ADDENDUM No. 3

Reply to Queries from bidders

Query No 1 : **With regards to the complexities involved in the bidding document for the Design-Build and Turnkey contract of a 500 kW Photovoltaic farm at AMB, we would like to request an extension of one month in order to be able to submit a complete, detailed, competitive and fully comprehensive bid.**

Answer : Refer to Addendums No.1 and No.2

Query No. 2 : **Would it be possible to provide us with the native format of the ITT documents?**

Answer : Soft copy of the Bid Document have already been circulated to all bidders.

Query No. 3 : **Bidder is kindly requesting 4 weeks extension of time to issue a competitive offer.**

Answer : Refer to Query and answer **No. 1**

Query No. 4 : **Kindly provide the schedules of Guarantees**

Answer : All Guarantees shall be as per the Bidding Document

Query No. 5 : **"The excess kW output shall be exported to the CEB grid, hence modifications of the existing switchgear shall be required"**
Bidder's understanding is that the switchgear is already sized for 800kVA of loads from 1,000kVA transformer. So even if we injected 500kW AC of solar the whole equipment up to switchgear is properly rated. Now the question is to know whether or not power/energy is being produced from Transformer station 2. Bidder is kindly requesting to have all the generation and loads numbers and operation principles?

Answer : 1. Yes. Power is being produced from the Transformer Sub-Station.
2. For the generation and loads numbers and operation principles, please refer to the schematic drawing bearing reference number 16-113-005-L200.

Query No. 6 : **"The minimum output shall be 500kWp" Bidder can either install 500kWp and size the most efficient inverters AC size accordingly. Or kindly provide the AC output.**

Answer : 1. Yes, bidder to allow for installation of 500kWp and size the most efficient inverters.
2. The A.C output will depend on the system proposed by the Bidder.

Query No. 7 : **Kindly provide the site shading and obstruction.**

Answer : Refer to Section 9.1 of the Instruction to Bidders. Bidder to effect site visit and survey at their own cost to obtain information required.

Query No. 8 : **"The frame structure should have provision to adjust its angle of inclination to the horizontal..." Kindly precise the kind of structure required.**

Answer : Refer to Section 4.2 of the Performance Specifications for the design criteria of the frame structure.

Query No. 9 : **Kindly confirm who is responsible for the meters**

Answer : The main and back up meter registering units sold to the CEB shall be provided by the CEB. The supplier shall provide a meter for registering the output of the PV farm.

Query No. 10 : **Kindly specify the DC voltage level.**

Answer : The DC voltage level shall be as per the design proposed by the bidder.

Query No. 11 : **Kindly clarify why is there need for active power curtailment? Does the client expect a local HMI, remote HMI or both? Does the client already have an HMI/Control PC on site?**

Answer : Reference is made to the MSDG.
Control PC shall be provided in the Client's control room as per Item 10.1 of the Performance Specifications and as indicated in drawing no. 16-113-005-L1

Query No. 12 : **Kindly specify how will the frequency response be provided? Through reactive power or voltage?**

Answer : Refer to the MSDG.

Query No. 13 : **Kindly advise if we can submit a cheque of MUR 400 000 instead of a bid security (bank guarantee) with our bid. The cheque can be returned or cashed as per the conditions of clause 19 of the tender.**

Answer : Bid Security as per bidding document need to be submitted. Otherwise, the bid will be rejected.

Query No. 14 : **If a local entity (company registered in Mauritius) doesn't fulfil the requirements of Section I, items 6.1 (e), (f), (i), (j) (pages 11 & 12 of the tender document) but its parent owner does so, can the parent owner bid for this tender?**

Answer : The Parent Contractor need to be CIDB registered or provisionally registered for this specific project. All proposed sub-contractor where their value of work exceed MUR 500k, must also be registered with CIDB. Evidence of registration need to be submitted along with the bid. Otherwise the bid will be rejected.

