

Terms of Reference

Rehabilitation of Solar PV Plants Components

Oxfam Lebanon Programme

I- Background

Oxfam is a global movement of people, working together to end the injustice of poverty. Oxfam has been working in Lebanon since 1993. We provide humanitarian assistance to vulnerable people affected by conflict, and we promote economic justice and good governance, and women’s rights. Oxfam also works with local partners to contribute to the protection and empowerment of marginalized women and men.

II- Project Objective

Oxfam is supporting the Bekaa Water Establishment in the rehabilitation of their solar PV water pumping stations. Therefore, Oxfam is seeking a supplier/contractor to replace damaged components of the PV plants used for water pumping in North Bekaa (batteries of lead acid type, PV panels, contactors, electric relays, padlocks, valves, etc.)

III- Requested components for the rehabilitation of the PV plants for water pumping.

1- Location 1: Kfarzabad Solar Water Station (GPS: 33.783694, 35.991444)



1.1 Chlorination system rehabilitation

Supply and install new chlorination pump (photos for the damaged pump in figure 1.2). The pump characteristics are the following: IP 65, 12 W, 230 V, 8 bars, 5 L/h.

| | |
|-----------------|----------------|
| Pressure (Bars) | Flowrate (l/h) |
|-----------------|----------------|

| | |
|----|---|
| 8 | 5 |
| 10 | 3 |
| 2 | 9 |



Figure 1.2: Chlorination system pump

Replace the chlorination system tank mixer by a new one as shown in the figure 1.3, as well the connection between the two chlorination tanks. chlorination system tank mixer (Motor should be of type vertical fixed and will be mounted at the top of the mixer tank, the shaft will go down through the top to the mixer tank. The length of the shaft will be about 0.5 m. EU Origin)

The supplier is requested to chlorine (70% HCL) powder, two plastic containers of 10kg each are required.

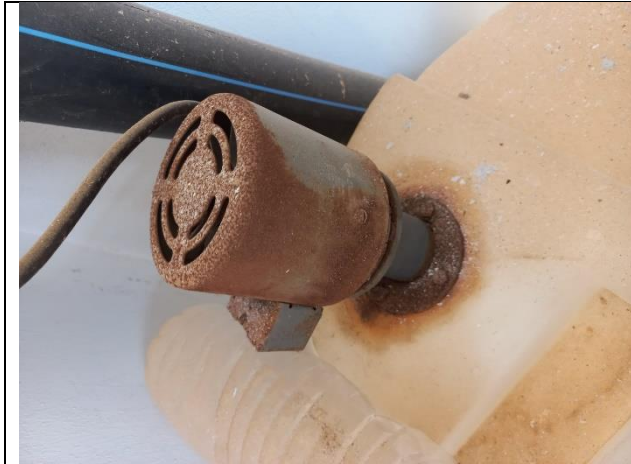


Figure 1.3: Chlorination system tank mixer



Figure 1.4: Connection between the two chlorination tanks

1.2 Grass removal tools from under and around the PV panels

A grass removal or string trimmer is requested to remove grass from the pump station to avoid fire risks. Figure 1.5 below shows the grass being at a very high risk of fire.



Figure 1.5: Grass under and around the PV panels

In addition to the string trimmer, the following hand tools are requested:

- Hoe (heavy duty, large metal blade > 7 in., wood handle)
- Pickaxe (heavy duty, 36 inches L x 21 inches W x 2.75 inches D, tool head weighs 5 lbs, wood handle)
- Shovel (heavy duty)

1.3 Valves for the PV panels cleaning system.

As shown in the figure 1.6 below, the PV panels cleaning system water network is missing the ball tap valves. In total, 5 ball tap valves of ½ in are needed.



Figure 1.6: Existing pits for the installation of the ball tap valves

1.4 Output Valve

The below water output gate valve (3 inches) is continuously leaking water. Therefore, it must be replaced by a new similar one.



