

Request for Proposals (RFP) for Implementation of Renewable Energy & Energy Efficiency (REEE) Measures in Thirty-Four (34) MSMEs and Two (2) Local Communities in Lebanon

“Implementation of Renewable Energy Measures in Agrifood Sectors and Communities” Project - funded by the German Federal Ministry for Economic Cooperation and Development (BMZ) and implemented by the Lebanese Center for Energy Conservation (LCEC) through a Grant Agreement signed between LCEC and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH under the framework of the GIZ project “Strengthening the Resilience of Smallholder Farms, Micro and Small Enterprises, and Local Communities (ACE).”

February, 2026

Prepared by the Lebanese Center for Energy Conservation (LCEC)

Beirut, Lebanon

The Lebanese Center for Energy Conservation (LCEC) reserves the right to request additional information to be added to the RFP.

Should any company interested in submitting a proposal fail to provide its contact details to the LCEC, the LCEC shall not be responsible if such company fails to receive any updates to this document or clarifications relating thereto.

February 2026 - Beirut, Lebanon

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Background Information

A. Project Background

1. The Lebanese Center for Energy Conservation (LCEC) is leading the efforts of Lebanon in the development of energy efficiency and renewable energy, to increase energy security and decarbonization levels.
2. LCEC's plans and activities cover the implementation of renewable energy and energy efficiency measures to support national and local entities to maintain their basic operations in parallel with their energy transition.
3. The role of renewable energy and energy efficiency solutions gained more importance following the increased gap between supply and demand of electricity in Lebanon.
4. Moreover, the removal of subsidies on electricity prices and energy products presented the REEE systems as affordable alternative solutions that can generate financial savings for different types of electricity consumers.
5. As part of the agreement between LCEC and GIZ to strengthen the socio-economic resilience of vulnerable groups in Bekaa, Mount Lebanon, Hasbaya and Southern Baalbak through reliable energy solutions, the LCEC will be implementing Renewable Energy and Energy Efficiency (REEE) solutions necessary to secure energy and sustain the operation of agricultural groups, specific private sector entities and local communities.
6. The project is funded by the German Federal Ministry for Economic Cooperation Development (BMZ).

B. Project Description

7. The main goal of the project is to strengthen the socio-economic resilience of vulnerable groups in Bekaa, Mount Lebanon, Hasbaya, and Southern Baalbak through the implementation of REEE solutions.
8. The specific objectives of the project are the following:
 - **Strengthening the Agricultural Sector:** Securing energy for farmers and farmers clusters through renewable energy solutions to enhance the water and food security.

- **Private Sector Support:** Reducing the energy consumed in agrifood processes through the installation of renewable energy and energy efficiency systems, will allow MSMEs to allocate additional financial resources in the development of their businesses.
- **Local Communities Support:** Enhancing local services provided by municipalities and reducing GHG emissions at the community level, through equipping them with sustainable solutions for different electricity and water supply services.

Important Notes

9. As per the results of the prequalification of tenderers launched by the LCEC on January 08, 2026, bidders eligible to participate in the bid for execution of the REEE measures subject to this RFP are listed in Annex 5.
10. Any proposal submitted by any company not listed in Annex 5 will be rejected.
11. The intent is to contract one bidder for the supply and installation of the systems subject to this RFP.
12. The winning bidder (s) will be referred to as “contractor” in the following sections.
13. The REEE measures of the project include the installation of the following systems:
 - Solar PV systems with storage
 - On-grid Solar PV systems
 - Solar pumping systems
 - LED lamps
14. Thirty-four (34) MSMEs and two (2) local communities are subject to this RFP.
15. Each site includes specific REEE measures to be installed. The sites are listed in Annex 2.

16. The preliminary designs of the measures to be installed in each site are described in Annex 3.
17. The General Bill of Quantities (BoQs) listed in Annex 4 show the items and systems to be procured and installed in each site.
18. Site visits will be conducted to inspect the installation areas of specific MSMEs. The schedule for site visits is shared in Annex 2.
19. **In accordance with point 64 of this RFP**, the “full electrical and structural designs, energy production and shading analysis simulation reports, and detailed mode of operation” shall **only** be developed for MSMEs listed in the schedule for site visits.
20. Upon Contract signature, the winning bidder is expected to develop the “full electrical and structural designs, energy production and shading analysis simulation reports, and detailed mode of operation” for all MSMEs subject to this RFP.
21. The deadline for the request for clarifications is **February 19th at 4:00 p.m.** All requests received after the mentioned date and time will be rejected.
22. All requests for clarifications shall be submitted **ONLY by email** to: energy@lcec.org.lb using “RFC-RFP for the Implementation of Renewable Energy & Energy Efficiency (REEE) Measures in Thirty-Four (34) MSMEs in Lebanon” as subject title.
23. Proposal is due on the **3rd of March at 3:00 p.m.** All proposals received after the mentioned date and time will be rejected.
24. The contractor is expected to hand-over the project ten (10) weeks starting from the date of contract signature.
25. 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.

26. Financial proposals shall be submitted in USD (\$) **including VAT**.
27. Proposals must be delivered to the LCEC offices at the following address: Ministry of Energy and Water (MEW), Corniche du Fleuve, 1st Floor, Room 303.
28. Proposals shall be in two (2) envelopes: Envelope (1) contains the Administrative, Capabilities and Technical Proposal and Envelope (2) contains the Financial Offer. The proposal shall be valid for 60 days from the proposal due date.
29. All information included in all the pages of this document and its annexes is an integral part of this Request for Proposal (RFP).
30. For all questions, comments, suggestions, and clarifications regarding this proposal, communicate with LCEC **ONLY by email** to: energy@lcec.org.lb.

Scope of the Proposal

Under the supervision of LCEC:

31. The contractor shall survey, design, supply, build, test, and commission the items included in the General BoQs listed in Annex 4.
32. The contractor shall abide by the technical specifications specified in Annex 6, and in general be responsible for all aspects related to the good operation of the implemented measures.
33. The contractor is responsible for providing the full electrical and structural designs needed to properly install the REEE systems of the concerned sites.
34. The solar PV systems should be able to run with EDL, private diesel generators, and generator subscription (where applicable).
35. Where applicable, the contractor shall be responsible for any necessary additional electrical and civil works if needed, all necessary connections to the existing facilities, and eventually all types of auxiliaries to export the excess of energy into the national

grid as per the electrical design and the grid requirements of “Electricité du Liban” (EDL).

