



भारतीय विमानपत्तन प्राधिकरण AIRPORTS AUTHORITY OF INDIA



संदर्भ सं.: / Ref. No.:

दिनांक: / Dated:

No: AAI/RHQ-SR/ENGG/AGM (E)-II/WO-05/2020-21/01

Date: 04.01.2021

To,

M/s. YUDEK ENGINEERING PVT LTD
#15/9, Selvi Nagar 3rd Street,
1st Main Road,
Kolathur,
Chennai - 600 099.

Name of Work: Replacement of 3 x 100 TR Chiller plant , Chilled water pumps & Associated works at RHQ - Admin Block, Chennai Airport.

REF: 1. AAI Tender Id: 2020_AAI_62346_1
2. Tender (Price Bid) opened: 21.12.2020.

Dear Sirs,

1. Your tender for the work mentioned above is hereby accepted on behalf of Chairman, Airports Authority of India, at the item rates quoted by you totaling to **Rs. 82,57,799/-** (Rupees Eighty Two Lakhs Fifty Seven Thousand and Seven Hundred and Ninety Nine Only) Plus applicable GST @ 18% which is 13.97% below the justified cost of **Rs.95,98,958/-** Plus applicable GST @ 18%.
2. Jt. General Manager Engg (E), AAI, New Operational Office, Southern Region, Chennai Airport, and Chennai shall be Engineer – in – charge of the work. You are requested to attend this office by **20.01.2021** to sign and complete the contract agreement. The contract Agreement shall be executed on a non-judicial stamp paper of value Rs.100/- (Rupees One Hundred only). The cost of the stamp paper shall be borne by you.
3. EMD of **Rs.1,92,000/-** (online) submitted by you will be converted as part of security deposit and please deposit **Rs.6,33,780/-** (Rupees Six Lakhs Thirty Three Thousand Seven Hundred and Eighty Only) towards Security Deposit within 10 days from the date of issue of this letter, failing which, the same will be deducted from your running bills as per Clause of 1A of Clause of Contract.

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..2..

संदर्भ सं./ Ref. No.:

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4. You are requested to comply with the provision of Contract Labour (Regulation and Abolition) Act 1970 and Contract Labour (Regulation and Abolition) Central Rules 1971 and Minimum Wages Act and Rules there of Central and State Governments.
5. You are also directed to contact Asst. General Manager (Engg-E)-II, immediately who will arrange to hand over the site to you.
6. Please note that the time allowed for carrying out the work shall be 05 (Five) Months and same shall be reckoned from the 15th day of issue of work order.
7. Any further correspondence in connection with the contract should normally be addressed to the Asst. General Manager Engg (E)-II, AAI, New Operational Office, Southern Region, Chennai Airport.
8. Please acknowledge the receipt and return the duplicate copy of this letter enclosed herewith after signing it to the undersigned as a token of acceptance.

Thanking you,

Encl: 1) Schedule of Quantities – Schedule 'A'

Yours faithfully,

M. L. S.
04/01/2021

Asst. General Manager Engg (E)-II
AAI, RHQ-SR, Chennai Airport

Schedule of Quantities

Name of work : Replacement of 3 x 100 TR Chiller plant , Chilled water pumps & Associated works at RHQ - Admin Block, Chennai Airport.