Figure 1.7: Existing 3 inches valve to be replaced

1.5 Technical room roof water proofing

The roof of the technical room presented in figure 1.1 needs to be waterproofed to avoid water leakage to the electrical equipment. Therefore, it is requested to prepare the roof surface properly (surface cleaning, dirt/debris removal) and then apply a waterproofing material layer (Polyurethane, EU origin). The estimated area of the roof is 10 m².

2- Location 2: Al Maslaha Baalback Solar Water Station (GPS: 34.006950 36.225993)

2.1 Batteries

The 2 batteries of lead acid type 150 Ah (figure below) need replacement by new ones with similar specifications (12 V, equivalent or higher storage capacity). These batteries are connected to an old hybrid inverter and therefore it is not recommended to be connected to lithium type battery.



Figure2.1 : Existing 2 lead acid batteries

2.2 PV panels

10 PV panels of 320 Wp need to be replaced. Some of these panels are broken or hit by bullets (Figure 2.2). It is recommended to be replaced by 550 Wp Tier 1 PV panels if 320 Wp are not available.



Figure 2.2: Broken PV panel (hit by a bullet)

2.3 Grass removal from under and around the PV panels

A grass removal or string trimmer is requested to remove existing grass in the pump station (from under and around the PV panels) to avoid fire risks.



Figure 2.3: Grass under and around the PV panels in May 2024 (left) and Summer 2023 (right)

In addition to the string trimmer, the following tools are requested:

- Hoe (heavy duty, large metal blade > 7 in., wood handle)
- Pickaxe (heavy duty, 36 inches L x 21 inches W x 2.75 inches D, tool head weighs 5 lbs, wood handle)
- Shovel (heavy duty)
- 2 padlocks of 100mm 4" heavy duty stainless steel armored padlock anti-theft including 3 keys

2.4 EDL electricity connection to the diesel generator panel board

Supply and install 40 meters AC cable 4x125mm² and electrical accessories (MTS 400 A, ...) to connect EDL electricity to the diesel generator panel board. All accessories and safety items are requested.

2.5 Summary of actions or items to installed in Al Maslaha Baalbeck solar water station.

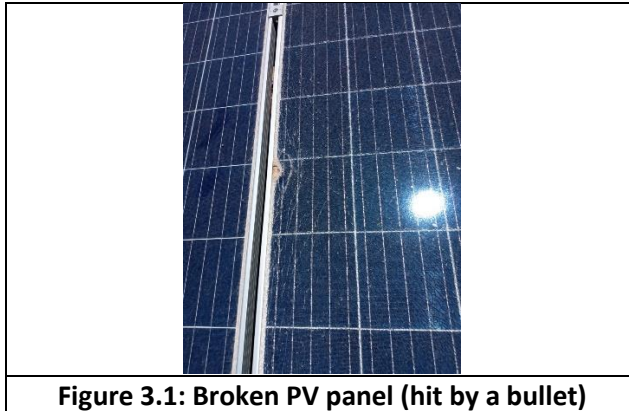
3- Location 3: Assayra 10 - Baalbeck Solar Water Station (GPS: 34.009057 36.249629)

3.1 Batteries

2 batteries of lead acid type 150 Ah need replacement by new ones with similar specifications (12 V, equivalent or higher storage capacity). These batteries are connected to an old hybrid inverter and therefore it is not recommended to be connected to lithium type battery.

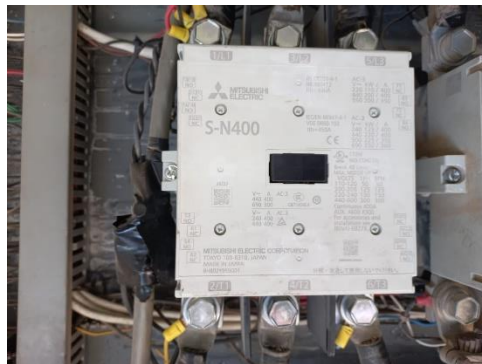
3.2 PV panels

10 PV panels of 320 Wp need to be replaced. Some of these panels are broken or hit by bullets (Figure 3.1). It is recommended to be replaced by 550 Wp Tier 1 PV panels if 320 Wp are not available.



