IRQ-ITB-005/20 - Supply and Installation of New Compact Water Treatment Unit 200 m³/hr. in Al Houtah- Shaat-Al Arab District, Basrah Governorate, Iraq – Re-advertisement

Consolidated Response to Clarifications sought by Bidders.

Clarifications raised by bidders through e-mail:

<table>
<thead>
<tr>
<th>#</th>
<th>Clarifications raised by bidders</th>
<th>UNDP response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>“Item 21-a” Please briefly describe the condition of the equipment, the size of the damage, as well as the dimensions, quantity, and size of the tubes and cables. And if in a nutshell, we can provide prices appropriate for the workload.</td>
<td>The existed Steel Structure of the intake are operational, however not quite sustainable and the required works as stated in the BOQs aims to fulfill the shortcomings in all structural, including repairing, welding, replacing the damaged parts and remove the old paints and existing rust. Dimension of the Steel platform foundation is about (2m<em>2m) with four columns and a shade, work includes painting all intake steel structure by one-layer anti-corrosion and two layers of oil paints. The price includes with all connection requirements, For required materials/ equipment: All Existed pumps and operational board need to be replaced with new ones. Piping connection: Heading from the Submersible pump to the Existing Header at the Intake, (approx. 8 m length) and Diameter 300 mm with Header Pipeline <strong>Valves</strong>: Required supply/Install new Valves for the Intake only, types, size and quantities as below: Types of valves: Air Valve, Check valve and Gate valve, Size of valves: all are 300mm Quantities: 1 per Each <strong>Cables</strong>: Connection required from Pump to the Electrical Starter Board, Length about 20m, Size 4</em>25mm², Type PVC <strong>Electrical Starter Board</strong>: New Starter board required to feed the new pumps at the Intak, rated power 40k Watt at the intake Further details on required works will be revealed during the site visit scheduled for April the 20th, as currently the end-user is lock down and details other than above cannot be obtained.</td>
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<td>2</td>
<td>“Item 21-d”, it is clear that there is an old unit that will be connected with the new unit, please explain the size of work and the dimensions and length of pipes, and the size and quantities of valves and their type, as well as the size, length and type of cables ...</td>
<td>The Required Works under this item is to combine both outlets (new unit and old unit) through one Header pipeline, which would require to change the Header about 30m length, Size of the Header pipe is 300mm D/N to fulfill the required capacity of 400m³/hr. from combining both units.</td>
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Valves required types, quantities and size as below:

- Gate valves (2 Each), Size 300mm
- Check valves (2 Each), Size 300mm
- Air Valve (1 each), Size 300mm

If above is still not clear, further details on required works will be revealed during the site visit scheduled for April the 20th, as currently the end-user is lock down and details other than above cannot be obtained.

3 “Item 22-a”, This mentions a set of valves but in the other previous rows all the components are mentioned with valves included. So, our question is, what are these valves mentioned in this row?
Regarding valves, the list only mentions manual valves, but for the filters, with water air backwash, these valves should be automatic. Are you considering automatic valves for these positions or all the valves should be manual?

Automatic valves will not be accepted, all supplied valves are required to be Manual, as mentioned in the BOQs, “Manual Butterfly valves types Gate valves and Check valves

Reference to the description of item 22-a of BOQs: “Supply, install, test and operate Manual Butterfly valves types Gate valves and Check valves, Flanged type DN 200, or DN 315 or DN 110 material Body from – GG25, mill-AISI 316-Stainless steel.”

The Unit measurements/ Quantities under this item are one Set. Thus, the required Valves under this item are typical standard requirement for the installed 200m3/hr compact unit.

In addition, all mentioned valves under the descriptions of other components are manual type as well, such as Sedimentation Unit, Intermediate tanks, Filtration Units and Backwash system,

While the Actuator type is Electrical- Mechanical. See details of required specifications point#13 of the Technical Compliance Sheet

4 “Item 23”, It mentions a flowmeter “L = 450mm”. Maybe this is a mistake, should it be a diameter 450mm? In Any case a DN450 flowmeter is too big for this plant. The correct flowmeter for the plant outlet should be 8 "(DN200). Maybe this row needs some clarification

No, the given length of Flowmeter in the BOQs description L= 450mm is correct and this is not the Diameter as assumed above.

