

## **TERMS OF REFERENCE (ToR):**

### **Consultancy Services for Installation, Operation, and Maintenance of Solar PV Systems as part of the Implementation of the GIZ-Funded SUFA Project**

#### **1 Country Background and Energy Sector**

- 1.1 The electricity supply in Lebanon is much lower than the demand. The gap between the peak demand and the peak generation is continuously increasing. In order to close this gap, back-up diesel generators have been operating in communities, however, due to the shortages in fuel supply and the increase in fuel costs, securing diesel to run these back-up generators is becoming challenging, not to forget about the resulting high levels of noise and air pollution.
- 1.2 In addition, with a shortage in electricity supply that exceeds 20 hours per day, running diesel generators for long durations has resulted in recurrent technical failures. All the mentioned challenges are affecting the reliability of electricity supply and disrupting the socio-economic sectors and in particular, schooling activities. For instance, long electricity outages are leaving the students without access to basic learning necessities, such as classroom lighting and internet.
- 1.3 Furthermore, the school's management is becoming financially incapable of covering the diesel and electricity bills, which is affecting the budget allocation for the operation and renovation of facilities.
- 1.4 In view of these extremely challenging situations, the urgent need to integrate renewable energy and energy efficiency solutions in the energy systems has emerged as a main possible solution. Renewable energy and energy efficiency solutions would increase energy security, energy reliability, and energy affordability, and ensure access to adequate electricity and by that access to water, internet services and most important access to education.
- 1.5 Using renewable energy and energy efficiency solutions is not new in Lebanon. In fact, in September 2015, Lebanon's Intended Nationally Determined Contribution (INDC) was presented to the UNFCCC. It includes an unconditional target of "15% of the power and heat demand in 2030 generated by renewable energy sources" which would be increased to 20% if international support is obtained.

- 1.6 In October 2018, the Prime Minister announced a target of 30% renewable electricity by 2030.
- 1.7 In March 2019, the Updated Policy Paper for the Electricity Sector prepared by MEW was approved by the CoM, the policy paper stressed on the important role renewable energy will be playing in the energy mix of the country and commits to the completion of renewable energy projects of all types.
- 1.8 In June 2020, the International Renewable Energy Agency (IRENA) published the IRENA Renewable Energy Outlook for Lebanon carried out in collaboration with the MEW and the LCEC and including a roadmap to reach the national 30% renewable electricity target. The document includes a target capacity of 500 MW of decentralized solar PV plants by 2030.
- 1.9 In March 2021, Lebanon submitted its Updated Nationally Determined Contribution (Updated NDC) to the UNFCCC with raised ambitions for greenhouse gas emission reduction, by setting a target of 20% emission reduction in 2030 (amounting to 7,790 Gg. CO<sub>2</sub>eq). Within the Updated NDC, Lebanon commits to unconditionally generate 18% of its electricity demand from renewable energy sources in 2030. A commitment that could be increased to 30% if international support is granted.
- 1.10 Lebanese authorities are committed to substantially increase renewable energy (RE) investment. This commitment includes increasing the share of RE in total electricity consumption to 12% by 2020, as set in the National Renewable Energy Action Plan (NREAP 2016–2020).
- 1.11 Scaling-up RE is an important means for Lebanon to: (i) increase generating capacity of the electricity sector; (ii) meet its climate change mitigation commitments by decreasing the reliance on fossil-fuel based generation; and (iii) increase the resilience of its power sector by addressing the issue of under-capacity, as well as by diversifying the country's energy sources.
- 1.12 Due to the high demand for solar energy, ongoing installations are not necessarily following the best installation practices. This highlights a greater need for capacity building and knowledge sharing to properly assess and implement energy conservation measures that would respond to current and future needs.
- 1.13 Among its responsibilities, a main aspect of LCEC's momentum is in updating the local context in line with global trends and the latest innovations, aligning national efforts, and reaching out to the largest share of the public for awareness raising and professionals for capacity building.