3.3 Electric contactor

The electric contactor 400 A shown in the figure below needs replacement by a new one.



3.5 Electric relays

As well, 5 electric relays like the one shown in the figure below need replacement.



3.6 Fence padlock

It was observed that the fence padlock is damaged and requires to be replaced by new one of heavy-duty type.



Figure 3.4: Damaged fence padlock

The supplier is requested to supply 3 padlocks of 100mm 4" heavy duty stainless steel armored padlock anti-theft including 3 keys.

4- Location 4: Assayra 12 - Baalbeck Solar Water Station (GPS: 34.003490 36.244332)

Summary of actions or items to installed in Assayra #12 Baalbeck solar water station.

- 4.1) Supply and install 2 batteries of lead acid type (storage capacity 200 Ah, 12 V), and all needed accessories (35 mm² DC cable, fixing connections).
- 4.2) Replacement (Supply and install) of 14 PV panels of 320 Wp (550 Wp PV panels Tier 1 are preferred if 320 Wp are not available).
- 4.3) Supply and install three phase 400 A contactor (S-N400, IEC/EN 60947-4-1, VDE 0660, Ith 450 A, AC-3, continuous current rating 400 A).
- 4.4) Supply and install of 5 electric relays industrial R4N type (Contacts: 4 CO; rated load AC1 - 7 A/230 V AC; coils AC or DC; for plug-in sockets and PCB; mechanical indicator, LED (option); test button).
- 4.5) Supply 2 padlocks of 100mm 4" heavy duty stainless steel armored padlock anti-theft including 3 keys.

5- Location 5: Al Maslakh - Baalbeck Solar Water Station (GPS: 34.0003493 36.1904883)

Summary of actions or items to installed in Al Maslakh Baalbeck solar water station.

- 5.1) Addition of (Supply, install, connect to existing plant, and commission) 16 PV panels (550 Wp Tier 1 PV panels are preferred if 320 Wp are not available) with their steel structure and all needed accessories (Galvanized G90 type, to withstand wind speed of 120 km/h and snow load)
- 5.2) Supply and install of 5 electric relays industrial R4N type (Contacts: 4 CO; rated load AC1 - 7 A/230 V AC; coils AC or DC; for plug-in sockets and PCB; mechanical indicator, LED (option); test button)

5.3) Supply 3 padlocks of 100mm 4" heavy duty stainless steel armored padlock anti-theft including 3 keys

5.4) Supply and install 2 door locks (figure 5.1 below)

5.5) 150 mm gate valve to be replaced by new ones with same specifications (Metal type for water use, EU origin).

5.6) 150 mm gate valve to be replaced by new ones with same specifications (Metal type for water use, EU origin)



Figure 5.1: Door locks needs to be replaced or maintained.

6- Location 6: Douris - Baalbeck Solar Water Station (GPS: 33.9883517 36.1778997)

Summary of actions or items to installed in Douris Baalbeck solar water station.

1. Supply and install 2 batteries of lead acid type (storage capacity 200 Ah, 12 V), and all needed accessories (35 mm² DC cable, fixing connections)
2. Replacement (Supply and install) of 8 PV panels of 320 Wp (550 Wp Tier 1PV panels are preferred if 320 Wp are not available)
3. Supply string trimmer for grass removal (Heavy duty, >50 cc quick start gasoline engine, >40 cm cutting width)
4. Supply and install three phase 400 A contactor (S-N400, IEC/EN 60947-4-1, VDE 0660, Ith 450 A, AC-3, continuous current rating 400 A)
5. Supply and install of 5 electric relays industrial R4N type (Contacts: 4 CO; rated load AC1 - 7 A/230 V AC; coils AC or DC; for plug-in sockets and PCB; mechanical indicator, LED (option); test button).
6. Supply 2 padlocks of 100mm 4" heavy duty stainless steel armored padlock anti-theft including 3 keys

7- Location 7: Brital - Baalbeck Solar Water Station(GPS: 33.9349046 , 36.1488246)

Summary of actions or items to installed in Brital Baalbeck solar water station

Supply and install 2 batteries of lead acid type (storage capacity 200 Ah, 12 V), and all needed accessories (35 mm² DC cable, fixing connections)

8- Location 8: Seriine - Baalbeck Solar Water Station(GPS:33.879213, 36.091527)

Summary of actions or items to installed in Seriiine Baalbeck solar water station.

