

Query 13- The following drawings form part of this Standard Bidding Document and are for tendering purposes only.

Kindly share following drawings-

- HE8-EL001
- HE8-EL002
- HE8-EL003
- HE8-EL004
- HE8-EL005

Reply 13-

Drawing already issued within batch of drawings for the bid documents.

Query 14- Points 26.9 and 26.10 contradict each other. Is there a provision for Adjustable Price? If yes, which Schedules out of 1,2,3,4,5,6?

Reply 14-

Price quoted shall be firm and fixed and shall not be subject to adjustment

Query 15- Bidder to justify local and foreign currency requirements.

Is it mandatory to quote in local and foreign currency? Can the entire price bid be in USD, including the local services?

Reply 15-

The Entire Bid Price shall be quoted in USD including local services

Query 16- Within twenty-eight (28) days of receipt of the Contract Agreement, the successful Bidder shall sign, date, and return it to the Employer

This is too less a time to get the terms legally, commercially and contractually vetted. The terms need to be negotiable. Request you to make this 28 business days.

Reply 16-

To be considered at negotiation stage with the successful bidder

Query 17- Within 28 business days of the receipt of Notice of Award the bidder should furnish the Performance Security.

Request you to make this 28 business days.

Reply 17-

To be considered at negotiation stage with the successful bidder

Query 18- As per ITB 4.3 & 4.5, As per the GOI guidelines, goods and services for minimum 75%value of the contracts covered under the Line of Credit, must be sourced from India

Does this mean the components have to be manufactured in Indian or just sourced from India?
Please clarify

Reply 18-

As per the GOI-LOC guidelines, goods and services for minimum 75% value of the contracts covered under the LOC, must be sourced from India. Applicants are advised to refer to the GOI-LOC guidelines mentioned above for details available at:

<http://www.eximbankindia.in/assets/pdf/loc/GOI-Guidelines-on-LOC.pdf>.

Certificate of Origin issued at the time of shipment will be required to confirm the origin of the machines and equipment.

Query 19- The bidder shall complete the project within 11 months as from the date of acquisition of the Building & Land Use Permit

The building & Land permit will be in whose scope?

Reply 19-

EPC Contractor to provide all detailed design drawings to CGE for acquisition of BLUP.

Query 20- There are many milestones and some are not major activities. Suggest to remove milestone 4, since 5 will happen only 4 is completed. Request you to consider the following payment terms.

- 1) Advance Payment against Receipt of Invoice and submission of Advance Payment Security- 10%
- 2) Submission of Design Drawings- 5%
- 3) Delivery of PV Modules and Complete Solar Compact Station to Site- 40%
- 4) Completion of Installation of PV Modules- 10%
- 5) Completion of Solar facility building, including MV substation complete with switchgears- 10%
- 6) Testing & Commissioning- 10%
- 7) Issue of Taking Over Certificate- 10%
- 8) Completion of Documentation- 5%

Reply 20-

The original payment schedule of the bid document shall be maintained.

Query 21- The law of the Contract is the law of Mauritius

Request to change Governing law to be a neutral law. Suggest English law.

Reply 21-

The original clause of the bid document shall be maintained.

Query 22- The Solar PV Farm will be connected to the 22 kV busbar of the Henrietta Substation via a combination of overhead and underground cables to an existing 22kV switchgear panel in Henrietta Substation. For the purpose of sizing of the Solar Farm the Contractor shall assume an interconnection overhead line of 150 mm² bare AAAC of 6 km and 240 mm² Al XLPE underground cables of 500 m.

Request you to confirm if there is any Right of Way (ROW) from Solar Plant to Evacuation point.

Reply 22-

Kindly refer to reply 6 and 7 of clarification No. 4

MRD.

Query 23- The Contractor shall make all arrangements for any temporary electricity supply that he may require for the execution of the Works; he shall issue any notices and pay all fees, dues, charges and other costs incurred thereby.

Request you to kindly provide connection point for both water and electricity at site on chargeable basis

Reply 23-

Bidders are informed that all necessary arrangements for water and electricity on site shall be made by the contractor, CGE will provide assistance

Query 24- The predicted electrical degradation at the end of the period of 12 years shall be less than eleven (11) per cent of the full rated original output.

The predicted electrical degradation at the end of the period of 10 years shall be ten (10) per cent of the full rated original output and twenty (20) per cent at the end of 25 years

Reply 24-

Kindly refer to reply 8 of Clarification No.4

Query 25- ITB, Section-I, 20.1 (f), Documentary evidence established in accordance with ITB 14.1 that the Plant and Installation Services offered by the Bidder in its bid or in any alternative bid, if permitted, are eligible

What Sort of documents need to submit. Kindly Clarify

Reply 25-

Bidders shall submit documentary evidence established in accordance with the bid document

MED.