Sl. No.	Item Descriptions	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	Supply, Installation, Testing and commissioning of not less than 100 TR actual capacity Air cooled Screw Chiller with hermetic /semi hermetic Screw compressor, flooded type evaporator, air cooled condenser with all accessories, interconnecting hard drawn copper refringent piping and aluminium fins, Star Delta starter or soft starter, power & control cabling between starter and the compressor motor i/c suitable capacity of 4 Pole MCCB for incoming power cable Termination etc., Micro processor based control panel & complete with all safety controls, automatic capacity controls, first charge of refrigerant Gas R134a with Oil, required platforms with railings for maintenance etc & if required the existing RCC foundation to be modified and vibration isolators to be provided etc., The chillers are to be installed on the First floor and shall be suitable for 3 phase, 415 V, 50Hz AC supply etc complete as req. Note: The price shall include pre shipping inspection/ testing at the works of the manufacturer, freight, insurance, port clearance if any, loading/ unloading, installation, testing and commissioning etc. the chiller plant to be installed in the existing foundation if required minor modification to be made by the agency, levelling of machines, installation as per OEM recommendations, testing of all safeties and interlocks etc as required for commissioning of plant and after summer and monsoon season tests, etc.	Jobs	3	2051000.00	6153000.00
2	Supply, installation, testing and commissioning of End Suction Back Pull Out Centrifugal pumpset with 50mm EPS insulation suitable of the following capacity for re circulation of chilled water for the central air conditioning system. The pump motor shall be continuous duty , factory mounted on common base with pump and suitable for 415 volts, 50 cycles, 3 phase AC power supply. The shaft shall be out of alloy steel construction, the impeller shall be of bronze contruction and the casing shall be of cast iron construction complete in all respects as required by the standard specifications. Note: The price shall include for providing of suitable star delta starter, modification of existing foundation, providing of anti vibration Isolation pads etc as required as per OEM recommendations. Flow rate : 300 US GPM & 30 Mtrs. Head.	Jobs	3	104000.00	312000.00
3	Supply, installation, testing and commissioning of following nominal size of chilled water piping of MS "C" class Heavy duty pipes with 50mm EPS insulation provided complete with all fittings and accessories like Bends, Tees, reducers, exp. Joints supports, clamps, etc complete as required and as per speification (For pipes of dia. up to 200 mm IS 1239 (1) & above, IS 3589)				
3.1	100 mm dia	Meter	40	2453.00	98120.00
3.2	80 mm dia	Meter	40	2127.00	85080.00

Sl. No.	Item Descriptions	Unit	Qty	Rate (Rs.)	Amount (Rs.)
4	Supply, Installation, Testing and commissioning of PN 16 rating of 100 mm dia CI Butterfly valves SS Disc duly insulated with 50 mm EPS insulation in chilled water lines complete with nuts, bolts, gaskets, adequate supports etc conforming to specifications provided.	Nos	12	12695.00	152340.00
5	Supply, Installation, Testing and commissioning of PN 16 rating of 80 mm dia CI Butterfly valves duly insulated with 50 mm EPS insulation in chilled water lines complete with nuts, bolts, gaskets, adequate supports etc conforming to specifications provided.	Nos	16	10862.00	173792.00
6	Supply, Installation, Testing and commissioning of PN 16 rating of 100 mm dia Non return valves duly insulated with 50 mm EPS insulation in of chilled water lines, complete with companion flanges, nuts, bolts, gaskets, adequate supports etc conforming to specifications provided.	Nos	3	5847.00	17541.00
7	Supply, Installation, Testing and commissioning of PN 16 rating of 100 mm dia Balancing valves , insulated with 50 mm EPS insulation of chilled water lines, complete with companion flanges, nuts, bolts, gaskets, adequate supports etc conforming to specifications provided.	Nos	3	12613.00	37839.00
8	Supply, Installation, Testing and commissioning of PN 16 rating of 100 mm dia CI Y-strainer in position duly insulated with EPS in chilled water lines with companion flanges, nuts, bolts, gaskets, adequate supports etc as per specification provided etc complete as req.	Nos	3	5400.00	16200.00
9	SITC of 65 mm dia of 3-way modulating control valve with actuator assembly, etc. at all AHUs.	Nos	8	29700.00	237600.00
10	Supply, Installation, Testing and commissioning of industrial type 100 mm dia dial type Thermometers conforming to technical spec. in the chilled water lines.	Nos	22	930.00	20460.00
11	Supply, Installation, Testing and commissioning of 100 mm dia dial type pressure gauges with gate valves conforming to technical specifications provided in the chilled water lines etc complete as req.	Nos	28	1250.00	35000.00
12	Supply, Installation, Testing and commissioning of Water flow switch with all required connections as complete with companion flanges, nuts, bolts, gaskets, adequate supports etc per specification etc complete as req.	Nos	3	2100.00	6300.00
13	Painting of chilled water line Green colour water proof cement paint with arrows and condenser water lines Dark blue water proof cement paint with white arrows etc complete as required.	Meters	40	350.00	14000.00

