

## Terms of Reference

**National or International consultants:** National consultant

**Description of the assignment:** Three Biomedical Engineers to support the LPDC in conducting the needs assessments, the development of technical specifications of medical equipment and biomedical works, the supervision of deliveries and works implemented in Hospitals and Isolation Centers. **3 Consultants will be selected.**

**Project Title:** Support to Covid-19 Response Plan in Palestinian Camps and Gatherings

**Period of assignment/services:** 2 years – 1 additional year is possible.

### 1. Background / Project Description

Against the backdrop of a severe economic crisis, political turmoil, and an already overwhelmed health system caused by the COVID-19 pandemic, and the 4th of August tragic blast, vulnerable communities in Lebanon are pushed further into hardship and despair, including the country's Palestine refugee community.

Supporting Palestinian Refugees is a vital component of maintaining peace and stability in a highly uncertain environment. LPDC is working closely with UNRWA, WHO and the Lebanese Government to ensure continued access to health, social and other services, while the immediate humanitarian intervention unfolds.

In this regard, LPDC is supporting multi-partner efforts to mitigate the spread of COVID-19 by coordinating an emergency response plan that makes available adequate Isolation Centres, support for hospital care, in an environment in which hospital beds and space in Intensive Care Units have become even more scarce. It is also critical to reinforce measures to mitigate the spread of COVID-19, through testing, access to healthcare, clean water and sanitation, as well as effective management of suspected and confirmed cases in quarantine and Isolation Centres. This plan complements the national COVID-19 response, especially in light of widespread pre-existing health conditions among refugees and the sub-standard living conditions many of them face.

As part of its support to the Palestinian Refugees' community in the Camps and Gatherings in Lebanon, the UNDP/LPDC will equip and support several hospitals in Saida, Ain Al Helweh Camp, Bekaa, Tyre and Beddawi areas to increase their capacities to better respond to COVID 19 pandemic.

In this context, UNDP requires the services of Three (3) Biomedical Engineers to provide technical support to the LPDC Covid-19 project.

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

The Biomedical Engineer(s) will perform the following tasks:

- Needs Assessment Phase:
  - Conduct site visits to hospitals and isolation centres and provide the minutes of the visits.
  - Assess the needs of the sites and provide the needs assessment reports in terms of medical equipment, biomedical and MEP works based on WHO Covid-19 guidance standards.
  - Review existing medical architectural designs and drawings of the hospitals and Isolation Centres.
  - Report and provide recommendations on the following:
    - Design Brief/ Architecture,
    - Vertical & horizontal Circulations,

- Waste Management,
  - Infection Control,
  - Space Program,
  - Schematic and developed architectural Design Drawings,
  - Equipment and Furniture Loaded Drawings.
- Feasibility Study Phase:
  - Develop new designs and drawings when necessary including MEP, Biomedical, Laundry, etc...
  - Develop the technical specifications of the needed medical equipment and supplies.
  - Develop the technical specifications of the HVAC systems and other works related to Biomedical.
  - Provide detailed BOQs, list of potential bidders, and the cost estimates of works and goods needed as well as other documents required for the bids.
- During Bidding Phase:
  - Provide technical input on bidders' clarifications and quality assurance team's clarifications.
  - Review, participate, and validate the evaluation of offers and provide feedback and advice to LPDC.
- Implementation Phase:
  - Participate in the site handovers. Prepare the minutes of site handover from biomedical perspective.
  - Attend continuous meetings with all stakeholders in action.
  - Review all submittals and monitor the quality of biomedical works and goods.
  - Monitor the biomedical works' implementation and the deliveries of goods and services.
  - Support the project during the installation of the medical equipment.
  - Support the hospitals during the trainings on the medical equipment.
  - Provide weekly work progress reports.
  - Take photos of the biomedical works and goods.
  - Report any delay or corrective measures.
  - Clear the progress payments of biomedical works and medical goods.
- Final Phase:
  - Review the commissioning and variation orders of biomedical works and medical goods.
  - Prepare for the site handover in terms of biomedical works and deliver the final report.
  - Clear the final payments of contractors and suppliers.

