM SHEET 01 OF 02 DDC-P2C4-05-MEP-DR-SPH-63004-01	Drawing shows Electrical and Mechanical interlock between Circuit breakers in MDBs in both ASSs	Electrical and Mechanical Interlock may not be possible between two breakers in different locations. Please clarify.	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57	

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S. No	Part / Section No	Clause No	Description / Original Bid Condition	Bidder's Queries	CMRL Response	Addendum Issued (YES/ NO)	Addendum Reference
367	Part 2 Section VI D	POWER HOUSE STATION SINGLE LINE DIAGRAM SHEET 01 OF 02 DDC-P2C4-05-MEP-DR-SPH-63004-02		Drawing shows Summation CT (MDB-01) connection to UPS Panel (S) feeder. Please confirm that can we consider this connection to Hybrid Filter Panel-01 feeder.	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57
368	Part 1 Section IV B	BOQ 2 Sl.No 624	1 nos. 45kW, Soft starter comprising 3 Nos. TPN contactor AC-3 duty Auto/Manual switch, Start Stop push button, bimetallic over current relays single phasing preventer, Hour meter, ELR and timer & with potential free contacts for remote monitoring and control Necessary control wiring from pressure switch and tank to panel.	Please clarify the requirement of 3 No TPN contactor for 45 kW soft starter	Refer Addendum - 1	YES	Part 1 Sl. No. 25, 26
369	Part 2 Section VI D	BOQ 2 Sl. No 109, Sl.No 197, Sl. No 286, Sl. No 392		For Solar Panel Feeder Bi Directional Kwh is mentioned in BoQ. But in SLD, Bidirectional MFM is mentioned. Please clarify.	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57
370	Part 2 Section VI C	Technical Specification Electrical Works Clause No 1.2.13.4	THE HPFC panel shall comprise: a) Incomer A suitably sized (as indicated in BOQ) three pole MCCB or ACB having microprocessor based over-current and short-circuit protection and at least 50kA breaking capacity (100% lcs) as the incomer of the panel.	As per SLD, short circuit rating for the feeder for HPFC panel in MDB is 36 kA. But in technical specification for HPFC panel, Short circuit breaking capacity is mentioned as 50 kA. Considering tripping coordination, the short circuit rating may be corrected.	Refer Addendum - 1	YES	Part 1 Sl. No 84
371	Part 2 Section VI C	Technical Specification Electrical Works Clause No 1.7.9.4.4 (Lighting Control System)	The system shall allow unlimited switching configurations. Any number of switches shall be able to program for 33%,66% and 100%loading (i.e. multi-way switching) and all switches shall indicate the load status.	As per Sl.No 817.00 in BOQ2, 25%, 50%, 75% and 100% switching is mentioned. Kindly clarify.  Request to share the schematic diagram for Lighting Control system for understanding the control scheme.	Refer Addendum - 1	YES	Part 2 Sl. No. 26
372	Part 2 Section VI C	Technical Specification Electrical Works Clause No 1.3.9 (Distribution Boards)	20% Spare MCB's shall be provided as per SLD on the basis of one per four ways or part thereof for every distribution board ensuring that spares are provided in numbers and ratings proportional to the numbers and ratings in the installation.	Only as per BOQ, we will provide qty of MCBs irrespective of SLD.	Tender Condition Prevails.	NO	
373	Part 1 Section IV B	BOQ 2 Sl. No 938.00		The standard for Cable is mentioned as IS 7098. Insulation for the cable is mentioned as PVC. Please confirm whether cable to be manufactured with XLPE insulation or PVC insulation.	Refer Addendum - 1	YES	Part 1 Sl. No. 36
374	Part 1 Section IV B	BOQ 2 S.No 999.00	B6.3 - Supply, laying, termination, Testing and commissioning of PVC insulated, FRLSH, Copper Cables for Earthing in green colour, as per IS 7098 and Specifications, for interconnecting the earth station with METs of the following sizes in trenches/surface/wall/ground complete with accessories as per specifications & drawing as required.	The standard for Cable is mentioned as IS 7098. Insulation for the cable is mentioned as PVC. Please confirm whether cable to be manufactured with XLPE insulation or PVC insulation.	Refer Addendum - 1	YES	Part 1 Sl. No. 36
375	Part 1 Section IV B	BOQ 6 S.No 1055.00	F.7.4 - Supply, laying, termination, Testing and commissioning of PVC insulated, FRLSH, Copper Cables for Earthing in green colour, as per IS 7098 and Specifications, for interconnecting the earth station with METs of the following sizes in trenches/surface/wall/ground complete with accessories as per specifications & drawing as required.	The standard for Cable is mentioned as IS 7098. Insulation for the cable is mentioned as PVC. Please confirm whether cable to be manufactured with XLPE insulation or PVC insulation.	Refer Addendum - 1	YES	Part 1 Sl. No. 113
376	Part 2 Section VI C	Technical Specification Electrical Works Clause No 1.12.3.11	This output power factor shall be 0.99. Battery sizing calculations shall assume an ambient temperature of up to 40°C. OEM / contractor shall submit the relevant battery sizing calculation report with proven software / design calculations for approval.	Our understanding is that power factor of 0.99 shall be considered for battery sizing calculation. Please confirm	Tender Condition Prevails.	NO	
377	Part 1 Section IV B	BOQ Excel		In the BOQ excel file, there are 13 excel sheets are available including summary sheet. But the sheet named BOQ12 is not linked with summary sheet. Please confirm whether we need enter price for respective items in that sheet.	Refer Addendum - 1	YES	Part 1 Sl. No. 145

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S. No	Part / Section No	Clause No	Description / Original Bid Condition	Bidder's Queries	CMRL Response	Addendum Issued (YES/ NO)	Addendum Reference	
378	Part 2 Section VI C	DG specification Clause No 1.14.25 Isolator Panel and Circuit Breakers	1.14.25.1 The Contractor will provide Air Circuit Breaker on the Generator Power Panel, which shall be electrically operated. Generator circuit breaker should be only closed when the respective generator set output reaches rated values to operate on load.	Isolator panel is not shown in the single line diagram. Please confirm whether isolator panel to be considered in addition to AMF panel	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO		