Query No. 15 : **It is mentioned in section 4, items 1 & 2 (pages 73 & 74 of the tender document) that the minimum capacity of the PV system is 500 kW. Does that mean that, in case the total available roof area earmarked for this project is used, a higher capacity system could be proposed?**

Answer : The minimum output is 500kWp and evaluation shall be made on 500kWp. However, if an excess of kW is offered, this shall be considered on a cost/output basis.

Query No. 16 : **Has this project already been approved by the CEB?**

Answer : Project has been approved by the CEB regarding export of energy. However, the contractor shall seek approval of system before commissioning – refer to MSDG

Query No. 17 : **Grateful if the deadline for the bid submission could be extended by one month up to the 4th July 2018.**

Answer : Refer to Query and answer **No. 1**

Query No. 18 : **Clause 6.1 (d) Section 1 with regards to CIDB registration ; Will local contractors having a provisional registration with the CIDB be considered as being eligible to participate in the bidding process?**

Answer : Yes, Contractor having provisional registration with CIDB for this specific project are eligible. Otherwise, the bid will be rejected.

Query No. 19 : **Bidding documents page 97 item 11.3 referring to Bidder's experience in solar PV plants stipulated that « It is expected that the existing solar PV plants should have already cumulated two (2) consecutive years of operation, on at least one site ». If the existing plants have been operational since January 2017 and the Bidder's team meets the experience qualification, is it sufficient to satisfy the requirements under this section?**

Answer : The cumulated Two (2) consecutive years of operation on at least one site is mandatory.

Query No. 20 : **Drawing Number 16-113-005-L1 – No dimensions were given for the proposed cable routing, and distance between existing buildings have also been omitted. Could details of the same be included?**

Answer : The amended drawing with requested dimensions is attached.

Query No. 21 : **The area made available for delivery, storage of materials on site and site establishment?**

Answer : Area that will be made available is shown in attached drawing 16-113-001-L1. However, responsibility of the materials stored within the Client's premises will be on the Contractor.

Query No. 22 **: Item 4 of section 4 of bidding documents page 75 regarding the Potential Transformer. It is understood that the bidder shall provide for PTs and send for calibration at the CEB meter lab. Should the bidder bear the cost for the calibration?**

Answer : All cost incurred for the supply and calibration of the PTs shall be borne by the Contractor.

Query No. 23 **: Bidding documents stipulate working hours to be from 8.00 a.m. to 5.00 p.m. during weekdays. However, appendix to tender also mention the duration of contract for construction to be 182 calendar days. Will the bidder be allowed to work during week-ends?**

Answer : Working hours shall generally be in conformity with Employment Rights Act 2018, or such latest version of the Act. Working during weekends is acceptable.

Query No. 24 **: Should the bidder make arrangements for temporary water and electricity and therefore bear the cost of temporary water connection and electricity supply?**

Answer : The employer shall allow the appointed Contractor to tap in their existing water supply and electricity network, subject the Contractor must install approved meters. Utilities consumption shall be charged monthly based on reading at the official rates of the CWA and CEB. Contractor must however, note that the Employer shall not guarantee an adequacy of water and power supply for construction. In the event of shortage, the Contractor shall make his own arrangement at his cost.

Query No. 25 **: If the bidder already has a CIDB registration as a contractor, would he need to apply also for registration as a consultant if the design engineers already form part of the bidder's company?**

Answer : The consultant/design engineer need to register with CIDB, if they are a firm with the relevant Council of Engineers, Architects, and Quantity Surveyors.

Query No. 26 **: Bidding documents stipulate that the solar plant shall need to meet an annual production guarantee of 750,000kWh based on design. How does that cater for outages from the CEB side?**

Answer : In the annual guarantee production, minor CEB interruption of supply has been taken into account. However in case of long interruption of CEB supply,
[(the average hourly kWh output) x (the hours of absence of CEB supply)] shall be subtracted from the annual guaranteed production.

