



GOVERNMENT OF SAINT LUCIA

Ministry of Economic Development, Housing, Urban Renewal, Transport and Civil Aviation

DEPARTMENT OF ECONOMIC DEVELOPMENT, TRANSPORT AND CIVIL AVIATION

Project Coordination Unit

March 5, 2018

Dear Potential Bidders

Reference: Clarification 001 to ICB Bidding Document

#SLU-PVSOLSYS-GOODS-ICB-01-17

**Supply and Installation of Solar-Photovoltaic (PV) Array for the EU Owen King Hospital
(National Hospital) Millennium Highway, Castries, Saint Lucia
Saint Lucia –SOLAR PV Demonstration and Scale Up Project**

This Clarification #001 seeks to provide clarification on the following:

No.	Query	Response
1	<p>Where is the point of common coupling and does each building has a power distribution cabinet?</p> <p>Interconnection point - POCC – need to be defined as either at or close to main wing distribution (for net metered or remote metered arrangement) or at new external dedicated interconnection point for buy all/sell all arrangement.</p> <p>Is it ok to be connected after the ATS?</p> <p>What is the interaction between the generator and the system?</p> <p>Distances between main electrical cabinet linked to the existing ATS and the 4 buildings which will be used for the PV array implementation.</p>	<p>Bidders attention is drawn to</p> <p>Item #1 of Addendum #004 is issued to amend Sub Clause 4.1 of Clause 4.0 Purchaser Provided Facilities and Services of Section VII Schedule of Requirements</p>
2	<p>Does any reinforcement need to be done?</p> <p>How should the panels be connected to the roof?</p> <p>Point No.2.5 (D, page 100) of chapter 4 (Technical</p>	<p>Item #2 and 16 of Addendum #004 is issued to provide guidance on the roofing structure, capacity and reinforcement requirements.</p>

	<p>specification) section VII (schedule of requirements) of part 2 (Supply requirement) of section defined the pitch angle of 30 degree. What is the confirmed pitch angle of the roof?</p> <p>Please supply structural capacity and additional roof strengthening details per verbal at bid meeting.</p> <p>Section 2.4 Structural Capacity – has this been confirmed?</p>	<p>The Detailed Structural Assessment dated October 2017 may be accessed at www.finance.gov.lc</p>
3	<p>Do bidders have to install internet in the penthouse or will that be provided by the owner?</p> <p>Precise the nature of existing purchaser interface for the monitoring purpose</p> <p>Section 6.7 - Communication – Please provide information on Purchaser's interface</p>	<p>Item #3 of Addendum #004 is issued to provide guidance on internet connectivity in the penthouse.</p>
4	<p>Clarify whether or not all drawings are to be submitted as part of the proposal</p>	<p>Bidders attention is drawn to</p> <p>Section VII. Schedule of Sub Clause B of Clause 3.0 Supplier Requirements and Drawings and Calculations</p>
5	<p>Is a monitoring system / metering required?</p>	<p>Bidders attention is drawn to</p> <p>Section VII. Schedule of Requirements</p> <p>6.7 Monitoring and Communication; which details the monitoring requirements.</p> <p>Visibility to the inverter monitoring system is sufficient as long as this provides granularity to at least to the inverter level (and not an aggregate of all inverters).</p> <p>A separate monitoring system is not required. Bidders' attention is drawn to Section VII Schedule of Requirements of the Bidding Document.</p>
6	<p>Would you consider battery storage?</p>	<p>Bidders attention is drawn to</p> <p>Section VII. Schedule of Requirements; 2.2 System Architecture which states:</p> <p>The PV Array shall be grid-</p>