Query 26- ITB, Section-I, 20.1 (h), Documentary evidence established in accordance with ITB 16 that the Plant and Installation Services offered by the Bidder conform to the Bidding Document

What Sort of documents need to submit. Kindly Clarify

Reply 26-

Bidders shall submit documentary evidence established in accordance with the bid document

Query 27- ITB, Section-I, 26.5 (b) (ii), Sales tax and all other taxes payable in the Employer's country on the plant if the contract is awarded to the Bidder

Kindly elaborate the Tax Structure on Supply and Service Part to be considered while quoting.

Reply 27-

Taxes for this bidding process is not applicable.

Query 28- ITB, Section-I, 44, A foreign institution providing a performance security shall have a correspondent financial institution located in the Employer's Country

Kindly Provide the List of Banks.

Reply 28-

To refer BOM links, www.bom.mu, under list of licencees

Query 29- Section II. Bid Data Sheet, ITB 4.3 & 4.5, Certificate of Origin issued at the time of shipment will be required to confirm the origin of the machines and equipment

Kindly elaborate the meaning of origin as we assume that material Origination can be anywhere in the world, but Sourcing should be from INDIA. Kindly Elaborate.

Reply 29-

Kindly refer to reply 18 of Clarification No.4

Query 30- Section II. Bid Data Sheet, ITB 11.1 (k) (d), Bidders Company Profile, experience in the sale of similar goods and facilities available in Mauritius to provide after sales service and required spare parts

Since, we have no past experience to work in Mauritius in past for Similar Job, can an Undertaking with this effect to open an Office in Mauritius after Award of work will suffice the requirement? Kindly clarify.

Reply 30-

Kindly refer to reply 7 of clarification No.3

Query 31- Section II. Bid Data Sheet, ITB 20.1, The Technical Proposal shall include a Bid Security issued by a Commercial Bank operating in Mauritius as per format enclosed.

Will the Bank Gurantee accepted if it is issued by the Bank and same bank operational in Mauritius or Issuing Bank from Mauritius Only. Same concern with PBG as well. Kindly Elaborate.

Reply 31-

Bid Security and Performance Security shall be issued by a bank operating in Mauritus

Query 32- Section IV, Bidding Forms, Form-1: Letter of Bid, (f), We offer to _____, in conformity with the Bidding Document, the following Plant and Installation Services:_____

Kindly suggest what should be filled in the blanks provided.

Reply 32-

This query is not relevant, bidders to read the sentence and filled accordingly

Query 33- Section IV, Bidding Forms, Form-1 A: Letter of Bid, (j), We offer to _____, in conformity with the Bidding Document, the following Plant and Installation Services:_____

Kindly suggest what should be filled in the blanks provided.

Reply 33-

This query is not relevant, bidders to read the sentence and filled accordingly

Query 34- Section IV, Bidding Forms, Form 2: Historical Contract Non-performance, pending Litigation and Litigation History

Kindly suggest and elaborate, what should be filled in the said format in case of 'No Historical Non-Performance, No Pending Litigation and No Litigation History'?

Reply 34-

Bidders are required to read the sentence and filled accordingly

Query 35- Schedule of Rates and Prices, Schedule No.1. (2) and DDP

Kindly suggest what should be filled in the column under (2) and meaning of DDP.
Also, elaborate the requirement to fill details in 'Country of Origin Declaration form' at Tender stage/Bid Submission stage?

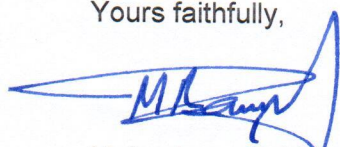
Reply 35-

With regards to 'Country of Origin Declaration form', Bidders are advised to read the "Note" provided at the bottom of the declaration form.

Kindly acknowledge the receipt of this letter addressed to the Mauritius High Commission New Delhi at mhcnewdelhi@gmail.com at latest by the 30th September 2019.

If you have any query please do not hesitate to contact us,

Yours faithfully,



Maheshwur Raj Dayal
MEng(Hons) CEng MIET RPEM
General Manager

cc.
EXIM Bank
Mauritius High Commission in New Delhi
SBMIDCL
SICDC

CEB (GREEN ENERGY) CO LTD



TEL NO: (230) 404 2000
FAX NO: (230) 454 7630 / 7632
E- MAIL: ceb@intnet.mu
WEBSITE: ceb.intnet.mu
VAT Reg No: 27470844
BRN: C16142198

Rue du Savoir | Cyber City, Ebène
MAURITIUS

25 September 2019

Ref: OAB-CGE-005/Clarification05

Attention: All Bidders

Dear Sir/Madam,

OAB-CGE-005 – Design, Supply, Installation, Testing and Commissioned of 8MWac Solar PV Farm at Tamarind Falls, Henrietta (Phase II), Mauritius.