379	Part 1 Section IV B	BOQ 6 S.no 1155.00 and S.no 1186.00		DG controller is provided in both DG BOQ Item No F.11.1 and AMF panel BOQ Item No F.11.2. Please clarify	Tender Condition Prevails.	NO		
380	Part 1 Section IV B	BOQ 6 S.no 1217.00	F.11.5 - Supply, Installation/erection, testing and commissioning of Residential/Critical/Hospital grade Silencer as per latest CPCB approval including baffle plates as per manufacturer's standard design. Number of silencers will be as per the Tender specifications pertaining to the Noise level and the price will be inclusive of all the silencers required for one DG set.	Quantity is not mentioned for this BOQ item 7.11.5. Please clarify	Refer Addendum - 1	YES	Part 1 Sl. No. 125	
381	Part 2 Section VI D	BOQ 6 S.no 1218.00	Supply & Installation for DG set, Cu. armoured power FRLSH cable from generator to AMF panel including with Suitable Cu. lugs & glands end terminations.	Since DG & AMF panel layout not available in the tender drawing, we are unable to quantify the Cable length requirement. Considering cost of the copper cable, we request you to provide the separate BOQ item for the same	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57	
382	Part 2 Section VI C	1.5.3.2.1	Hot dipped galvanized cable trays and supports used within damp environment shall be protected with an approved coating. All cable tray sizes 450mm and above shall be of heavy-duty type with return flange. All cable tray below 450mm shall be with standard configuration.	In clause 1.5.3.2.2 it is mentioned that "All cable tray sizes upto 300mm shall be of standard configuration and 300 mm & above shall be of heavy-duty type with return flange". There is discrepancy between clause 1.5.3.2.1 & 1.5.3.2.2. Please clarify. The relevant BOQ items also, may be described accordingly.	Refer Addendum - 1	YES	Part 2 Sl. No. 24	
383	Part 1 Section IV B	BOQ-02, S.no 21.00 BOQ-06, S.no 21.00	The switchboard shall have min 20% spare space and 20% spares breaker or as shown in SLD whichever is higher for future expansion and as per Technical Specifications.	Request to clearly define the requirement spare and space requirement, since there will be huge cost impact for providing spare and space requirement.	Tender Condition Prevails.	NO		
384	Part 1 Section IV B	Electrical BOQ	LV Switch Gear- BOQ:  SCADA monitoring and control capability	In BOQ it mentioned the outgoing MCCBs in panels shall have SCADA monitoring and control capability. Please clarify, whether MCCB shall be of motorised type.	Refer to Employer Drawings Section VI D. Tender Condition Prevails.	NO		
385	Part 2 Section VI D	BOQ-03, S.no 219.00 BOQ-07, S.no 217.00	Item No G.7.6.4 (Station)& G 7.5.4 (Depot): Seamless (Carbon Steel) Piping for Fire suppression Cylinder with all fittings like, manifolds, flanges, bends, tees, elbows, reducers, GI clamps, GI hangers etc. with painting	BOQ for Room flooding system has been given as Design, Supply, Installation and commissioning. Quantities have been given for some items. But quantities not given for Seamless piping. Please provide the quantities for the same or provide the complete dimensions for the Rooms to be protected so that Bidder can estimate the pipe costing.	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57	
386	Part 1 Section IV B	BOQ-03, S.no 208.00 BOQ-07, S.no 196.00	Design, Supply, Installation & Commissioning of Novec 1230 Fire Suppression System Automatic Clean Agent Novec 1230 (UL/VDs/FM approved - Fire Detection & Suppression System, Consisting of the following Rooms as per Specification and drawings.	Please clarify, if any quantities are changed for room flooding system as per final design whether payment will be done for revised quantities.	Tender Condition Prevails.	NO		
387	Part 2 Section VI D	BOQ-03, S.no 208.00 BOQ-07, S.no 196.00	Design, Supply, Installation & commissioning of Novec 1230 Fire Suppression System Automatic Clean Agent Novec 1230 (UL/VDs/FM approved - Fire Detection & Suppression System, Consisting of the following Rooms as per Specification and drawings.	The System Pressure not mentioned in tender BOQ/Specification, Please confirm whether we can propose 25bar Novec UL system or 70bar Novec UL system.	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57	
388	Part 2 Section VI D	Drawing DDC-P2C4-05-MEP-DR-DEP-62002-01 DDC-P2C4-05-MEP-DR-DEP-62003-01 DDC-P2C4-05-MEP-DR-DEP-62003-02 DDC-P2C4-05-MEP-DR-DEP-62003-03	POONAMALLEE DEPOT FIRE PROTECTION SYSTEM SCHEMATIC DIAGRAM, SHEET 2 OF 3 & SHEET 3 OF 3	In drawing DDC-P2C4-05-MEP-DR-DEP-62002-01 POONAMALLEE DEPOT FIRE PROTECTION SYSTEM GENERAL NOTES & LEGENDS, in Pumps general notes, Sl no. 2. Pump Schedule, the Head (M) for main duty pumps & jockey pumps is mentioned as 135, whereas in drawings DDC-P2C4-05-MEP-DR-DEP-62003-01, DDC-P2C4-05-MEP-DR-DEP-62003-02, DDC-P2C4-05-MEP-DR-DEP-62003-03 in equipment schedule the head (M) for main duty pumps & jockey pumps is mentioned as 105. Please clarify on the head of main duty pumps & jockey pumps	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57	

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S. No	Part / Section No	Clause No	Description / Original Bid Condition	Bidder's Queries	CMRL Response	Addendum Issued (YES/ NO)	Addendum Reference
389	Part 2 Section VI D	BOQ 3 SL. No 144.00 DDC-P2C4-05-MEP-DR-C4E-62011-01	TYPICAL EQUIPMENT FIXING DETAILS PIPE SUPPORT AND CLAMPING DETAILS FOR FIRE PROTECTION SYSTEM SHEET 01 OF 02	As per BOQ, MOC of Fire Hose is mentioned as SS 316 grade whereas in Drawing DDC-P2C4-05-MEP-DR-C4E-62011-01 MOC is mentioned as SS 304. Please clarify	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57
390	Part 2 Section VI D	BOQ 7 SL. No 132.00 DDC-P2C4-05-MEP-DR-C4D-62001-01	POONAMALLEE DEPOT FIRE PROTECTION SYSTEM TYPICAL EQUIPMENT FIXING, PIPE SUPPORT AND CLAMPING DETAILS, SHEET 1 OF 2	As per BOQ, MOC of Fire Hose Cabinet is mentioned as 14 SWG GI Sheet with 5 mm thick glass. But as per drawing DDC-P2C4-05-MEP-DR-C4D-62001-01 MOC of Fire hose cabinet is mentioned as 1.25 MM thick SS 304 sheet with 3 mm thick glass. Please clarify	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57
