Corrigendum- II

EMP WORKS

S.No	Tender Document Reference				Original	Corrigendum To be read as
	Part	Section	Item /Chapter	Clause		
1	II , Works Requirement	VII B, Particular Specification- Electrical and HVAC	11, HVAC Works	11.6.1 2nd Paragaraph	All the outdoor units of the …… ……in accordance with ARI standard 575.	All the Outdoor units of the system shall be suitable for operation with 415 V +/_ 10%, 50 Hz, 3 Ph, 4 wire AC supply where as all indoor units preferable should be with 230 V, 50Hz Single Phase supply only. System should include all protection devices / Controls to with stand fluctuation / variation in power supply. Outdoor units shall be able to operate over a range of outdoor ambient Temperature from 0° C to 50° C. **Even while maintaining a minimum COP of 4±5% at outdoor ambient temperature of 43 degree Celsius and indoor condition of 23±1.5%.without derating.** Sound pressure levels of the outdoor units shall not exceed 75 dBA at 1M from the unit. The sound data should be measured in accordance with ARI standard 575.
2	II , Works Requirement	VII B, Particular Specification- Electrical and HVAC	11, HVAC Works	11.6.2 6th Paragaraph	Back up operation …. ….. To reduce the inrush current during starting.	Back up operation, in case of failure of one of the compressors of outdoor unit, for single module outdoor units or failure of one of the modules in case of multiple modules outdoor units shall be possible. The VRV outdoor unit shall always be supplying at least 33% of back up operation, of the full load capacity. The outdoor unit shall employ system of equal run time for all the compressors, **the compressors shall be inverter type,** within each outdoor unit – Single Module or Multi Module. Inverter compressor of the unit shall start first & at the minimum frequency, to reduce the inrush current during starting.
3	II , Works Requirement	VII B, Particular Specification- Electrical and HVAC	11, HVAC Works	11.1.1 2nd Paragaraph	The indoor and outdoor are connected …….. ….. and the combined unit is capable of performing,	The indoor and outdoor are connected through the copper piping for circulating the liquid refrigerant and the vapour gas. The outdoor unit is fitted with hermetically sealed scroll compressor with inverter technology, operating on R410A and 415 ± 10% , 50 Hz, AC supply and the combined unit is capable of performing,

4	II , Works Requirement	VII B, Particular Specification-Light fitting and Accessories	5, Light Fittings	5.4.1 ,LED	High lumen efficacy LEDs suitable……6500 K as specified in item description.	5.4.1 LED High lumen efficacy LEDs suitable for the application along with following features shall be used: LED Efficacy at the chip level shall > 120 lumen/watt (For High power LED') The efficiency of the LED at 85 Degree C junction temperatures shall be more than 85%. The system luminous efficacy of LED luminaries' shall be as under Efficacy > 75 lumen/Watt for low wattage luminaries (<45W); and Efficacy > 85 lumen/watt for high wattage luminaries (>45W) Adequate heat sink with proper thermal management shall be provided. Minimum view angle of the LED shall not be less than 120 degree. Power factor of complete fitting shall be more than 0.95 LED shall be surface mounted type duly soldered to PCB by Reflow system or COB type. The Solder used shall be ROHS compatible for environment friendliness. Input frequency range shall be between 50Hz ± 3%. Minimum Colour rendering index CRI >=70 unless specified in item description. Correlated Colour Temperature shall be in the range of 5000 K - 6500 K as specified in item description. **All the LED light fixtures should have minimum warranty period of 5 years.**
5	II , Works Requirement	VII B, Particular Specification-Light fitting and Accessories	5, Light Fittings	5.4.5, 5.4.6, 5.4.7, 5.4.8		Deleted
6	4 , Financial Bid and Bill of Quantities.	Schedule F	E 08	3 , High Mast	Supply, Installation ….. …….like MCB etc.	Supply, installation, Testing and Commissioning of 20 m high Area Lighting High Mast of Wipro/Philips/GE/Thorn comprising **06 nos. 250W LED luminaires** complete with all standard accessaries like winches, lantern carriage etc. including the cost of providing, supplying and fixing 6 nos of IP65 rated 250W LED flood light luminaires with High efficiency, long life, high power LED-Chip On Board(COB) Technology with luminaire Lumen output> 22900 lm, Luminaire efficacy >100 lm/W, CCT- 5000K, 50000 burning hours as per L70 Criteria. Housing: Extruded Aluminium, Highly efficient & specially designed glass lens optics, Constant current- Constant voltage isolated mutistage LED driver with operating voltage ranges from 90V-305V AC. Operating power factor>0.95, THD<10%, Driver efficiency > 85%, Complete assembly with LED, Driver and accessories pre wired in driver compartment, best efficient heat dissipation system with beam angles 60 degrees. System should include Lightning Arrestor and others accessaries like phosper Bronze Gear, double drum, stainless steel wire ropes, suitable MCB wires/cables as required with along with the folowing accessaries required as under : -20 m High Mast suitable for 6 Nos 250W LED luminaires with lantern carriage excluding lightening arrestor, panel, cables & other electrical accessories like MCB etc. **The supplier shall provide LM80 and LM 79 test reports from NABL accredited LAB before supplying the luminaires**