Query No. 27 **: Bidding documents require the use of Aluminium nuts and bolts for the structural support system. Could we use other materials instead since Aluminium bolts and nuts usually are too malleable?**

Answer : All bolts and nuts shall be compatible with the material of the frame structure to prevent galvanic corrosion.

Query No. 28 **:** **Should the bidder cater for a separate earthing system or upgrade and connect with the existing one on site?**

Answer **:** A separate earthing system is required. However depending on the system proposed, the Bidder shall advise the Client whether the two earthing system should be linked.

Query No. 29 ***:*** **If the company has only been in existence for the last 4 years and the first year of existence was non-operating, will one year of profit out of 4 be acceptable? (Clause 6.1.(j))**

Answer **:** Bidder must have earned profit in at least 2 years over the last 5 years.

Query No. 30 ***:*** **In line with above query, we have filed our Audited Accounts for Years 2014 and 2015. We have Management Accounts for 2016 and 2017. Will these be acceptable? (Clause 6.1.(j))**

Answer **:** Only audited accounts will be acceptable.

Query No. 31 ***:*** **Can we provide liquidity to the value of the project instead of the MUR 10 million per month as indicated in Clause 6.1 (i)?**

Answer ***:*** It shall be maintained at MUR 10 Million per month as per the Bidding Document.

Query No. 32 ***:*** **Our application for CIDB registration is under process. We may not get the official registration certificate by the closing tender date. Kindly confirm if you can accept an acknowledgement letter for registration from the CIDB office at tender stage.**

Answer ***:*** A provisional registration certificate from the CIDB is acceptable. Letter of acknowledgement is not acceptable.

Query No. 33 ***:*** **Kindly confirm whether each PV plant (of minimum capacity 50kWp) should be of value MUR 10 million or is it a minimum cumulative value for PV projects undertaken having a minimum 50kWp capacity?**

Answer ***:*** Each PV plant must be of a minimum value MUR 10 million.

Query No. 34 ***:*** **Please clarify if MUR 10 million is the total value of the two projects.**

Answer ***:*** MUR 10 million is value for each project.

Query No. 35 ***:*** **Please clarify what you mean by the type test certificate. Does it have to show detailed results of the tests or is it only a certificate (e.g. IEC 61215, IEC 61701…) from an accredited laboratory?**

Answer ***:*** Test certificates issued by a recognised laboratory for the equipment offered.

Query No. 36 **:** **We intend to form a JV for the project. At tender stage, is it mandatory to submit a Power of Attorney? Can a letter signed by all parties, clearly defining the roles and responsibilities of each party, be sufficient?**

Answer **:** A draft JV Agreement must be submitted along with the bid with terms and conditions who will be main partner.

Query No. 37 **:** **The nameplate of the PV module detailing the name of the manufacturer, Model, serial no, year of manufacture is usually found on a printed sticker on the backside of the module. To have it on the front side of the module is a special requirement entailing a change in manufacturing process. Is the aforementioned sticker acceptable?**

Answer **:** Nameplate of the PV module at the back side is acceptable.

Query No. 38 **:** **Our PV module supplier delivers PV modules to EPC contractors and does not undertake PV installation works. Can you clarify what information you expect by «Details of work undertaken by manufacturer of PV modules »?**

Answer **:** Past records and experience on PV projects which have been successfully completed and commissioned.

Query No. 39 **:** **Can galvanised or stainless steel A2 bolts and nuts be accepted instead of aluminium?**

Answer **:** Refer to Query and answer **No. 27**

Query No. 40 **:** **The document refers to nominal voltages of 400 V and 415 V. Please confirm which one is to be considered.**

Answer **:** 415 V is the output voltage at the transformer terminals

Query No. 41 **:** **Which inverter efficiency is most relevant to your requirements: Euro-ETA or maximum inverter efficiency?**

Answer **:** Euro-ETA

Query No. 42 **:** **Clarify whether the PV earthing system can be independent to the AMB existing earthing system or must be linked to it.**

Answer **:** Refer to Query and answer **No. 28**

Query No. 43 **:** **Specify the period of time over which the PV plant is required to generate a minimum of 750 MWh/year.**

Answer **:** Over at least 10 years

Query No. 44 **:** **Can the Employer give us a CAD copy of the roof plans?**

Answer **:** Please refer to the attached drawings.