391	Part 1 Section IV B	BOQ 8 SL. No. 12 Drawing DDC-P2C4-05-VAC-DEP-69350-01	POONAMALLE DEPOT WORKSHOP AND MAINTENANCE SHED VAC SYSTEM VRF/VRV PIPING SCHEMATIC	As per BOQ, the quantities & capacities of VEF outdoor units do not match. Please clarify on the quantities & capacities of the VRF outdoor units.	Refer Addendum - 1	YES	Part 1 Sl. No. 135, 136
392	Part 3 Section VIII	Particular Conditions of Contract Part-B Specific Provisions Clause: 12 Priority of Documents	Replace Sub-Clause 1.5 with the following: The documents forming the Contract are to be taken as mutually explanatory of one another. For the purposes of interpretation, the priority of the documents shall be in accordance with the following sequence: (a) the Contract Agreement, (b) the Letter of Acceptance (LoA), (c) Letter of Technical Bid and Letter of Price Bid (d) Addendum/Corrigendum to Tender (e) the Particular Conditions – Part A (Contract Data) (f) the Particular Conditions – Part B (Specific Provisions) (g) FIDIC Conditions of Contract for construction for Building and Engineering works designed by the Employer, 2010(GCC) (h) Employer's Requirements – Technical Specifications (i) Employer's Requirements – General Specifications (j) Employers Drawings (k) Pricing Document & Financial Bid (l) Instruction to Bidders (ITB), Bidding Procedure (m) Contractor Technical Proposal (n) Any other documents forming part of the Contract. If an ambiguity or discrepancy is found in the documents, the Engineer shall issue any necessary clarification or instruction.	Please include Prebid replies in the priority of the documents	Tender Condition Prevails.	NO	
393	Part 3 Section VII	General Conditions of Contract Clause: 1.9 Delayed Drawings or Instructions	The Contractor shall give notice to the Engineer whenever the Works are likely to be delayed or disrupted if any necessary drawing or instruction is not issued to the Contractor within a particular time, which shall be reasonable. The notice shall include details of the necessary drawing or instruction, details of why and by when it should be issued, and the nature and amount of the delay or disruption likely to be suffered if it is late. If the Contractor suffers delay and/or incurs Cost as a result of a failure of the Engineer to issue the notified drawing or instruction within a time which is reasonable and is specified in the notice with supporting details, the Contractor shall give a further notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to: (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and (b) payment of any such Cost plus profit, which shall be included in the Contract Price. After receiving this further notice, the Engineer shall proceed in accordance with Sub- Clause 3.5 [Determinations] to agree or determine these matters. However, if and to the extent that the Engineer's failure was caused by any error or delay by the Contractor, including an error in, or delay in the submission of, any of the Contractor's Documents, the Contractor shall not be entitled to such extension of time, Cost or profit.	Please provide the timelines for issuing drawings	Tender Condition Prevails.	NO	

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S. No	Part / Section No	Clause No	Description / Original Bid Condition	Bidder's Queries	CMRL Response	Addendum Issued (YES/ NO)	Addendum Reference	
394	Part 3 Section VIII	Particular Conditions of Contract Part-B Specific Provisions Clause: 17	Delete the following second paragraph of GC 1.13 "However, the Contractor shall submit, in good time, the details of Goods to the Employer, who shall then promptly obtain all import permits or licenses required for these Goods" and replace with "The Contractor shall be solely responsible for all the statutory clearances including customs, excise, taxes, levies, octroi, transportation, all import permits, licenses, technical clearances by the Government, safety audits, etc. required for the successful execution of this Contract. The Employer shall provide the reasonable assistance to the Contractor."	Status of Permits/ Clearances to be obtained by the Employer and also get the clarity regarding the approvals/ clearances to be obtained by the contractor and consider in schedule	Tender Condition Prevails.	NO		
395	Part 3 Section VIII	Particular Conditions of Contract Part-B Specific Provisions Clause: 34 Technical standards and regulations	5.4 Technical standards and regulations Add the following at the end of 1st paragraph: The Design and construction standards to be adopted by the contractor shall be in conformity with the Requirements of "Metro Railway Act for opening of Metro Railway for Public carriageway of Passengers, Rules" (along with amendments), "Metro Railway General rules, 2020" (along with amendments), "Rules for opening of a Railway or a section of a Railway for Public Carriage of Passengers" and "Rules for introduction of New type of Rolling stock" and to the satisfaction of the commissioner of Metro Railway Safety whose sanction is mandatory for commissioning of the system. Sanction of the Commissioner of Metro Railway Safety and other Statutory Authorities will be required for introduction of the systems. The contractor shall in this regard carry out all statutory tests and trials necessary for obtaining sanction of the Competent Authority for opening the system for public carriage of passengers and provide assistance and information as required by the appropriate statutory authorities in India. The contractor under the supervision of the Engineer shall also carry out all tests and trial runs and prepare reports and documents required for obtaining all approvals and sanctions of the Commissioner of Metro Railway Safety (CMRS) and any other statutory Authority.	There is no GCC Clause 5.4 Technical standards and regulations which is referred in PCC and it is mentioned that PCC clause it is an addition to GCC clause. Please clarify	Refer Addendum - 1	YES	Part 3 Sl. No. 4, 5, 6	