36. The contractor shall provide all necessary documents for the net-metering applications and shall assist, to the extent reasonably possible and where applicable, in the application procedure.
37. The contractor shall use high quality, commercially viable power equipment technologies, where needed, that are certified as per international standards. In addition, the contractor shall use equipment that are widely deployed around the world in the solar industry and possesses a proven track record of reliability.
38. The contractor shall comply with the most recent version of standards for all work, equipment and materials. The following standards are provided as a guideline: IEC standards, CE standards, and NL standards including NL HD 60364-7-712:2017. The contractor shall comply with all applicable Lebanese laws and regulations, and future amendments.
39. In the financial offer, the bidder shall include a price for all the items and services required for the implementation of the REEE measures included in the BoQs listed in Annex 4.
40. The contractor shall commit for the replacement of components in the event of their failure during the warranty period, if damaged due to the improper installation or commissioning by the contractor. No payment will be affected if the defected component is still under the manufacturer warranty.
41. The contractor shall conduct an Operation and Maintenance training of operators in each site after the commissioning of the systems.
42. The contractor shall be responsible for the proper performance, Operation, and Maintenance (O&M) of products and systems during a one (1) year defect liability period, following the issuing of the Provisional Acceptance Certificate by LCEC.

43. Throughout the defect liability period, the contractor shall be responsible for all remedial actions necessary to maintain the status of installed systems as on the date of issuance of the Provisional Acceptance Certificate.
44. A cash retention amount will be reserved by LCEC until obligations of the one (1) year defect liability period are fulfilled as per Form 5 - Cash Retention.
45. The Final Acceptance Certificate will be issued by LCEC following the successful closure of the defect liability period.
46. Site visits will be conducted to inspect the installation areas of all sites. The site visits schedule to all sites is shared in Annex 2.
47. Locations of the sites are listed in Annex 2 of this RFP.

Instructions to Bidders

48. Interested bidders are required to read carefully all the information in all the sections: background information; important notes; scope of the proposal; instructions to bidders; required deliverables; evaluation process and scoring method; general terms and conditions; miscellaneous terms and conditions; general conditions of contract; forms section; and the annexes.
49. The deadline for submission of proposals is the **3rd of March at 3:00 p.m.** All proposals received after the mentioned date and time will be rejected.
50. Proposals must be delivered to the LCEC offices at the following address: Ministry of Energy and Water (MEW), Corniche du Fleuve, 1st Floor, Room 303, Beirut- Lebanon. Proposals may be hand delivered or sent by courier to the mentioned address.
51. The bidder will submit its proposal in two parts. The first part will contain the entire proposal except the financial proposal. The second part will contain only the financial proposal.

52. A proposal shall contain no interlineations, erasures, or overwriting except, as necessary to correct errors made by the bidder, in which case such corrections shall be initiated by the person or persons signing the proposal.
53. The bidder shall submit a **USB** containing a digital copy of the entire proposal (except the financial offer) as one searchable document in PDF format. The **USB** must be clearly marked to indicate the name of the bidder and the statement “Proposal for Implementation of Renewable Energy & Energy Efficiency (REEE) Measures in Thirty-Four (34) MSMEs and Two (2) Local Communities in Lebanon”.
54. The bidder shall seal the proposal in one (1) outer envelope including two (2) inner sealed envelopes and the USB as detailed below.
55. The back of the outer envelope shall be clearly marked with “Proposal for Implementation of Renewable Energy & Energy Efficiency (REEE) Measures in Thirty-Four (34) MSMEs and Two (2) Local Communities in Lebanon” as well as the name of the bidder. The outer envelope shall be addressed to: “Lebanese Center for Energy Conservation (LCEC), Ministry of Energy and Water (MEW), Corniche du Fleuve, 1st Floor, Room 303, Beirut- Lebanon, phone: 00961 1 565108”.
56. The two (2) inner envelopes must be sealed.
57. One (1) of the inner envelopes shall contain all the information specified in the RFP except the financial offer. This envelope must be marked on its back with “Operational and Technical Proposal”. The operational and technical part of the proposal should not contain any pricing information whatsoever on the services offered.
58. The other one (1) inner envelope shall contain the financial offer for the project. This envelope must be marked on its back with “Financial Offer”.
59. If any of the envelopes are not sealed and marked as required, LCEC will assume no responsibility for the misplacement of the proposal or its premature opening.

60. Failure of the bidder to abide by the requirements of this section might lead to the rejection of the proposal.
61. The technical proposal must clearly include five (5) sub-sections:
- The official and administrative signed papers,
 - the management and resource plan,
 - the proposed methodology and design,
 - the team composition and tasks assignment,
 - and an unpriced detailed BoQs according to the General BoQs in Annex 4.
62. **The official and administrative signed papers** sub-section should include all the official papers of the bidder, especially those needed for the Pass/Fail evaluation stage described later on. This sub-section should also include all the needed forms mentioned in the forms section later on.
63. **The management and resource plan** sub-section should describe the organizational unit(s) that will become responsible for the contract, and the general management approach towards a project of this kind. The bidder should comment on its experience in similar projects. In addition, the bidder should list its resources in terms of facilities, material availability, and a warehouse inventory list of components necessary for the performance of this requirement.
64. **The proposed methodology and design** sub-section must include the timeline of the project, the program of work, the installation steps, and the safety measures followed throughout the execution phase of the project. Also, this sub-section shall include the full electrical and structural designs, energy production and shading analysis simulation reports, and detailed mode of operation. In addition, the bidder should demonstrate its responsiveness to the specifications by identifying the proposed components addressing the specified requirements in Annex 6.
65. The submitted design will undergo review by LCEC and relevant stakeholders. The successful bidder is required to revise all drawings and documents based on the provided feedback and resubmit the final, detailed design documents and plans for

contract eligibility. Failure to comply with this requirement will result in disqualification from contract award.

66. The reference or model numbers of the products must be **clearly highlighted** in the **datasheets and certificates and detailed BoQs**. Irrelevant datasheets, products certificates and other documents will negatively affect the proposals.
67. It is mandatory that the proposal numbering system corresponds with the numbering system used in the body of this RFP. All references to descriptive material and brochures should be included in the appropriate response paragraph, though material/documents themselves may be provided as annexes to the proposal/response.
68. **The team composition and task assignment** sub-section should include the CV's of the key personnel and their key qualifications, as well as the assignment(s) dedicated to each of the personnel.
69. **The (BoQs)** sub-section must include clear detailed bills of quantities of all the products and quantities based on the General BoQs listed in Annex 4. The detailed BoQs and the General BoQs shall be included in the technical proposal without any pricing.
70. The same detailed BoQs and General BoQs shall be included in the financial offer envelope including the pricing.

Required Deliverables

71. The professional assignment shall include the tasks mentioned in the following points.
72. LCEC shall always be informed about any activity initiation or progress on site by email.
73. The contractor's site supervisor shall always be present on site during the implementation of activities.