Supply and install 2 batteries of lead acid type (storage capacity 200 Ah, 12 V), and all needed accessories (35 mm² DC cable, fixing connections)

9- Location 9: Nabi Chit - Baalbeck Solar Water Station(GPS: 33.8723731 , 36.1127583)

Summary of actions or items to installed in Nabi Chit Baalbeck solar water station.

Supply and install 4 batteries of lead acid type (storage capacity 200 Ah, 12 V), and all needed accessories (35 mm² DC cable, fixing connections).

10- General Equipment for Solar Water Stations

Summary of actions or items

10.1 Supply safety helmet x 10

Supply piezometer with accessories length 300 m for measuring boreholes water level (Audible indicator/Buzz, visual indicator, tape type with markings, SS probe type, simple to use, robust and compact design, high accuracy)

10.2 Supply electrical fuses, surge arrestor, circuit breakers, electrical cable junctions and terminals, contactors, phase relays, timers, thermal relays, cables. (More Details are on the BOQ Down)

IV- General Requirements

- The contractor should demonstrate his proposal with a sample or detailed specifications with pictures.
- The quantities of the items described in the above may be increased or reduced according to the site conditions, based on the same pricing presented in the bill of quantities.
- The contractor is responsible for the material supply, power supply and all means of works on site.
- Oxfam has the right to reject any items/works not approved by the delegated engineer.
- The period of execution of works should not exceed **15 calendar day**.
- The contractor should prepare and submit technical and financial offer for the works with detailed Work plan, detailed Bills of Quantities, and execution schedule.
- The contractor will be responsible to provide transportation for his worker to the site.
- The tender items are not dividable.
- The Site Engineer may amend what he deems "technically" suitable for the project and after taking the approval of Oxfam, and the Contractor must abide completely with what was required by the supervising committee.
- The Contractor's relationship will directly be with OXFAM staff.
- OXFAM staff or his/her representative will be present onsite during the installation.

- The contractor shall execute all work required in the presence of the site Engineer or his/her representative.
- Oxfam Team or his/her representative is responsible to monitor and confirm the work.
- Oxfam has the right to increase or decrease quantities at the same unit cost.
- The contractor should assign a site engineer/technician to follow the execution work and be the focal point from the contractor field side.
- The contractor should ensure safety and security/prevention to avoid any accident while implementing the activity.

The Contractor must:

- Ensure that the supplied items are brand new **not renewed**, and that applies to all the supplied items. Preference is given to the items that have proven technical quality and efficiency during the operation.

V- Bill of Quantities

| # | Description | Quantity | Unit | Unit cost | Total cost |
|--|---|------------|----------------|-----------|------------|
| Location 1: Kfarzabad Solar Pumping Station | | | | | |
| 1.2.1 | Supply and install a chlorination pump (IP 65, 12 W, 230 V, 8 bars, 5 L/h, EU Origin) | 1 | | | |
| 1.2.2 | Supply and install a chlorination system tank mixer (Motor should be of type vertical fixed and will be mounted at the top of the mixer tank, the shaft will go down through the top to the mixer tank. The length of the shaft will be about 0.5 m. EU Origin) | 1 | | | |
| 1.2.3 | Fix the connection between the two chlorination tanks | 1 | | | |
| 1.2.4 | Supply two plastic chlorine containers of 10 kg each | 2 | | | |
| 1.3 | Supply string trimmer for grass removal (Heavy duty, >50 cc quick start gasoline engine, >40 cm cutting width) | 1 | | | |
| 1.4 | Supply and install 5 ball tap valves of ½ in each (EU Origin) | 5 | | | |
| 1.5 | Supply and install 3 inches gate valve (brass or equivalent, EU Origin) | 3 | | | |
| 1.6 | Supply 2 padlocks of 100mm 4" heavy duty stainless steel armored padlock anti-theft including 3 keys | 2 | | | |
| 1.7.1 | Supply 1 Hoe (heavy duty, large metal blade > 7 in., wood handle) | 1 | | | |
| 1.7.2 | Supply 1 Pickaxe (heavy duty, 36 inches L x 21 inches W x 2.75 inches D, tool head weighs 5 lbs, wood handle) | 1 | | | |
| 1.7.3 | Supply 1 Shovel (heavy duty) | 1 | | | |
| 1.8 | Roof of the technical room waterproofing. Including treating of roof surface properly (surface cleaning, dirt/debris removal) and then applying a waterproofing material layer (Polyurethane, EU origin). The estimated area of the roof is 10 m ² . | 10 | m ² | | |
| | | Total cost | | | |
| Location 2: Al Maslaha Baalbeck solar water station | | | | | |