396	Part 3 Section VIII	Particular Conditions of Contract Part-B Specific Provisions Clause: 47 Time for Completion	8.2 Completion Add the following sub-clauses to the end of Sub-Clause 8.2 ; 8.2.1 Access for Others by Key Dates	Request to provide a compensation provision in case of any damage by the Interfacing contractors / add clause regarding the consequences in case the Interface contractor damages the work done by the contractor after handing over to them.	Tender Condition Prevails.	NO		
397	Part 3 Section VIII	Clause: 49 Extension of Time for Completion	8.4 of Time for Completion 8.4.1 Extension of time for completion for other reasons Any extension to a Key Date shall not by itself entitle the Contractor to an extension to any other Key Date and the Time for Completion. A delay analysis with all facts are to be submitted along with any EOT claim.8	Request to delete the "8" at the end of para.	Refer Addendum - 1	YES	Part 3 Sl. No. 7	
398	Part 3 Section VIII	Clause: 49 Extension of Time for Completion	8.4 of Time for Completion Add the following to the end of Sub-Clause 8.4:	Request to delete the PCC provision and maintain the FIDIC.	Tender Condition Prevails.	NO		
399	Part 3 Section VIII	Part 3 Section VIII	8.7 Delay Damages 8.7.5 Every stage of construction is subject to Key Dates and therefore the application of Delay Damages on delay. The total amount of Delay Damages payable by the Contractor in respect of the delay to the whole of the Works or for failing to achieve any Key Date, shall be limited to the appropriate sums stated in Appendix 3 of Part2 .	Request to add clause for the release of the LD levied if the Contractor achieves the subsequent key date in time.	Refer Clause 8.7.6. Tender Condition Prevails.	NO		
400	Part 3 Section VIII	Cl: 51 Consequences of Suspension	8.9 Consequences of Suspension	Request to consider a clause to compensate at actuals in case of suspension due to the reasons not attributable to Contractor.	Tender Condition Prevails.	NO		



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S. No	Part / Section No	Clause No	Description / Original Bid Condition	Bidder's Queries	CMRL Response	Addendum Issued (YES/ NO)	Addendum Reference
401	Part 3 Section VIII	Clause: 14.1 Contract Price	The following sentence under Clause 14.1 shall not apply: "Notwithstanding the provisions of subparagraph (b), Contractor's Equipment, including essential spare parts therefor, imported by the Contractor for the sole purpose of executing the Contract shall be exempt from the payment of import duties and taxes upon importation."	Request for Exemption of Import duties and taxes.	Tender Condition Prevails.	NO	
402	Part 3 Section VIII	Clause: 63 Retention Money	Replace Clause 14.9 with the following: Retention money shall be deducted at the rate of 2.5% on each Interim payment certificates (IPCs) in respective currencies and up to the cumulative value equal to 2.5% of the Contract Price (excluding Provisional sum and GST). Upon the request of the Contractor, the Employer after issuance of Taking-Over certificate of every stage may release proportionate share of the withheld retention money specific to that stage, on submission of Bank Guarantee for an equivalent amount in respective currencies from a Public sector bank (PSB) in India or a Scheduled Commercial Bank or from a foreign bank having branch which has tie up with a PSU bank in India, in the format annexed to the Particular Conditions. Upon completion of Defect Notification Period of last stage commissioning, the Retention money amount or the Retention money Bank Guarantees shall be certified by the Engineer for releasing to the Contractor.	If it is completely replaced kindly clarify on the return of retention money and requesting to accept the BG against the retention money in tranches of 50 lakhs.	Tender Condition Prevails.	NO	
403	Part 3 Section VIII	Clause: 64 Termination by Contractor	Add the following to the end of Sub-Clause 16.2: In cases where the Employer has issued a notice under GCC Sub-Clause 15.1 to correct, the Contractor cannot invoke GCC Sub-Clause 16.2 without compliances to such notice. However, he may initiate a notice under GCC Sub-Clause 16.1 and thereafter only he can take steps under GCC Sub-Clause 16.2.	Please define the words "substantially", "materially" and "economic balance" of Contract in 16.2 (d). Please Compensate the actual time and Cost suffered by the contractor due to suspension and termination for the reasons not attributable to the contractor.	Tender Condition Prevails.	NO	
404	Part 3 Section VIII	Clause: 74 Expiry of Dispute Boards Appointment	Delete Sub-Clause 20.8 of GCC in its entirety and replace with the following Sub-Clauses. If a dispute arises between the Parties in connection with, or arising out of, the Contract or the execution of the Works and there is no DB in place, whether by reason of the expiry of the DB's appointment or otherwise: (a) Sub-Clause 20.4 [Obtaining Dispute Board's Decision] shall not apply, and the dispute may be referred directly to Conciliation under Sub-Clause 20.5 Conciliation	Please provide detailed test plan for Integrated testing and commissioning plan. Please clarify on the permission for getting the BG's from Foreign banks as Indian banks are under severe NPA's and tightening of Exposure framework, Single Borrower limit & Group Borrower limits. Please provide provisions for reduction of PBG on prorata basis w.r.t Contract Price in case of any descoping of works.	Tender Condition Prevails.	NO	

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S. No	Part / Section No	Clause No	Description / Original Bid Condition	Bidder's Queries	CMRL Response	Addendum Issued (YES/ NO)	Addendum Reference
