Section 4: Bidding Forms

This section contains the forms to be completed by the Bidder and submitted as part of its Bid.

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Letter of Technical Bid

-- Note –

*The Bidder must accomplish the Letter of Technical Bid on its letterhead clearly showing the Bidder’s complete name and address.*

Date:

OCB No.:

Invitation for Bid No.:

To: MINISTRY OF FINANCE

We, the undersigned, declare that:

1. We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB) 8.
2. We acknowledge that we have read and understand ADB’s Anticorruption Policy (1998) and Integrity Principles and Guidelines (2015), both as amended from time to time.
3. We offer to design, manufacture, test, deliver, install, pre-commission, and commission in conformity with the Bidding Document the following Plant and Services: [insert narrative]
4. Our Bid consisting of the Technical Bid and the Price Bid shall be valid for a period of [insert bid validity period as specified in ITB 20.1 of the BDS] days starts from the date fixed for the bid submission deadline in accordance with ITB 24.1, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
5. Our firm, including any Subcontractors or Manufacturers for any part of the Contract, have or will have nationalities from eligible countries, in accordance with ITB 4.2.
6. We, our directors, key officers, key personnel, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers for any part of the Contract, do not have any conflict of interest in accordance with ITB 4.3.

If there is any conflict of interest, please state details:

1. Parties involved in the conflict of interest: \_\_\_\_\_\_\_\_\_\_
2. Details about the conflict of interest: \_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. We are not participating, as a Bidder, either individually or as partner in a Joint Venture, in more than one bid in this bidding process in accordance with ITB 4.3(e), other than alternative offers submitted in accordance with ITB 13.
4. Our firm, Joint Venture partners, our respective direct and indirect shareholders, directors, key officers, key personnel, associates, parent company, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers for any part of the contract, are not subject to, or not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the Asian Development Bank or a debarment imposed by the Asian Development Bank in accordance with the Agreement for Mutual Enforcement of Debarment Decisions between the Asian Development Bank and other development banks.[[1]](#footnote-2)
5. Our firm, Joint Venture partners, our respective direct and indirect shareholders, directors, key officers, key personnel, associates, parent company, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers for any part of the contract, are not under ongoing investigation and/or sanctions proceedings by the Asian Development Bank or any multilateral development bank.

If under ongoing investigation and/or sanction proceedings by the Asian Development Bank or any multilateral development bank, please state details:

(i) Name of the multilateral development bank: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(ii) Reason for the ongoing investigation / allegations: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Our firm, Joint Venture partners, our respective direct and indirect shareholders, directors, key officers, key personnel, associates, parent company, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers for any part of the Contract, are not temporarily suspended, debarred, declared ineligible, or subject to any national and/or international sanctions by any country, any international organization, any multilateral development bank and other donor agency.

If so temporarily suspended, debarred, declared ineligible, or subject to any national and/or international sanctions by any country, any international organization, any multilateral development bank and other donor agency, please state details (as applicable to each Joint Venture partner, their respective direct or indirect shareholders, directors, key officers, key personnel, associate, parent company, affiliate, subsidiaries, Subcontractors, consultants, subconsultants, manufacturers, service providers and/or Suppliers):

(i) Name of Institution: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(ii) Period of the temporary suspension, debarment, ineligibility, or national or international sanction [*start and end date*]: \_\_\_\_\_\_\_\_\_\_\_\_

(iii) Reason for the temporary suspension, debarment, ineligibility, or national or international sanction: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Our firm, Joint Venture partners, associates, parent company affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers Suppliers, key officers directors and key personnel have never been *charged or convicted* with any criminal offense (including felonies but excluding misdemeanors) or infractions and/or violations of ordinance; nor charged or found liable in any civil or administrative proceedings in the last 10 years; or undergoing investigation for such, or subject to any criminal, civil or administrative orders, monitorship or enforcement actions.

If so charged, convicted/found liable, under ongoing investigation, or subject to orders, monitorship or enforcement actions, please state details:

(i) Nature of the offense/violation, proceedings, investigation, and/or monitorship or enforcement actions: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(ii) Court, area of jurisdiction and/or the enforcement agency: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(iii) Resolution [*i.e. dismissed, settled, or convicted; duration of penalty*]: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(iv) Other relevant details [*please specify*]: \_\_\_\_\_\_\_\_\_\_\_\_

1. Our firm, Joint Venture partners, our respective direct and indirect shareholders, directors, key officers, key personnel, associates, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers, can make and receive electronic fund transfer payments through the international banking system or otherwise discharge the Employer’s obligation upon initiation of wire transfer.