Query No. 45 **:** **Considering the extensive amount of detailed information required at the tender stage, we humbly ask you to grant us an extension of time of 2 months from the current deadline.**

Answer **:** Refer to Query and answer **No. 1**

Query No. 46 **:** **As per Clause 6.1 e,f,g – Can Bidders have experience from abroad.**

Answer **:** Yes, subject Bidder has provisional CIDB registration.

Query No. 47 **:** **Further to the site visit carried out on 4th May 2018, it was noticed that extensive structural works shall be required to adapt the roofs available for the installation of the Photovoltaic modules. This would require further surveys with our structural engineer and the preliminary design and costing process will be quite lengthy. With this in mind, we humbly request an extension of time of 1 month on the submission date for the tender.**

Answer **:** Refer to Query and answer **No. 1**

Query No. 48 **:** **Could you please provide DWG file of the building?**

Answer **:** Please refer to the attached drawings.

Query No. 49 **:** **Could you please provide DWG file of the single line diagram?**

Answer **:** Please refer to the attached drawings.

Query No. 50 **:** **The minimum output is 500kWp. Could we have information regarding the maximum output?**

Answer **:** Refer to Query and answer **No. 15**

Query No. 51 **:** **You indicate that you propose a connection point on the single line diagram. "The schematic drawing for the existing electrical network and proposed connection point…" We have seen that we shall feed the Onion Seed LV switchboard but could you indicate on which circuit breaker(s) shall we connect on your proposal?**

Answer **:** Bidder to cater for provision of a switchboard, circuit breakers, etc… to be installed adjacent to AMB LV panel including all connections.

Query No. 52 **:** **"The PV system shall consist of a number of inverters connected by individual cables to the appropriate busbar of the Onion Seed LV panel" Do you mean that each inverter shall be connected to the busbar? If there is 10 inverters we shall connect all of them to the busbar independently?**
Could we use AC combiner box before in order to limited the number of cables?

Answer **:** This will depend on the system proposed by the Bidder.

Query No. 53 **:** **"Two energy meters shall be installed…" Could you please inform us what is the main goal of those two meters ? Is it to mesure:**
- **the total solar energy at the connection point ?**
- **the solar energy injected on the CEB grid (surplus energy)?**

Could you please confirm that it will be on the LV side even If it close to 22k swichgear panel? Indeed, §6.6 there is a voltage transformer (usually us for MV).

Answer **:** The main and back up meter registering units sold to the CEB shall be provided by the CEB to be installed in the 22kV switchgear room. The bidder shall allow for provision of a meter for registering the output of the PV farm

Query No. 54 **:** **"The voltage drop shall be less than 3 percent and the cable losses to be less than 1 percent." Could you please define what is the difference between both?**

Answer **:** This refers to the total voltage drop

Query No. 55 **:** **"be specified for a wide temperature range (e.g 0 to 125°C)"**
Could you please tell us what is the temperature range that you indicate?
Indeed the big player of photovoltaic cable manufacturer propose usually:
- **Ambient temperature min -40°C; max +90°C**
- **Max operating temperature +90°C and 120°C for the conductor**
- **Max short circuit temperature of the conductor 250°C (max 5s)**

What is the 125°C temperature?

Answer **:** The temperature range (0 to 125°C) is mentioned only as an example for the bidder to specify the range. The cable shall be able to withstand ambient temperature and a short circuit temperature as per your offer.

Query No. 56 **:** **If a domestic company does not meet the <u>technical</u> or <u>financial</u> eligibility criteria, but <u>its parent company</u> (that owns > 50%) does, will the domestic company be regarded as an eligible bidder?**

Answer **:** The bid must henceforth be submitted by the parent company, having CIDB registration and complying with the Bidding document.

