



भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA

No: AAI/CIA/AMED-VI/RO-HPS/2021-22/A-03

Date: 17.01.2022

To,

M/s. Chennai Engineering Services.,
Plot No. 30, Door No-1-536,
Krishna Nagar, 1st Street,
Manapakkam, Chennai-600125.

Sub: Provision of Standby Hydro-Pneumatic System for RO Plant & Associated Works
at New Water Treatment Plant at Chennai Airport.

Ref: e-Tender ID: 2021_AAI_95922_1

e- Tender Ref. No.: AAI/CHE/AMED-VI/2021-22/01.

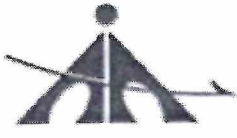
Dear Sir(s),

1. Your E-Tender for the above mentioned work is hereby accepted by the Competent Authority on behalf of Chairman, Airports Authority of India, at the items rates quoted by you totaling to **Rs.24,20,342.00** (Rupees Twenty Four Lakhs Twenty Thousand Three Hundred Forty Two Only) which is 20.74% below the estimated cost of **Rs.30,54,056.00** (Rupees Thirty Lakhs Fifty Four Thousand Fifty Six Only). The amount is inclusive of all the taxes, duties, levies and octroi etc., Excluding GST which will be paid at actual.
2. Joint General Manager (Engg-Elect)-I, AMED, Operational Office, Airports Authority of India, Chennai Airport, Chennai – 600 016 shall be the Engineer-In-Charge of the work. You are requested to attend to the Office of Joint General Manager (Engg-Elect)-I, AMED AAI, Chennai Airport by **27.01.2022** 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) and the cost of the stamp paper shall be borne by you.
3. The earnest money deposit is not applicable in the above e- Tender. You are requested to submit Bank Guarantees for an Amount of **Rs. 2,42,034.00/-** (Rupees Two Lakhs Forty Two Thousand Thirty Four Only) is to be deposited by you towards Security Deposit within 10 days from the date of issue of this letter, failing which, the same will be deducted as per Clause 1A of General Conditions of Contract.
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 thereof Central and State Governments.
5. You are also directed to contact the Joint General Manager (Engg-Elect)-I, Airport Maintenance Electrical Division, Operational Office, Airports Authority of India, Chennai Airport or his Authorised representative immediately for who will arrange to hand over site to you.

Continue...2

फैक्स: 044 - 2256 0008 ईपीएबीएक्स: 2256 0551, चेन्नईहवाईअड्डे, चेन्नई – 600 016.

Fax: 044 - 2256 0008 EPABX: 2256 0551, Chennai Airport, Chennai – 600 016.



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6. Please note that the time allowed for carrying out the work shall be **04 (Four) Months** and same shall be reckoned from the 10th day after issue of this letter.
7. Any further correspondence in connection with the contract should normally be addressed to the Engineer-In-Charge.
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.

Yours faithfully,



17/01/2021

(G.N.D.KENNEDY)

Jt. Gen. Manager (Engg - Elect)-I,
For and on behalf of the Chairman,
Airports Authority of India.

Encl: Schedule of Quantity (Page No.1 to 3)

AIRPORTS AUTHORITY OF INDIA
CHENNAI AIRPORT :: CHENNAI - 600016
SCHEDULE OF QUANTITY

Name of Work: Provision of Standby Hydro-Pneumatic System for RO Plant & associated Works at New Water Treatment Plant at Chennai Airport.

Sl. No.	Description of Item	Qty	Unit	Rate	Amount
1	Hydropneumatic Pumping System With Variable Frequency Drive: (Grundfos Model No. Hydro MPC EF 3 X CRN 3-12 or its equivalent) Supply, Installation, Testing and Commissioning of compact packaged type skid mounted, self-contained variable frequency drive hydropneumatic system complete as per following technical specification complete as required:- (i) In-line vertical Single/Multistage centrifugal clear water pump set with SS-304 casing, SS-304 impeller with SS-316 shaft ,CI base with CED coating complete directly coupled with TEFC induction motor of class "F" insulation & efficiency class IE-3, 2900rpm, suitable for operation on 415 Volts $\pm 10\%$, 3 phase, 50 Hz A.C. supply complete. (ii) The entire system shall be mounted on a common base frame i/c common suction and common delivery of SS pipe headers with flanges, interconnecting piping with all required Control Valves, Non-return valves, pressure guage with isolation cock etc. and all required accessories. (iii) Pressure vessel capacity of 178 Litres (WM-14 Make or equivalent) & Qty 01 Nos made up of non-corrosive FRP composite construction lined with NSF/ FDA listed material, like high density polyethylene with fully replaceable polyurethane. (iv) Panel mounted microprocessor multi-pump controller with large graphical display and variable frequency drive (VFD) mounted inside a panel complete with pressure sensor transmitter. The graphical display capable to show number of pumps running & also communicate with other controllers following with open protocol through RS485 port. System should be capable to compensate for frictional losses at lower flows. All alarms should be displayed in the controller. The panel should also have provision for manual / automatic alternate (cyclic) operation of pumps, ON / OFF switch (v) Necessary foundationing bolts, vibration elimination pads and other accessories complete as required. (vi) Termination with Suitable cable and other accessories complete as required. (vii) The entire system alongwith pumps & control panel must be sourced from single manufacturer only for unit responsibility. No. of pumps : 03 Nos (02 Working + 01 Standby) with VFD 1.5KW Water Flow Rate : Min 3 Cum/Hr each Head : Min 57 Meters Location : New Water Treatment Plant (i) to (vii) = 1 Job	1	Set	11,96,999.00	11,96,999.00

