



Terms of Reference

Service Contracting- Solar System for Agriculture Purpose

Contracting Agency	Al-Shouf Cedar Society- Maasser Al-Shouf- Lebanon
Project	Saving water, growing crops: Efficient irrigation for environmental and economic resilience
Location	Mrusti- AlShouf- Lebanon
Duration	6 weeks
Estimate number of working days	30 – 36 days
Start date	June 10 th , 2023
End date	July 22 nd , 2023
Reporting to	Procurement and Logistics Officer

1. BACKGROUND

“Saving Water, Growing Crops” (Swat) is a Swedish Postcode Foundation and EU-funded project that aims for the promotion of an innovative irrigation technology that is expected to bring significant water savings in the target agricultural areas within the Shouf Biosphere Reserve (SBR), thus enhancing the target communities’ resilience to the water-related effects of climate change.

The irrigation system relies on two water sources: a) rainwater that is been harvested during the winter season in two ponds of total capacity of 9000 cubic meter, and b) an established well that nourishes the ponds during the irrigation season to satisfy the needs of the plants in the fields connected to the system.

A pumping test has been carried out to assess the critical yield of the well. Based on the test results, the technical specifications of the pump required to fulfil the water demand for the system were identified.

2. OBJECTIVE AND PURPOSE

Lebanon is currently facing a severe economic crisis, two effects of which are the lack of consistent supply of electricity through the national power grids and the skyrocketing prices of fuel. In Mrusti, the irrigation relies on a pumping station that is currently disconnected from the solar panel system. Instead, an old diesel generator, which is not properly dimensioned, runs the water pump. The emission of GHGs is significant. This situation is therefore not only environmentally but also socially and financially unsustainable.

The aim of this intervention is to properly dimension and rehabilitate the solar system to run the pumping station, which provides water to the 2 hill lakes. The water collected will be distributed to the agricultural lands for irrigation purposes. Furthermore, the installation of the solar system will contribute to zero carbon emission and will function as a catalyst for the dissemination of the use of



renewable resources in the area of intervention and as a mean to raise the awareness in the community about the advantages of adopting eco-friendly solutions and the positive impact on health and environment.

The purpose of this intervention will be;

- a. Providing water during the irrigation season by running a water pumping station on solar system, thus avoiding any electric interruption or fuel shortage
- b. Reducing energy cost
- c. Shifting to green energy to reduce air pollution
- d. Reducing pumping time by replacing the existing pump with a more powerful pump
- e. Eliminating losses in the pipes connecting the well to the ponds by replacing the 2” pipe with 4” pipe

3. TIME TABLE

After publishing the tender, the deadline for submitting the proposals is on the 19th of May, 2023.

A site visit will be held by the candidates to assess the existing solar system and the surrounding area on 28th April, 2023, 10 AM Beirut time.

Based on that and on the technical specifications provided for the pump, a technical proposal and financial offer should be submitted.

The notification of award and rejection will be sent on 29th May, 2023.

Contract Signature will be on 5th June, 2023.

The awarded company will have 6 weeks for completion of all the works from the date of signing the contract.

4. EXPECTED DELIVERABLES

The below are expected deliverables.

- a) Final design of the solar panel system as integration/expansion of the existing solar system
- b) Provision and installation of new solar panels and set up of the new system, including electrical board
- c) Supplying and installing a 10 l/s pump based on the technical specifications provided. The pump will be running on a hybrid, newly established solar system and on the national power.
- d) Supplying and installing a 4” pipe from the well to the pump
- e) Weekly technical report covering the work implemented

5. DELIVERY DATES

The assignment is expected to take 6 weeks in total. The below is an indicative timeframe of the key deliverables. The contractor is expected to propose a reasonable work plan as part of the technical offer.

Key deliverable	Duration
<ul style="list-style-type: none"> Supplying and installing a 4” pipe from the well to the pump 	3 weeks
<ul style="list-style-type: none"> Supplying and installing a 10 l/s pump based on the technical specifications provided 	2 weeks
<ul style="list-style-type: none"> Supplying and installing solar panels for the solar system, including the electrical board 	3 weeks
<ul style="list-style-type: none"> Final provision acceptance after testing the functioning of the whole system 	6 weeks

Note:

if the new pump installation is excluded from the work implementation, the financial offer will be modified by removing this cost and the payment methodology will be adjusted accordingly. Moreover, the 4” pipe connecting the well to the ponds shall be supplied and installed by the project contractor responsible for the irrigation system.

6. PERFORMANCE INDICATORS FOR EVALUATION OF RESULTS

Proposed timelines for completion of activities are met and deliverables submitted on time with good and acceptable quality as well as per the standards described in the TORs.

7. FREQUENCY OF PERFORMANCE REVIEWS

The contractor will submit a weekly, short report at the execution of the identified deliverables. Performance reviews will be undertaken upon submission of each deliverable. All reports and deliverables should be submitted electronically in pdf or Excel.

8. CALL FOR PROPOSALS

A two-stage procedure shall be utilized in assessing the proposals, with assessment of the technical proposal being completed prior to any financial proposal being compared. Applications shall therefore contain the following required documentation:

A. Technical proposal

Applicants shall submit a proposal as an overall response to the ToR ensuring that the purpose, objectives, and deliverables of the assignment are addressed. All proposals have to include (but not limited to):

- A technical proposal that includes a brief cover letter and understanding of the assignment is required.
- Based on the timetable shared in the TOR, a proposal of the detailed methodology, implementation plan, work plan and time schedule are required.
- Updated CVs of the team members with experience in similar works.
- Past Experience in similar work with References and a sample of past survey
- Quality assurance mechanism and risk mitigation measures put in place
- Example of similar projects done

No financial information should be contained in the Technical Proposal.

B. Financial Offer

A financial proposal with a breakdown of all cost based on deliverables. The financial offer shall be divided into three sections:

- Section 1. Solar System
- Section 2. Pump
- Section 3. Main Pipe

The Financial Proposal shall be submitted in a separate file, clearly named Financial Proposal.

No financial information should be contained in the Technical Proposal.

C. Other required documents

In addition, the institution should consider the following in the submission:

- A. Company profile (Company structure, team composition, organogram, etc.)
- B. Copy of Company's certificate of legal registration

9. IN CASE OF UNSATISFACTORY PERFORMANCE

In case of unsatisfactory performance, the payment will be withheld until quality deliverables are submitted.

10. REQUEST FOR PROPOSAL EVALUATION AND WEIGHTING CRITERIA

All request for proposal will be weighed according to the technical (70 points) and financial considerations (30 points). Below are the criteria and points for technical proposals.

A. Technical proposal (Total of 70 points)

- Technical Assessment (30 Pts)
- Quality of goods (20 pts)
- Past Performance/ References (10 pts)



- For past experience (10 pts)

B. Financial Offer (Total of 30 points)

A separate Financial Offer detailing all activity expenses and logistics should be submitted under this section. The financial offer (this section) should be submitted on a separate page from the Technical Capability and Schedule information. Only those financial proposals which have been technically accepted according to the above criteria will be opened. Financial proposal will be weighted based on the clarity and appropriateness.

Finally,

The Contract shall be awarded to a bidder obtaining the highest combined technical and financial scores. Proposals not complying with the terms and conditions contained in this ToR, including the provision of all required information, may result in the Proposal being deemed non-responsive and therefore not considered further.