Clarification No.5

Please find below CGE's reply to the queries from bidders in respect of the above mentioned bidding exercise.

Query 36- Contractor's Equipment, Form EQU

-Kindly specify the equipment needs to be considered at Tender stage.

Reply 36-

Bidders shall specify the equipment to be used during implementation stage.

Query 37- Manufacturer's Authorization

-Kindly specify the List of Equipment for arranging Manufacturer's Authorisation.

Reply 37-

The Manufacturer's Authorisation Form shall be obtained for major equipment manufactured in India such as Inverters, PV Panels and Electrical Switchgears

M.R.D.

Query 38- "Payment for the Works shall be made on a lump sum basis."

Add the following words: -

Except as otherwise provided in" this Sub-Clause, the Contract Price is exclusive of any taxes, customs duties levies, fees etc applied in the Country.

-Kindly clarify, whether the Price should be inclusive or exclusive of all Taxes and Duties. If Inclusive, then what shall be the Tax Structure? Kindly Clarify.

Reply 38-

The contract price shall be exclusive of taxes and custom duties as specified in the bidding document.

Query 39- "The Contractor shall be entitled to make only one application for payment each month. This will be in two parts, one dealing with progress of the Works on the Site, and the other dealing with plant and materials shipped to the Site.

-Kindly allow 2-3 Application for Payment each month with 2 parts in each application, one for Work Progress on Site and the other for material Shipped, to get better cash flow for contractor.

Reply 39-

The original clause of the bid document shall be maintained.

Query 40- (a) Insurance for design

Evidence of insurance and policies to be submitted with the tender submission.

(b) Other insurance.

Evidence of insurance to be submitted with the tender submission.

-Kindly elaborate and requirement at Tender Stage.

Reply 40-

Bidders are required to refer to Conditions of Particular Application 18 and Appendix to Bid. This requirement shall be satisfied by the successful bidder.

Query 41- For the purpose of sizing of the Solar Farm the Contractor shall assume an interconnection overhead line of 150 mm² bare AAAC of 6 km and 240 sqmm Al XLPE underground cables of 500 m.

-Kindly confirm whether supply and erection of this overhead line is in contractor's scope of work.

Reply 41-

Connection of 22 kV overhead line from the Solar PV Farm to the 22kV busbar of the Henrietta Substation shall be under the responsibility of CEB.

MRD.

Query 42- Climatic Data

-The values given for Solar irradiation are not accepted in PVSyst stating irradiation corresponds to an unrealistic clear index for the months May, June, July and August. Please confirm whether bidder can go ahead with Meteonorm data for the energy estimation.

Reply 42-

The climatic data provided in Table 1.1 are indicative only. Bidders have to acquire the required data to make necessary simulation on PVSyst and Energy estimation.

Query 43- The Contractor shall agree with the Employer and shall provide such bench marks and setting out points, in a form approved by the Employer.

-Employer shall provide the reference bench mark points or nearest source for the reference bench mark. Kindly confirm.

Reply 43-

Bidders shall refer to the Geotechnical Report and Land Survey drawings for the reference bench mark.

Query 44- Site Electricity Supply; Water Supply.

-Kindly inform whether Construction Power and Water will be made available to bidder on chargeable basis, if yes, what are the rates. Kindly also inform the nearest source of electricity and water from site.

Reply 44-

Kindly refer to reply 23 of Clarification No.4

Query 45- The Contractor shall bear the costs associated with the travel from Mauritius and for accommodation and subsistence costs. (Training)

-It is requested to furnish subsistence cost associated with visiting Mauritius officials.

Reply 45-

The Clause is maintained as specified in the bidding document.

Query 46- The Contractor shall bear the costs associated with the travel from Mauritius and for accommodation and subsistence costs. (Design Review)

Reply 46-

The Clause is maintained as specified in the bidding document.

M.R.D.

Query 47- Mounting structure drawings with structural calculations reviewed and certified by a licensed engineer

-In India, we are having Chartered Engineers who act as licensed Engineer. They will review and certify the desired document. This is for your kind information.

Reply 47-

This is acceptable and have to be supported by documentary evidences.

Query 48- Minimum ground clearance of the PV Mounting Structure shall be 800 mm.

-As per Standard practices, Minimum Ground clearance of the PV Mounting structure is kept to 500 mm. As higher the clearance, heavier will be the structure. Please advise.