## **2 GIZ-Funded SUFA Project**

- 2.1 The overall objective of the SUFA project is to reduce the environmental footprint and to keep the targeted schools operational, in line with SUFA project's general goal to improve the school conditions for Lebanese children and Syrian refugee children in the host communities.
- 2.2 The specific objectives of the project are the following:
  - SO1.** To ensure sustainable access to electricity for school students, teachers, and administrators in the targeted areas
  - SO2.** To strengthen the capacities of schools and MEHE's resources in the energy field
  - SO3.** To contribute to environmental protection, climate change adaptation and mitigation through improved energy management of public schools' buildings and execution of green school measures.
  - SO4.** To reduce the energy consumption in public schools and increase energy security and affordability through the implementation of cost-effective renewable energy and energy efficiency solutions, tailored to specific sites conditions
  - SO6.** To increase awareness and sustainable energy habits through the engagement of students and staff in the operation and use of REEE systems
  - SO7.** To reduce the environmental footprint and operating cost of public schools through the implementation of eco-friendly and environmental measures under Green Schools component.
- 2.3 As part of the contract signed between GIZ and LCEC, the LCEC is acting closely with the GIZ SUFA team to implement different solutions related to renewable energy and energy efficiency in public schools.
- 2.4 This would bridge the national Renewable Energy (RE) action plan and road map to the specific project objectives. With the implementation of the REEE and GS measures at public schools, this project would contribute to the solar photovoltaic distributed generation by the public sector by adding around 430 kWp which represents around 9% of the 5 MW target, in addition to the reduction of more than 200 tCO<sub>2</sub>eq of GHG emissions.
- 2.5 Within this signed agreement between GIZ and LCEC, the LCEC wishes to select a Consultant to provide technical services to the LCEC in the implementation of RE measures in 6 educational facilities.

### 3 ToR overview

3.1 The key objective of this ToR is to select a consultant to execute the installation, testing and commissioning, training and one year maintenance works of solar PV systems for six (6) educational facilities located in four (4) different buildings.

#### 3.2 Timeline

The following dates are set forth for informational and planning purposes; however, LCEC reserves the right to change the dates.

<b>Issue ToR</b>	5 January, 2024
<b>Questions Due</b>	10 January, 2024
<b>Response to Questions Issued</b>	11 January, 2024
<b>Closing Date for Receipt of submitted proposals</b>	15 January, 2024
<b>Announcement of Winning Offer</b>	19 January, 2024

#### 3.3 Clarification Process

3.3.1 From the issue date of this ToR until announcement of the winning Consultant, Consultants may contact LCEC ONLY by email to: [energy@lcec.org.lb](mailto:energy@lcec.org.lb) in case of questions, comments, or suggestions. Oral questions will not be permitted.

3.3.2 If the questions, requests for clarifications, or suggestions pertain to a specific section of the ToR, the page and section number(s) must be referenced.

3.3.3 Written responses to questions, requests for clarifications, or suggestions will be sent on or before the date listed in the Timeline.

3.3.4 LCEC will share a list of questions and answers with all Consultants.

3.3.5 LCEC assumes no responsibility for verbal representations made by its officers or employees unless such representations are confirmed in writing and incorporated into the ToR.

#### 3.4 Submission of Proposals and Validity Period

3.4.1 The deadline for the submission of proposals is as mentioned in the Timeline is on **19 January 2023 at 3:00 pm.**

3.4.2 All proposals received after the mentioned date and time will be rejected.

3.4.3 Proposals must be submitted in hardcopies to the LCEC's offices in the Ministry of Energy and Water, 1<sup>st</sup> floor, room 303.

- 3.4.4 LCEC may, at its discretion, extend the deadline for the submission of proposals, in which case all rights and obligations of LCEC and the applicants subject to the previous deadline shall thereafter be subject to the deadline as extended.
- 3.4.5 The period of validity of proposal is 60 days and it starts on the submission deadline date.
- 3.4.6 In exceptional circumstances, LCEC may request the winning Consultant to extend the validity of the proposal and quotation beyond what has been initially indicated in this ToR.

#### **4 Scope of Work**

Reflecting the objectives of the Assignment, the Consultant will need to:

- 4.1 Fully understand the scope of works to be done for the proper implementation of the RE measures in the six (6) educational facilities located in four (4) different buildings.
- 4.2 Fully understand the prepared design and the description of the procured electrical and structural items needed for the execution of the implementation works.
- 4.3 If and where needed, relocate and procure all minor electrical and/or structural items for the proper operation of all RE measures, subject of this ToR.
- 4.4 Noting that the LCEC will be providing the winning Consultant with items including but not limited to the following:
- Design drawings and corresponding Bill of Quantities (BoQs) for each solar PV system;
  - All PV panels, batteries and batteries racks, and inverters;
  - All PV, DC, and AC cables;
  - All protection devices
- 4.5 Annex 1 shows a list of all procured items for reference. The remaining items not listed in Annex 1 (mainly PV panels, batteries, and battery racks) were all procured by SUFA project and available for installation. Annex 2 shows the datasheet of the procured batteries for reference.
- 4.6 The size of PV systems that shall be installed in each building is as follows:
- **Building 1:** 36 PV panels with 48 batteries
  - **Building 2:** 45 PV panels with 48 batteries
  - **Building 3:** 30 PV panels with 24 batteries
  - **Building 4:** 24 PV panels with 36 batteries
- 4.7 All PV panels will be floor mounted as per the design prepared by the LCEC.

