



CLARIFICATION 03

މަޢުލޫމާތު

Project No:

TES/2016/G-007

ދިޔަ ދުވަސް

Issued Date:

Tuesday, September 6, 2016

މަޢުލޫމާތު

Project:

Design, Supply, Installation and Maintenance of renewable energy hybrid power plants in HaaDhaalu Atoll – Maldives

މަޢުލޫމާތު

Deadline for submission:

Monday, September 26, 2016 at 1300 hrs

ސަފުހާ ގެ ޖަދުވަލު

No. of Pages: - 17

Please include this clarification when submitting the proposal

1. Please find the **Clarification 3** issued, attached with this sheet.

ނަންމު

Name: Aminath Juweriya

ސަފުހާ

Signature:





Ministry of Finance and Treasury
Male' Republic of Maldives

Preparing Outer Islands for Sustainable Energy Development

Design, Supply, Installation and Maintenance of renewable energy hybrid power plants in HaaDhaalu Atoll – Maldives

CLARIFICATION 03

| S.No | Document No. | Clause No./Page No | Tender Summary | Question / Clarification from bidder | Answer |
|------|--------------|--------------------|----------------|---|---|
| 1 | | | | <p>Power factor for existing system for B03 and B05 is too low. You did not specify the improvement of power factor any where in your specification.</p> <p>Power factor is very important for the said two islands power factor from my calculation is 80%</p> | <p>Hybrid system must be able to support existing system with reactive power as stated in tender documents like for example in Section 6, Chapter 3.3 and 3.7.2.3</p> |



| | | | | | |
|---|--|--|--|--|--|
| 2 | | | | <p>If we are awarded we want to calculate and put the static condenser to improve the power factor. Can we have a chance to improve the power factor through putting static condenser in all power supply system for 13 islands?</p> <p>Or Could you insert a sentence for the power factor improvement at this moment?</p> | No, contractor shall not install any equipment that is not in line with the tender documents. |
| 3 | | | | <p>Please confirm, if the bid submission date is going to be extended further.</p> <p>At Atoll B03- Details of existing main LV distribution Board are missing in bid documents and required by us</p> | <p>No, there is not going to be a further bid extension than stated in TES 2016 G 007 Addendum#1</p> <p>PI check the drawing no. J431-GOPA-008-GR-E-S-0001-RevA (B03-Hani-maadho) which was released with the amendment TES 2016 G 007 Addendum#1</p> |
| 4 | | | | <p>Whenever, we are clubbing cluster of roof top installations in most of the Atolls, we may have to cross over roads and other infrastructure and may have to do minor modifications on existing structure. Please clarify that all required approvals to execute the required work to meet the tender requirements will be arranged by your department</p> | <p>Any modification on existing structure roads have to be included in detailed design to be approved by the Employer. If changes during construction occur, it has to be approved by the Employer.</p> |
| 5 | | | | <p>Is there any list of approved electrical and mechanical contractors which to be engaged with the project. If yes, please provide the details</p> | <p>No, there is no list of approved contractors.</p> |
| 6 | | | | <p>Network diagram for B04-Finey Atoll and B15-Vaikaradho Atoll are missing in WinRAR(evaluation copy)</p> | <p>Since the Power house of both islands B04 and B15 shall be relocated, network diagram is not issued. Further PV are directly connected to the main LVDB of Existing power house. Refer amendment drawing no.J431-GOPA-000-GR-E-S-0001-RevD and J431-GOPA-008-GR-E-S-0001-RevD</p> |
| 7 | | | | | |