		interactive without onsite energy storage capabilities.
7	Have locations of inverters been identified or can the bidders decide on their location?	Item #4 of Addendum #004 is issued to provide guidance on location for mounting the inverters.
8	Point No.2.5 (A, page 99) of chapter 4 (Technical specification) section VII (schedule of requirements) of part 2 (Supply requirement) of section describing the DC nameplate to be minimum of 200 kW at STC, but as per tender it is 175 kW photovoltaic system.	Item #5 of Addendum #004 is issued to provide guidance on Power Capacity of PV System
9	Can equipment be stored in the penthouse? Where can containers be stored?	Item #6 of Addendum #004 seeks to amend Equipment Storage and Staging of Section IV Schedule of Requirements of the Bidding Document
10	On page 58 of the tender it is stated that: "Operations and maintenance manual and Onsite Operator and Maintenance Purchaser Training" must be carried out within 27 weeks Please confirm if we need to include prices for 1 to 3 years of maintenance – or whether we only need to provide training and manuals?	Bidders attention is drawn to The Price and Completion Schedule PSSI – Related Services (Incidental Services) of Section IV Bidding Forms which states what Bidders are required to price.
11	Will there be another site visit prior to this one?	The Purchaser will not be arranging another site visit. However, the Bidder may opt to carry out other site visits. Access to the Site needs to be coordinated with the Lead Engineer and the Purchaser.
12	On page 105 it is stated that: "Project and individual components shall have a minimum manufacturer warranty service life of twenty-five (25) years." Kindly confirm if it is correctly understood that all components must have a warranty for 25 years, as this will be impossible to comply with for all other materials than the solar modules at 80% output. Normal warranty for example for inverters are 5 years – which requires 20 years warranty on page 107 of the tender. Please clarify? Section 5.0 - confirm warranty of 25 years required for all components?	Item #7 of Addendum #004 is issued to provide guidance on warranty.
13	Is it mandatory to adhere to the Tier1 Module list provided?	Yes Bidders attention is drawn to

		<p>Section VII. Schedule of Requirements; 6.2 PV Modules, Clause B, which states:</p> <p>The module manufacturer will be considered acceptable if that manufacturer is included in the 2017 Bloomberg Tier-1 listing and meets the other requirements of this document.</p>
14	Please confirm any/all requested upgrades to LUCELEC's supply including transformer upgrades responsibility of client; and client has approval from utility.	There are no upgrades requested or required.
15	Please confirm no requirement for rapid system shutdown.	Item #8 of Addendum #004 is issued to provide guidance on rapid system shutdown.
16	<p>Use of module end-clamps only – no precedent for same. We use grounding mid-clamps as an integral part of our equipotential bonding of the modules and mounting system using Schletter Rapid 2+ mounting clamps. Further Section 6.2.D - refers to being able to remove a single module without disturbing adjacent modules – it is standard practice to loosen adjacent mid clamps to remove a single panel.</p> <p>How should the panels be connected to the roof?</p>	<p>Bidders attention is drawn to Section VII. Schedule of Requirements; 6.2 PV Modules, which states:</p> <p>Racking design shall allow for individual PV Modules to be removed without affecting other adjacent PV Modules.</p> <p>Item #9 of Addendum #004 is issued to amend Sub Clause E of Clause 6.6 Racking System of Section VII Schedule of Requirements</p>
17	Metering arrangement - clarify if net metered or buy all/sell all.	This is not relevant to the solicitation.
18	Confirm if permitting arrangements responsibility of contractor or client	<p>Bidders attention is drawn to Section VII. Schedule of Requirements, subsection 3.0 Supplier Requirements, Clause 3.2 which states:</p> <p>Supplier shall be responsible for obtaining, and providing to Purchaser, all permits necessary to support Project installation. No work shall commence before the appropriate permits are approved and displayed as may be required by law.</p>