74. LCEC will ask for progress reports to be submitted throughout the period of the contract, identifying potential risks, signaling any delays in deliverables, and providing updates on relevant components and activities.
75. The reports should be comprehensive and written in proper prose. The language should be clear, concise and understandable.
76. International System of Units (SI) must be used in all parts of the reports.
77. All calculations in the submitted reports should be checked for mathematical accuracy.
78. The expected deliverables are provided in the table below.

Table 1: List of Deliverables

Deliverable 1	Report of project working plan with time schedule and Gantt chart for the execution & documentation of the works.
Deliverable 2	Completion of installation of REEE measures in all MSMEs as per the BoQs
Deliverable 3	Completion of installation of REEE measures in all Local Communities as per the BoQs
Deliverable 4	Acceptance tests performed, punch list completed, and performance tests conducted.
Deliverable 5	As-built documentation submitted, information plate installed, warranties, O&M manual, and training of operators conducted.
Deliverable 6	One (1) year O&M

Evaluation Process and Scoring Method

79. A four-stage procedure is utilized in evaluating the proposals, with evaluation of the technical proposal being completed prior to any price proposal being opened and compared.
80. The proposal will undergo a four-stage evaluation:
- Stage 1: Administrative and Technical Pass/Fail;
 - Stage 2: Capability and Technical Scoring;
 - Stage 3: Financial Offer Comparison;
 - Stage 4: Negotiation.
81. In case the winning bidder does not sign the contract within 30 days of the announcement of the award, then the LCEC reserves the right to disqualify the winning bidder and choose the next bidder. The disqualified bidder will forfeit the bid deposit.
82. Stage 1 evaluation will be based on the Pass/Fail criteria described in the following section here below. The evaluation committee will reject proposals that do not meet all the criteria in stage 1.
83. All proposals that pass stage 1 evaluation will be scored in stage 2 based on the capability and technical scoring. At this stage, the financial proposal will not be opened. Companies that score 50 or higher out of a score of 100 (technical score, S_t) will be selected to move to stage 3.
84. In stage 3, the financial proposal of the bidders selected in stage 2 will be opened and subsequently compared.
85. The formula for determining the financial scores is the following:
86. $S_f = 100 \times F_m/F$, in which
- S_f is the financial score,
 - F_m is the lowest price
 - and F the price of the proposal under consideration.

87. The Total Score for each proposal will be calculated independently by formula:

$$TS = St \times 0.7 + Sf \times 0.3$$

- TS is the total score of the proposal under consideration;
- St is technical score of the proposal under consideration;
- Sf is financial score of the proposal under consideration.

88. The bidder with the highest Total Score (TS) will be selected to proceed to signing of the contract.

89. The evaluation committee to be assigned by the LCEC will use the mentioned scoring method. LCEC reserves the right to clarify or refine the evaluation criteria or scoring method prior to the proposal submission deadline, provided that any such changes are formally communicated to all bidders. Full scores will be awarded only when all requested information and documentation are duly submitted in accordance with the requirements specified in this RFP.

90. The evaluation committee reserves the right to disqualify bidders that provide conflicting, contradictory, implausible (technical data or calculation) or in any other way misleading information.

91. The LCEC reserves the right to negotiate the proposed financial offer with the selected bidder before signing the contract.

A. Pass/Fail Criteria

92. All bids must meet all the following criteria (items 93 to 106 below). If any of all the requested mandatory criteria (and sub-criteria) is not met by the bid, then the whole bid will be rejected.

93. All the pages of this RFP, its addendums and clarifications should be included in the proposal, signed and stamped.

94. The proposal must clearly include five (5) sub-sections: the official and administrative signed papers, the management and resource plan, the proposed methodology and

design, the team composition and tasks assignment, and detailed BoQs according to the General BoQs listed in Annex 4.

95. All forms mentioned in the forms section should be clearly filled, signed, and stamped.
96. The forms submitted by the bidder shall be in conformance with the provided sample forms (Forms 1 to Forms 7). Any alternate form/text in any of the forms, would result in the rejection of the bid.
97. The power of attorney (notarized) should be provided, signed and stamped. The power of attorney should authorize the person signing the application form to act as a representative (or representatives) on behalf of the bidder (or joint venture members) to submit the proposal.
98. The proposal bid must include clear detailed BoQs of all the products based on the General BoQs listed in Annex 4. The detailed and the General BoQs shall be included in the technical proposal without any pricing.
99. The reference or model numbers of the proposed products must be clearly highlighted in the corresponding datasheets and certificates, and in the detailed BoQs.
100. Each item in the General BoQs shall be explicitly reflected into items and/or products in the detailed BoQs where applicable, using the same format of the General BoQs.
101. Bid bond: the technical proposal shall be accompanied by a bid bond made payable in cash to the LCEC to the amount of 15,000 USD. The bid bond shall be drawn in a manner acceptable to the LCEC.
102. Team leader: the bidder shall assign a team leader with at least 5 years of experience in the energy sector.
103. Project completion date: the completion date for the project must not exceed 10 weeks following contract signature (commissioned and in production).

104. Capacity of the project: the proposal shall include the implementation of all REEE measures indicated in this RFP.
105. Location of the Plant: the bidding company shall abide by the space allocated for the project at the locations of the sites subject of this RFP.
106. The proposed methodology should include the following minimum information:
 - a. **Timeline/project schedule;**
 - b. **System description;**
 - c. **Equipment details, specifications, and description;**
 - d. **Layout of installation, where applicable;**
 - e. **Layout of equipment, where applicable;**
 - f. **Detailed single line diagram, where applicable;**
 - g. **Selection of key equipment;**
 - h. **All engineering associated with structural and mounting details for support system;**
 - i. **Protection devices;**
 - j. **Integration of solar PV system with other power sources where applicable;**
 - k. **Software simulation report showing the energy production and shading analysis reports, where applicable.**
107. The LCEC reserves the right to revise the qualification criteria prior to the submission deadline, provided that such changes are duly communicated to all prospective applicants in a timely and transparent manner.

B. Technical Scoring

108. Only proposals that pass Stage 1 evaluation will be evaluated in the Technical Scoring- Stage 2.
109. The technical scoring is over 100.
110. Following this evaluation, each company will have one technical score (St). Companies that score 50 or higher will be selected to move to stage 3.