Query No. 57 : **If a domestic company does not meet the technical eligibility criteria, but its substantial minority shareholder (that owns > 30%, but less than 50%) does, will the domestic company be regarded as an eligible bidder?**

Answer : The parent company, possessing >50%, must be eligible.

Query No. 58 : **Instead of providing a letter from the bank confirming credit facilities available for up to MUR10million, can the letter confirm financial standing and ability to have access to MUR10million? We can be in a situation of having no credit facilities with the bank, but have substantial credit balances that justify the financial standing;**

Answer : As per Clause 6.1 (i) of the Instructions to Bidders, the Bidder should submit documentary evidence from the its auditor for liquid assets and/or a Certificate from a Commercial Bank in respect to credit facilities mentioning the name of the project and the amount.

Query No. 59 : **In Section 1, number 6 'Qualification of the Bidder', part (h) regarding experience of the bidder's design engineer, it says that the design structural engineer must have 10 years experience post registration at the CRPE.**
Please clarify if the structural engineer can be registered to a council other than the CRPE of Mauritius, similar to the requirements of the design engineer.

Answer : Design structural engineer must be registered with Council of Engineers (CRPE).

Query No. 60 : **Section 3 – Conditions of Particular Applications – CAR insurance, is local re-insurance permitted?**

Answer : Local re-insurance is not permitted. Re-insurance is generally obtained from overseas well-established Insurance company, e.g, Munich Re or similar.

Query No. 61 : **Drawing 16-113-005-L200- SLD – Please confirm that in TGBT1, there exists already a breaker for PV connection. Also, please provide the rating of the breaker.**

Answer : The Bidder shall cater for provision of a breaker together with an enclosure and connecting cables up to the busbars.

Query No. 62 : **Section 3. Part II –Conditions of Particular Application clause 2.2 – Kindly provide the list of permits, licences or approvals required for the work.**

Answer : The same need to be as per CIDB, Mauritius Employment Rights Act 2008 and such other latest regulations.

Query No. 63 : **Section 4 Technical requirements – Kindly provide information about the existing control room. What is included (lighting ...)?**

Answer : The Control Room includes lighting and power socket.

Query No. 64 : **Section 4 Technical requirements – There will be no data from the whole plant as the utility meter can't be accessed. Please confirm**

Answer : The Bidder shall allow for provision of one meter

Query No. 65 : **Section 4 Technical requirements – Is there power shortage of 10 hours where the existing gensets cannot be used? Could we decrease the duration of UPS (usually around 4hours is enough to raise an alarm/start the genset)**

Answer : The stand by generators are manually started in case of loss of CEB power supply.

A minimum duration of four (4) hours that the UPS shall cater for to ensure that protection, measurement, control and communication systems operate without interruption is acceptable.

Query No. 66 : **Section 4 Technical requirements – Is monocrystalline PV module accepted?**

Answer : Monocrystalline PV modules are acceptable.

Query No. 67 : **Section 4 Technical requirements – Is PV module with a power higher than 300Wp accepted?**

Answer : PV modules with a nominal rated power higher than 300Wp are acceptable.

Query No. 68 : **Section 4 Technical requirements – Security requirement: The Contractor shall respect security arrangements in force and shall seek necessary permission and security pass for yard access, if any, for execution of the work. The site shall be kept tidy and no materials/refuse shall be kept which may cause interruptions. Kindly inform what are the security arrangement in force, and what is included in contractor scope in term of security of the solar farm.**

Answer : All appointed Contractor shall ensure all workers have necessary apron, including the name of the Contractor and Subcontractor. Workers not wearing the appropriate named apron may not be allowed in the Employer's premises. Contractors' workers must not be allowed to loiter outside the dedicated working/site areas.