| | | | | | |
|---|--|----|--|--|--|
| 2.1 | Supply and install 2 batteries of lead acid type (storage capacity 200 Ah, 12 V), and all needed accessories (35 mm ² DC cable, fixing connections) | 2 | | | |
| 2.2 | Replacement (Supply and install) of 10 PV panels of 320 Wp (550 Wp Tier 1 PV panels are preferred if 320 Wp are not available) | 10 | | | |
| 2.3 | Supply string trimmer for grass removal (Heavy duty, >50 cc quick start gasoline engine, >40 cm cutting width) | 1 | | | |
| 2.4 | Supply and install 40 meters AC cable 4x125mm ² and all needed accessories (MTS 400 A, terminal electrical connections, fixing items, protection...) to connect EDL electricity to the diesel generator panel board. AC cable should be installed underground as per the international electrical codes. The final layer can be concrete instead of asphalt. "Protection" includes needed circuit breaker(s), rain water and dust protection for the MTS, IP65 Panel board or equivalent (protection small technical room according to the size of the device(s)) | 1 | | | |
| 2.5 | Supply 2 padlocks of 100mm 4" heavy duty stainless steel armored padlock anti-theft including 3 keys | 2 | | | |
| Total cost | | | | | |
| Location 3: Assayra #10 Baalbeck solar water station | | | | | |
| 3.1 | Supply and install 2 batteries of lead acid type (storage capacity 200 Ah, 12 V), and all needed accessories (35 mm ² DC cable, fixing connections) | 2 | | | |
| 3.2 | Replacement (Supply and install) of 12 PV panels of 320 Wp (550 Wp Tier 1 PV panels are preferred if 320 Wp are not available) | 10 | | | |
| 3.3 | Supply and install three phase 400 A contactor (S-N400, IEC/EN 60947-4-1, VDE 0660, Ith 450 A, AC-3, continuous current rating 400 A) | 1 | | | |
| 3.4 | Supply and install of 5 electric relays industrial R4N type (Contacts: 4 CO; rated load AC1 - 7 A/230 V AC; coils AC or DC; for plug-in sockets and PCB; mechanical indicator, LED (option); test button) | 5 | | | |
| 3.5 | Supply 3 padlocks of 100mm 4" heavy duty stainless steel armored padlock anti-theft including 3 keys | 3 | | | |
| Total cost | | | | | |
| Location 4: Assayra #12 Baalbeck solar water station | | | | | |
| 4.1 | Supply and install 2 batteries of lead acid type (storage capacity 200 Ah, 12 V), and all needed accessories (35 mm ² DC cable, fixing connections) | 2 | | | |
| 4.2 | Replacement (Supply and install) of 14 PV panels of 320 Wp (550 Wp PV panels Tier 1 are preferred if 320 Wp are not available) | 14 | | | |

