November 27, 2024

To: All Prospective Bidders

Reference: Preparation of Detailed Designs and Technical Specifications for Energy Efficiency Measures and Distributed Solar PVs Systems for Second Batch of Public Buildings in Guyana

Subject: Amendment No. 1 to the Terms of Reference and the Expression of Interest

The following changes, additions, deletions, clarifications or corrections shall become a part of the bid package dated (**November 8, 2024)** and all other conditions shall remain the same. This Addendum No. 1 forms a part of the contract document and modifies the original bidding documents- in accordance with the ITB in the Standard Bidding Document.

Yours sincerely,

Dr. Mahender Sharma
Chief Executive Officer

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ADDENDUM NO. 1

Preparation of Detailed Designs and Technical Specifications for Energy Efficiency Measures and Distributed Solar PVs Systems for Second Batch of Public Buildings in Guyana

The following changes, additions, deletions, clarifications or corrections shall become a part of the bid package dated (**November 8, 2024**) and all other conditions shall remain the same. This Addendum No. 1 forms a part of the contract document and modifies the original bidding documents.

1. **Terms of reference: Scope of work- Task 3 which previously read:**

"**Task 3– Develop Indicative model, design of the DPVs systems for each building and support preparation of the bidding documents for proposed DPVs investment**

Based on the results of Task 2, the consultant will:

- ✓ Assess the roof, its capacity, age, technical drawings, access, and safety. The consultant shall justify with a FEA (finite element analysis)[1] as necessary the bearing capacity of the roofs, but it may also use the technical specifications of the roof, if available. Technical requirement for an FEA is provided in Annex 3.
- ✓ Provide the area available for solar PV modules in m^2 and consider a high efficiency PV module (not less than 21.5%) for the conversion to kWp. The consultant shall explain the area considered versus the available for the PV modules and refrain from providing only kWp.
- ✓ Model each solar DG system, using PVsyst and provide P50 and P90 yield values. The consultant shall analyze the solar resource and make sure that the source used is of good quality. All solar systems, including those for grid connections, must be designed to use most of the available area for energy generation considering not less than 25% of DC/AC oversizing.
- ✓ The AC capacity should be sized based on i) the load, which should be analyzed for 1 year based on the bills (except for the COVID affected periods (2020-2021) and measured for at least a full week for each building, if possible, and ii) the contracted AC capacity or available AC capacity as provided by the utility (the rating of the breakers shall be reported). The consultant shall also report the maximum AC and DC capacities that can be deployed in each building (respecting the minimum of 25% DC/AC oversizing).
- ✓ Identify in each building and discuss with the owner/responsible the location for the PV modules, the inverters, the DC cables, the AC cables, the main switch board or similar for grid connection. The location of the meter(s) should also be included. The accesses to the roofs must be reported.
- ✓ Carports should also be considered, characterized and described.
- ✓ Provide for the solar PV systems: indicative layout, single line diagrams and configuration of each solar DG system including the main equipment.
- ✓ Provide cost estimates for the solar PV systems assuming local prices and also international ones. For each building, the Consultant shall define the electricity savings, fuel savings, GHG

savings, cost savings, O&M costs, investment needs, payback, IRR and NPV.

- ✓ Prepare a draft report on the proposed DPVs, including results of economic and financial analyses to the OECS Commission for approval.
- ✓ After the approval of the proposed DPV investments, prepare technical documentation (design, technical specifications and bill of quantities (BOQs) for the bidding documents for the procurement of goods, services and works required to implement the proposed DPVs investments. Refrain from over specifying as the contracts will be EPC, so consider minimums to be generated and delivered.

Deliverables

- Task 3.1: Draft report specifying the proposed DPVs.
- Task 3.2: Detailed design (including the appropriate architectural, mechanical, and electrical drawings (in DWG and PDF formats) technical specifications, bills of quantities needed for preparation of the bidding documents for each EEM."