405	Part 1 Section IV B	BOQ-2 B4- Conduit Wiring		In BOQ Sl.No 938.00, it mentioned that "Conduit & wire laid from MCB in DB to first light point via switch point shall not be paid separately and is included in the rate in item no.B.4.1 & B.4.2."  Since B.4.1 and B.4.2 items are only shown as subheading for the wiring items, please clarify how conduits and wiring can be included in these items. Further in these items, it mentioned that "(excluding the cost of Conduit, switches, sockets & switch boxes)"  Since there is separate BOQ item for conduits, request to consider conduit from MCB in DB to first point in items B.4.6 /B.4.7/B.4.8  This query is applicable for depot BOQ. kindly clarify.	Tender Condition Prevails.	NO	
406	Part 2 Section VI C	BOQ-2 Item No 8.3.3 BOQ-6 Item No F.3.3	Supply, Installation and Terminations conforming to specifications for XLPE insulated,FRLSH (as specified in Schedule B.3.1) and Fire Survival (as specified in Schedule B.3.2) armoured cables of sizes given below including the cost of supplying, fixing and crimping Al/Cu lugs, double compression Flame proof brass glands, shrouds, insulation tape etc. This also includes making holes in gland plate complete as per specifications and as required.	In BOQ "Al/Cu" lugs have been mentioned. But in specification clause 1.4.18.2, Copper is mentioned. Please clarify which lugs to be used for termination.	Refer Addendum - 1	YES	Part 1 Sl. No. 28, 88 and Part 2 Sl. No. 22
407	Part 2 Section VI C	SANDWICH TYPE FIRE RESISTANT LT BUSDUCT Clause no1.13.4.8	Type Test Certificate: Copies of the test certificates for same rating shall be submitted by successful tenderer at the time obtaining of vendor approval. This shall not be more than 5 years old.	As per latest CEA Guidelines for validity period of type tests conducted for LV & MV switchgear is 10 years. Hence we request you to amend the validity of Type tested or design verification certificate to 10 Years.	Tender Condition Prevails.	NO	
408	Part 2 Section VI C	SANDWICH TYPE FIRE RESISTANT LT BUSDUCT Clause no1.13.4.5	Name Plate: Material of the name plate shall be Aluminium, 3mm thick or approved equivalent. Letters shall be white on black background or as approved.	One of the vendors offers Name plates in the form of Polyester Stickers with letters in black on silver / white background. Please accept.	Tender Condition Prevails.	NO	
409	Part 2 Section VI C	LOW VOLTAGE MAIN DISTRIBUTION BOARDS Clause no 1.2.3.1	Type tested or design verification certificate validity for fully assembled LV switch boards shall be within last 5 years as per required rating.	As per latest CEA Guidelines for validity period of type tests conducted for LV & MV switchgear is 10 years. Hence we request you to amend the validity of Type tested or design verification certificate to 10 Years.	Tender Condition Prevails.	NO	
410	Part 2 Section VI C	LOW VOLTAGE MAIN DISTRIBUTION BOARDS Clause no 1.2.3.6	The cubicle section shall be constructed of angle iron type frames / Galvanized Iron frame with Multi fold (min 6fold) structure and bolted/modular construction with all necessary removable covers.	L&T E&A Ti panels are provided with Load bearing & Non load bearing members of 2mm only. L&T E&A Ti Structural members are made from specially designed closed profile Roll formed channel which are tested for Strength of material and parts as per Clause 10.2 as per IEC 61439. Better strength than open profile channels. Uniform profile used for all structural members. Reduced inventories due to uniform profiles. Ti panels are Verified for higher impact resistant (IK 10) as per IEC 62262. Ti panels are tested with Stringent Seismic Zone V.  Since L&T Ti panels are in approved make list, please consider 2mm thick for load bearing & non load bearing members.	Tender Condition Prevails.	NO	
411	Part 2 Section VI C	LOW VOLTAGE MAIN DISTRIBUTION BOARDS Clause no 1.2.3.6	The MDB/SMDBs shall be mounted on a robust base frame made up of steel channels with a minimum height of 80mm.	Integral Base frame shall be as per OEM's type tested design. Request you please accept for the same	Tender Condition Prevails.	NO	
412	Part 2 Section VI C	Moulded Case circuit Breaker Clause no 1.2.5.2	MCCB microprocessor based release with LCD display.	Some of the vendors in approved make list are not meeting with this specification. Kindly consider LED display / OLED display also for the same.	Tender Condition Prevails.	NO	
413	Part 2 Section VI C	Power Quality Meters (PQM) Clause no 1.2.3.15	PQM Shall sample continuously at 256 samples per cycle along with monitoring individual harmonics upto 51st. Memory 512 MB.	The specifications are of make specific in general. Some of the vendors in approved make list are not meeting the specification. Please provide separate vendor list for PQM meeting the specification.	Refer Addendum - 1	YES	Part 2 Sl. No. 16

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414	Part 2 Section VI C	Clause no 1.2.3.9	Bus Bar material shall be tinned electrolytic grade copper having current density of 1A/sq.mm and required calculations shall be submitted for approval to Engineer	Current density and Busbar Sizes shall be as per OEM's Type tested design. Request you to accept for the same	Tender Condition Prevails.	NO	
415	Part 2 Section VI A Appendix-6	Appendix 6 LIST OF MAKES / VENDORS FOR MEP	Approved make of MCB DISTRIBUTION BOARDS: SCHNEIDER, SIEMENS, ABB, HAGER, LEGRAND, INDO ASIAN	Since L&T is approved make for MCB, request to include L&T make for distribution boards.	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO	
416	Part 2 Section VI A Appendix-6	Appendix 6 LIST OF MAKES / VENDORS FOR MEP	Approved make of PLC: GE- FANUC, EMERSON, SCHNEIDER, ROCKWELL, SIEMENS, PHOENIX, HIMA, ABB, HONEYWELL	Since L&T is approved make for LV panels, request to include L&T make PLC for the requirement in LV Panel	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO	
417	Part 2 Section VI A Appendix-6	Appendix 6 LIST OF MAKES / VENDORS FOR MEP	Approved make of HPFC PANEL / AHF PANEL: SCHNEIDER, DELTA, ABB, P2 POWER, FUJI	Since L&T is approved make for LV panels, request to include L&T make for HPFC Panel	Refer Appendix-6 for Vendor Approval Procedure. Tender Condition Prevails.	NO	