Reply 48-

The minimum ground clearance of the PV Mounting Structure shall be kept at least 600mm.

Query 49- The circuit-breaker shall be of the SF6 type and shall comply with IEC 62271-100.

-As the voltage level is 22 kV only, please accept vacuum circuit breaker.

Reply 49-

The original requirement of the bidding document is maintained.

Query 50- The cables on the DC side of the plant shall be single core and have double insulation (class II) so as to minimize the risk of earth faults or short circuits in accordance with IEC 60364-7-712.

-Cables inter-connecting SPV modules as well as Modules to SMU's shall conform to EN 50618. The cables between the combiner boxes and the inverters should be AR2V type or similar. Please accept.

Reply 50-

As long as DC Cables comply to the Bid requirement, DC Cables shall be accepted.

Query 51- Underground DC cables shall be run in pressurised PVC pipes.

-It is a very old practice and will be practically difficult to route the heavy and lengthy DC cable from DC Combiner to ITS. This cable will be armoured cable suitable for direct burying in cable trenches. Please accept.

Reply 51-

The original requirement of the bidding document is maintained.

M.R.D.

Query 52- The optical fibre within the farm shall be installed undergrounded in PVC pipes. The Contractor shall install a ring optical fibre network linking the different compact substation. The optical fibre network shall comprise of at least 32 fibres.

-The optical fibre within the farm shall be installed undergrounded in HDPE pipes as per standard practice of Optical Fibre Cable (OFC) laying. OFC network shall be ring network or star network as per technical suitability of SCADA system.

Since 32 fibers is very huge count for SCADA fiber optic network. Kindly allow the bidder to provide 100% spare over the number of fibers used by SCADA system (Typical 2 cores are sufficient)

Reply 52-

The original requirement of the bidding document is maintained.

Query 53- For the control and monitoring of the PV farm via the local SCADA system, a ring optic fibre communication network shall be installed to connect all inverters and measurement devices amongst others.

-We wish to clarify that for the control and monitoring of the PV farm via the local SCADA system, Optical Fibre Cable network shall be ring network or star network as per technical suitability of SCADA system.

Reply 53-

The original requirement of the bidding document is maintained.

Query 54- Manufacturer

-Details of "Manufacturer" sought twice. We understand it is same. Kindly confirm.

Reply 54-

We confirm it is the same.

Query 55- Manufacturer's Authorization

-Kindly clarify who needs to provide Manufacturing Authorization Certificate and for which of the equipment

Reply 55-

Kindly refer to reply 37 of Clarification No.5

MRD.

Query 56- Only the Technical Proposal shall be opened at the bid opening. Bidders shall submit the Bid Security along with the Technical Proposal.

-During bid opening whether all the six technical evaluation parameters of various bidders will be shared or not.

Reply 56-

The Technical Parameters shall not be disclosed at Bid opening stage.

Query 57- Single Line diagram - RMU configuration

-It is assumed that PV plant SLD proposed is indicative and bidder can propose optimum configuration with radial scheme as per his techno-economic evaluation. Please confirm.

What Sort of documents need to submit. Kindly Clarify

Reply 57-

Bidders are required to comply with the single line diagram for RMU configuration.

Query 58- Registered Engineer

-Request to define the term "Registered Engineer". Is there any local registered Engineer is available to get the drawings and documents validated.

Reply 58-

Local Registered Engineer are available on the list from the Council of Registered Professional Engineer, Mauritius.

Query 59- ROW (Right of Way)

-It is presumed that there will not be any Right Of Way (ROW) issues for the transmission line & project. Bidder may please be facilitated to carry out only works related to solar PV plant and ROW issues, if any, shall be resolved by M/s. CEB. Please confirm

Reply 59-

Connection to the Solar PV Farm to the 22kV busbar of the Henrietta Substation shall be under the responsibility of CEB.

Query 60- S-5159(A), S-5159(B), S-5159(C)

-The third parcel land of 39260 sq.m is not marked for installation in A and B. Please confirm the total area available for installation of PV plant.

Reply 60-

Bidders are required to use the first two plots in priority to setup the PV Farm. In case the land is insufficient, bidders may use plot 3 to complete the installation.

MAD.

Query 61- Solar Compact Station

-Solution in totality is available with very limited vendors. Hence please allow bidders to choose individual equipment of inverter, transformer and switchgear either indoor or outdoor as per the techno-economic evaluation. However, respective equipment will be complying to the standards.

Reply 61-

The original requirement of the bidding document is maintained.

Query 62- The amount of the Bid Security shall be US Dollars 100,000 and shall be valid for 210 days as from the deadline for submission of bid.

