**Request for Proposals (RFP) for Implementation of Renewable Energy & Energy Efficiency (REEE) Measures in Six (6) Local Communities and One (1) CSO and Seventeen (17) MSMEs 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).”

September 2025

Prepared by the Lebanese Center for Energy Conservation (LCEC)

Beirut, Lebanon

# 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 Six (6) Local Communities & One (1) CSO & Seventeen (17) MSMEs 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 10,000 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 2021)*
* *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 **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]* |  |  |  |  |  |

1. 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 |  |

1. Please provide a list of solar pumping systems, designed, installed, and commissioned in Lebanon

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

1. Please provide five (5) pictures from the implemented solar pumping systems, showing the metallic structure, PV array, inverters, cable routing, etc. Please insert in the caption the size (kWp) 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 Six (6) Local Communities & One (1) CSO & Seventeen (17) MSMEs 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 Six (6) Local Communities & One (1) CSO & Seventeen (17) MSMEs 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 Six (6) Local Communities & One (1) CSO & Seventeen (17) MSMEs 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] | 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) ≥ 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:

|  |
| --- |
| PRcommissioning­ = (Eproduced at the inverter output) / (GTI \* Atotal module area\* Effmodule @STC) |

* Eproduced 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
* Atotal module area: Total area of PV modules (m2)
* Effmodule @STC: PV panels efficiency as per the datasheet (%)

|  |
| --- |
| **Simplified Formula**  **PRcommissioning­ = (Eproduced at the inverter output) / (GTI \* PlantSolarPower@STC)** |

* PlantSolarPower@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 staring 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] |
| Weather Station | [At least 5 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 |