Sl. No.	Description of Item	Qty	Unit	Rate	Amount
2	Modification and upgradation of existing RO Hydro-pneumatic System (HPS) Panel (Make: Grundfos) including supply & fixing of 2 Nos new 1.5 KW VFD (Make: Danfoss) alongwith all necessary wiring & accessories, software programming, integration with existing control unit etc as required for proper alteration of all pump speed to meet the preset pressure point.	1	Job	69,999.00	69,999.00
3	Supply & fixing of Negative pressure transmitter in Header of Hydro-Pneumatic systems including complete interconnections & necessary arrangements etc complete as required.	1	Job	8,999.00	8,999.00
4	Providing and laying in position cement concrete of grade 1:2:4 (1 cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 20 mm nominal size) etc complete as required.	3	Cum	4,999.00	14,997.00
5	Supply of Copper Conductor, PVC/XLPE insulated and PVC sheathed armoured Power cable of 1.1 KV grade of size 4 Core X 4 Sq.mm conforming to IS-7098 (Part-I) 1988 with upto date amendements as and when required.	150	Mtr	209.00	31,350.00
6	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required.				
a	Upto 35 sq. mm	150	Mtr	19.00	2,850.00
7	Providing and laying of approved make 1-1/4" (32 mm) Stainless Steel Schedule 10 pipeline including cutting, welding, grinding etc and interconnection with necessary SS fittings such as Tees, crosses, isolating ball valves, plugs, sockets, elbows, reducers, Union, flanges, sleeve pieces, checknuts, gaskets,nuts/bolts & other accessories etc complete as required for making necessary charging connections from Pressure Tank to discharge pipeline & for Pressure Tank drain pipeline connections. (Note: All SS fittings for necessary pipeline connections are to be arranged by the Contractor)	20	Mtr	1,499.00	29,980.00
8	Providing and laying of approved make 2.5" Stainless Steel Schedule 10 pipeline including cutting, welding, grinding etc and interconnection with necessary SS fittings such as Tees, crosses, plugs, sockets, elbows, reducers, Union, sleeve pieces, checknuts, gaskets,nuts/bolts & other accessories etc complete as required for making necessary connections as follows: a)From existing Stainless Steel vessal Pipeline to HPS Common Suction Manifold b)From HPS Common Delivery Manifold to Existing Delivery Stainless Steel Pipeline (Note: All SS fittings for necessary pipeline connections are to be arranged by the Contractor)	20	Mtr	1,799.00	35,980.00
9	Supply & fixing of Ball type 65mm NRV (including flanges) PN-10 or above (Normax Make B-01 type or equivalent) suitable for vertical & horizontal installation Flanged Body & cover with MOC: Cast Iron, Ball:Nitrile Reinforced , Seat: lead Tin Bronze including cutting of pipeline,welding of flanges,grinding alongwith all accessories such as nuts, bolts, washer, gaskets etc complete as required. (Make: Conforming to respective IS standard.)	2	Job	6,999.00	13,998.00
10	Supplying, fixing, testing and commissioning of 65mm Butterfly Valve (including flanges) with CI body,SS disc,SS stem, nitrile/EPDM rubber seal,O - ring & PN 16 pressure rating including cutting of pipeline,welding of flanges,grinding alongwith all accessories such as nuts, bolts, washer , gaskets etc complete etc as required.	3	Job	4,999.00	14,997.00
11	Providing and fixing 6 SWG dia G.I. wire on surface or in recess etc as required.	30	Mtrs	59.00	1,770.00

Sl. No.	Description of Item	Qty	Unit	Rate	Amount
12	Supply and Installation of various Mild Steel structure fabricated using single section MS Channel/angle/flat/bar etc including cutting, welding, drilling, fixing in position using appropriate fasteners, grinding, painting with approved steel primer and two coats enamel paint etc. complete as required.	75	Kgs	89.00	6,675.00
13	Design, Fabrication, Supply and Installation of MS walkaway platform Structure with staircase suitable to bear load of min. 1000 kgs constructed using MS Structural members (Channels, angles, square tubes, plates, Handrail, etc.) including cutting, welding, grinding, buffing, polishing and making curvature (wherever required), painting with approved steel primer and two coats enamel paint & then applying FRP coating on entire structure and fitting the same with necessary fasteners, nuts, bolts etc of required size and necessary accessories for proper positioning & erection at Basement Floor alongwith dismantling of existing structure and shifting it to Old WTP complete as required. Note: The drawing of platform to be approved by Engineer-In-Charge before start of Fabrication Work.	3250	Kgs	199.00	6,46,750.00
14	Fabrication, Supply and Installation of MS Structure of approved design constructed using MS Structural members (Channels and angles) including cutting, welding, grinding, buffing, polishing, hoisting, fixing in position, Anchor Fastener in welded base plates, painting with approved steel primer and two coats enamel paint & then applying FRP coating on entire structure alongwith dismantling of existing structure & motor-agitator set, re-installation & re-connection of motor-agitator set after fabrication of new structure, shifting of dismantled structure to Old WTP complete as required.	1000	Kgs	159.00	1,59,000.00
15	Supply, Installation, Testing and Commissioning of ISI Double Layer Water tank of 7500 Litres Capacity (Make: Sintex or Equivalent) alongwith dismantling of existing Tank, Pipelines etc and installing new Tank & re-connecting inlet/ outlet piping, valves etc for proper operation of Brine Tank.	2	Job	92,999.00	1,85,998.00
				Total Rs.	24,20,342.00

(Rupees Twenty Four Lakhs Twenty Thousand Three Hundred Forty Two Only)

Note: Applicable GST shall be paid on submission of taxable invoice


 (G.N.D.KENNEDY)
 Jt. General Manager (E-E)-I