| | | | | | |
|----|-------------------------------------|---|--|---|---|
| 8 | | | | Relocation of existing generator from one island to any other island after removable scope shall be clearly specify by client. | The contractor shall not relocate any existing generator to another island. If a generator is replaced, the old generator stays in the property of FENAKA |
| 9 | | Section6 Page32 Chap- ter2.7.2 | "If space is needed for the new genset, to be removed / relocated on other island (too large for the load profile)" | who is going to remove the existing generator to share space for new generator if necessary? To ensure the existing generator safety, it is better to arrangement professional team to do such kind of relevant works | The Contractor has to remove the existing generator in order to install a new generator. It is within the Contractors responsibility to ensure this is done by a professional team. |
| 10 | Section6 P34 Chap- ter2.7.4.2 | Bidder shall provide necessary arrangements for safe dismantling, packaging of existing de-energized LV distribution board of the Power house and subsequent transportation of the same to a location identified by FENEKA. | Will the location be at each construction island or we should transport all of 13 islands dismantled materials to the same location? Where will it be? Any package standard, with wooden case or paper case. | The dismantled LV distribution boards as well as old diesel generators or any other exchanged materials that are still of value will remain on the island in the property of FENAKA. All waste materials that are of no use any more have to be professionally separated and disposed within the waste management facilities of the island. If there is no waste management facility on the island, the materials have to be transported to Thilafushi island. | |



| | | | | |
|----|--|---|---|--|
| 11 | Section2 Page4-32 chapter 2.7.3 | Table 11: B04 - Analysis of the available roofs and maximum PV power installable | Any working permission needed during construction at School, Agricultural centre, Health centre, Youth centre, mosque etc.? will the employer prepare it for the vendor? For working time per day. Could we continue work at night? How about weekend and holidays. | Any foreigner working in Maldives should have relevant visas and meet all requirements under employment act of Maldives. Employment laws for the Maldives can be found here: http://www.lra.gov.mv/laws_and_regulation/2/104/employment-act-english |
| 12 | Section1 Page4-8 Chapter 1.2 | development, detailed design, engineering (including equipment specifications), coordination of sub bidders, permitting, procurement, manufacturing, factory testing, supply of all equipment (also including spare parts, consumable, special tools and handling equipment, etc.), transport to site, storage on site, erection, construction, commissioning and performance testing of the systems. | For storage in the destination island, we notice that there is a yard for powerhouse and related buildings in general. Is it convenient be occupied by the project in short times for free. | Storage space on the island has to be rented by the Contractor on their own cost. Free storage facilities can not be provided. |
| 13 | Section2 Page4-35 Chapter2.7.4.3 | Since the power house will be relocated, further modifications related to grid upgrade are not envisaged in FINEY islands. | Seems there are serval planning for upgrade of electricity of the island, such as relocate or some others, could you supply the related planning for these 13 island, except Hybrid. | All relocations and upgrades are mentioned in the tender documents |



| | | | | | |
|----|---|---|--|--|---|
| 14 | | Section6 P34 2.7.4.2 | Since the power house will be relocated, modifications related to grid upgrade are not envisaged in Finey islands. | Who is responsible for the relocation of the power house? Is there any time schedule for the relocation of the power house? | Relocation of powerhouse is not in the scope of work of the Contractor. Time shedule is not allways available |
| 15 | | Section6 P117 2.17.4.2 | Since the power house will be relocated, modifications related to grid upgrade are not envisaged inVIKARADHOO islands. | Who is responsible for the relocation of the power house? Is there any time schedule for the relocation of the power house? | Please refer to answer S.No. 15 |
| 16 | Section6 Page147 3.3.1 Batter- ies | The guaranteed cycle life (End of Life : 80% of initial capacity) shall be the following: ●A minimum of 4,000 cycles at 80% of DoD at 25°C and ●A minimum of 800 cycles at 80% of DoD at 25°C and a minimum of 1.500 cycles at 60% of DoD at 25°C and a minimum of 2.400 cycles at 40% of DoD at 25°C and a minimum of 3.500 | which requirement of battery cycle life is for the Typt B ? which requirement of battery cycle life is for the Typt C ? | For both types it is the same requirements. "The guaranteed battery cycle life shall be dependent from energy throughput. 4000 cycles @80% correspond to the same energy throughput as 800 cycles @ 80% + 1500 cycles @60% + 2400 cycles @40% + 3500 cycles @20%, so both have to be fulfilled. Section 6, Chapter 3.3.1 "Batteries" | |