Query No. 69 : **With regards to CIDB registration do we need to get for consultancy as well as construction or only for construction?**

Answer : Contractors and Consultants are required to be registered by CIDB. Refer to Query and answer no.**25**

Query No. 70 : **Is a consortium arrangement between 2 or more parties acceptable or must it be a JV?**

Answer : It should be a JV.

Query No. 71 **:** **Our director will be signing our bid and we would like to know if a notarised director registry for the company is acceptable as proof of authority or would a letter also be required?**

Answer **:** Evidence of the power of attorney/notary is required for the authorisation to sign the bid. Refer to ITB 6.1 (a)

Query No. 72 **:** **Concerning the guaranteed production of 750,000 kWh per annum, we take note that you are assuming a solar yield of 1500 kWh/kWdc (750,000/500) for the Moka region. However, we have a solar PV farm in operation in the last 1.5 years within a 10km radius of Moka and therefore, based on our experience, we find that the solar yield for this area is generally lower than 1500 kWh/kWdc. Can we provide guarantee for a lower production value that we deem adequate based on the area available to install the solar panels and on the actual irradiance value?**

Answer **:** No. The system should guarantee energy production of 750,000kWh per annum.

Query No. 73 **:** **4 Solar PV system: "The Contractor shall submit for approval proposed method of routing cables onto existing roof from PV system to Onion Seed LV switchboard (located in the Generator Room)"**
Please confirm that the point of connection is the LV Switchgear labelled "TGBT1" located in the transformer room.

Answer **:** LV switchgear is located in generator room

Query No. 74 **:** **4.2 Solar array PV Module structure: "The frame structure should have provision to adjust its angle of inclination to the horizontal so that it can be installed at the optimum tilt angle. The design shall be modular and shall be of demountable type." What does this requirement mean?**

Answer **:** Angle of inclination should be adjustable on site.

Query No. 75 **:** **Trenches cross-section - What is the trench cross-section based on? Can the trench depth be reduced?**

Answer **:** Trench depth can be reduced to a minimum of 600mm if the sleeves are embedded in concrete surround.

Query No. 76 **:** **SCADA: "Emergency stop buttons with cover shall also be mounted on the local control panel for the inverters."**
Please clarify the location of the emergency push button and its purpose.

Answer **:**
- The local control panel of the inverters shall be located in the Control Room.
- The purpose of the emergency stop buttons is to shut down all inverters in case of emergencies/malfunction on the AMB or solar farm network.

Query No. 77 **:** **The following equipment should be provided to the CEB for installation:**

- **Neutral Voltage Displacement relay including one spare relay**
- **The Contractor shall supply one potential transformer (PT) to 2-core PTs for neutral voltage displacement (NVD) protection and one core class 0.2 for metering and one spare PT.**

The contractor shall send the PT to the CEB meter Lab for calibration.

Please clarify the location of installation of this NVD with the corresponding equipment and whether there is enough space for it or no.

Answer **:** The 22kV equipment shall be handed over to CEB for installation. The equipment shall be installed on the CEB 22 kV panels.

Query No. 78 **:** **Contract: Section 3 part II - Clause 14.3 – Kindly clarify the following: What is the mechanism for the payment of variation orders and claims?**

Answer **:** Kindly refer to Conditions of Contract

Query No. 79 **:** **Contract: Appendix to PC Section 3 – The letter of acceptance is not defined. Do you mean letter of award? Please confirm.**

Answer **:** Letter of acceptance is the same as letter of award

Query No. 80 **:** **Section 4: "The excess kW output shall be exported to the CEB Grid, hence modifications of the existing 22 kV Switchgear shall be required."**

Please confirm that the only modifications on the 22 kV switchgear required by the Contractor are provision and installation of 2 meter enclosures adjacent to the 22kV panel and the addition of one NVD relay with the required PTs and CTs next to the 22KV switchgear.

Answer **:** The two meters shall be installed by the Contractor including all wiring but final connection shall be done by the CEB. Meters shall be provided by the CEB