

TOR
FOR HIRING SERVICES FOR THE O&M OF HVAC SYSTEM INSTALLED AT OGDCL HOUSE.

1. All bidders should first visit the said A.C. plant and building in order to fully understand and to know exact nature, type and quantum of work.
2. Any clarification/information with reference to the scope of work tender document can be sought.
3. Quoted price should be firm and final and no rebate will be accepted after the opening of quotations.
4. Initially the contract will be valid for a period of two (02) years. However based upon the performance of contractor, it can be ~~annually~~ extended further by the mutual consent of both parties on the same rates, terms & conditions.
5. Quoted price should be mentioned in words and figures both. In case of error, price mentioned in words will be considered as correct.
6. Each and every page of tender document/quotation should be signed and stamped by the bidder.

A- GENERAL SCOPE OF WORK

1. Contractor will carry out the operation & maintenance of complete central air conditioning system and allied equipment including boilers and auxiliaries round the year on annual contract basis. Contractor will provide trouble free, uninterrupted and smooth operation & maintenance and will also maintain inside design conditions.
2. Contractor will attend to all types of faults, defects, repair, servicing, maintenance, break down/failures promptly.
3. Contractor will carry out cleaning, dusting and daily/routine/preventive maintenance/repair and servicing of all system as per manufacturer recommendations or as directed by the OGDCL engineer in charge.
4. Contractor will carry out the annual servicing of A.C. system during winter or intermediate season as per manufacturer's instruction.
5. Contractor will work after office hours and on holidays in order to attend any breakdown, failure, repair, maintenance and servicing if required or directed by the OGDCL engineer/in charge without any extra charges.
6. Contractor will also carry out fortnightly, monthly, annual cleaning, servicing, & maintenance of complete HVAC system including boilers as per manufacturer scope of work and as directed by the OGDCL engineer/in charge. All expense incurred in this regard are deemed to be included in the monthly operation/maintenance charges. Contractor is responsible for yearly inspection of installed boiler. However, OGDCL will bear Government's inspection fee only.
7. Contractor will keep ready two cylinders of nitrogen gas and regulator permanently in the A.C plant room in order to cope up with any accidental/unexpected leakage or breakdown of vacuum in the chillers.
8. Contractor will maintain at his own cost the log sheet of complete A.C. system and will record hourly readings. Contractor will get the format of log sheet approved from OGDCL engineer/in charge. Contractor will also maintain all details of maintenance, servicing, breakdowns, repair & replacement of parts/components in log sheet along mentioning date, time and reason.



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Dy. Chief Engineer (Elect.)
Administration Department
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9. Contractor will keep the A.C. Plant, all AHU rooms and complete system and equipment neat and clean and free from dust, debris or from any other foreign material. Contractor staff should also be neat, clean and healthy. Contractor also makes sure the annual cleaning of all ducts i.e grill, neck up to approach, diffusers etc. In addition, the maintenance of all types of blowers/ exhaust fans is contractor's responsibility.
10. Contractor will do the water analysis of supply water, chilled & condenser water once or twice in a month at his own cost as directed by the OGDCL engineer/in charge. Chemical treatment will be done according to the result of test and as per recommendation of chemical/manufacture and water testing. Contractor will bring his own testing kit and reagents.
11. Contractor will carry out testing/analysis of lithium bromide solution of both chillers once in a year at his own cost as directed by the OGDCL engineer/in charge. If the results are not within the prescribed parameters of manufacture than contractor will carry out necessary calibration, adjustment in chiller and will add inhibitor, alcohol, alkali etc as required and as directed by the OGDCL engineer/in charge. However inhibitor, alcohol, alkali and other chemical required will be provided by the OGDCL.
12. Contractor will comply with all the requirements of Pakistan Electricity Rules & Acts, IEEE latest edition, Electrical Inspector and other bye laws. Contractor will also complete all formalities required in this regard at his own cost and as directed by the OGDCL engineer/in charge.
13. In case of requirement of any spare part, it will either by the contractor (payment will be made by OGDCL on submission of invoice) or if contractor unable to supply any part in emergent need, will be provided by OGDCL.
14. All the labor & labor charges required for the completion of job including welding, all type of machinery repair work, minor hardware such as nut bolts and washers etc will have to be provided by the contractor at his own cost. All such expenses are deemed to be included in the quoted price.
15. The contractor with the prior approval/permission of OGDCL will do rewinding of the electric motors and submit rewinding invoice for payment or OGDCL will arrange from market.
16. General inspection and necessary adjustment of all machinery shall be carried out timely as per OEM recommendations.
17. In case of any major overhauling in the HVAC(Chiller/AHU/Cooling tower), the contractor will be responsible to troubleshoot the problem by themselves or through any 3rd party. However, additional payment will be made as per actual expense, on verification of OGDCL Engineer.