111. Technical scoring of previous experience will be conducted on a per-measure basis.

112. The technical score of 100 will cover four (4) aspects:

Evaluation	Maximum Obtainable Points
a) Management and resource plan	10 points
b) Methodology and design	45 points
c) Products	30 points
d) Team composition and tasks assignment	15 points
Total	100 points

a) Management and Resource Plan

Ref.	Item	Max. Score	Criteria	Score
1	Formatting, Organization and Visual Clarity of the Submittal	2	Weak	0
			Good	1
			Excellent	2
2	Year of Incorporation	1	≤ 5 years	0
			> 5 and ≤ 10 years	0.5
			> 10 years	1
3	Average Total Revenues of the Last Three years	1	< 500,000 USD	0
			≥ 500,000 and < 1,000,000 USD	0.5
			≥ 1,000,000 USD	1
4	Organizational and Management Approach for the Project & Availability of Needed Material	1	Weak	0
			Good	0.5
			Excellent	1
5	Previous Experience in the Installation of Solar PV with Lithium Batteries (Capacity of Battery Banks of Completed Projects in kWh) <i>*Based on the Solar Photovoltaic Energy Experience form.</i>	2	< 300 kWh	0
			≥ 300 and < 1,000kWh	1
			≥ 1,000 kWh	2
6	Previous Experience in the Installation of Solar PV Systems (Capacity of Completed Projects in kWp) <i>*Based on the Solar Photovoltaic Energy Experience form.</i>	3	< 400 kWp	0
			≥ 400 and < 1,500 kWp	1
			≥ 1,500 kWp	3
Maximum Obtainable Score		10		

b) Methodology and Design

Ref.	Item	Max. Score	Criteria	Score
1	Civil Design Notes Based on Wind Loads as per Lebanese Standard NL 137:2020, Including Software Simulation	5	Not submitted	-5
			Incomplete	3
			Complete	5
2	Civil Structure Specifications, Safety Declaration Letter Signed by Structural Engineer Registered at OEA, and Anti-Rust Measures	4	Not submitted	-4
			Incomplete	2
			Complete	4
3	Software Simulation Report Showing PV System Sizing, Shading Analysis, Energy Production, Connection Point, and On-Site Obstacles	5	Not submitted	0
			Inaccurate	2
			Accurate	5
4	Design Drawings; Structural Layouts, PV Panels Layout, PV Stringing Layout, Inverter Room Layout, Single Line Diagram (SLD) Including Panels, Inverters, Protection Devices, and Earthing per System.	7	Not submitted	0
			Incomplete	3
			Complete	7
5	Formatting, Organization and Visual Clarity of Design Drawings, Showing Number of Modules, Dimensions of Arrays, Tilt and Orientation, Elevations, Passages and Row to Row Distances, surrounding boundaries, sectional views, Notes, etc.	6	Weak	-3
			Good	2
			Excellent	6
6	Electrical Components Sizing, DC and AC Voltage Drops, DC and AC Cables Sizing Calculations as per Annex 6	5	Not submitted	0
			Incomplete	2
			Complete	5
7	Description of Systems' Mode of Operation – System Control	4	Not submitted	0
			Broad	2
			Detailed	4
8	Committed Installation Time Including T&C	4	≥ 10 weeks	0
			≥ 7 and < 10 weeks	2
			< 7 weeks	4
9	Overall Methodology of The Workplan and Installation Steps of REEE Measures	5	Weak	0
			Good	3
			Excellent	5
	Maximum Obtainable Score	45		

c) Products

Ref.	Item	Max. Score	Criteria	Score
1	Selection of PV Panels, Lithium Batteries, Inverters, Variable Frequency Drives (VFDs), Water Pumps as per Annex 6	8	Not Compliant	0
			Partially Compliant	4
			Compliant	8
2	Selection of Cables, Control Systems, Protection Devices, Rectifiers, Filters, etc. as per Annex 6	6	Not Compliant	0
			Partially Compliant	3
			Compliant	6
3	Selection of Safety Equipment (Fire Extinguisher and Smoke Alarm), Earthing Systems, and Lightning Protection Systems as per Annex 6	6	Not Compliant	0
			Partially Compliant	3
			Compliant	6
4	Datasheets and Certificates of All Components	10	Incomplete	0
			Partially Complete	5
			Complete	10
	Maximum Obtainable Score	30		

d) Team and Tasks

Ref.	Item	Max. Score	Criteria	Score
1	Team Leader- Total Years of Experience in the REEE field <i>* In case of multiple team leaders involved, the average years of experience will be considered</i> <i>*Use Form 3: CV Of Team Leader</i>	5	≥ 5 and < 10 years	1
			≥ 10 and < 15 years	3
			≥ 15 years	5
2	Technical and Managerial Staff Involved in the Project <i>*Administrative Staff will not be Counted</i>	5	< 8	0
			≥ 8 and < 12	1
			≥ 12 and < 16	3
			≥ 16	5
3	Overall Evaluation of the CV's of Team Members (Relevant Experience) <i>*Use Form 4: CVs of Team Members</i>	3	Weak	0
			Good	1
			Excellent	3
4	Distribution of Tasks Assignment	2	Weak	-2
			Good	1
			Excellent	2
	Maximum Obtainable Score	15		

113. The LCEC reserves the right to revise the qualification criteria prior to the submission deadline, provided that such changes are duly communicated to all prospective applicants in a timely and transparent manner.

General Terms and Conditions

114. Successful bidder will sign the contract agreement with the LCEC.
115. Proposal must be submitted as per the contents of this RFP using the forms shown in the forms section.
116. Cost of proposal: the bidder shall bear all costs associated with the preparation and submission of the proposal. The LCEC will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the RFP. All documents submitted in response to this RFP will become the property of LCEC. All prices shall be quoted in USD and including VAT.
117. The application, as well as all correspondence and documents relating to the RFP shall be written in the English language. Supporting documents and printed literature that are part of the application may be in another language, provided they are accompanied by an accurate official translation of the relevant passages into the English language, in which case, for purposes of interpretation of the application, the translation shall govern.
118. Confidentiality of Proposal: information relating to the evaluation of proposals shall not be disclosed to bidders or any other persons not officially concerned with such process until the notification of selection is made to all bidders.
119. Evaluators will read printed copy of proposal. All evaluators may not have access to the internet; therefore, it is recommended to not include URLs, hyperlinks or other forms of internet-based content in the proposal.
120. Clarification of Proposal: to assist in the evaluation of proposal, LCEC may, at its discretion, ask any bidder for a clarification of its proposal which shall be submitted within a stated reasonable period of time. Any request for clarification and all clarifications shall be in writing and consequently no change in price or substance of the proposal shall be sought, offered or permitted. If a bidder does not provide

clarifications of the information requested by the date and time set in the request for clarification, its proposal may be rejected.