418	NIT :	Item no.3	The total amount of Bid security/EMD shall be equivalent to INR 1,26,00,000 ( Rupees One Crore Twenty Six Thousands only) or USD 1,68,000 only	As per Govt of India Ministry of Finance Notification / Memorandum bearing Sr No.F.9/4/2020-PPD dt 12.11.2020 , No provision regarding bid security should be kept in bid documents in future and only bid security declaration should be kept in the Bid documents. Therefore we request you to kindly introduce the clause as "No tender security shall be required as the Govt of India Ministry of Finance Notification / Memorandum bearing Sr No.F.9/4/2020-PPD dt 12.11.2020 .However bidder shall submit Bid security declaration.	Tender Condition Prevails.	NO	
419	Part 3 Section VIII	Contart Data S.No.14 Performance Security GCC Sub - clause 4.2	The Performance Security will be in the form of a Bank guarantee, from a Public Sector Bank in India or from a Scheduled Commercial Bank or from such foreign bank which has tie up with a PSU bank in India for an amount of 7.5% of the Accepted Contract Amount (excluding GST and Provisional sum) and in the same currency of the Accepted Contract Amount	As per Govt of India Ministry of Finance Notification / Memorandum bearing Sr No.F.9/4/2020-PPD dt 12.11.2020, submission of performance security has been reduced from 5-10% to 3% of contract value for all the tenders / contracts and accordingly the performance security should be 3% of the Contract value .Therefore requirement of performance BG shall be 3% of Contract amount for CMRL Phase II tenders.	Tender Condition Prevails.	NO	
420	Part 2 Section VI C	Clause - 1.12.3.11	1.12.3.11 Battery System  Lithium Ion Nickel Manganese Cobalt oxide (NMC) or combination of Lithium Manganese oxide (LMO) and Lithium Nickel Manganese Cobalt oxide (NMC) shall be used for Battery system and Storage battery banks shall be provided for the UPS with sufficient ampere-hour capacity to maintain the UPS output at the rated output capacity for not less than One Hour (60Mins) duration on the backup time for Each UPS unit. If combined battery bank shall have 2 Hours (120 Mins) back up time for rated output capacity.	Li - NMC or Li - LMO & NMC battery are normally used in Data Centre application wherein the UPS rating is high (> 500 KVA) with back-up of 5 to 8 min (max).  OEM's are unable to offer lower rating UPS as their product rating (30 to 50 KVA – M/s. ABB and others) does not support Lithium Ion (Li) batteries (charging system). OEM's conveyed that UPS with Li batteries is not a standard product.  In view of above, we request you to accept VRLA batteries instead of Lithium ion battery.  Similarly; in case of Solar poles Lead acid batteries can be used instead of Lithium ion battery. Kindly confirm.	Tender Condition Prevails.	NO	
421	Part 2 Section VI C	Clause - 2.7.5.2	Pipe fittings for joining pipes of 65 mm diameter and larger shall be standard mechanical groove coupling. Pipe fittings for joining pipes of 50mm diameter and smaller shall be of threaded	Elevated Metro stations and Depot piping installation are generally with welded fittings.  Kindly confirm that welded fittings can be considered instead of grooved fittings.	Refer Specification. Tender Condition Prevails.	NO	
422	Part 2 Section VI A Appendix-6	BOQ-3/ 80 & General	C.3.2 - Supply, Installation, Testing and Commissioning of UL listed / FM approved Gate Valves with rising stem (OS & Y) with grooved end of the following sizes as per Specifications. and Pressure rating of Gate valves Rising Type: max working pressure 300 psi (21 bar)	In elevated metro stations and depots Valves & fittings are generally as per IS Code & standard.  Kindly confirm whether Valves & fittings with flange or threaded connection as per IS Code & standard can be considered instead of Grooved UL listed / FM approved Valves.	Refer Specification. Tender Condition Prevails.	NO	
423	Part 1 Section IV B	BOQ-3/ 206	Room and Panel flooding fire suppression system	As per BOQ, Panels are with Panel flooding fire suppression system. Hence, entire room may not require separate fire suppression system.  Either Panel flooding or Room flooding system may be required for fire suppression. Kindly confirm.	Refer BoQ. Tender Condition Prevails.	NO	

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424	Part 2, Section VI A	Chapter-6	PROJECT MANAGEMENT INFORMATION SYSTEM (PMIS) 6.1.4. The contractor will be managing the PMIS for entire contract duration including the defects liability period for their contract package including sharing the proportionate cost of	Please define the proportionate share of contractor alongwith the cost for managing PMIS in E&M contract or tentative price for PMIS to be considered in the offer.	Refer Addendum - 1. Refer Section IVB Pricing Schedule Clause 1.i)	YES	Part 1 Sl. No 15
425	Part 1 Section IV B	Price Schedule	Provisional Sum	Kindly clarify the utilisation of Provisional Sum mentioned in the BOQ 1. Whether the same can be utilised for managing PMIS or Site Accomodation for Employer's requirement.	Refer Price Center A. Tender Conditions prevail	NO	
426	Part 2, Section VI A	Chapter-15	15.5.4 Site Accommodation for the Engineer . 15.5.4.1 The Contractor shall provide accommodation for the Engineer's staff in accordance with the following schedule of offices.	We request you to kindly make the desired employer's requirement as a part of BOQ seperately.	Tender Condition Prevails.	NO	
427	Part 2, Section VI A	Chapter-2, Clause 2.5.8- Key Personnel & Clause 4.4.1.2 OHSE management	BIM Manager-1 nos, Chief OHS&E Manager- 1 nos	As per the manpower requirement in the KEY Personnel and OHSE mandatory requirement, we find duplication in the OHSE Key personnel. Please clarify. Is BIM personnel requirement in the tender relevant to the E&M scope of work.	Tender Condition Prevails.	NO	
428	Part 2, Section VI A	Clause No. 17.4.3	The Contractor shall under the Contract, shall provide and maintain full time 24x7 patrol unit for the duration of the Contract. The unit shall comprise 1 foreman and 2 labourers whose services shall be allocated full-time to the unit. The main duties of the patrol unit shall include the upkeep of lighting, signage theft control and security as well as other related duties as instructed from time to time by the Engineer.	As per our understanding in E&M contracts, patrol unit is never being a part of E&M contractor scope of work. Please clarify.	Tender Condition Prevails.	NO	