B- TERMS AND CONDITIONS

1. OGDCL will provide only water, Sui gas and electricity free of cost to the contractor.
2. Contractor will bring his own tools, heavy duty vacuum pump, welding plant, chain pulley, Guage manifold, charging leads, instrument, hardware, nut/ bolts, cotton waste, cleaning material included all consumables material what so ever required for the operation and maintenance of AC System including annual servicing/overhauling and maintenance.


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3. Contractor will repair and make good all the damages if caused to any equipment, system, company building/property and any service due to the contractor negligence at its own cost as per instruction of OGDCL engineer/in charge.
4. OGDCL engineer/in charge can terminate the contractors staff in case of misbehavior or misconduct and the contractor will not bring back the terminated staff unless authorized by OGDCL.
5. Contractor will submit the photocopies of the qualification and experience of his staff to the OGDCL engineer/in charge for approval. Without approval contractor cannot depute his staff working.
6. Contractor will operate and maintain A.C. Plant/system and all auxiliaries.
7. Monthly payment made to the contractor include all charges for monthly operation/maintenance, routine, daily, fortnightly, monthly, annual repair/maintenance, servicing/overhauling.
8. The contractor will maintain at its own cost the log sheets of complete A.C. Plant system and will record the reading. Contractor will also enter the all the breakdown, repairs and replacement of parts/components and lock sheet.
9. Initially the contract will be valid for a period of two (02) years. However based upon the performance of contractor, it can be ~~annually~~ extended further by the mutual consent of both parties on the same rates, terms & conditions.
10. Penalty of Rs: 5000/hour will be imposed on contractor, for non-operation of A.C Plant/ System due to contractors negligence and shut down/ break down
11. Any dispute arising under the agreement shall be referred to the GM (Admin) OGDCL, whose decision shall be binding and final for the contractor.
12. The bidder must provide Undertaking on non-judicial stamp paper that the firm has never been blacklisted by any Government / Semi-Government Department and not involved in any kind of litigation with OGDCL

C- SCOPE OF WORK PREVENTIVE, MONTHLY AND ANNUAL SERVICING, OVERHAULING, REPAIR AND MAINTENANCE

1. Complete servicing de-scaling and cleaning of chiller tubes and chemicals and nylon brush calibrating, adjusting and trimming of control and safety devices of chillers. Servicing, overhauling of chillers purge pump replacement of purge pump oil. Leak testing and evacuation of chillers, edition of refrigerant, lithium bromide, inhibitor and other chemical if required. Sampling of solution, cleaning and removing of soot from generator (Chiller), complete servicing and overhauling of generator including their power/control wiring and allied electrical switch gear and painting work as directed by OGDCL engineer/in charge.
2. Complete servicing, repair and maintenance of induced draft cooling including washing, cleaning and removing of dust, corrosion, algae/sludge, deposit and scaled, using chemical and mechanical method from fills, nozzles, decks, basin, walls, fitting, all incoming, make up and drain line and complete structure, metallic parts, foundations, Repair, servicing and overhauling of valves and grinding of values seats and disks to remove any leakage. Repair and service of fans, fan motor, bearing and belts, complete dismantling, reassembling and re-commissioning of cooling tower. Including repair and servicing of power/ control wiring and allied electrical switch gear complete in all respects and as directed by OGDCL engineer/ in charge.
3. Cleaning and washing of coils, filters and strainers with chemical using spray gun/compressor including complete servicing, repair and maintenance of allied piping, insulation, controls, instruments, values, fitting, power/ control wiring and


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allied electrical switch gear. Painting of air handling units including replacement of damaged and defective components complete in all respect and as directed by OGDCL engineer/in charge. (Paint will be provided by OGDCL)

4. Complete servicing, repairing of all chilled/hot water, condenser water make-up and drain lines, valves of A.C system/ plant including washing, cleaning and removing of all deposits, sludge, corrosion and scale. Including grinding of valves seats and disks and removing of leakage including replacement of any defective or damaged part. Complete in all respect as per job requirements and as directed by the OGDCL engineer/in charge.
5. Complete servicing, repair and maintenance of all chilled/hot water and condenser water pumping sets, service pit waste water pump including repair and replacement of defective or damaged parts. Dismantling of pumps for checking, servicing and repair of inner parts. Re-assembling and re-commissioning of pumping sets including leveling, balancing and aligning of pumping sets. Pumping sets should be free from any abnormal noise, vibration and misalignment. This job also includes clean, servicing of pumps motors and allied electrical switch gear/ wiring. Motors should not consume excessive current and should not get heated up. Complete in all respects and as directed by the OGDCL engineer/in charge.
6. Cleaning, servicing and removing of dust, dirt and any foreign material from motor control center, apparatus control panel, switch Board, DBs and allied wiring of complete A.C plants/system and should be dust, vermin and water proofs. Including removing of carbon and dust from contractors, breakers and from relays points using required chemicals. Tightening of connections and terminals, including replacement of all damaged parts/components, cables, conduits saddles, supports, bends, sockets all hardware, accessories and fitting. All the equipment and system should be properly earthed/ grounded. Contractor will fully comply with all requirements of Pakistan Electricity rules, acts & bye laws of IEEE latest edition and requirements of Electrical Inspector and other byelaws. Contractor will complete all the formalities required at his end at his own cost and as directed by the OGDCL engineer/in charge.
7. Complete cleaning, dusting and servicing of complete automatic control system of A.C plant/ system including rimming, adjusting and calibration of automatic controls as per instructions of OGDCL engineer/ in charge.
8. Complete servicing, overhauling, cleaning, washing, repair and maintenance of all supply fresh air & exhaust fans including repair and replacement of damaged/ defective parts including wiring and allied electrical switch gear and as directed by the OGDCL engineer/in charge.
9. Contractor will be responsible for maintenance & operation of boiler and provision of its annual fitness certificate from Boiler Inspector.