121. Proposal must offer services for the total requirements of the RFP. Proposals offering only part of the requirements will be rejected.
122. The bidder is expected to examine all corresponding instructions, forms, terms and specifications contained in the RFP. Failure to comply with these documents will be at the bidder's risk and may affect the evaluation of the proposal. Any proposal which is not responsive to the requirements of the RFP may be rejected.
123. LCEC reserves the right to:
 - a) Modify, clarify, or cancel the RFP by officially informing all prospective bidders, provided that such action is taken prior to the submission deadline;
 - b) Award a contract based on the evaluation criteria specified in the RFP, including any adjustments duly communicated to all bidders through addenda or clarifications;
 - c) Accept minor, non-material deviations in a bid that do not affect the overall fairness of the process or the comparability of bids, provided such waiver is applied equally to all bidders;
 - d) Reject any or all bids, provided that rejection decisions are made based on criteria set forth in the RFP and in accordance with applicable procurement policies;
 - e) Reject any or all bids without the obligation to provide detailed justification, but LCEC will, upon request, provide a summary of the reasons for rejection in accordance with applicable procedures, while maintaining fairness and consistency in the decision-making process..
124. By submitting the proposal, bidder agrees that the terms in the proposal shall remain irrevocable for 180 days after the due date of the proposal.
125. At any time prior to the deadline for submission of proposals, LCEC may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the RFP by amendment. All prospective bidders that have received the RFP will be notified in writing of all amendments to the RFP.

126. In order to afford prospective bidders reasonable time in which to take the amendments into account in preparing their offers, LCEC may, at its discretion, extend the deadline for the submission of proposals.
127. Bid bond: the proposal shall be accompanied by a bid bond made payable in cash to the LCEC to the amount of 10,000 USD.
128. The bid bond shall be drawn in a manner acceptable to the LCEC.
129. The bond shall be valid for 180 days starting from the tender opening date, and shall be automatically extended after this date. The LCEC may request an extension of the validation period of the tender.
130. If the winning bidder fails to sign the contract within thirty (30) days following the bid notification of the acceptance the full amount of the bid bond shall become automatically payable to the LCEC as a compensation of such default.
131. The bid bond will be returned without interest within thirty (30) days after one of the following events:
 - a) If the proposal is rejected;
 - b) If a proposal is successful; after signing the contract with the LCEC.
 - c) If the bidding process is cancelled without awarding the contract.
132. The bidder shall indicate an appropriate price schedule for the services it proposes to supply under the contract.
133. The price of the current contract is a lump sum. The bidder's total remuneration shall be a fixed lump-sum including all staff costs, subcontractor's (if any) costs, printing, communications, travel, accommodation, and the like, and all other costs incurred by the bidder in carrying out the services. The contract price may only be increased if the parties have agreed to additional payments in case of modification of the terms and conditions of this contract.

134. LCEC shall affect payments to the winning bidder after acceptance by LCEC of the invoices submitted by the contractor, upon achievement of the corresponding milestones of the project defined as Deliverables. Payments will be affected in US Dollars through bank transfers. All terms will be detailed in the Contract to be signed between the winning bidder (s) and the LCEC.
135. The bidder may withdraw its proposal after the proposal's submission, provided that written notice of the withdrawal is received by LCEC prior to the deadline prescribed for submission of proposals. The bidder's withdrawal notice shall be prepared, sealed, marked, and sent by hand or fax but followed by a signed confirmation copy.
136. No proposal may be modified subsequent to the deadline for submission of proposals.

Miscellaneous Terms and Conditions

137. Corrupt and Fraudulent Practices: Anticorruption Policy requires bidders, suppliers, and contractors to observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy the organization defines, for the purposes of this provision, the terms set forth below as follows:
- a) "corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;
 - b) "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;
 - c) "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;
 - d) "collusive practice" means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party.

138. LCEC will reject a proposal for award if it determines that the bidder 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.
139. 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, a contract.
140. Conflict of Interest: 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, bidders, suppliers, and contractors under contracts must observe the highest standard of ethics. 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, bidders may be considered to be in a conflict of interest with one or more parties if they, including but not limited to:
- a) have controlling shareholders in common; or
 - b) receive or have received any direct or indirect subsidy from any of them; or
 - c) have the same legal representative for purposes of their Application; or
 - d) 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 Applicant in the subsequent bidding process or influence the decisions of LCEC regarding this prequalification process; or
 - e) participated as a consultant in the preparation of the technical specifications of the works that are the subject of this prequalification. 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 prequalification, unless it can be demonstrated that there is no significant degree of common ownership, influence or control.

General Conditions of Contract

141. **LEGAL STATUS:** The Contractor shall be considered as having the legal status of an independent contractor vis-à-vis LCEC. The Contractor's personnel and sub-contractors shall not be considered in any respect as being the employees or agents of LCEC.
142. **SOURCE OF INSTRUCTIONS:** The Contractor shall neither seek nor accept instructions from any authority external to LCEC in connection with the performance of its services under this Contract. The Contractor shall refrain from any action which may adversely affect LCEC and shall fulfill its commitments with the fullest regard to the interests of LCEC.
143. **Contractor's RESPONSIBILITY FOR EMPLOYEES:** The Contractor shall be responsible for the professional and technical competence of its employees and will select, for work under this Contract, reliable individuals who will perform effectively in the implementation of this Contract, respect the local customs, and conform to a high standard of moral and ethical conduct.
144. **ASSIGNMENT:** The Contractor shall not assign, transfer, pledge or make other disposition of this Contract or any part thereof, or any of the Contractor's rights, claims or obligations under this Contract except with the prior written consent of LCEC.
145. **SUB-CONTRACTING:** In the event the Contractor requires the services of sub-contractors, the Contractor shall obtain the prior written approval and clearance of LCEC for all sub-contractors. The approval of LCEC of a sub-contractor shall not relieve the Contractor of any of its obligations under this Contract. The terms of any sub-contract shall be subject to and conform to the provisions of this Contract.
146. **OFFICIALS NOT TO BENEFIT:** The Contractor warrants that no official of LCEC has received or will be offered by the Contractor any direct or indirect benefit arising from this Contract or the award thereof. The Contractor agrees that breach of this provision is a breach of an essential term of this Contract.

147. **INDEMNIFICATION:** The Contractor 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 Contractor, or the Contractor's employees, officers, agents or sub-contractors, in the performance of this Contract. 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 Contractor, its employees, officers, agents, servants or sub-contractors. The obligations under this Article do not lapse upon termination of this Contract.

148. **INSURANCE AND LIABILITIES TO THIRD PARTIES:**

- a) The Contractor shall provide and thereafter maintain insurance against all risks in respect of its property and any equipment used for the execution of this Contract.
- b) The Contractor shall provide and thereafter maintain all appropriate workmen's compensation insurance, or its equivalent, with respect to its employees or any third-party member to cover claims for personal injury or death in connection with this Contract.
- c) The Contractor shall also provide and thereafter maintain liability insurance in an adequate amount to cover third party claims for death or bodily injury, or loss of or damage to property, arising from or in connection with the provision of services under this Contract or the operation of any vehicles, boats, airplanes or other equipment owned or leased by the Contractor or its agents, servants, employees or sub-contractors performing work or services in connection with this Contract.
- d) Except for the workmen's compensation insurance, the insurance policies under this Article shall:
 - i. Name LCEC as additional insured;
 - ii. Include a waiver of subrogation of the Contractor's rights to the insurance carrier against LCEC;
 - iii. Provide that LCEC shall receive thirty (30) days written notice from the insurers prior to any cancellation or change of coverage.

e) The Contractor shall, upon request, provide LCEC with satisfactory evidence of the insurance required under this Article.