### **3. Expected Outputs and deliverables**

The Biomedical Engineers are expected to complete and submit all or some of the deliverables specified in the table hereafter depending on the scope of each hospital and isolation centre. A detailed TOR shall be drafted later on upon need.

Outputs	Deliverables	Estimated duration for completion	Review and Approvals Required
Needs Assessment	Conduct site visits to assess the needs per site and write the Minutes of Meeting with stakeholders.	1 working day	Project Manager
	Review existing medical architectural designs and drawings and/or provide new designs and drawings.	5 working days	
	Submit the Needs Assessment Reports, including recommendations on the various scope of work (biomedical, MEP, medical equipment, etc.) and coordinate with UNDP team to get the approval and validation of the beneficiaries.	5 working days	
Feasibility Study	<ul style="list-style-type: none"> <li>- Submit the detailed BOQs validated by the beneficiaries.</li> <li>- Submit the technical specifications of the medical equipment and biomedical works validated by the beneficiaries.</li> </ul>	5 working days	
Technical Support during Bidding Phase	<ul style="list-style-type: none"> <li>- Provide technical input on bidders' clarifications and quality assurance team's clarifications related to medical equipment and biomedical works.</li> <li>- Review, participate, and validate the</li> </ul>	5 working days	

	evaluation of offers and provide feedback and advice to project.	
Monitoring	<ul style="list-style-type: none"> <li>- Participate in the site handovers. submit the minutes of site handover from the biomedical perspective.</li> <li>- Monitor all deliveries, installation and trainings, biomedical works and services related to the approved needs assessments and verify compliance against quality and required specifications. Take photos.</li> <li>- Attend continuous meetings with all stakeholders in action. Submit progress and final reports.</li> <li>- Clear the payments of biomedical works and medical goods. And sign the goods receipts and invoices.</li> </ul>	10 working days

#### 4. Institutional arrangements

The Biomedical Engineer(s) will work under the supervision of the UNDP Project Manager and Project Coordinator.

UNDP will be responsible for providing the contractor with all necessary available materials related to the project in a timely thorough and transparent manner. UNDP will be also responsible to provide clarifications and available facilitation of the work.

Day to Day transportation from home to site (& vice versa) shall be covered by the Consultant's own means.

The Biomedical Engineer(s) will rely on his own means of communication and transportation.

UNDP intends to engage 3 national ICs on LTA basis. The first three ranked will be selected for award. UNDP will approach the LTA holders based on the rank. In case the higher ranked LTA holder is not available, the next ranked LTA holder will be approached.

## REPORTS VALIDATION MODALITIES

Provisional approval of submitted reports shall take place at each of the defined milestones. It is expected that such approval shall not exceed five working days from the notification of the completion of a specific milestone.

On submittal of the final report, the Projects' Managers shall respond within maximum of five working days and the decision may either be:

- Approval,
- Approval with reservations upon which the Consultant shall reply within five working days under penalty of rejection,
- Rejection with clear justifications.

## **5. Duration of work**

Each long-term agreement will be signed for a maximum of 200 working days for Two years with an option to extend for One year based on the performance of the first two years and id required by UNDP.

## **6. Duty station**

The Biomedical Engineer(s) will have frequent visits to Hospitals and Isolation Centres across the Lebanese territory.

If required, meetings with Project Team are to be held in Beirut at projects' offices.

## **7. Requirements for experience and qualifications**

The Biomedical Engineer(s) should possess the following minimum qualifications:

### **I- Academic Qualifications:**

- Bachelor's degree in Biomedical Engineering.

### **II- Years of Experience:**

- 5 years of professional experience in Biomedical Engineering in hospitals.
- 5 years of experience in renewable energy studies.
- Experience in designing medical architectures and solutions (HVAC systems, negative/positive pressures, Medical gases, waste management, Networking, etc.)
- Previous experience in hospital equipping studies and works planning and monitoring.
- Previous experience with UNDP or any other UN agency is a must.

### **III- Competencies:**

- Knowledge of Covid-19 preventive technical and medical tools and solutions.
- Knowledge of WHO Covid-19 standards and guidance.
- Knowledge of medical technologies and innovative medical equipment.
- Ability to work independently and with a team to meet deadlines.
- Careful measurement and analytical skills.
- Excellent command in Arabic and English languages.