| | | | | | |
|--|--|------------|--|--|--|
| 4.3 | Supply and install three phase 400 A contactor (S-N400, IEC/EN 60947-4-1, VDE 0660, Ith 450 A, AC-3, continuous current rating 400 A) | 1 | | | |
| 4.4 | Supply and install of 5 electric relays industrial R4N type (Contacts: 4 CO; rated load AC1 - 7 A/230 V AC; coils AC or DC; for plug-in sockets and PCB; mechanical indicator, LED (option); test button) | 5 | | | |
| 4.5 | Supply 2 padlocks of 100mm 4" heavy duty stainless steel armored padlock anti-theft including 3 keys | 2 | | | |
| | | Total cost | | | |
| Location 5: Al Maslakh Baalbeck solar water station | | | | | |
| 5.1 | Addition of (Supply, install, connect to existing plant, and commission) 16 PV panels (550 Wp Tier 1 PV panels are preferred if 320 Wp are not available) with their steel structure and all needed accessories (Galvanized G90 type, to withstand wind speed of 120 km/h and snow load) | 16 | | | |
| 5.2 | Supply and install of 5 electric relays industrial R4N type (Contacts: 4 CO; rated load AC1 - 7 A/230 V AC; coils AC or DC; for plug-in sockets and PCB; mechanical indicator, LED (option); test button) | 5 | | | |
| 5.3 | Supply 3 padlocks of 100mm 4" heavy duty stainless steel armored padlock anti-theft including 3 keys | 3 | | | |
| 5.4 | Supply and install 2 door locks (figure 5.1 below) | 2 | | | |
| 5.5 | 150 mm gate valve to be replaced by new ones with same specifications (Metal type for water use, EU origin) | 1 | | | |
| 5.6 | 90 mm gate valve to be replaced by new ones with same specifications (Metal type for water use, EU origin) | 1 | | | |
| | | Total cost | | | |
| Location 6: Douris Baalbeck solar water station | | | | | |
| 6.1 | Supply and install 2 batteries of lead acid type (storage capacity 200 Ah, 12 V), and all needed accessories (35 mm ² DC cable, fixing connections) | 2 | | | |
| 6.2 | Replacement (Supply and install) of 8 PV panels of 320 Wp (550 Wp Tier 1PV panels are preferred if 320 Wp are not available) | 8 | | | |
| 6.3 | Supply string trimmer for grass removal (Heavy duty, >50 cc quick start gasoline engine, >40 cm cutting width) | 1 | | | |
| 6.4 | Supply and install three phase 400 A contactor (S-N400, IEC/EN 60947-4-1, VDE 0660, Ith 450 A, AC-3, continuous current rating 400 A) | 1 | | | |
| 6.5 | Supply and install of 5 electric relays industrial R4N type (Contacts: 4 CO; rated load AC1 - 7 A/230 V AC; coils AC or DC; for plug-in sockets and PCB; mechanical indicator, LED (option); test button) | 5 | | | |
| 6.6 | Supply 2 padlocks of 100mm 4" heavy duty stainless steel armored padlock anti-theft including 3 keys | 2 | | | |
| | | Total cost | | | |