149. **ENCUMBRANCES/LIENS:** The Contractor 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 under this Contract, or by reason of any other claim or demand against the Contractor.

150. **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 this Contract or when no longer needed by the Contractor. Such equipment, when returned to LCEC, shall be in the same condition as when delivered to the Contractor, subject to normal wear and tear. The Contractor shall be liable to compensate LCEC for equipment determined to be damaged or degraded beyond normal wear and tear.

151. **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 Contract as well as after execution. At the LCEC request, the Contractor 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.

152. **USE OF NAME, EMBLEM OR OFFICIAL SEAL:** The Contractor shall not advertise or otherwise make public the fact that it is a Contractor with LCEC, nor shall the Contractor, 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.

153. **CONFIDENTIAL NATURE OF DOCUMENTS AND INFORMATION:**

a) All maps, drawings, photographs, mosaics, plans, reports, recommendations, estimates, documents and all other data compiled by or received by the Contractor under this Contract shall be the property of LCEC, shall be treated

as confidential and shall be delivered only to LCEC authorized officials on completion of work under this Contract.

- b) The Contractor 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 Contractor at any time use such information to private advantage. These obligations do not lapse upon termination of this Contract.

154. FORCE MAJEURE; OTHER CHANGES IN CONDITIONS:

- a) Force majeure, as used in this Article, 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.
- b) In the event of and as soon as possible after the occurrence of any cause constituting force majeure, the Contractor shall give notice and full particulars in writing to LCEC, of such occurrence or change if the Contractor is thereby rendered unable, wholly or in part, to perform its obligations and meet its responsibilities under this Contract. The Contractor 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 of this Contract. The notice shall include steps proposed by the Contractor to be taken including any reasonable alternative means for performance that is not prevented by force majeure. On receipt of the notice required under this Article, 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 Contractor of a reasonable extension of time in which to perform its obligations under this Contract.
- c) If the Contractor is rendered permanently unable, wholly, or in part, by reason of force majeure to perform its obligations and meet its responsibilities under this Contract, LCEC shall have the right to suspend or terminate this Contract on the same terms and conditions as are provided for in Article 15, "Termination", except that the period of notice shall be seven (7) days instead of thirty (30) days.

155. TERMINATION

- a) LCEC reserves the right to terminate without cause this Contract at any time upon 15 days prior written notice to the Contractor, in which case LCEC shall reimburse the Contractor for all reasonable costs incurred by the Contractor prior to receipt of the notice of termination.
- b) In the event of any termination by LCEC under this Article, no payment shall be due from LCEC to the Contractor except for work and services satisfactorily performed in conformity with the express terms of this Contract. The Contractor shall take immediate steps to terminate the work and services in a prompt and orderly manner and to minimize losses and further expenditures.
- c) Should the Contractor be adjudged bankrupt, or be liquidated or become insolvent, or should the Contractor make an assignment for the benefit of its creditors, or should a Receiver be appointed on account of the insolvency of the Contractor, LCEC may, without prejudice to any other right or remedy it may have, terminate this Contract forthwith. The Contractor shall immediately inform LCEC of the occurrence of any of the above events.

156. SETTLEMENT OF DISPUTES: The Parties shall use their best efforts to settle amicably any dispute, controversy or claim arising out of, or relating to this 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.

157. CHILD LABOUR: The Contractor 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 this Contract immediately upon notice to the Contractor, at no cost to the LCEC.

158. OBSERVANCE OF THE LAW: The Contractor 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 this Contract.

159. **AUTHORITY TO MODIFY:** No modification or change in this Contract, no waiver of any of its provisions or any additional contractual relationship of any kind with the Contractor shall be valid and enforceable against LCEC.

Annex 1 - Forms

Form 1 - Bid Bond

The Bid Bond submitted by the Bidder shall be in conformance with the below sample form. Any alternate form/text would result in the rejection of the Bid.

To: The Lebanese Center for Energy Conservation (LCEC)
Ministry of Energy and Water
Corniche du Fleuve, First Floor, Room 303
Beirut, Lebanon

Name of the Project: "RFP for the Implementation of Renewable Energy & Energy Efficiency (REEE) Measures in Thirty-Four (34) MSMEs and Two (2) Local Communities in Lebanon"

By this guarantee, we confirm that we, the undersigned, are bound unto the Lebanese Center for Energy Conservation (LCEC) in the sum of 15,000 USD (hereinafter called "Bid Deposit") for which a cash deposit has been well and truly made to LCEC.

The conditions of the obligation under this Bid Bond are:

1. If the Bidder withdraws the Bid during the period of bid validity specified in the project RFP; or
2. If the Bidder having been notified of the acceptance of its Bid by LCEC during the period of Bid validity:
 - Fails or refuses to execute the Engineering, Procurement, Construction (EPC) Contract,or
 - Refuses to accept the correction of the errors in the Bid.

The Bidder hereby constitutes and appoints LCEC as its attorney to assign, appropriate, transfer and apply the said Bid Deposit as a result of the occurrence of one or both of the two conditions, without notice.

This Bid Bond will remain in force up to and including the date 120 days after the deadline for submission of Bids and it may be extended automatically after this date, notice of which extension(s) is hereby waived.

The conditions under which the obligation under this Bid Bond will be null and void and the Bid Deposit will be released and returned to the Bidder are:

- If the Bidder is notified of the rejection of its Bid by LCEC,
or
- If the Bidder having been notified of the acceptance of its Bid by LCEC executes the EPC Contract.

[Insert full name of person signing the application]

In the capacity of: [Insert capacity of person signing the Application]

Duly authorized to sign the Application for and on behalf of: [Insert full name of Applicant]

[Insert full legal address]

[Insert applicant's authorized representative telephone/Fax]

[Insert applicant's authorized representative mobile phone]

[Insert applicant's authorized representative email]

Signature and Stamp

Form 2 – Relevant Experience

[Name of Applicant]

- *Please only list the requested relevant experience in Lebanon*
- *Please list the most recent projects (starting from 2023)*
- *Please only list the projects that were completed and commissioned*
- *Assignments completed by the bidder's individual experts working privately or through other firms, partners, or sub-contractors cannot be claimed as the relevant experience of the bidder*

1. Please provide a list of solar PV systems with and without **Lithium** battery storage, designed, installed, and commissioned in Lebanon.