-Request to lower the Bid Security amount to US Dollars 50,000.

Reply 62-

The original requirement of the bidding document is maintained.

Query 63- Bid Security (Bank Guarantee)

-CEB (Green Energy) Co. Ltd bank details required.

1. Bank Name
2. Address
3. Account Number
4. IFSC Code

Reply 63-

Please submit the Bid Security in the format provided in the bidding document.

Query 64- c) Annual Revenue in at least one (1) of the last five (5) financial years as defined above, be not less than USD 10 mn

-Request to lower Annual Revenue requirement of bidding company to USD 8 Million

Reply 64-

The original requirement of the bidding document is maintained.

Query 65- The Bidder shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the project cash flow requirement of ongoing contracts including the present contract net of the Bidder's other commitments. Minimum required liquidity and/or credit facilities to be made available shall not be less than USD 2.5 mn;

-Cash Flow Demonstration

Request to Lower to USD 1.2 mn as against USD 2.5 mn

Reply 65-

The original requirement of the bidding document is maintained.

MRT.

Query 66- Site Information

-We request you to provide the below data/information.

1. Single Line Diagram (SLD) of 22 kV Henrietta Substation
2. Latitude Longitude of Land
3. Distance from Proposed land to Substation

Reply 66-

Connection from the Solar PV Farm to the 22kV busbar of the Henrietta Substation shall be under the responsibility of CEB.

With regards to longitude and latitude of the land, kindly refer to the Land Survey Report.

Query 67- Types of 22 kV poles

-Kindly clarify the types of poles to be used for 22 kV line. i.e. Steel poles or concrete poles.

Reply 67-

The internal 22 kV Network within the PV Farm shall be undergrounded and under the responsibility of the bidder. However, the construction of the 22kV line from the Switchgear to the Henrietta Sub Station shall be under the responsibility of CEB

Query 68- Type test requirement

Considering the small quantity, we do not envisage the type test for poles and overhead line materials. Please confirm.

Reply 68-

Kindly refer to reply 67 of Clarification No.5

Query 69- No. of Circuit

-We understand that the 22 kV line is single circuit line. Please confirm.

Reply 69-

Kindly refer to reply 67 of Clarification No.5 and Drawing No HE8-EL005.

Query 70- Currency Conversion

-Please specify the conversion date to be taken while bidding

Reply 70-

For the purpose currency conversation, the exchange rate prevailing 07 days before the deadline of the bids shall be considered.

M.R.D.

Query 71- The Contractor shall also provide costing for a support and maintenance contract for a period for 3 years (renewable on a yearly basis, subject to satisfactory performance). Support and maintenance contract shall abide to the Service Level Agreement provided in the Technical Schedules

-Please clarify weather support and maintenance contract for a period for 3 years is mandatory and its cost will be part of commercial evaluation.

Also please provide the price schedule for support and maintenance.

Reply 71-

The price quoted for Support and Maintenance shall be submitted separately and shall not be used for evaluation purpose.

Query 72- Attendance of Pre-Bid Meeting and Site Visit is mandatory.

CEB (Green Energy) Co Ltd, Mauritius has conducted Pre Bid Meeting and Site Visit on 05th September 2019 at Mauritius. About 16 companies has participated in the meeting and site visit. Kindly confirm that the bidders who have not attended the meeting and site visit are not allowed to submit their bid.

Reply 72-

Bidders are informed to refer to Addendum No.1.

Query 73- Geotechnical investigations Report: The Employer has appointed a contractor to perform geotechnical investigations topographical survey of the site. The results of these studies shall be made available to all potential bidders during the pre-bid meeting and site visit. However, further investigations shall be carried out by the Contractor as he would deem necessary.

-During the pre-bid meeting, CEB (Green Energy) Co Ltd, Mauritius informed bidders that Geo technical investigation report are ready and it will be shared along with pre bid meeting. It is requested to share the report at the earliest.

Reply 73-

This Report has already been submitted to the High Com in India for transmission to all bidders.

Query 74- It has been observed at site there are lot of trees / vegetation on highly undulated surface.

-Request to share the topographical survey report of the site to assess the quantum of work involved.

Reply 74-

This Report has already been submitted to the High Com in India for transmission to all bidders.

Query 75- Pre Bid Meeting and Site Visit on 05.09.2019

-It is requested to issue Pre bid meeting MOM and share the presentation made during pre-bid meeting to us at the earliest.

Reply 75-

The Notes of Minutes have already been issued.

Query 76- Bid Submission and Technical Bid Opening Date: 11th October 2019

-In view of the absence of Geo technical investigation report and pending replies of our queries, we request CEB (Green Energy) Co Ltd, Mauritius to consider our request to extend the bid submission date by about one month i.e. till 11th November 2019.