D- LIST OF EQUIPMENT / INSTALLATIONS

1. Direct Fired Liquid Absorption Chiller 570 USRT capacity each (02 Nos) (Mitsubishi of Japan make) & 500 TR Chiller (01 No)(Ebara Japan) .
2. Cross Flow, Two Cells Cooling Tower, Baltimore Make & one Multi cell Cooling tower (Make: Shinwa Japan)


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3. Air handling Units- 42 Make York USA
4. Condenser Water Pumping Sets, (---) US GPM Capacity
5. Chilled Water Pumping Sets, (---) US GPM Capacity
6. BEMS Type Automatic for complete AC System
7. All instruments including Pressure & Temperature Gauges
8. Complete piping including all valves, accessories, Fittings for Chilled/Hot, condenser water, Fresh Water, Make up water, Drain Lines, Expansion Tank, Sui Gas piping, Hangers and Supports
9. Complete Air Distribution System including supply, return, fresh, Exhaust air ducts all types of dampers, air devices, false ceiling, Hangers and supports
10. All types of insulation of complete A.C Plants/ System
11. All foundation of complete A.C Plants/ System
12. Chemical Feeding System for A.C Plant
13. Fresh Air, Ventilation and Exhaust Fans
14. Complete electric system for complete A.C Plants/ System including all electric panels, sub panels DBs motor control center, apparatus control panels, power/control wiring electric Switch gear of A.C System
15. Insulation of all equipment, system & material including chilled/hot water piping and ducting
16. Different Types & capacities Split Type AC Units
17. Boiler
18. Hot water storage tanks
19. Hot water Circulation pumps
20. Water Pumps:-


S#	Description/Make	Capacity	QTY
1	Condenser Water Pumps		
	KSB Pumps with SEIMENS Motors	2550USGPM	1
		1700USGPM	3
	Grand Fos	2263 USGPM	1
2	Chilled Water Pumps		
	KSB Pumps with SEIMENS Motors	1580USGPM	3
		906USGPM	4
		151USGPM	2
	Grand Fos	1325 USGPM	3
3	Hot Water Pumps		
	Grand Fos	USGPM	2

E- LIST OF O & M STAFF REQUIRED

The particulars of the required staff along with their qualification and experience who shall be deputed for the operation and maintenance of HVAC system are as under:

1. MANAGER

01 No.


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Having ten years' experience to handle the BEMS system of HVAC. Must be B.E or B-tech

2. **BOILER ENGINEER**

01 No.

Must have 2nd class certificate with 5 years working experience.

3. **SUPERVISOR**

01 No.

Three (03) years diploma holder in Mechanical/ Air- Conditioning technology and having five (05) years of experience in the operation, maintenance and repair of Central Air-Conditioning System including especially direct fired absorption type chillers, automatic controls, instruments, water treatment chemicals and allied electrical switch gear.

4. **AIR-CONDITIONING MECHANIC/ TECHNICIAN**

01 No

Having diploma or certificate in Mechanical/ Air- Conditioning technology with five (05) years of experience in the operation, maintenance and repair of Central Air-Conditioning system including especially direct fired absorption type chillers, automatic controls, instruments, water treatment chemicals and allied electrical switch gear.

5. **INDUSTRIAL ELECTRICIAN**

01 No.

Must have least five (05) years of experience in the operation and maintenance of electrical panels, switch boards DBs, motor control center and allied electrical switch gear/ wiring of A.C system

6. **CHILLER OPERATOR**

02 Nos

Having 5 years' experience of the same capacity plant

7. **HELPERS**

02 Nos

Able to work on A.C Plant and to assist the technical staff

F- WORKING TIMING

The current prevailing office time is as follows:

08:00 A:M to 04:30 P:M (Monday to Friday)(subject to weekly holidays announcement)

Above mentioned timing can be changed as per company instruction. The A.C Plant should be started at least 02 hours before the start of office and shut off after 02 hours of office time. In case of any emergent meeting, contractor can be called for operation of Plant at any time even in holidays.