| | | | | | |
|----|---|--|--|--|--|
| | | | | | |
| 17 | Section6 Page147 3.3.1 Batter- ies | The Bidder shall select the most suitable product to meet the rated and peak charge and discharge power with the lowest kWh installed. The maximum discharge rate shall not exceed 2C. | what's the normal discharge rate ? | Discharge rate is depending on the installed capacity. Please refer to Section 6, Chapter 2.5 for details. | |
| 18 | Section6 Page161 3.5.7 Low Voltage Ar- moured Ca- bles | These specifications define the requirements for multi-core copper conductor, cross linked polyethylene (XLPE) insulated, steel wire armored (SWA), and PVC sheathed, 600/1000 Volts, power cables as per the latest IEC / BS standards, or other equivalent recognised reputable international standards. | Is it possible to consider to use the steel tape armoured cables ? | Cables must comply with specifications stated in tender documents. | |



| | | | | |
|----|--|--|---|---|
| 19 | Section6 Page159 3.5.6.3 En- closure | Outdoor weatherproof GRP sealed enclosures shall be protected to IP 67, | It is unnecessary to satisfy IP 67 for enclosures, Is it acceptable to satisfy IP66 or IP65 ? | IP 67 is required as per the tender. |
| 20 | Addendum 1 attach- ment P9 Item5 # | the inverters have to be installed in order to with- stand prevailing climate conditions .All PV invert- ers will be mounted on outside walls of the buildings where PV power plants will be in- stalled. At an appropriate height to allow easy maintenance. Walls will be defined together with the employer . | if the public buildings for installing photovoltaic modules have enough interior space, the inverter can be in- stalled indoor or not ? | No, please refer to TES 2016 G 007 Addendum#1 Item#5. |
| 21 | Drawings J431-GOPA- GEN-GR-E- D-0002- RevA | | the mark is "16A 3P RCBO", but there is only 1P in the drawing. | The drawing is for indicative purpose only. 3P are required. |
| 22 | Plant 1S2E Section 2_BDS.doc ITB 18.1 | The Bid prices shall be in- clusive of Goods and Ser- vices Tax of 6%, applica- ble under Maldives Tax Regulation. | In Price shedule form, there are two column which are Unit Price and Tax and Duties, Goods and Services Tax of 6% is included in the CIP unit Price col- umn or in the Taxes and Duties col- umn ? | The Bid prices shall be inclusive of Goods and Services Tax of 6%, applica- ble under Maldives Tax Regulation. Goods and Services Tax of 6% shall be quoted in local currency in Taxes and Duties column. |



| | | Section 2 A.General; Section 4 Bid Security | | Who is the beneficiary? Ministry of Environment and Energy ? Or Ministry of Finance and Treasury? | Ministry of Finance and Treasury |
|----|--|--|--|--|--|
| 23 | | | | <p>Please confirm that the following information to be written in the Bid Security formular are correct:</p> <p>1. Beneficiary: Ministry of Finance and Treasury (Ameenee Magu, Malé, Maldives)</p> <p>2. We have been informed that ... has submitted to you its bid dated (hereinafter called "the Bid") for the execution of ... Preparing Outer Islands for Sustainable Energy Development</p> <p>3. under Invitation for Bids No. (LUL)13-K1/13/2016/128 .. ("the IFB")</p> | <p>1. Confirmed</p> <p>2. No. To be replaced by the contract name as in the Invitation to Bid: "Design, Supply, Installation and Maintenance of renewable energy hybrid power plants in HaaDhaalu Atoll (13 Islands) – Maldives".</p> <p>3. Confirmed</p> |
| 24 | | Section 4 - Bid Security | | | |