## **5 Deliverables and timeline**

The key **deliverables** as per the Scope of Work are:

- 5.1 On-going dedicated efforts from the Consultant to properly complete the installation works as per the design drawings prepared by the LCEC;
- 5.2 Testing & Commissioning of all solar PV systems installed in the six (6) educational facilities located in four (4) different buildings as per the design prepared by the LCEC;
- 5.3 Training the operators of the educational facilities on the PV systems, as well as maintaining the system for 1 year post handing over;
- 5.4 Submitting the required handing over documents for the LCEC;
- 5.5 Completing all works in 1 month starting from the contract signature date.

## **6 Consultants Profile**

- 6.1 The Consultant selected for this assignment will be an individual with previous related project experience.
- 6.2 The Consultant shall fill and submit Form 1- Applicant Information Form and Form 2- Applicant Financial Form.
- 6.3 The Consultant shall be an engineer with at least 5 years of experience in the installation of solar PV systems.
- 6.4 The Consultant shall commit to having the necessary team for the installation of all PV systems within 1 month only as per the requirements of the LCEC.

## **7 Organization**

- 7.1 The Consultant will have an initial meeting/call with LCEC at the start of the assignment to clarify the precise scope of each task. The assignment will be managed and overseen by the LCEC's team.
- 7.2 The LCEC will be responsible for coordinating the work of, and providing ongoing guidance to, the Consultant, as well as reviewing interim deliverables and overseeing the process of collecting feedback/comments for the consultant's deliverables.

## 8 Evaluation Criteria

8.1 The evaluation of the proposals will be conducted through a two-phase evaluation process as follows:

8.2 Phase 1 – Technical Evaluation.

8.2.1 Mandatory Technical Evaluation Criteria (Pass/Fail): All proposals will be screened based on the mandatory evaluation criteria (pass/fail) as per Table 1.

8.2.2 To be considered eligible or technically compliant in the mandatory evaluation a proposal must obtain “Pass” in ALL mandatory criteria.

8.2.3 If a proposal obtains “Fail” in ANY of the mandatory criteria, it will be considered technically non-compliant in the mandatory evaluation and will not be considered for financial evaluation.

**Table 1: Mandatory Technical Evaluation Criteria**

No.	Background & Capacity	Examples of documentary evidence	Type of Evaluation: Pass/Fail
1	The Consultant has been in business relevant to the Terms of Reference for at least five (5) years.	Curriculum vitae/Professional qualifications (max 2 pages).	Pass/Fail
2	The Consultant is required to provide a statement that they will commit to securing the needed team members for the installation work, and to the specified timeline of the project.	The Consultant must provide a letter of confirmation clearly stating the non-allocation of work to any subcontractor.	Pass/Fail
3	Consultant must provide him/her curriculum vitae/professional qualifications (max 2 pages)	Curriculum vitae/Professional qualifications (max 2 pages).	Pass/Fail
4	Consultant must submit an Approach and Methodology as the part of technical proposal, to undertake the work.	Approach and Methodology	Pass/Fail

### 8.3 Phase 2 - Financial Evaluation

- 8.3.1 Mandatory Financial Evaluation Criteria (Pass/Fail): Financial proposals of all technically compliant proposals that passed through Phase 1, will be screened as per mandatory criteria in Table 2.
- 8.3.2 Consultants are required to specify and elaborate in their financial proposals/bids if there is any reservation to comply to any of the mandatory criterion.
- 8.3.3 A proposal that scores “Fail” in any of the mandatory criteria may be rejected as commercially non-compliant and may not be considered further.
- 8.3.4 The contract will be awarded to the lowest priced financial proposal.