19	Under "Spare Parts Section VII. Schedule of requirements - confirm numbers of PV modules is 4.	Bidders attention is drawn to Section VII. Schedule of Requirements 2. List of Good and Delivery Schedule, which states that the number of Spare PV modules required as four '(4)'.
20	Section 2.0 "Description of work" 2.3 Grid Interconnection – has the purchaser confirmed and agreed same with LUCELEC?	Interconnection is agreed with LUCELEC.
21	Confirm all references to "UL" and "NEC" implies adherence to applicable local codes?	Item 10 of Addendum #004 is issued to amend Clause C of Sub Clause 5.4 Codes, regulations and Standards of Section VII Schedule of Requirements
22	Section 8.4 - confirm inverters and arrays grounding can be integrated with existing grounds as required e.g. installed roof grounding.	Item #11 of Addendum #004 is issued to provide guidance on the grounding for the solar system
23	<p>About the tender document slu-pvsolsys-goods-icb-01-17, there is a main discrepancy/error in the section 6.3 concerning inverters.</p> <p>In fact, there is no possibility that any inverter manufacturer and any model formally registered in the 2017 California Energy Commission Database could match the necessary technical characteristics for the solar PV system to be implemented at the Owen Hospital because Saint Lucia does not use the same electrical standard as the USA in terms of voltage and also frequency.</p>	Item #12 of Addendum #004 is issued to provide guidance on inverters.
24	Materials to be used	Bidders' attention is drawn to Section VII. Schedule of Requirements: 5.0 (B) Corrosion is a significant design consideration; metal usage should be in accordance with the specifications
25	SECTION 8.7 Lightning Protection and TVSS. Please clarify requirement for a breaker as standard TVSS units are wired directly to the busbars without intervening breakers.	Item #13 of Addendum #004 is issued to provide guidance on Lightning Protection and TVSS
26	<p>What amount of load (voltage) can the generator sustained?</p> <p>Please provide generator and ATS details (nameplate) and wiring details between these components for specification of requested reverse current relay.</p>	Item #14 of Addendum #004 is issued to provide details of the existing Generator at the project site and also schematic electrical diagram of the project site.

	<p>Clarification on the size of the main breaker in the hospital from the power company in St Lucia.</p> <p>Provision of electrical plans or drawings for the hospital</p> <p>Main characteristics of the Genset requested (Voltage-frequency-Power output)</p> <p>Existing Automatic Transfer Switch Unifiliar requested</p>	
27	Is PVSyst report mandatory or is an equivalent design tool report acceptable?	Only PVSyst will be accepted
28	Section 2.5 F – complete " at the expense of"	Item #15 of Addendum #004 is issued to the amend Clause 2.5F of Clause 2.0 Description of the Work of Section VII Schedule of Requirements
29	Provision of information regarding the warranty (if any) on the roof of the building and what type.	<p>Information regarding of warranty is unavailable.</p> <p>Item #15 of Addendum #004 has been issued such that the Supplier is responsible for cost of repairing damages caused during construction.</p>
30	Is there any protection device in case the power feedback to the grid?	No. There is no limitation on backfeeding to the grid.
31	Please attached a load profile for one year.	Currently, the Hospital is not operating, therefore existing load profile / data cannot be used to predict future operations. Additionally, load data is not relevant to providing the goods solicited.
32	Please provide the Diesel, Electricity, real interest rate and Amortisation period	<p>Cost information is not relevant to the solicitation.</p> <p>Bidders attention is drawn to ITB 13.1 of Section II Bid Data Sheet which states: Alternative Bids Shall Not be considered.</p>
33	Please provide Nominal Grid Frequency and Grid voltage	Bidders attention is drawn to Clause A, of Sub Section 5.3 Operating Criteria, of Section VII Schedule of requirements which states:

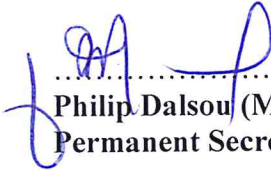
		The nominal grid characteristics are: 415/230 VAC, 50 Hz.
34	Please provide the location of the PV-Genset system (region, country, specific GPS Coordinates, altitude)	The existing Genset system is located at the Owen King Hospital EU (National Hospital) Millennium Highway, Castries, Saint Lucia
35	Can the equivalent of the bid security (10,000USD) be submitted in ECD?	Yes. Bidders may submit the equivalent the Bid Security in Eastern Caribbean (XCD) currency using the selling rate as per ITB 32.1
36	How long does the bid security be held?	Bidders attention is drawn to ITB Clause 19..3 of Section I Instructions to Bidders which states "The Bid Security shall be valid for twenty-eight (28) days beyond the original validity period of the Bid, or beyond any period of extension if requested under ITB 18.2" and ITB Clause 18.1 of Section II Bid Data Sheet which states: "The Bid Validity period shall be one hundred and five (105) days.
37	Do you accept letter of credit from a power of attorney?	No. The Bid Security shall be issued by a reputable source (Bank or a financial institution)
38	Can the bid security be issued be an insurance outside the purchaser country?	Bidders attention is referred to ITB 19.3 of Section I Instructions to Bidders which states " the issuing financial institution shall have a correspondent financial institution located in the Purchaser's Country to make it enforceable."
39	Can the bank be a foreigner or local bank?	Yes. The Bank may be a foreign or a local bank.
40	Can one request an extension?	Bidders attention is drawn to ITB Clause 22.1 of Section I Instructions to Bidders and ITB 7.1 of Section II Bid Data Sheet
41	Can the experience of subsidiary companies be considered?	No the experience of subsidiary companies may not be considered as subsidiary companies are separate legal entities.
42	On page 17 it is stated that: "If the unconditional guarantee is issued by a financial institution located outside the Purchaser's Country, the issuing financial	Yes that would be acceptable; however this information would be verified.

	<p>institution shall have a correspondent financial institution located in the Purchaser's Country to make it enforceable.</p> <p>Question: Will it be acceptable if banks outside the purchaser's country makes a statement confirming that they have a correspondent bank in St. Lucia – or must the actual Original Bid Security be issued by a bank in St. Lucia, which will make it very time consuming for international bidders to obtain and also leads up to below point 4?</p>	
43	<p>In the Fin Form -3,1, I would appreciate the following clarification:</p> <p>Total Revenue: Does that mean the annual Turnover?</p> <p>If yes, why on the following page 3.2 there is Average annual Turnover</p> <p>If not, it asked on the following line of the 3.1 document : Profits before taxes</p>	<p>Total Revenue to be stated should comply with the Income Statements (profit and loss statement). It is total revenue realized</p>
44	<p>In the chapter 19 of the ITB (Instructions to bidder) it is mentioned the different ways to provide a bid security for this project as a bank warranty, bond, or certified BANK check endorsable in the purchaser country.</p> <p>In the BDS (Bidder data sheet) document ITB 19.1 it is mentioned that a bid security is mandatory with an exception about the ITB 19.3 (d) "an other security specified in the BDS".</p> <p>By consequence, I understand that the certified bank check is allowed 19.3 (c) as mentioned in the TB.</p> <p>AM' I CORRECT?</p>	<p>Yes you are correct.</p> <p>Bidders attention is drawn to ITB Clause 19.3 (c) which states</p> <p>c) a cashier's or certified check</p>
45	<p><i>Experience in key activities (Form EXP-4.2b): For the above and any other contracts completed and under implementation as prime contractor, joint venture member, or sub-contractor in the last five (5) years, a minimum installation experience in the following key activities successfully completed : Experience in</i></p> <p><i>the supply, and installation of Solar PV of at least five rooftop PV arrays with a capacity of 100kW in a hurricane zone including at least three mechanically fastened PV systems in a hurricane zone within the previous five years.</i></p> <p><u>Question:</u></p> <p>Please advise and confirm that the below experience will be considered adequate and acceptable:</p>	<p>No this would not qualify</p>

Experience in the supply, and installation of Solar PV of at least five roof top PV arrays, each with a capacity of minimum 50kW in rural/remote areas?	
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Thank you for your interest in this Project.

Yours faithfully


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Philip Dalsou (Mr.)
Permanent Secretary