7	4 , Financial Bid and Bill of Quantities.	Schedule F	E03	3,Cable Tray	Supply, fabrication & installation perforated hot dipped galvanised double bended cable trays from ……. ……Coloured cable tray shall be provided as per Engineer In-charge.	Supply, fabrication & installation of perforated hot dipped galvanised double bended cable trays from 2 mm thick GI sheets continuously connected including horizontal and vertical bends, reducers, tees, and other accessories and duly suspended from the ceiling with 12 mm dia vertical GI rods supported by 40mm x 40 mm 5 mm GI angle etc. (or installed on wall supported on suitable brackets as required) complete as per specifications, as required and as below. Coloured cable tray shall be provided as per Engineer In-charge.**The Cable Tray shall be provided with perforated removable cover.**
8	4 , Financial Bid and Bill of Quantities.	Schedule F	E03	5,Race ways	Supply, installation and testing of sheet steel raceways……electriall y continous as approved and of following sizes.	Supply, installation of sheet steel raceways /trunking , fabricated from 2.0 mm thick GI with minimum coating thickness 260 gm / sq. meter on both sides with removable cover plate complete with counter sunk cadmium plated brass screws, bends, tee-junctions, cross junction etc ,in floor and suspended from the ceiling with required support . **Coloured Raceways shall be provided as per Engineer In-charge**. Rendered electrially continous as approved and of following sizes.
9	4 , Financial Bid and Bill of Quantities.	Schedule F	E12	Via Duct Lighting	Supply ,Installation,Testing and commissioing of Via duct lighting with Light fitting, cable, BD, Cable tray and junction and all necessary accessories.**Break of detail added**	Refer revised Schedule F
10	4 , Financial Bid and Bill of Quantities.	Schedule F	E13	Mandatary Operational Spares for the Panels And safety items	Supply of Mandatary Operational Spares for the Panels And safety items,**Break of detail added**	Refer revised Schedule F
11	II , Works Requirement	VII A, General Specifications	Genral Specification	14, Project Management Information System	The Contractor shall devise and utilize a PMIS…… ……actively participate in implementing 5D BIM system by NMRCL.	The Contractor shall devise and utilize a PMIS such that all documents generated by the Contractor can be transmitted to the Engineer by electronic means (and vice versa) and that all documents generated by either party are electronically captured at the point of origin and can be reproduced later, electronically and in hard copy. A similar link shall also be provided between the Engineer office at site and the Employer's Office by the contractor. 5D BIM Platform shall be invariably used by the Contractor for PMIS. The Contractor should actively participate in implementing 5D BIM system by NMRCL. T**he contractor shall provide inputs i.e. Drawings in 3D BIM format. The other detail 5D BIM requirement shall be finalised during Interface management Planning/detail design stage.**