Sl. No.	Item Descriptions	Unit	Qty	Rate (Rs.)	Amount (Rs.)
14	Supply, Installation, Testing & Commissioning of indoor AHU VFD starter Panel with star delta by pass, cubicle type, made out of 2mm thick CRCA sheet, totally enclosed, IP42, free standing, wall / floor mounting, dust and vermin proof, powder coated, indoor, compartmentalised, suitable for operation on 3 phase and neutral, 415 V, 50Hz AC system with busbars extendable on both sides, including internal wiring with suitable size wires, rotary handle, spreader etc. The panel shall be as per the requirements and recommendations of AHU & VFD Manufacturer's standards with suitable capacity of cooling fan, suitable to connect fire alarm system and all type of dampers and as per CPRI specification or type tested Panel manufacturer as per IEC 61439-1&2 with all accessories etc. complete in all respects as required by the standard specifications. (a) INCOMER 1 No. 63A, FP, 25kA, MCCB with Thermal Magnetic release, Ics=Icu, having adjustable over load, short circuit protection.				
14.1	(b) BUSBARS 1 Set of 100 AmpTPN aluminium busbars (c) INSTRUMENTS 1 No Three phase Digital voltmeter, Acc. Class 1 1 No Three phase Digital ammeter, Acc. Class 1 1 Set of phase indicating lamps, LED type, RYB with 3 Nos. SP MCB control. 1 Set of 60/5A, Class 1.0, 10VA, Cast Resin CT for metering. (d) OUTGOING 2 No. 40A, TPN, 10kA, C Curve, MCB 2 Nos. 16A, SPN, 10kA, C curve MCB. 01 set - Power contactors, by-pass selection switch, timers etc as required for star delta starter 1 No of Normal duty VFD drive of suitable rating for 3 phase, 50Hz AHU motor. (approx 7.5kW/10 HP). Note:Motor kw is only indicative.Any difference in motor rating(higher/lower) shall be selected accordingly with prior approval from Engineer-in-Charge without any cost implication. 220/24 volts transformer.Wiring for micro-switch smoke sensor and electric actuator for stopping the fan when smoke/fire damper closes (For AHUs provided with fire damper).Control wiring for thermostat.Auto / Manual start / stop selector switch shall be provided for each equipment in the panel to facilitate remote operation from Central Indication Light Panel. Panels shall have adequate space for mounting transformers and other accessories related to control system.	Job	8	83000.00	664000.00
15	Supplying and making End termination with brass compression gland and aluminum lugs for following size of PVC insulated and PVC sheathed / XLPE aluminum conductor cable of 1.1 KV grade as required.				
15.1	3.5 X 185sqmm	Set	6	3000.00	18000.00
15.2	4 X 16 sqmm	Set	14	2500.00	35000.00

Sl. No.	Item Descriptions	Unit	Qty	Rate (Rs.)	Amount (Rs.)
16	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required	Meter	10	195.00	1950.00
17	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required.	Meter	30	150.00	4500.00
18	Supply, installation, testing and commissioning of air curtains of length 1.0 Mtr at corridor entry doors with all necessary supports with limit switch etc required. The impeller shall Aluminium construction with curve blades to minimise the air cutting noise below 66 dB. (Make: Almonard Model:AHV-SMART/DELUX or equivalent approved make)	Each	2	24000.00	48000.00
19	Dismantling & shifting of existing 3 Nos x 100 TR chiller plant with soft starter 3 nos, chiller pumps, pipes upto head main header lines and supporting materials etc complete to the AAI store complete etc as required.	Job	1	127077.00	127077.00
	Total without tax				8,257,799.00
	Add: GST @ 18%				1,486,404.00
	Total with tax				9,744,203.00

(Rupees Ninety Seven Lakhs Forty Four Thousand Two Hundred and Three Only)


 04/01/2021
 Asst.General Manager (E-E)-II
 AAI/RHQ-SR/Chennai Airport