| Location 7: Brital Baalbeck solar water station | | | | |
|---|---|------------|--|--|
| 7.1 | Supply and install 2 batteries of lead acid type (storage capacity 200 Ah, 12 V), and all needed accessories (35 mm ² DC cable, fixing connections) | 2 | | |
| | | Total cost | | |
| Location 8: Seriine Baalbeck solar water station | | | | |
| 8.1 | Supply and install 2 batteries of lead acid type (storage capacity 200 Ah, 12 V), and all needed accessories (35 mm ² DC cable, fixing connections) | 2 | | |
| | | Total cost | | |
| Location 9: Nabi Chit Baalbeck solar water station | | | | |
| 9.1 | Supply and install 4 batteries of lead acid type (storage capacity 200 Ah, 12 V), and all needed accessories (35 mm ² DC cable, fixing connections) | 4 | | |
| | | Total cost | | |
| 10: General Equipment for Solar Water Stations | | | | |
| 10.1 | Supply safety helmet x 10 | 10 | | |
| 10.2 | Supply piezometer with accessories length 300 m for measuring boreholes water level (Audible indicator/Buzz, visual indicator, tape type with markings, SS probe type, simple to use, robust and compact design, high accuracy) | 1 | | |
| 10.3.1 | Supply DC Fuse 25 A 1000 V DC (EU origin) | 5 | | |
| 10.3.2 | Supply DC Fuse 20 A 1000 V DC (EU origin) | 5 | | |
| 10.3.3 | Supply DC Fuse 15 A 1000 V DC (EU origin) | 5 | | |
| 10.4.1 | Supply DC Circuit Breaker 2P 20 A 600 VDC (EU origin) | 5 | | |
| 10.4.2 | Supply DC Circuit Breaker 2P 125 A (EU origin) | 5 | | |
| 10.5.1 | Supply AC Circuit Breaker 2P 6 A (EU origin) | 5 | | |
| 10.5.2 | Supply AC Circuit Breaker 2P 10 A (EU origin) | 5 | | |
| 10.5.3 | Supply AC Circuit Breaker 2P 20 A (EU origin) | 5 | | |
| 10.5.4 | Supply AC Circuit Breaker 2P 32 A (EU origin) | 5 | | |
| 10.5.5 | Supply AC Circuit Breaker 4P 10 A (EU origin) | 5 | | |
| 10.5.6 | Supply AC Circuit Breaker 4P 25 A (EU origin) | 5 | | |
| 10.6 | Supply DC Surge Arrestor Type I+II, 2P, VDC 1000, Up 2.5 kV, response time < 25 ns, with indicator window (EU origin) | 5 | | |
| 10.7 | Supply AC Surge Arrestor SPD Type I+II 1000 V (EU origin) | 5 | | |
| 10.8 | Electrical cable junctions and terminals | | | |
| 10.8.1 | Supply Copper electrical terminal 150 mm (Cosse électrique) | 20 | | |
| 10.8.2 | Supply Copper electrical terminal 120 mm (Cosse électrique) | 20 | | |
| 10.8.3 | Supply Copper electrical terminal 90 mm (Cosse électrique) | 20 | | |
| 10.8.4 | Supply Copper electrical terminal 50 mm (Cosse électrique) | 20 | | |
| 10.8.5 | Supply Aluminum electrical terminal 120 mm (Cosse électrique) | 20 | | |
| 10.8.6 | Supply Aluminum electrical terminal 90 mm (Cosse électrique) | 20 | | |
| 10.8.7 | Supply Electrical terminal 150 mm (Cosse électrique femelle isolée) | 20 | | |

| | | | | | |
|-------------------|---|----|--|--|--|
| 10.8.8 | Supply Electrical terminal 120 mm (Cosse électrique femelle isolée) | 20 | | | |
| 10.9 | Supply Circuit Breaker 4P 120 A (EU or Japanese origin) | 1 | | | |
| 10.10 | Supply Circuit Breaker 4P 150 A (EU or Japanese origin) | 1 | | | |
| 10.11 | Supply Circuit Breaker 4P 250 A (EU or Japanese origin) | 1 | | | |
| 10.12 | Supply Circuit Breaker 4P 400 A (EU or Japanese origin) | 1 | | | |
| 11.1 | Supply Contactor 3P 120 A (EU or Japanese origin) | 2 | | | |
| 11.2 | Supply Contactor 3P 150 A (EU or Japanese origin) | 2 | | | |
| 11.3 | Supply Contactor 3P 180 A (EU or Japanese origin) | 2 | | | |
| 12 | Supply Phase relay 3 phases (EU origin) | 2 | | | |
| 13 | Supply Timer seconds (EU origin) | 2 | | | |
| 14 | Supply Timer minutes (EU origin) | 2 | | | |
| 15 | Supply Level relay (EU origin) | 2 | | | |
| 16.1 | Supply Thermal relay 100 A (EU origin) | 2 | | | |
| 16.2 | Supply Thermal relay 120 A (EU origin) | 2 | | | |
| 16.3 | Supply Thermal relay 150 A (EU origin) | 2 | | | |
| 16.4 | Supply Thermal relay 250 A (EU origin) | 2 | | | |
| 16.5 | Supply Thermal relay 300 A (EU origin) | 2 | | | |
| 17.1 | Supply AC Copper Cable Single Core flexible 90 mm ² length 25 meters | 1 | | | |
| 17.2 | Supply AC Copper Cable Single Core flexible 50 mm ² length 25 meters | 1 | | | |
| 18 | Supply Motor temperature sensor/switch control display (EU origin) | 2 | | | |
| Total cost | | | | | |