Project Ref.	Project Size (kWp)	Storage Size (kWh)	Project Location	Completion Date	Client Contact Details
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
Total		NA			
[add rows as necessary]					

2. Please provide five (5) pictures from the implemented solar PV systems with Lithium battery storage, showing the metallic structure, fixation details of PV panel, batteries, inverters, etc. Please insert in the caption the number of fixtures and location of the system.

Picture 1	
Caption	
Picture 2	
Caption	
Picture 2	
Caption	
Picture 4	
Caption	
Picture 5	
Caption	

Form 3 - CV of Team Leader

[Use this standard format for specifying the name of the team leader. The CV of the team leader must be attached separately.]

Solar Photovoltaic Plant Development	
Person name:	
Title in the project:	
Affiliation:	
Experience	
Date range:	
Project name:	
Role:	
Date range:	
Project name:	
Role:	
Date range:	
Project name:	
Role:	

Form 4 – Team Composition and Tasks Assignment

[Name of Applicant]

Please attach the CV of each team member separately.

Team Member Name	Position in this Project	Assigned Tasks	Number of operational solar pumping projects	Number of operational solar PV with storage projects

Form 5 - Cash Retention

- *At the bid submission stage, this form has only to be signed and stamped, no need to be completed.*
- *Once the contract is awarded, the contractor will complete the form and submit it, prior to the contract signature.*

To: The Lebanese Center for Energy Conservation (LCEC)
Ministry of Energy and Water
Corniche du Fleuve, First Floor, Room 303
Beirut, Lebanon

Name of the Project: "RFP for the Implementation of Renewable Energy & Energy Efficiency (REEE) Measures in Thirty-Four (34) MSMEs and Two (2) Local Communities in Lebanon"

WHEREAS, [Applicant's Name], duly represented by [Insert full name of person signing the application] [Insert full legal address], hereinafter called "the Contractor" has undertaken in pursuance of the Contract dated [Date of contract signature] between the Contractor to execute the Implementation of REEE Measures in Thirty-Four (34) MSMEs and Two (2) Local Communities in Lebanon, hereinafter called "the Contract" for the Lebanese Center for Energy Conservation having its address at the Ministry of Energy and Water Building, Corniche du Fleuve, 1st Floor, Room 303, Beirut, Lebanon hereinafter called "the LCEC";

AND WHEREAS it has been stipulated in the said Contract that the Contractor shall be responsible of a one (1) year defect liability period following the issuance of the Provisional Acceptance Certificate by the LCEC;

NOW THEREFORE the Contractor hereby affirms that LCEC will be withholding a total of cash equivalent to [10% of the Contract Value in USD (\$)], such sum being payable in the types and proportions of currencies in which the Contract Price is payable, hereinafter called "the Cash Retention", and LCEC shall have recourse to the Cash Retention without cavil or argument, within the limits of [10% of the Contract Value in USD (\$)] as aforesaid without needing to prove or to show grounds or reasons for such recourse for the sum specified therein.

The Contractor hereby waives the necessity of LCEC demanding the said debt from the Contractor before having recourse to the Cash Retention.

The Contractor and LCEC, hereinafter jointly called “the Parties”, further agree that no change or addition to or other modification of the terms of the Contract or of the works to be performed hereunder or of any of the Contract documents which may be made between the Parties shall in any way release any Party from any liability under this guarantee.

This guarantee shall be valid for one (1) year from the date of issuance of the Provisional Acceptance Certificate by LCEC.

[Insert full name of person signing the application]

In the capacity of: [Insert capacity of person signing the Application]

Duly authorized to sign the Application for and on behalf of: [Insert full name of Applicant]

[Insert full legal address]

[Insert applicant's authorized representative telephone/Fax]

[Insert applicant's authorized representative mobile phone]

[Insert applicant's authorized representative email]

Signature and Stamp

Form 6 - Performance Guarantee Letter

[Name of Applicant]

I the undersigned [Insert full name of person signing the application] in my capacity of [Insert capacity of person signing the Application] duly authorized to sign for and on behalf of [Insert full name of Applicant] hereby confirm that, within the “RFP for the Implementation of Renewable Energy & Energy Efficiency (REEE) Measures in Thirty-Four (34) MSMEs and Two (2) Local Communitiies in Lebanon” in cooperation with the LCEC, we guarantee the Performance Ratio (PR) listed in Table 2.

Table 2 Guaranteed Performance Ratio

Month	PR Guaranteed – [Insert Site Name]	PR Guaranteed – [Insert Site Name]	PR Guaranteed – [Insert Site Name]
January			
February			
March			
April			
May			
June			
July			
August			
September			
October			
November			
December			
Yearly Average			

- Once the Plant is connected to the grid, the Performance Ratio (PR) of the plant is measured and compared with the value guaranteed by the contractor.
- The PR is defined in this case as the ratio between the expected energy output in real conditions (at the inverter output), taking into account all of the losses in the energy generation (up to the inverter output), and the theoretical energy output in Standard Test Conditions (STC).
- The duration of the Provisional Acceptance Test shall be 3 consecutive full days.

- If a power outage happens for any reason, the days of the power outage are excluded and the duration of the PR Test shall be extended to reach the minimum period of 3 days of measurement.
- The acceptance test will be successful if the overall acceptance test PR (Metered Output / Theoretical Output) \geq Guaranteed PR, and if the performance test of the batteries is completed as per the requirements of the RFP.
- The Provisional Acceptance Certificate will be issued once the acceptance tests are successfully completed.
- The PR shall be calculated according to the following formula:

$$PR_{\text{commissioning}} = (E_{\text{produced at the inverter output}}) / (GTI * A_{\text{total module area}} * \text{Eff}_{\text{module @STC}})$$

- $E_{\text{produced at the inverter output}}$: Energy produced by the PV system (kWh), measured during the test period of 7 consecutive days, at the inverter output
- GTI: Global tilted irradiation (kWh/ m²), collected by the tilted pyranometer installed at the facility for the test period of 3 consecutive days
- $A_{\text{total module area}}$: Total area of PV modules (m²)
- $\text{Eff}_{\text{module @STC}}$: PV panels efficiency as per the datasheet (%)

Simplified Formula

$$PR_{\text{commissioning}} = (E_{\text{produced at the inverter output}}) / (GTI * \text{PlantSolarPower}_{\text{@STC}})$$

- $\text{PlantSolarPower}_{\text{@STC}}$: Total power of the PV system (kWp)

Performance Test for Lithium Batteries

- The battery bank performance shall be tested over one (1) cycle and at a maximum DoD of 90%.
- The contractor shall fully charge the batteries and then connect them to a constant AC load until discharge, while disconnecting the solar PV modules and other AC power sources from the batteries.
- The batteries voltage shall be monitored through the data acquisition system and remote monitoring platform. The battery bank in each system shall perform as per the requirements of the RFP.

All performance tests shall be done in coordination with LCEC.