If unable to make or receive funds through the international banking system or otherwise discharge the Employer’s obligation upon initiation of wire transfer, please state the details:

1. Nature of the restriction: \_\_\_\_\_\_\_\_\_\_\_\_\_
2. Jurisdiction of the restriction: \_\_\_\_\_\_\_\_\_\_
3. Other relevant details: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Our firm, Joint Venture partners, associates, parent company, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers, key officers, directors and key personnel are not from a country which is prohibited to export goods or services to, or receive any payments from the Employer’s country and/or are not prohibited to receive payments for particular goods or services by the Employer’s country by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations.
5. We have paid, or will pay the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract.**[[2]](#footnote-3)**

|  |  |  |  |
| --- | --- | --- | --- |
| Name of Recipient | Address | Reason | Amount |
|  |  |  |  |
|  |  |  | . |

1. We understand that it is our obligation to notify the Employer of any changes in connection with the matters described in paragraphs (f), (h), (i), (j), (k), (l), (m) and (n) of this Letter of Technical Bid.
2. [We are not a government-owned enterprise] / [We are a government-owned enterprise but meet the requirements of ITB 4.5].**[[3]](#footnote-4)**
3. We have not been suspended nor declared ineligible by the Employer based on execution of a Bid-Securing Declaration in accordance with ITB 4.6.
4. At any time following submission of our Bid, we shall permit, and shall cause our Joint Venture partners, directors, key officers, key personnel, associates, parent company, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers for any part of the contract to permit ADB or its representative to inspect our sites, assets, accounts and records and other documents relating to the bid submission and to have them audited by auditors appointed by ADB. We understand that failure of this obligation may constitute obstructive practice that may result in debarment and/or contract termination.
5. Regardless of whether the contract will be awarded to us, we shall preserve all accounts, records and other documents related to bid submission for at least 3 years from the date of submission of the bid or the period prescribed in applicable law, whichever is longer.
6. If we are awarded the contract, we shall preserve all accounts, records and other documents related to the procurement and execution of the contract for at least 5 years after completing the works contemplated in the relevant contracts or the period prescribed in applicable law, whichever is longer.
7. If our Bid is accepted, we commit to mobilizing key equipment and personnel in accordance with the requirements set forth in Section 6 (Employer’s Requirements) and our technical proposal, or as otherwise agreed with the Employer.
8. We certify on behalf of the Bidder, that the information provided in the bid has been fully reviewed, given in good faith, and to the best of our knowledge is true and complete. We understand that it is our obligation to inform the Employer of any changes to the information as and when it becomes known to us. We understand that any misrepresentation that knowingly or recklessly misleads, or attempts to mislead may lead to the automatic rejection of the Bid or cancellation of the contract, if awarded, and may result in remedial actions, in accordance with ADB’s Anticorruption Policy (1998, as amended to date) and Integrity Principles and Guidelines (2015, as amended from time to time).

Name

In the capacity of

Signed

Duly authorized to sign the Bid for and on behalf of

Date

Country of Origin Declaration Form

Name of Bidder \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ IFB Number \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Page \_\_\_ of \_\_\_

|  |  |  |
| --- | --- | --- |
| Item | Description | Country of Origin |
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Letter of Price Bid

-- Note –

*The Bidder must accomplish the Letter of Price Bid on its letterhead clearly showing the Bidder’s complete name and address.*

Date:

OCB No.:

Invitation for Bid No.:

To: MINISTRY OF FINANCE

We, the undersigned, declare that:

1. We have examined and have no reservations to the Bidding Document, including Addenda issued in accordance with Instructions to Bidders (ITB) 8.
2. We acknowledge that we have read and understand ADB’s Anticorruption Policy (1998) and Integrity Principles and Guidelines (2015), both as amended from time to time.
3. We offer to design, manufacture, test, deliver, install, pre-commission, and commission in conformity with the Bidding Document the following Plant and Services: [insert narrative]
4. The total price of our Bid, excluding any discounts offered in item (d) below is the sum of