429	Part 2, Section VI A	TESTING AND INSPECTION	The contractor shall make his own arrangement for "The Employer and the Employer's representative" factory visit including travel, boarding and lodging for every inspections.	We request to kindly include mentioned clause in employer's scope only.	Tender Condition Prevails.	NO	
430	Part 2, Section VI A	Clause no. 56 & Clause 62.2.4	1. CCTV System 2. The following are the minimum requirement of Emergency Equipment	We request to kindly make CCTV system and Emergency equipment as listed in the mentioned clause as a part of BOQ seperately.	Tender Condition Prevails.	NO	
431	Part 1, Section III	2.4.2- Specific Experience	Specific Experience	Form EXP-2(a), Form EXP-2(b) is not present in the tender form. Please provide.	Refer Addendum - 1	YES	Part 1 Sl. No. 14&13
432	NIT :	3. Bid Security Amount (EMD)	The total bid security / EMD amount shall be equivalent to INR.1,26,00,000 (Indian Rupees One Crore and Twenty-Six Lakhs) or USD 1,68,000 only Validity: In case of Bid security by BG, it shall be valid for 208 days i.e., up to 02.08.2022	The Validity of Bid is 180 days and bid security validity is 28 days beyond original bid validity. As per NIT the bid validity is mentioned upto 02.08.2022 which is not matching with 208 days of validity which comes to be 30.10.2022 from bid submission date. Please make the corrections.	Refer Corrigendum.	NO	
433	Part 1, Section III	EQC 2.4.2 (b)	As per Clause.No.2.4.2(b) of Part-1, Section III (Evaluation & Qualification Criteria (EQC)), it is mentioned as:  Requirement  For works stated in 2.4.2(a) above or other contracts completed and under implementation as prime contractor (Single entity or JV member) or subcontractor during the last ten (10) years from the last day of the month prior to bid submission deadline a minimum experience in the following key activities:  Supply, Installation, Testing & Commissioning of Electrical, Fire Alarm & Detection, Fire Fighting system and Ventilation & Airconditioning and SCADA works of:  Execution of E&M (Electrical, HVAC, Fire Protection and Integrated Building Management system) similar works of minimum 2000 KVA and above capacity for large multistorey building such as Airport, Hospital, Hotel, IT Park, Commerical mall, any industrial project, factory etc.,	You have all ready mentioned for large multistorey building such as Airport, Hospital, Hotel, IT Park, Commerical mall, any industrial project, factory etc.,  We understand that execution of mentioned E&M works in large multistorey commerical buildings with minimum 2000 KVA and above capacity will be considered as similar works.  Please Confirm	Tender Condition Prevails.	NO	

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434	NIT :		As per the Tender Details provided in online Portal NIT, in EMD Fee Details it is mentioned as NO for the EMD Amount of Rs.1,26,00,000/- payable through BG/ST. (Attached Online Portal NIT for your reference)	At numerous places in various Tender documents it's mentioned that EMD Amount payable through BG (Bank Guarantee) will be acceptable. Request you to do the necessary amendment in Online NIT portal and change it to YES.	Tender Condition Prevails.	NO	
435	Part 2 Section VI C	1.13.4.3.2	1.13.4.3.2 The enclosure of Bus Duct system shall be fabricated from 1.6mm thick GI / 2.5mm thick AL and shall be provided with a finish of RAL 7035 Grey Epoxy Paint or as approved by Engineer. Firm should provide Certificate of fire-resistant bus duct system, complying with IEC60331 and BS6387, withstanding 750°C for 3 hours	As per approved makes, no OEM is complying "Certificate of fire-resistant bus duct system, complying with IEC60331 and BS6387, withstanding 750°C for 3 hours". Few OEMs have the test certificate up to 750°C for 90 Min & others have 600°C for 2 hours. We request you to modify appropriately. Kindly confirm.	Tender Condition Prevails.	NO	
436	Part 2 Section VI C	1.13.5	1.13.5 Specific Requirements for Sandwich Construction Type Copper BUS DUCT: Number of phases-TPN+50% internal earth bus	We presume 50% integral Earth instead of 50% internal earth. Kindly confirm.	Tender Condition Prevails.	NO	
437	Part 2 Section VI C	1.4.6	1.4.6 Insulation: The Fire Survival cables as per BS 7846 and BS 6387 shall be provided with minimum three layers of Glass mica tapes over the conductor with a minimum 25% overlapping of individual tapes and thickness of Glass mica tape shall not be less than 0.1 mm	As per approved make list, and past experience of supply of cables for similar stations phase-1 CMRL, Fire survival cables provided with two layers of Glass mica tapes over the conductor and 1 layer laid up to meet the requirement instead of "minimum three layers of Glass mica tapes over the conductor with a minimum 25% overlapping of individual tapes and thickness of Glass mica tape	Refer Addendum - 1	YES	Part 2 Sl. No. 21
438	Part 2 Section VI C	1.2.3.6	Low Voltage Main Distribution Boards Cubicle Construction: The degree of Ingress Protection for Main LV Switchboards shall be IP 54/ IP 65 as specified in drawings & BOQ which shall not deteriorate with time	As per the feedback received from all approved makes, up to 1600A rating, LV Main Distribution Boards & associated panels shall be provided with IP54 , above 1600A (Depot Panels) shall be provided with IP42 due to temperature rise as per IEC 61439. Kindly approve.	Tender Condition Prevails.	NO	
439	Part 2 Section VI C	1.2.3.1	For single core cable termination, non-magnetic type of gland plate with adequate thickness (min 3.2mm) and supports shall be provided.	As per the feedback received from approved makes, maximum 3mm thickness of gland plate shall be provided instead of 3.2 mm. Kindly confirm.	Refer Addendum - 1	YES	Part 2 Sl. No. 11