Reply 76-

The request for extension of the deadline for submission of the bid cannot be entertained.

Query 77- Stream Crossing - A concrete structure shall be designed and constructed to allow vehicular access over the stream located between the first and the second lot.

- Details regarding depth, width and length of the stream crossing may please be provided

Reply 77-

The stream crossing shall allow for vehicular access. The dimensions shall be provided accordingly. Moreover, the dimensions will depend on the stream size which could have been measured during the pre-bid site visit.

Query 78- The Contractor shall construct all temporary roads and tracks to his working area and maintain them to the satisfaction of the Employer.

- Request to kindly consider the construction of approach road to site from the main public road. Kindly confirm.

Reply 78-

Apart from the road from the main road to the site, this clause refers to all access roads and tracks which should be provided inside the site.

Query 79- In addition, given the weather conditions at site and the close proximity of a river, a very strong anchoring system is required. The supporting structures shall be able to withstand gusts of at least 280 km/hr.

- As MMS design was based on wind speed, in our opinion, additional anchoring system may not be required. Please clarify.

Reply 79-

The structural Engineer would carry out the structural designs, taking into consideration all the specified parameters. Final responsibility of the structural design would lie on the structural Engineer.

Query 80- Structural Design shall be carried out in accordance with the relevant British Codes of Practice and Mauritius Standards

- Request to accept Equivalent Indian standard code design for reinforcement concrete, structural steel works, water retaining structures and reinforcements.

Reply 80-

Bidders are required to provide documentary evidence of Indian standards used are in accordance with the relevant British Codes of Practice and Mauritius Standards

Query 81- Allow for the provision of a reinforced concrete coping 150mm wide x 200mm deep, of concrete grade 30.

- As this is of non technical structure, request to accept plain cement concrete coping of concrete grade 25.

Reply 81-

The original requirement of the bidding document is maintained.

Query 82- Allow for the provision of reinforced concrete retaining wall as and where required (near rivers and stream) to protect against flash floods

- Request to provide the details of concrete retaining wall (Length, Height) to be built to protect against flash floods to ascertain scope of work involved.

Reply 82-

The original requirement of the bidding document is maintained.

Query 83- The septic tank to be filled with water and tested for leakages prior to handing over.

- As the septic tank is connected with the soak pit, water leakage test for septic tank is not required.

Reply 83-

The original requirement of the bidding document is maintained.

Query 84- Allow for the provision of 12 mm rendering to soffit of slab finished to receive antifungus paint.

- As per general practice 6mm plastering shall be provided for beam soffit. As roof waterproofing is proposed to be provided. Kindly confirm.

Reply 84-

The original requirement of the bidding document is maintained.

M.R.D.

Query 85- Structural Engineering, The supporting structures shall be able to withstand gusts of at least 280 km/hr(77.77 m/s).

- As per Euro code, the fundamental value of the basic wind velocity, V_b, Q , is the characteristic 10 minutes mean wind velocity should be $(77.77 \times 0.69 = 53.61 \text{ m/s})$. Kindly confirm.

Reply 85-

The original requirement of the bidding document is maintained.

Query 86- The material for the supporting structures of the PV panels shall be hot dipped galvanized steel and should resist corrosion. Galvanizing should meet ASTM A-123 hot dipped galvanizing or equivalent which provides at least spraying thickness of 70 microns on steel as per BS EN ISO 1461:1999, if steel frame is used.

- BIDDER proposes the array structure shall be made of mix of cold formed hot dipped galvanized steel, pre galvanized steel and Galvalume steel sections and thickness shall be of 70microns (Hot dipped galvanized with yield strength 350Mpa),550GSM (Pre galvanized with yield strength 350Mpa) and 150GSM (Pre galvanized with yield strength 550Mpa (Alu-Zinc)) respectively.

Reply 86-

The original requirement of the bidding document is maintained.

If it differs, bidder shall show evidence that it is similar to specified specifications or better.

Query 87- Architectural Design

13.2.1. Building Works

Construction of a new two-storey building to include Switchgear Room, Workshop, Store, control room, offices, Meeting Room, Mess Room /Pantry, Toilets (1 no. Gents & 1 no. Ladies), Bathrooms (1 no.), and Changing/Locker room, among others, of an approximate total surface area of 430 m².

- BIDDER proposes single storey building with prefab containerized solution instead of RCC building because two storey building may results shadow effect to PV modules.

Reply 87-

The original requirement of the bidding document is maintained.

MED .

Query 88- Civil works structural design.