[*amount of foreign currency in words*], [*amount in figures*], and [*amount of local currency in words*], [*amount in figures*]

*The total bid price from the Grand Summary (Schedule No. 5) should be entered by the Bidder inside this box. Absence of the total bid price in the Letter of Price Bid may result in the rejection of the bid.*

1. The discounts offered and the methodology for their application are as follows: [insert discounts and methodology for their application if any]
2. Our Bid shall be valid for a period of [insert bid validity period as specified in ITB 20.1 of the BDS] days starts from the date fixed for the submission deadline in accordance with ITB 24.1, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
3. If our Bid is accepted, we commit to obtain a performance security in accordance with the Bidding Document.
4. We understand that this bid, together with your written acceptance thereof included in your notification of award through the issuance of Letter of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed.
5. We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.
6. At any time following submission of our Bid, we shall permit, and shall cause our Joint Venture partners, directors, key officers, key personnel, associates, parent company, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers for any part of the contract to permit ADB or its representative to inspect our sites, assets, accounts and records and other documents relating to the bid submission and to have them audited by auditors appointed by ADB. We understand that failure of this obligation may constitute obstructive practice that may result in debarment and/or contract termination.
7. Regardless of whether the contract will be awarded to us, we shall preserve all accounts, records and other documents related to bid submission for at least 3 years from the date of submission of the bid or the period prescribed in applicable law, whichever is longer.
8. If we are awarded the contract, we shall preserve all accounts, records and other documents related to the procurement and execution of the contract for at least 5 years after the completing the works contemplated in the relevant contracts or the period prescribed in applicable law, whichever is longer.
9. We confirm and stand by our commitments and other declarations made in connection with the submission of our Letter of Technical Bid.
10. We certify on behalf of the Bidder, that the information provided in the bid has been fully reviewed, given in good faith, and to the best of our knowledge is true and complete. We understand that it is our obligation to inform the Employer of any changes to the information as and when it becomes known to us. We understand that any misrepresentation that knowingly or recklessly misleads, or attempts to mislead may lead to the automatic rejection of the Bid or cancellation of the contract, if awarded; and may result in remedial actions, in accordance with ADB’s Anticorruption Policy (1998, as amended to date) and Integrity Principles and Guidelines (2015, as amended from time to time).

Name

In the capacity of

Signed

Duly authorized to sign the Bid for and on behalf of

Date

Price Schedules

**PREAMBLE**

**General**

1. The Price Schedules are divided into separate Schedules as follows:

Schedule No. 1: Pre-development Studies

Schedule No. 2: Plant and Mandatory Spare Parts Supplied from Abroad

Schedule No. 3: Plant and Mandatory Spare Parts Supplied from within the Employer’s Country

Schedule No. 4: Design Services

Schedule No. 5: Installation and Other Services

Schedule No. 6: Grand Summary

Schedule No. 7: Recommended Spare Parts

2. The Schedules do not generally give a full description of the plant to be supplied and the services to be performed under each item. Bidders shall be deemed to have read the Employer’s Requirements and other sections of the Bidding Document and reviewed the Drawings to ascertain the full scope of the requirements included in each item prior to filling in the rates and prices. The entered rates and prices shall be deemed to cover the full scope as aforesaid, including overheads and profit.

3. If Bidders are unclear or uncertain as to the scope of any item, they shall seek clarification in accordance with ITB 7 prior to submitting their bid.

**Pricing**

4. The units and rates in figures entered into the Price Schedules should be typewritten or if written by hand, must be in print form. Price Schedules not presented accordingly may be considered nonresponsive. Any alterations necessary due to errors, etc., shall be initialed by the Bidder.

As specified in the Bid Data Sheet and Special Conditions of Contract, prices shall be fixed and firm for the duration of the Contract, or prices shall be subject to adjustment in accordance with the corresponding Appendix (Price Adjustment) to the Contract Agreement.

5. Bid prices shall be quoted in the manner indicated and in the currencies specified in the Instructions to Bidders in the Bidding Document.

For each item, Bidders shall complete each appropriate column in the respective Schedules, giving the price breakdown as indicated in the Schedules.