**Table 2: Mandatory Commercial Evaluation Criteria**

No.	Description of Evaluation	Evaluation Criteria	Type of Evaluation
1	The Consultant has to submit a financial Proposal covering all cost elements	Consultant to fill and submit Form 2	Pass/ Fail
2	Confirmation that the prices and fees will remain firm and fixed for the entire duration and any extensions thereof	Consultant to provide and commit to this information	Pass/ Fail
3	Confirmation that the proposals will remain valid for 60 days	Consultant to provide and commit to this information	Pass/ Fail



## Applicant Information Form

*[Name of Applicant]*

*[All Consultants applying to this ToR are requested to complete the information in this form]*

Applicant's name:	<i>[insert full name]</i>
Applicant's actual or intended year of registration in the Order of Engineering and Architects:	<i>[indicate year of registration in the OEA]</i>
Applicant's legal address [in country of registration]:	<i>[insert street/ number/ town or city/ country]</i>
Applicant's authorized representative information	
Name:	<i>[insert full name]</i>
Address:	<i>[insert street/ number/ town or city/ country]</i>
Telephone/Fax numbers:	<i>[insert telephone/fax numbers, including country and city codes]</i>
E-mail address:	<i>[indicate e-mail address]</i>

Attached are copies of original documents of registration in order of engineers and architects (Beirut or Tripoli).

**Signature**

## Applicant Financial Form

*[All individuals applying for this ToR are requested to complete the information in this form]*

<i>Number</i>	<i>Task/Deliverable</i>	<i>Price (\$)</i>
1	On-going dedicated efforts from the winning Consultant to properly complete the installation works as per the design drawings prepared by the LCEC	
2	Testing & Commissioning of all solar PV systems installed in the six (6) educational facilities located in four (4) different buildings as per the design prepared by the LCEC	
3	Training the operators of the educational facilities on the PV systems, as well as maintaining the system for 1 year post handing over	
4	Submitting the required handing over documents for the LCEC	
<b>Total</b>		

## **9 General Terms and Conditions**

### **9.1 Legal Status**

The Consultant shall be considered as having the legal status of an independent Consultant vis-à-vis LCEC. The Consultant's personnel shall not be considered in any respect as being the employees or agents of LCEC.

### **9.2 Sources of Instructions**

9.2.1 The Consultant shall neither seek nor accept instructions from any authority external to LCEC in connection with the performance of the services. The Consultant shall refrain from any action which may adversely affect LCEC and shall fulfill its commitments with the fullest regard to the interests of LCEC.

9.2.2 The Consultant may not communicate at any time to any other person, government or authority external to LCEC, any information known to it by reason of its association with LCEC which has not been made public except with the authorization of LCEC; nor shall the Consultant at any time use such information to private advantage. These obligations do not lapse upon termination of the contract.

### **9.3 Observance of the Law**

The Consultant shall comply with all Lebanese laws, decrees, ordinances, rules, and regulations (including future amendments) bearing upon the performance of its obligations under the terms of the contract.

### **9.4 Settlement of Disputes**

The Consultant and the LCEC shall use their best efforts to settle amicably any dispute, controversy or claim arising out of, or relating to the contract or the breach, termination or invalidity thereof. In case amicable efforts fail, the settlement of disputes will take place in the courts of Beirut according to Lebanese laws and regulations.

### **9.5 Consultant's Responsibility for Employees**

The Consultant shall be responsible for the professional and technical competence of its employees and will select reliable individuals who will perform effectively in the implementation of this ToR, respect the local customs, and conform to a high standard of moral and ethical conduct.

### **9.6 Title to Equipment**

Title to any equipment and supplies that may be furnished by LCEC shall rest with LCEC and any such equipment shall be returned to LCEC at the conclusion of the project or when no longer needed by the Consultant. Such equipment, when returned to LCEC, shall be in the same condition as when delivered to the Consultant, subject to normal wear and tear. The Consultant shall be liable to compensate LCEC for equipment determined to be damaged or degraded beyond normal wear and tear.

### **9.7 Confidential Nature of Documents and Information**

All maps, drawings, photographs, mosaics, plans, reports, recommendations, estimates, documents and all other data compiled by or received by the Consultant shall be the property

of LCEC, shall be treated as confidential and shall be delivered only to LCEC authorized officials on completion of work.

#### 9.8 Indemnification

The Consultant shall indemnify, hold and save harmless, and defend, at its own expense, LCEC, its officials, agents, servants and employees from and against all suits, claims, demands, and liability of any nature or kind, including their costs and expenses, arising out of acts or omissions of the Consultant, or the Consultant's employees, officers, agents or sub-contractors, in the performance of this project. This provision shall extend, inter alia, to claims and liability in the nature of workmen's compensation, products liability and liability arising out of the use of patented inventions or devices, copyrighted material or other intellectual property by the Consultant, its employees, officers, agents, or servants.

#### 9.9 Encumbrances/Liens

The Consultant shall not cause or permit any lien, attachment or other encumbrance by any person to be placed on file or to remain on file in any public office or on file with LCEC against any monies due or to become due for any work done or materials furnished, or by reason of any other claim or demand against the Consultant.