Form 7 - Warranty Form

[Name of Applicant]

Please specify the full warranty period on each component, starting from the issuing of the Provisional Acceptance Certificate.

Component	Full Warranty Period (Years)
Mounting Structure	[At least 10 years starting from the issuing of the Provisional Acceptance Certificate]
Solar PV Modules	[Free from defects and/or failures due to manufacturing or quality of materials, for a period not less than 10 years from the date of sale to the customer]
DC Protection Box and Components	[At least 2 years starting from the issuing of the Provisional Acceptance Certificate]
Inverters	[At least 5 years starting from the issuing of the Provisional Acceptance Certificate]
AC Protection Box and Components	[At least 2 years starting from the issuing of the Provisional Acceptance Certificate]
Solar Charge Controller & Control Systems	[At least 5 years starting from the issuing of the Provisional Acceptance Certificate]
Lithium Batteries	[At least 7 years starting from the issuing of the Provisional Acceptance Certificate]
Remote Monitoring Equipment, Data Acquisition Software, and Remote Monitoring	[At least 3 years starting from the issuing of the Provisional Acceptance Certificate]

[Insert full name of person signing the application]

Signature and Stamp

Annex 2: Description of Sites & Site Visits Schedule

The below Table 3 shows the different sites subject of this RFP and the type of REEE measures to be implemented in each site. The systems sizes and installation scope of work can be found in Annex 3.

Table 3: List of Sites

#	Local Community Name	Measure	
1	Rayak Municipality	Replacement of existing Sodium streetlights lamps with LED luminaires	
2	Kaa El Rim Municipality	Replacement of existing Sodium streetlights lamps with LED luminaires	
#	MSME Name	Measure	Coordinates
1	Al Ameer Dairy	Upgrade existing solar PV system	33.763925, 35.698984
2	Al Mawasem Nursery	PV system with batteries	33.738129, 35.529408
3	Fromage blanc	PV system with batteries	33.893791, 35.501777
4	Kheir El Ard	Upgrade existing solar PV system	33.7840636, 35.5535264
5	Al Hana group	PV system with batteries	33.775067, 35.679650
6	Dahab B Trabo	PV system with batteries + Water Pump Installation	33.75697690, 33.5669435
7	Del Libano	PV system with batteries	33.755819, 35.556570
8	Les Jardins de Soussèn	PV system with batteries	33.756821, 35.716543
9	Thymescape	PV system with batteries	33.758989, 35.718946
10	Homemade dairy and mouneh	Upgrade existing solar PV system	33.768329, 35.670637
11	Tomagiallo	Upgrade existing solar PV system	33.7563103, 35.5833985
12	Juthoor Al Ard	PV system with batteries	33.797200, 35.705491
13	البان واجبان بتلون	On-grid PV system operating with an existing diesel generator	33.695527, 35.648637
14	Turath w Mouneh	PV system with batteries	33.603698, 35.620086
15	Dairy production from goats (no name)	PV system with batteries	33.687743, 35.646053
16	Lifeline hydroponics	PV system with batteries	33.6643542, 35.6220458
17	Al Ezz	PV system with batteries	33.717755, 35.654838
18	Parmaison	PV system with batteries	33.699423, 35.565159
19	Mushroom Micro-enterprise	Upgrade existing solar PV system	33.669193, 35.523184
20	Safa Chicken	On-grid PV system operating with an existing diesel generator	33.660044, 35.605200
21	Al Yasmine Dairy	Upgrade existing solar PV system	33.701516, 35.535371
22	La Belle Blanche	Upgrade existing solar PV system	33.622363, 35.589468
23	United Company for Cooperation and Development	On-grid PV system operating with an existing diesel generator	33.674470, 35.576296
24	Maroun's Garden	PV system with batteries	33.684672, 35.524316
25	Ghanem Mills	On-grid PV system operating with an existing diesel generator	33.7099573, 35.6638949
26	Verdant Fields	PV system with batteries	33.673905, 35.633902
27	Eggs with Benefits	On-grid PV system operating with EDZ	33.849427, 35.937031
28	Everest	Upgrade existing solar PV system	33.890620, 35.983790
29	Joury Dairy	On-grid PV system operating with EDZ	33.77436, 35.8788
30	Cedars Dairy Farm	On-grid PV system operating with an existing diesel generator	33.7601592, 35.8490964
31	Jam and leaf	PV system with batteries	33.8536502, 36.0235386
32	Alfa Co Trade	On-grid PV system operating with an existing diesel generator	33.828051, 33.977805
33	Plant It	Solar water pumping	33.8044308, 35.9624070
34	Sleiman Samaha Nursery	Upgrade of battery bank connected to existing PV system	33.890620, 35.983790

Interested bidders are invited to join the technical site visits to sites as mentioned in Table 4. The bidders are responsible for all site measurements and quantities that are necessary to design and quote the project.

The site visit schedule is provided in the below table. In case of any changes in the dates, the bidders will be informed by email.

Table 4 Site Visits Schedule

#	MSME Name	District	Town	Site Coordinates	Date	Time	Team
7	Del Libano	Aley	Baisour	33.755819, 35.556570	17 February 2026	09:00–10:00	Team 1
13	البيان واجبان بتلون	Chouf	Barouk	33.695527, 35.648637		09:00–10:00	Team 2
25	Ghanem Mills		Warhanieh	33.7099573, 35.6638949		10:20–11:20	Team 2
23	United Company for Cooperation and Development		Semqanieh	33.674470, 35.576296		10:30–11:30	Team 1
17	Al Ezz		Brih	33.717755, 35.654838		11:40–12:40	Team 2
20	Safa Chicken		Kahlounieh	33.660044, 35.605200		12:00–13:00	Team 1
16	Lifeline hydroponics		Botmeh	33.6643542, 35.6220458		13:30–14:30	Team 1
30	Cedars Dairy Farm	Zahle	Qob Elias	33.7601592, 35.8490964	18 February 2026	09:30–10:30	Team 1
29	Joury Dairy			33.77436, 35.8788		10:50–11:50	
33	Plant It		Terbol	33.8044308, 35.9624070		12:20–13:10	
32	Alfa Co Trade			33.828051, 35.977805		13:20–14:20	
27	Eggs with Benefits		Karak	33.849427, 35.937031		14:30–15:10	

Annex 3: Preliminary Design

The Preliminary Design referred to as Annex 3 can be found separately.

Annex 4: General Bill of Quantities

The General Bill of Quantities (BoQs) referred to as Annex 4 can be found separately.

Detailed BoQs for all measures shall be developed based on the General BoQs.

Annex 5: Eligible Bidders

The Eligible Bidders referred to as Annex 5 can be found separately.

Annex 6: Technical Specifications

The Technical Specifications referred to as Annex 6 can be found separately.

Annex 7: Sites Photos

The sites pictures referred to as Annex 7 can be found separately.