Structural Design shall be carried out in accordance with the relevant British Codes of Practice and Mauritius Standards, which apart from those mentioned above, shall include the following, viz:-

- BS8110 – Reinforced Concrete
- BS5950 –Structural Steelwork
- BS8007 – Water Retaining Structures
- MS10 – Reinforcement

- BIDDER requests to use EURO/ASCE codes instead of BS standards because BS codes are Superseded by EN.

Example: BS 8110-1:1997 Structural use of concrete. Code of practice for design and construction Superseded by EN 1992.

Reply 88-

The original requirement of the bidding document is maintained.

Query 89- Concrete grade 30 shall be used for all concrete structures

- BIDDER proposes grade of concrete shall be M25 for all concrete structures instead of M30 grade.

Reply 89-

The original requirement of the bidding document is maintained.

Query 90- Perimeter Fencing :

All vertical galvanised supports to be embedded in concrete bases at least 400x400mm x 600mm deep and of concrete grade 30.

Allow for the provision of a reinforced concrete coping 150mm wide x 200mm deep, of concrete grade 30 and connected to the concrete bases along the whole perimeter of the yard. The chain link fencing shall be embedded into the coping.

- BIDDER proposes all vertical galvanised supports will be embedded in cast in situ concrete pile foundations with grade M25.

BIDDER proposes horizontal members will be fixed to the fencing instead of chainlink fence embedded into concrete coping.

Reply 90-

The original requirement of the bidding document is maintained.

MRD.

Query 91- Access Roads

Track road all around the fencing and across the plots (as indicated in guide drawing CEB Drwg No: S-5159)

This track road shall be at least 3m wide, shall consist of stoning and kerbs on both sides and shall be accessible to vehicles.

3. Main track road to provide access to the two lots and across the plots (as indicated in guide drawing CEB Drwg No: S-5159)

This track road shall be at least 5m wide and shall consist of stoning and kerbs on each side.

4. Access road from main road to main entrance gate and up to the Building

This road shall be an asphalted one of a width of at least 5m.

Kerbs shall be provided on the two sides of the road.

- BIDDER proposes

1. Main road to be asphalt type with a road width of 4m and 0.5m shoulders on both sides.
2. Internal road to be WBM type with 3m wide and 0.5m shoulders on both the sides.
3. Periperal road to be simple compacted 3m wide.

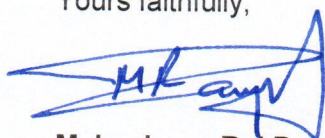
Reply 91-

The original requirement of the bidding document is maintained.

Kindly acknowledge the receipt of this letter addressed to the Mauritius High Commission New Delhi at mhcnewdelhi@gmail.com at latest by the 30th September 2019.

If you have any query please do not hesitate to contact us,

Yours faithfully,



Maheshwur Raj Dayal
CEng MEng(Hons) MIET RPEM
General Manager

cc.
EXIM Bank
Mauritius High Commission in New Delhi
SBMIDCL
SICDC

CEB (GREEN ENERGY) CO LTD



TEL NO: (230) 404 2000
FAX NO: (230) 454 7630 / 7632
E- MAIL: ceb@intnet.mu
WEBSITE: ceb.intnet.mu
VAT Reg No: 27470844
BRN: C16142198

Rue du Savoir | Cyber City, Ebène
MAURITIUS

25 September 2019

Ref: OAB-CGE-005/Clarification06

Attention: All Bidders

Dear Sir/Madam,

OAB-CGE-005 – Design, Supply, Installation, Testing and Commissioned of 8MWac Solar PV Farm at Tamarind Falls, Henrietta (Phase II), Mauritius.

Clarification No.6

Please find below CGE's reply to the queries from bidders in respect of the above mentioned bidding exercise.

Query 92- No spoil, rubbish or surplus materials are to be dumped anywhere other than at a public or private disposal site controlled or appropriately licensed by a Local Authority.
-We understand, employer will provide us with licensed disposal site within site premises.

Reply 92-

Bidders are required to make their own research for public or private disposal site controlled or appropriately licensed by a Local Authority in Mauritius. Please find attached a list of available waste disposal sites in Mauritius available from the Ministry of Social Security, National Solidarity, and Environment and Sustainable Development (Environment and Sustainable Development Division) and the bidders should not be limited to these sites.

(<http://environment.govmu.org/English/Pages/swmd/SWMD-Waste-Disposal-Sites.aspx>)

M.R.D.

Query 93- Training on PV plant design, control and monitoring, inverter programming and troubleshooting, PV SCADA system, mounting structures, earthing system, surge protection, lightning protection, LV and MV design, testing and commissioning, safety measures at the manufacturer's work place shall be provided to three (3) Employer's technical staffs. The training shall be for at least two weeks

-PV plant design is being taken care of in Classroom training already. Also, we can reduce the training time as well. 2 weeks time might be a little too much.

