

**BILL OF QUANTITIES**

**SBI - ONLINE TENDER FOR AIRCOOLED PACKAGE AC UNITS IN GROUND FLOOR LEFT WING CCO, 1st FLOOR MEETING HALL, 10TH FLOOR (RIGHT WING) AT LHO CHENNAI**

Rate Should be inclusive all civil related to the A/c works as per the site conditions at all times. Core cutting, wall dismatling, plastering ,Scaffolding should be inclusive of all items at all levels.

| SI.No. | Description   | Unit | Qty   | Quoted |        |
|--------|---|------|-------|--------|--------|
|        |   |      |       | Rate   | Amount |
| 1a     | Part - A : Equipment Supply   |      |       |        |        |
|        | "Supply of nominal capacity of minimum 16.5 TR Inverter type, air-cooled, floor mounted, <b>ductable package air-conditioners</b> .a. Refrigerant - R410 / 407 / R 32 or eco friendly refrigerant;b. Compressor - Inverter scroll compressor with multiple circuits;c. Condensor section - Aluminium finned air-cooled copper condensers with propeller type condensor fansd. Evaporator section - Copper tube with aluminium finned cooling coils with refrigerent control switches. Indoor unit complete with- Unit cabinet with flexible connection and air outlet damper- DIDW blower section- Coil section- Filter section - Inverter/ non inverter compressors- Evaporator- Refrigeration components- Thermostats, controls, diagnostics, safety devices, accessories, etc. Outdoor unit complete with - Remote air controlled high efficiency condensor - Propeller fanThe unit should be suitable for operation in high ambient temperature (upto 115 deg F) and coastal environments: Indoor and outdoor units shall be factory pressure tested, run tested and supplied inclusive of first fill of refrigerant gas. If required, topping of gas has to be done to achieve the desired performance. The work shall be carried out in all aspects as required by the Bank." |      |       |        |        |
| a      | Capacity 16.5 TR with Inverter Compressor -<br>Ground floor CCO - 1No,<br>1st floor LW - 1Nos,  | no.  | 2.00  |        |        |
| b      | Capacity 16.5TR with Non-Inverter Compressor<br>Ground floor CCO - 1No,<br>1st floor LW - 1Nos,<br>10th floor RW secretariat - 1No  | no.  | 3.00  |        |        |
| 2      | Installation, Testing and Commissioning of above 16.5 tr AC including shifting, lifting to the required floors, fixing of ODUs & IDUs in the respective floors, first fill of refrigerent gas, necessary civil work, etc. The work shall be carried out in all aspects as required by the Bank.   |      |       |        |        |
| a      | Capacity 16.5 TR Inverter / Non Inverter  | job  | 5.00  |        |        |
| 3a     | <b>Refrigerant piping:</b><br>S I T C of copper pipes for delivery & return of refrigerant from IDU to ODU as per the size and specifications of the OEM. The pipe should be insulated with 13mm thick nitrile rubber insulation, joint to be sealed 3mm thick black tape and exposed pipe to be covered with vapor barrier, supported by split clamps at frequent interval as per standard installation practices and with complete set of accessories.<br>The refrigerant pipes shall be properly supported and anchored to the ceiling using anchor bolts, threaded rods, brackets, supports, angle frames, etc. The workmanship for the piping shall be carried out as per the recommended practice of the OEM. The piping to be vacuum tested and leak tested. Scope includes The rate shall include all necessary cost towards, supports, hardwares, necessary civil work, etc. The work shall be carried out in all aspects as required by the Bank. <b>(1Mtr of refrigerant piping = 1 Mtr of delivery line + 1 Mtr of return line)</b>   |      |       |        |        |
| a      | copper piping from IDU to 11TR ODU (Inverter)   | Rmt  | 34.00 |        |        |
| b      | copper piping from IDU to 11TR ODU (Non-inverter)   | Rmt  | 51.00 |        |        |
| c      | copper piping from IDU to 5.5 TR ODU  | Rmt  | 85.00 |        |        |

| SI.No.                             | Description   | Unit | Qty      | Quoted |        |
|------------------------------------|---|------|----------|--------|--------|
|                                    |   |      |          | Rate   | Amount |
| 4                                  | Supply & laying of suitable size drain pipes 32 mm with 9mm thick nitrile insulation from IDU to nearest drain point as decided by the Bank. The rate shall include all necessary cost towards, supports, hardwares, necessary civil work, etc. The work shall be carried out in all aspects as required by the Bank.   | Rmt  | 25.00    |        |        |
| 5                                  | Supply and laying of suitable size Control cable from IDU's and ODU's as per manufacturer's specification (suitable for the above AC). The cable has to be PVC insulated FRLS copper cable laid in suitable PVC conduit. The rate shall include all necessary cost towards, supports, hardwares, etc. All the materials have to be as per latest IS standards. Complete the work in all aspects as required by the Bank   | Rmt  | 145.00   |        |        |
| 6                                  | Supply and Installation of suitable size synthetic fire proof canvas connection complete as required.   | nos. | 5.00     |        |        |
| 7                                  | Supply and Installation of suitable size factory fabricated Sheet as per SMACNA Standard Metal Ducting out of class-VIII GSS Sheets with built-in/independent flange, sealant, neoprene gaskets, 150 mm GI metal cleats, Electro-galvanized bolts, nuts & washers, GI suspension rods, anchor grip bolts with proper Hi-tech supports/ Hangers from Ceiling/ walls as required at site and duly insulated with acoustic open cell elastomeric nitrile insulation of 10mm thick. The rate shall include all necessary cost towards, supports, hardwares, necessary civil work, etc. The work shall be carried out in all aspects as required by the Bank |      |          |        |        |
| a                                  | 24 G Ducting  | sqm  | 10.00    |        |        |
| b                                  | 22 G Ducting  | sqm  | 60.00    |        |        |
| 8                                  | Supply, laying & commissioning of Acoustic Insulation of ducting with 10mm thick open cell nitrile rubber with premier adhesive layer on duct with as per standard. Complete the work in all aspects as required by the Bank.   | sqm  | 70.00    |        |        |
| 9                                  | Volume control Collar damper aluminium fabricated as per the site conditions between PAC and plenum and between Plenum and duct   | Sqm  | 7.00     |        |        |
| 10                                 | Fabricate, transport, lift and install Suitable size Structural support (catwalk) for fixing out door units in each floor at the selected locations and finished with two coats of enamel paint over a coat of primer. Scope includes civil works and any scaffolding as required to complete the installation.   | kg   | 1,500.00 |        |        |
| 11                                 | Supply and install Suitable size Concrete Blocks inside the 3 plant rooms for erecting the Package AC unit as required  | job  | 1.00     |        |        |
| 12                                 | Part C: Dismantling old AHU<br>Dismantle the existing old AHU along with the Chiller pipe connecting pieces and shifting the same to the suitable location in Cellar as required by Bank.   |      |          |        |        |
| a                                  | 20TR AHU - Ground floor CCO LW  | job  | 1.00     |        |        |
| b                                  | 2 Nos 15TR AHU + 2 Nos of 10TR in 1st floor LW  | job  | 1.00     |        |        |
| c                                  | 10TR AHU - 10th floor RW  | job  | 1.00     |        |        |
| <b>Grand Total (Excluding GST)</b> |   |      |          |        |        |