The Dimeter of Flowmeter, is well defined in the Technical Compliance Sheet as DN 8"

In addition, refer to Item 14C of BOQs linked to this item: “Supply materials, tools and manpower to pull 300 mm2 Pipeline to connect compact unit to pipeline connection.”

5 Item 25" This row mentions an "Electrical and control panel". But row "20" also mentions another one which we consider is the actual electrical panel for the plant. And row "21-e" mentions the electrical panel for the intake pumps. No more panels should be needed. So which electrical control panel is this one mentioned again in row "25"?

All the mentioned three control boards/panels are required/ needed for this work, and none of the items are repeated:

For this item #25 is the Electrical and Main Command Control Board for the entire Compact Unit, controlling other Internal Compact unit processes.

Item # 20 is the Electrical Control Board for High Lift Pumps.
Item #21-e is the Electrical Control Board for Low Lift Pumps

item "18 a" The requested dimensions for the filters are diameter 2.4m and length 6m. Note that diameter must be maximum 2.1m

The specifications and design required in the ITB including the dimensions Dia= 2.4m, Length= 6m of Filter Structure cannot be changed, as offering different dimensions other than what is specified in the ITB items, will not be
in order for being able to transport these 2 vessels in a 40ft Open Top container. A filter with diameter of 2.4m would not fit in any maritime sea container. So we can build it with 2.1m diameter and 6m length and still get 10 m / h filtration speed, which is within the requested parameters, and which is we always do for a 200 m3/h plant.

Note there is no room to change the design of supplied equipment, giving the required works dealing with installation of new compact unit beside existed Unit of 200m3/h.

** Our suggestion:
In order to fit the equipment in maritime containers is necessary for it to have the appropriate dimensions. Therefore these filters can be built with other dimensions, i.e: less diameter and bigger length, and having the same performance. In fact, a 2.1m diameter and 6m length filter has a filtration speed of 10m / h which is ok with the requested parameters. Additionally, if we want to achieve 8 m / h, then the filtration surface needs to be bigger, and we can do it increase the length just a bit, for example 7 or 7.5m, while maintaining 2.1m diameter.

Transportation and shipment method should not be a reason to change the design of Filter Unit or any other item specs, the supplier should be able to reach out different sources for best means of transportation that meets the specified design of equipment requested in the ITB. However it is not within UNDP’s terms to specify the transportation methodology, however another option might be considered, instead of transporting these 2 vessels in a 40ft Open Top container as above suggested. It would be better to place them in a Flat rack container as simple storage shipping containers which have collapsible sides that can be folded so as to make a flat rack for shipping of wide variety of goods.

If the bidder intends to bring and supply the filters inside a maritime container as suggested above. Then this type of Filter Unit won’t be approved because it does not fulfill the UNDP tender requirements.

The only point where there is a conflict in the answers is the no. 3. Regarding the valves. The answer says "Automatic valves will not be accepted, all supplied valves are required to be manual". But later, it says "While the actuator type is electrical-mechanical". This is a conflict because what makes a valve automatic is for example an electrical actuator or a pneumatic actuator. So if the valve has this actuator is automatic. In addition, when there is filtration system that is backwashed with water+air, particularly when air is involved, the backwashing valves should be automatic, as there is certain complexity in the backwashing sequence and therefore it should be carried out automatically. Doing this manually is possible, yes, but not recommended. I would like to clarify this point.

In General, all processes of the compact unit are set in the ITB be manual in line with end-user’s required specifications, with exception only for the valves of the backwash system, as it’s possible for these valves to be either manual or automatic types, and therefore, either option is acceptable. Hence, if any bidder, choose to supply automatic one for Actuators in the backwash system. Then the bidder needs to comply with the required specifications of Actuator (electrical-mechanical type) as outlined in the technical compliance sheet.

Again, bidders are not obligated to offer automatic type valves for the backwash system, since the compliance sheet well defined the valves to be manual, but in case, the bidder choose to offer for any valve an automatic one, then shall refer to the required specifications of Actuator in the compliance sheet.