

Terms of Reference for Individual Contractor (IC)

National or International consultants: National consultant

Description of the assignment (Title of consultancy): Solar Thermal Energy Consultant

Project Title: Response to the impact of COVID-19 in Lebanon – 00118152 A6 (*Solar for Health Project*)

Period of assignment/services: 40 man-days spread out over a period of 5 months

Is this a LTA (yes/no): No

1. Background

The COVID-19 pandemic came at a time when Lebanon was already under an unprecedented shock due to the socio-economic-financial crisis and the Syrian refugee crisis. This pandemic is a health, humanitarian and development crisis that is threatening to leave deep social, economic and political scars for years to come, particularly in countries such as Lebanon already weighed down by fragility, poverty and conflict. UNDP is responding to a growing volume of requests from countries to help them prepare for, respond to and recover from the COVID-19 pandemic, focusing particularly on the most vulnerable, and Lebanon is one of them.

It is also imperative to assist Lebanese public health care institutions that are tasked to deal with the COVID-19 pandemic to become more cost-effective, more comfort-related, environmentally responsible, especially with respect to energy-use. Interventions that ease the cost pressures, increase reliability, and improve the environmental performance of energy provision will impact positively on the health of the Lebanese and refugee population in which they provide health care services for.

Funded by KfW Bankengruppe and in coordination with the Lebanese Ministry of Public Health, the Response to the impact of COVID-19 in Lebanon will work on several activities, including Activity 1.3 “Implementing solar for health initiatives”. Sustainable energy interventions will be designed and implemented to target 10 public sector hospitals that were selected in different regions of Lebanon under the Ministry of Public Health Phase 1 plan for COVID-19 response.

2. Scope of work, responsibilities and description of the proposed analytical work

As part of the Solar for Health project, three new solar hot water systems are to be installed and 7 existing solar hot water systems need to be checked and upgraded. The new hot water systems will have capacities ranging from 1000 – 24,000 liters per site. The tentative activity required is indicated in the table below.

#	Hospital Name	Region	Expected Intervention
1	Abdallah Rassi Public Hospital	North Lebanon	Maintenance of existing SHW system
2	Tripoli Public Hospital	North Lebanon	Maintenance of existing SHW system
3	Rafic Hariri Public Hospital	Beirut	Between 12 – 24,000 liters new SHW system
4	Nabatieh Public Hospital	South Lebanon	App. 4,000 liters new SHW system
5	Bent Jbeil Public Hospital	South Lebanon	Maintenance of existing SHW system
6	Hermel Public Hospital	Bekaa	Maintenance of existing SHW system
7	Mashgara Public Hospital	Bekaa	App. 4,000 liters new SHW system
8	Baalbeck Public Hospital	Bekaa	Maintenance of existing SHW system
9	Keserwen Public Hospital	Mount Lebanon	Maintenance of existing SHW system
10	Bcherri Public Hospital	North Lebanon	Maintenance of existing SHW system

UNDP is seeking a National Individual Consultant (IC) to prepare the full technical part of the tender document for each these ten sites (whether for new SHW system or maintenance of existing ones), including the full bill of quantifies (BOQ), technical specifications with respective detailed drawings for installation and connection to the existing networks, and also assist the UNDP in evaluation of the tender submissions. It is important to take in mind that some of the SHW systems that require maintenance check may end up needing a completely new SHW system. This would then have to be catered for and designed accordingly by the IC.

The tasks that are to be expected from the consultant are:

- **Task 1.** Collect needed data and information on all the ten sites, including thorough site visits to each of the 10 selected public hospitals that are spread across the Lebanese territory in order to form a preliminary outlook on the required design and capacity of both the sites that will benefit from new SHW systems and the sites that will be checked for maintenance and upgrade requirements.
- **Task 2.** Draft the full detailed design of each selected site, including all the required Bill of Quantities and specifications (including detailed installation and connection drawings), evaluation criteria and procurement requirements. The tender document will have a part/lot for the new sites and another lot for the sites requiring the identifying maintenance and upgrade measures.
- **Task 3.** Assist the UNDP team in the evaluation of all the offers submitted in accordance with the criteria and evaluation form set in Task 2.

3. Expected Outputs and deliverables

The deliverables are to be submitted in stages of draft and final. Each deliverable is to be submitted in the form of a soft copy to the Project Manager. The time needed by the Project Management for the review of each submitted deliverable is 5 working days. The Required deliverables under the terms of reference are:

Deliverables/ Outputs	Estimated Duration to Complete	Target Due Dates	Review and Approvals Required
Task 1: 10 site visits reports including data collection	15 person-days spread over 1 calendar month	End month 1 after contract signature	Project Manager
Task 2: Full tender document preparation (BOQ, specifications, evaluation criteria and requirements)	20 person-days spread over 1 calendar month	End month 2 after contract signature	Project Manager
Task 3: Bids evaluation report	5 person-days spread over 1 calendar months	End month 5 after contract signature	Project Manager

4. Institutional arrangements

The consultant will work under the supervision of the CEDRO Project Manager. The project will provide support service and / or logistical support (working space as per section 6 below and related services, and transportation from the office to the selected public hospital).

5. Duration of work

The contract is 40 man-days spread out over a period of 5 months (extension may be applied).

6. Duty station

Beirut Central District, UNDP CEDRO office

7. Requirements for experience and qualifications

I. Academic Qualifications:

- Bachelor's degree in Mechanical Engineering or related discipline.
- Master's degree or certificate in related field is a plus.

II. Years of experience:

- Overall experience of not less than 5 years;
- Experience in design of commercial solar thermal systems and the use of software related SWH sizing tools and design software such as T*SOL (Thermal Simulation Software), Valentin, as well as Autocad for detailed drawings;

- Experience in preparation of tender document and elaboration of technical specifications;
- Experience in working with UNDP or other local or international non-governmental organizations on solar PV design and/or implementation.

III. Competencies:

- Good analytical and report-writing skills
- Commitment to team and cross-disciplinary work
- Emphasis on delivery of results and reacts well to constructive criticism
- Proficiency in English

8. Scope of Price Proposal and Schedule of Payments

Task	Deliverables	Target Due Dates
2	Task 1: 10 site visits reports including data collection	15 person-days spread over 1 calendar month
3	Task 2: Full tender document preparation (BOQ, specifications, evaluation criteria and requirements)	20 person-days spread over 1 calendar month
4	Task 3: Bids evaluation report	5 person-days spread over 1 calendar months

Payments will be issued upon satisfactory completion of the required deliverables and submission of the certificate of payment. Payment file shall include a summary of the tasks completed by the consultant and submitted to the Project Manager.