Terms of reference : Scope of work- Task 3 is amended to read:

"Task 3-Develop Indicative model, design of the DPVs systems for each building and support preparation of the bidding documents for proposed DPVs investment

Based on the results of Task 2, the consultant will:

- ✓ Assess the roof, its capacity, age, technical drawings, access, and safety. The consultant shall analyze the roof integrity and bearing capacity through visual inspection, analysis of the existing data and roof specifications. Only roofs that can withstand DPV systems as per the local building codes and under hurricane conditions shall be selected. If there is a lack of or limited data on the roofs to complete the integrity assessment, then the consultant may propose a FEA (finite element analysis) which will be reviewed and approved by the OECSC in consultation with the country and the WB during implementation. Technical requirement for an FEA is provided in Annex 3. The consultant shall also propose price for undertaking a FEA of a typical building to be considered when a FEA is required and approved. The FEA cost shall not be used in the financial evaluation, but shall be considered later in the project for the payment of each approved FEA.
- ✓ Provide the area available for solar PV modules in m^2 and consider a high efficiency PV module (not less than 21.5%) for the conversion to kWp. The consultant shall explain the area considered versus the available for the PV modules and refrain from providing only kWp.
- ✓ Model each solar DG system, using PVsyst and provide P50 and P90 yield values. The consultant shall analyze the solar resource and make sure that the source used is of good quality. All solar systems, including those for grid connections, must be designed to use most of the available area for energy generation considering not less than 25% of DC/AC oversizing.
- ✓ The AC capacity should be sized based on i) the load, which should be analyzed for 1 year based on the bills (except for the COVID affected periods (2020-2021) and measured for at least a full week for each building, if possible, and ii) the contracted AC capacity or available AC capacity as provided by the utility (the rating of the breakers shall be reported). The

consultant shall also report the maximum AC and DC capacities that can be deployed in each building (respecting the minimum of 25% DC/AC oversizing).

- ✓ Identify in each building and discuss with the owner/responsible the location for the PV modules, the inverters, the DC cables, the AC cables, the main switch board or similar for grid connection. The location of the meter(s) should also be included. The accesses to the roofs must be reported.
- ✓ Carports should also be considered, characterized and described.
- ✓ Provide for the solar PV systems: indicative layout, single line diagrams and configuration of each solar DG system including the main equipment.
- ✓ Provide cost estimates for the solar PV systems assuming local prices and also international ones. For each building, the Consultant shall define the electricity savings, fuel savings, GHG savings, cost savings, O&M costs, investment needs, payback, IRR and NPV.
- ✓ Prepare a draft report on the proposed DPVs, including results of economic and financial analyses to the OECS Commission for approval.
- ✓ After the approval of the proposed DPV investments, prepare technical documentation (design, technical specifications and bill of quantities (BOQs) for the bidding documents for the procurement of goods, services and works required to implement the proposed DPVs investments. Refrain from over specifying as the contracts will be EPC, so consider minimums to be generated and delivered.

Deliverables

- Task 3.1: Draft report specifying the proposed DPVs.
- Task 3.2: Detailed design (including the appropriate architectural, mechanical, and electrical drawings (in DWG and PDF formats) technical specifications, bills of quantities needed for preparation of the bidding documents for each EEM."
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2. Request for the Expression of Interest which previously read:

"Expressions of interest must be delivered in a written form to the Tender Box at the address below by **December 10, 2024 at 09:00 hours** in one volume with one copy (one original and one copy) and one (1) electronic PDF copy on a USB flash drive clearly marked in the subject line as "***Expression of Interest- Consulting Services for the Preparation of Detailed Designs and Technical Specifications for Energy Efficiency Measures and Distributed Solar PV Systems for Second Batch of Public Buildings in Guyana***".

The Chairman
National Procurement and Tender Administration Board
Main & Urquhart Streets
Georgetown
Guyana

Request for the Expression of Interest is amended to read:

Expressions of interest must be delivered in a written form to the Tender Box at the address below by **January 7, 2025 at 09:00 hours** in one volume with one copy (one original and one copy) and one (1) electronic PDF copy on a USB flash drive clearly marked in the subject line as "***Expression of Interest- Consulting Services for the Preparation of Detailed Designs and Technical Specifications for Energy Efficiency Measures and Distributed Solar PV Systems for Second Batch of Public Buildings in Guyana***".

The Chairman
National Procurement and Tender Administration Board
Main & Urquhart Streets
Georgetown
Guyana

All other provisions of the Services Agreement remain in full force and effect, other than any provision that conflicts with the terms and spirit of this Agreement, which shall be deemed to be amended appropriately in order to be consistent with this Agreement.

Date of issue: November 27,2024