Reply 93-

The original requirement of the bid document shall be maintained.

Query 94- The classroom training, including practical training, shall be of at least 4 weeks.

-We can reduce the training time to 1 or 2 weeks at max. This much of time might not be required for the training.

Reply 94-

The original requirement of the bid document shall be maintained.

Query 95- The solar PV farm capacity shall be dimensioned for an AC delivery power output of 8MWac measured at 22kV in Henrietta Substation and shall comprise of solar mono crystalline modules each rated between 340-385 Wp.

-Kindly advise the energy figures, we are looking for here.

Reply 95-

Bidders shall be responsible to design the PV Farm and guaranteed an AC power Output of 8MWac

Query 96- The project electrical system shall be designed for electrical system losses no more than three (3) percent on the DC wiring system and the AC wiring system totaled

-we understand, this 3% losses are applicable till 22kV CSS output. Transmission line losses shall be separate.

Reply 96-

We confirmed that the DC and AC wiring losses shall be no more than 3% is applicable till the 22kV output cubicle of the Main Substation.

Query 97- The power delivered to the grid must at all times meet the interconnection requirements for power factor both during day and night time.

-Kindly advise the grid statistics for the plant.

Reply 97-

Plant have to comply with interconnection requirements of CEB.

HKD .

Query 98- Each Solar Compact Substation shall be designed in such a way that the loss of 30% of the inverter modules in a given Solar Compact Substation shall not affect the guaranteed delivered power at the POD i.e. 8MWac , without overloading any of the healthy inverter modules

-We understand, this allows us to overload inverter 30%.

Reply 98-

The inverter in a given Solar Compact Substation shall be designed such that it continues to give 100% output even if 30% of the inverter modules are faulty.

Query 99- The current transformers provided for metering and instrumentation purposes shall have class 0.2.

-we generally use Class 0.2S for metering core

Reply 99-

This is acceptable.

Query 100- This interlocking system shall be provided to ensure that closing of the CEB's side 22kV Circuit Breaker, in SS3 (See guide drawing HE8-EL003), is ONLY allowed if ALL the Client's side 22 kV Circuit Breakers are in the open position.

-Kindly share the required interlocking philosophy. Also, please share the drawing HE8-EL003

Reply 100-

Bidders are informed that the drawing has already been issued within the batch of drawings for bid documents.

Query 101- 22kV Cables shall be of single core construction and be designed to meet the thermal, electrical and mechanical requirements of the CEB system.

-Please allow 3 core cables as well.

Reply 101-

This is acceptable.

Query 102- Conductors shall be constructed of either compacted, plain annealed copper strands conforming to IEC 60228 (Class 2).

-Please allow Aluminium conductor as well.

Reply 102-

The original requirement of the bid document shall be maintained.

MED.

Query 103- The hermetic, maintenance-free stationary Nickel-Cadium batteries are housed in the UPS and/or in one of more cabinets of the same shape and size as that of the UPS itself.

-Please allow Li Ion / Lead acid batteries as well.

Reply 103-

The original requirement of the bid document shall be maintained.

Query 104- The acquisition of all permits, approvals and licenses is part of EPC Contractor responsibility.

-Please can you list the permits, licenses and approvals required for this project.

Reply 104-

Bidders are hereby informed that the acquisitions of all necessary permits, licenses and approvals from local Authorities in Mauritius shall be the responsibility of the successful contractor.

Query 105- PV farm shall be commissioned by Horizon 2020

-When is this period? Please mention the project timeline, duration and expected COD

Reply 105-

The PV Farm is expected to be commissioned by January 2021.

Query 106- The scope of supply for the erection of the 8 Mwac Solar PV Farm

-Minimum DC Capacity to achieve 8MWac shall be specified.

Reply 106-

Bidders shall be responsible to determine the DC capacity / max overloading / max clipping losses allowed for the inverters and guaranteed an AC power Output of 8MWac.

Query 107- The minimum ground clearance of the PV Mounting Structure shall be 800mm

-The minimum ground clearance of the PV mounting structure may be changed to 600 mm. The same has been used in all our commissioned projects.

Reply 107-

Kindly refer to reply 48 of Clarification No.5

Query 108- The cables on the DC side of the plant shall be single core and have double insulation (class II) so as to minimize the risk of earth faults or short circuits in accordance with IEC 60364-7-712

-DC Cables shall be as per EN 50618 or TUV 2PfG 1169/09.07

Reply 108-

Kindly refer to reply 50 of Clarification No.5

MRD .