440	Part 2 Section VI C	1.2.3.6	The cubicle section shall be constructed of angle iron type frames / Galvanized Iron frame with Multi fold (min 6 fold) structure and bolted/modular construction with all necessary removable covers.	As per the feedback received from approved makes, each manufacturer has their own design in line with IEC 61439.We request you to change this clause to "As per approved manufacturers design in compliance with IEC 61439". Ex Schneider Blok set panels are designed & constructed through Closed U bend with superior mechanical strength.	Refer Addendum - 1	YES	Part 2 Sl. No. 12
441	Part 2 Section VI C	1.2.3.9	Bus Bar material shall be tinned electrolytic grade copper having current density of 1A/sq.mm and required calculations shall be submitted for approval to Engineer.	We request you to consider current density shall be as per Approved manufacturers type tested design inline with IEC 61439. Kindly confirm.	Tender Condition Prevails.	NO	
442	Part 2 Section VI C	1.2.3.9	All incoming and outgoing conductors between the main bus bars, switchgear and cable terminations/ Bus duct Terminations shall be of high conductivity copper bar, having a current rating ( 1A per Sqmm ) of not less than that of the frame size of the switchgear to which they are connected. The conductors shall be insulated, and colour coded for phase identification.	We request you to consider current density shall be as per approved manufacturers type tested design inline with IEC 61439 and Busbar size will be as per manufacturer's type tested design / Type test Certificate. Bus bars with Phase identification as per Type tested design / Type test certificate. Kindly confirm.	Tender Condition Prevails.	NO	
443	Part 2 Section VI C	1.2.5.2	Clear indication of type of fault when tripped shall be indicated for all MCCB's.	We have RS 485 communication port for SCADA. with which the requirements can be meet. All MCCB with microprocessor based LSIG trip unit shall have LCD display to indicate 1.Type of fault, 2.Affected phase, 3.Fault current, leads to more cost implication. Kindly confirm.	Tender Condition Prevails.	NO	
444	Part 2 Section VI C	1.2.3.4	Independent PLC shall be provided with HMI panel to perform the various interlock logics & Load management and shall be interfaced with HMI panel.	We request you to consider common PLC for MDB-1 & MDB-2 to achieve the control logic provided. Independent HMI. Kindly confirm.	Tender Condition Prevails.	NO	
445	Part 2 Section VI C	1.12.3.8.3	UPS: Ambient Operating Temperature Range 0 to 45 0 C	We request you to accept 40 0 C instead of 45 0 C , as OEMs are not complying the same. Kindly confirm.	Refer Addendum - 1	YES	Part 2 Sl. No. 30
446	Part 2 Section VI D	BOQ-F.1.3	UPS Incomer Panel-1	As per BOQ-F.1.3, ATS rating is 630A, where as per SLD 400A, Kindly confirm actual requirement.	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57

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447	Part 2 Section VI D	BOQ-F.1.3	UPS Incomer Panel-1	As per BOQ-F.1.3, O/G MCCB rating is 3 No x400A, 36 kA, where as per SLD 2 Nox400A,50 kA Kindly confirm actual requirement.	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57
448	Part 2 Section VI D	BOQ-F.1.4	UPS Outgoing panel	As per BOQ-F.1.4, busbar rated at 25 kA, where as per SLD busbar rated at 36kA, Kindly confirm actual requirement.	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57
449	Part 1 Section IV B	BOQ-F.1.4	UPS Outgoing panel	As per BOQ-F.1.4, 1 No 400A, I/C MCCB, where as per SLD, 2 No 400A, MCCB Kindly confirm actual requirement.	Refer BoQ. Tender Condition Prevails.	NO	
450	Part 1 Section IV B	BOQ-F.1.1.9	Fire pump panel	As per BOQ-F.1.1.9, 2 no 17.5 KW soft starter is required and the same is missing in SLD. Kindly confirm actual requirement.	Refer Addendum - 1	YES	Part 1 Sl. No. 83
451	Part 1 Section IV B	BOQ-F.1.1.9	Fire pump panel	As per BOQ-F.1.1.9, 2 no 7.5 KW Star Delta starter is required and the same is missing in SLD. Kindly confirm actual requirement.	Refer Addendum - 1	YES	Part 1 Sl. No. 83
452	Part 1 Section IV B	BOQ-F.1.11	Sub Main panel (Work Shed)	As per BOQ-F.1.11, 3 x 630A, 2 x 400A, 1 x 200A KWH meter is not required, where as per SLD, 3 x 630A, 2 x 400A, 1 x 200A KWH meter is required. Kindly confirm actual requirement.	Refer Addendum - 1	YES	Part 1 Sl. No. 72, 73, 74
453	Part 1 Section IV B	BOQ-F.1.12	Machinery Power panel (Work shed)	As per BOQ-F.1.12, busbar rated at 25 kA, where as per SLD busbar rated at 36kA, Kindly confirm actual requirement.	Refer Addendum - 1	YES	Part 2 Sl. No 57
454	Part 2 Section VI D		VAC Panel (Work shed)	As per BOQ- VAC Panel (Work shed) is not required, where as per SLD, the same is required. Kindly confirm actual requirement.	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57
455	Part 2 Section VI D	BOQ-F.1.18	External Lighting panel	As per BOQ-F.1.18, 8 No x 63A, 2 No x 32A MCCB is required, where as per SLD 7 No x 63A, 1 No x 32A MCCB is required. Kindly confirm actual requirement.	Refer Addendum - 1 Drawings	YES	Part 2 Sl. No. 57
456	Part 2 Section VI D	BOQ-F.1.14	Sub Main panel (Depot Store)	As per BOQ-F.1.14, Fault current is different in both Boq & SLD. Kindly confirm actual requirement.	Refer Addendum - 1 Drawings	YES	Part 1 Sl. No. 76, 77, 78, 79, 80 and Part 2 No. 57
457	Part 1 Section IV B	BOQ-F.1.15	Stabling shed power panel	As per BOQ-F.1.15, No of Incoming feeders are different in both SLD & Boq. Kindly confirm actual requirement.	Refer Addendum - 1	YES	Part 1 Sl. No. 81
458	Part 1 Section IV B	BOQ 8 VAC SI No. 150	H.23 - HVLS FAN (High Volume Low Speed) H.23.1 - Manufacture, Supply, Delivery, Installation, Testing, Commissioning of High volume, low speed (HVLS) fans shall be licensed to bear the AMCA Certified Rating Seal for Circulating Fan Performance to ensure performance.	Please note that HVLS fan licensed to bear AMCA certified rating seal is provided by manufacturers such as Hunter Industrial, Venco, big ass fans & Greenheck. Please note that manufacturers other than Greenheck are not operating in India. In order to avoid monopoly and to be competitive, request you to remove the clause and also approve makes such as Kelly and equivalent for HVLS fans.	Tender Condition Prevails.	NO	