| Locations | Total cost |
|--|------------|
| Location 1 | |
| Location 2 | |
| Location 3 | |
| Location 4 | |
| Location 5 | |
| Location 6 | |
| Location 7 | |
| Location 8 | |
| Location 9 | |
| # 10 General Equipment for Solar Water Stations | |
| Total cost | |
| VAT (11%) | |
| Total cost with VAT | |

Tenders' evaluation and other considerations

The contract will be awarded to the administratively and technically compliant tender that is the most economically advantageous, considering the quality of the services offered and the price of the tender, otherwise referred to as "best value for money". Tenders will be evaluated on the criteria listed below:



| CRITERIAS | Award criterias | | Max. Score | % of overall |
|--|--|----|------------|--------------|
| Capability / competence of tenderer to perform the service required | Experience in implementing of similar type of works, of similar scale | 10 | 30 | 30% |
| | Experience with Oxfam or other international NGOs of a similar Oxfam volume. | 5 | | |
| | Experience working with the Bekaa Water Establishment or other water establishments | 5 | | |
| | Qualifications, skills, languages, or experience of key personnel engaged in the project | 10 | | |
| Quality / Understanding of requirements | Meeting technical specifications (quality, methodology, etc.) OR Level of understanding of work/service required | 20 | 30 | 30% |
| | Ability to meet delivery dates OR Reliability of plan proposed | 10 | | |
| Prices for Services | Price proposal of service in accordance with the request | 40 | 40 | 40% |
| TOTAL MAXIMUM GENERAL SCORING | | | 100 | 100% |

Contract will be awarded to highest scored bid provided it passes all the following criteria:

Documents required

- I.D. card for the person signing the bid empowered by the power of attorney.
- Company profile
- An organizational (human resources) chart.
- List of customers (solar projects) in the past years (including power of the system, name of contracting party, contract value and date of completions). Table to be provided with the submitted documents and a copy of the contracts.
 - The bidder must have a minimum of 3 years' experience in construction of solar photovoltaic solutions (bidders with less than 3 years of experience are not eligible). The reference projects must be of a similar scope and size. References with contact name and phone number shall be provided.
- CVs of bidder's key personnel to be mobilized for this project (project manager, electrical/mechanical engineer, field supervisor, civil engineer).
- Datasheets, certificates, and any other technical documents to show compliancy of all the specified components for every item in the BOQ.
- Proposed methodology of work clearly developing the expected work phases.
- Bidder shall provide completed priced Bill of Quantities (BOQ).
- Company registration certificate and VAT registration certificate (if available), Noting that 3.4% will be deducted from the total amount if not registered.
- Bidder financial statements for the last two years. (if applicable)
- Bank details - Fresh account
- Bidder shall be fully compliant with the present TOR.
- Please fill the BOQ attached and add the unit prices without VAT, add the VAT value a side then total order value.



Coordination and Supervision

The activity will be supervised by Oxfam's team.

The work expected to start on **September 9, 2024**.

Please submit the full application documents (as mentioned above) to

lebanonprocurement@oxfam.org.uk ccing rdiab@oxfam.org.uk by **Monday 2nd of September , 2024 midnight** mentioning "Rehabilitation of Solar PV Plants Components " in the Subject line.

Questions / Request for clarification

Any requests for clarification may be submitted by email to rdiab@oxfam.org.uk ccing sabdelkader@oxfam.org.uk

Timeframe and Payment

100% payment after completing the installation of the requested quantity and submitting the financial documents.