Contractor shall ensure that all staff employed is competent and of a good background and no one has any criminal record or has any drug addiction or has any kind of illness or any such habit that can in any way prove harmful or detrimental to OGDCLS employees, property and to visitor or in any way offensive to the employees or the visitors. In any such case, OGDCL will serve notice to the contractor for the removal of such employee who fails to comply above criteria

Contractor must inform OGDCL authority about his where about if he is out of his office town and should also provide name of his substitute in charge.

G- EVALUATION CRITERIA FOR THE BIDDERS:


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S. No	Areas	Points
01	Experience in Similar HVAC Field (Absorption Chiller) : Company profile/its year of establishment/experience of similar business regarding absorption chillers (01 point for each year)	Max. 15 Points
02	Technical Strength of the bidder	Max. 20 Points
	A) Must have skilled/technical manpower who can handle/rectify all kind of technical faults in the HVAC system. The company must have the employees available, as required vide clause: E of TOR (CV's of all manpower must be provided) (01 points for each employee).	15
	B) List of its equipment/tools required for routine operation & maintenance of HVAC system(mainly high pressure vacuum pump etc)	05
03	Detail of last 10 years Projects/ Contracts with complete addresses.(Provision of agreements/contracts with companies) not less than 500TR (1*5 points for each project)	Max. 15 Points
04	Financial Strength of the Company (audited financial statements for the last 03 financial years must be provided) (05 points for each year.)	Max.15 Points
05	Registration with PEC	Max 10

Note: Only the bidders who score overall min of 70 % in the technical evaluation & at least 60% in each category, will be considered technically responsive. Contract will be awarded to the bidder/bidders quoted lowest monthly rates.

H- COMMERCIAL EVALUATION:-

The commercial bids of only technically bidders (i.e. 60 % in the technical evaluation & at least 60% in each category) will be opened and evaluated and contract will be awarded to the bidder quoted lowest monthly rates.

The bidders are advised to quote their charges exactly in the following format. In case of noncompliance / deviation to the following format, the bidders can be declared non responsive

S. No.	DESCRIPTION	Price (in PK Rupees)
01	Charges for operation, maintenance, cleaning, servicing, overhauling, including daily, weekly, fortnightly, monthly, annual maintenance, routine and preventive maintenance of complete A.C Plant/ System as per scope of work, list if equipment/installation, other terms/ condition and as per instruction of OGDCL(Lump sum charges)	Rs. Per month

K: Contract Period:

The Contract shall initially be executed for a period of **02 (two) years**, which can be extendable by the mutual consent of both parties on same terms and conditions


Najeeb-ud-Din Muhammad
 I/C Maintenance (Head Office)
 Administration Department

OTHER IMPORTANT INFORMATION

BIDDING METHOD:

Bids against this tender are invited on 'single stage Two envelop'

AMOUNT OF BID BOND:

Bid Bond /Bid Security amounting to PKR: 170,000/- is to be attached / provided with the technical bid. Please see Master Set of Tender Document for further details.

BID PRICE:

- i. Bid price shall be inclusive of all taxes, duties, levies, charges etc., except Provincial Sales Tax (PST)/ Islamabad Capital Territory Sales Tax (ICT) in Pakistan.
- ii. The prices should be quoted in PKR.

(This clause will be prevailing instead of Master Tender document "ITB" clause # 06(ii) 'BID PRICE')

- iii. The prices quoted by the successful bidder (contractor) for required services shall remain firm and final throughout contract period. The price charged by the successful bidder (contractor) for required services shall not vary from the prices quoted by the service company.

MANDATORY REQUIREMENT

For online payment to vendors/contractors through (IBFT & LFT). Following info is required from your company: -

1. IBAN (INTERNATIONAL BANK ACCOUNT NUMBER 24 DIGITS).
2. VENDOR NAME AS PER TITLE OF THEIR BANK ACCOUNT.
3. NTN NO.
4. CONTACT # OF COMPANY CEO/OWNER (MOBILE & LANDLINE).
5. POSTAL ADDRESS.
6. BANK NAME.
7. BANK BRANCH NAME & ADDRESS.

The master set of tender documents (services) uploaded on OGDCL's website (www.ogdcl.com) is the integral part of this TOR.

Bidders are requested to read TOR & Master Set to Tender Documents (Services) and provide complete information / documents including tender annexures with the bid.

Following is the link for Master Set of Tender Documents for Services:

<https://ogdcl.com/sites/default/files/Tender%20Document%20Services%20Press%20for%20Webloading%20dated%202018-03-2019-N.pdf>