#### 9.10 Use of Name, Emblem or Official Seal

The Consultant shall not advertise or otherwise make public the fact that it is a Consultant with LCEC, nor shall the Consultant, in any manner whatsoever use the name, emblem or official seal of LCEC, or any abbreviation of the name of LCEC in connection with its business or otherwise.

#### 9.11 Copyright, Patents and Other Proprietary Rights

LCEC shall be entitled to all intellectual property and other proprietary rights including but not limited to patents, copyrights, and trademarks, with regard to products, or documents and other materials which bear a direct relation to or are produced or prepared or collected in consequence of or in the course of the execution of this project as well as after execution. At the LCEC request, the Consultant shall take all necessary steps, execute all necessary documents and generally assist in securing such proprietary rights and transferring them to LCEC in compliance with the requirements of the applicable law.

#### 9.12 Force Majeure; Other Changes in Conditions

9.12.1 Force majeure, as used herein, means acts of God, war (whether declared or not), invasion, revolution, insurrection, or other acts of a similar nature or force which are beyond the control of the parties.

9.12.2 In the event of and as soon as possible after the occurrence of any cause constituting force majeure, the Consultant shall give notice and full particulars in writing to LCEC, of such occurrence or change if the Consultant is thereby rendered unable, wholly or in part, to perform its obligations and meet its responsibilities. The Consultant shall also notify LCEC of any other changes in conditions or the occurrence of any event which interferes or threatens to interfere with its performance. The notice shall include steps proposed by the Consultant to be taken including any reasonable alternative means for performance that is not prevented by force majeure. On receipt of the notice required herein, LCEC shall take such action as, in its sole discretion, it considers to be appropriate or necessary in the circumstances, including the granting to the Consultant of a reasonable extension of time in which to perform its obligation.

9.12.3 If the Consultant is rendered permanently unable, wholly, or in part, by reason of force majeure to perform its obligations and meet its responsibilities, LCEC shall have the right to suspend or terminate the contract following a period of notice of seven (7) days.

#### 9.13 Child Labour

The Consultant represents and warrants that neither it, nor any of its suppliers is engaged in any practice inconsistent with the rights set forth in the Convention on the Rights of the Child, including Article 32 thereof, which, inter alia, requires that a child shall be protected from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical mental, spiritual, moral or social development. Any breach of this representation and warranty shall entitle the LCEC to terminate the contract immediately upon notice to the Consultant, at no cost to the LCEC.

#### 9.14 Corrupt and Fraudulent Practices

- 9.14.1 Anticorruption Policy requires Consultants to observe the highest standard of ethics during the execution of the project. In pursuance of this policy the organization defines, for the purposes of this provision, the terms set forth below as follows:
- 9.14.2 “corrupt practice” means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;
- 9.14.3 “fraudulent practice” means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
- 9.14.4 “coercive practice” means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
- 9.14.5 “collusive practice” means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party.
- 9.14.6 LCEC will reject a proposal for award if it determines that the Consultant recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive practices, or any illegal practice in competing for the contract.
- 9.14.7 LCEC will sanction a party or its successor, including declaring ineligible, either indefinitely or for a stated period of time, to participate in contracts if it at any time determines that the firm has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive practices, or any illegal practice in competing for, or in executing, the contract.
- 9.15 Conflict of Interest
- 9.15.1 LCEC considers a conflict of interest to be a situation in which a party has interests that could improperly influence that party’s performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations, and that such conflict of interest may contribute to or constitute a prohibited practice under LCEC’s Anticorruption Policy. In pursuance of LCEC’s Anticorruption Policy’s requirement, Consultants must observe the highest standard of ethics.
- 9.15.2 LCEC will take appropriate actions to manage such conflicts of interest which may include rejecting a proposal for award if it determines that a conflict of interest has flawed the integrity of any procurement process. At the time of bidding, Consultants may be considered to be in a conflict of interest with one or more parties if they, including but not limited to:
- have controlling shareholders in common; or
  - receive or have received any direct or indirect subsidy from any of them; or
  - have the same legal representative for purposes of their proposal; or

- have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or to influence the bid of another Consultant in the subsequent bidding process or influence the decisions of LCEC regarding this bid process; or
- participated as a Consultant in the preparation of the design or technical specifications of the works that are the subject of this ToR. Where a firm, or a firm from the same economic or financial group, in addition to consulting, also has the capability to manufacture or supply goods or to construct works, that firm, or a firm from the same economic or financial group, may not normally be a supplier of goods or works, if it provided consulting services for the contract corresponding to this ToR, unless it can be demonstrated that there is no significant degree of common ownership, influence or control.