Prices given in the Schedules against each item shall be for the scope covered by that item as detailed in Section 6 (Employer’s Requirements) or elsewhere in the Bidding Document.

6. Payments will be made to the Contractor in the currency or currencies indicated under each respective item.

7. When requested by the Employer for the purposes of making payments or part payments, valuing variations or evaluating claims, or for such other purposes as the Employer may reasonably require, the Contractor shall provide the Employer with a breakdown of any composite or lump sum items included in the Schedules.

**Schedules of Rates and Prices**

Schedule No. 1: Pre-development Studies

| **Item** | **Description** | **Country of Origin** | **Quantity** | **Unit Price*a*** | | | | **Total Price*a*** | | **Taxes and Duties** | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Foreign Currency** | | **CIP** | | **Foreign Currency** | | **Local Currency** | |
| **1** | **2** | **3** | **4** | **5** | | **6** | | **7 = 4 x 6** | | **8** | |
|  | **Pre-development Studies** |  |  |  | |  | |  | |  | |
|  | Feasibility study |  | 1 lot |  | |  | |  | |  | |
|  | Environmental impact assessment |  | 1 lot |  | |  | |  | |  | |
|  | Resource assessment |  | 1 lot |  | |  | |  | |  | |
|  | Techno-economic assessment |  | 1 lot |  | |  | |  | |  | |
| **TOTAL A.** | | | |  | |  | |  | |  | |
|  |  |  |  |  | |  | |  | |  | |
| **TOTAL Column 7 to be carried forward to Schedule No. 6: Grand Summary** | | | | | | | |  | |  | |
| Name of Bidder | | | | |  | |  | |  | |
|  | | | | |  | |  | |  | |
| Signature of Bidder | | | | |  | |  | |  | |

*a* *Specify currencies in accordance with ITB 19.1 of the BDS. Create additional columns for foreign currencies if so required.*

Schedule No. 2: Plant and Mandatory Spare Parts Supplied from Abroad

| **Item** | **Description** | **Country of Origin** | **Quantity** | **Unit Price*a*** | | | | **Total Price*a*** | | **Taxes and Duties** | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Foreign Currency** | | **DDP** | | **Foreign Currency** | | **Local Currency** | |
| **1** | **2** | **3** | **4** | **5** | | **6** | | **7 = 4 x 6** | | **8** | |
|  | **Hybrid power plant**  **(meeting EMP requirements)** |  |  |  | |  | |  | |  | |
|  | Wind turbine generator |  | 1 lot |  | |  | |  | |  | |
|  | Wind turbine towers and foundations |  | 1 lot |  | |  | |  | |  | |
|  | Wind turbine controllers |  | 1 lot |  | |  | |  | |  | |
|  | Shadow flicker modules  (if required for design to meet criteria) |  | 1 lot |  | |  | |  | |  | |
|  | Wind turbine inverters |  | 1 lot |  | |  | |  | |  | |
|  | Inverter mounting systems (outdoor wall mounted), canopy for protection fence, and entry door |  | 1 lot |  | |  | |  | |  | |
|  | Wind Turbine plants – other required equipment (cabling, protection, wall mounting systems for inverters, etc.) |  | 1 lot |  | |  | |  | |  | |
|  | Li-ion battery storage system including housing for BESS and auxiliary equipment |  | ≥100 kWh if nominal discharge rate 1C |  | |  | |  | |  | |
|  | Battery inverter |  | ≥100 kWh |  | |  | |  | |  | |
|  | Hybrid plant control systems, work stations, and related accessories |  | 1 lot |  | |  | |  | |  | |
|  | Meteorological station |  | 1 lot |  | |  | |  | |  | |
|  | Power House |  | 1 lot |  | |  | |  | |  | |
| **TOTAL A.** | | | |  | |  | |  | |  | |
|  | **Hybrid power plant mandatory spare parts for wind turbine and batteries** |  |  |  | |  | |  | |  | |
|  | Wind turbine inverters |  | ≥5%, minimum 1 inverter of each type |  | |  | |  | |  | |
|  | Cable connectors |  | 0.5% |  | |  | |  | |  | |
|  | DC string fuses |  | 0.5% |  | |  | |  | |  | |
|  | Spare parts for battery storage system |  | According to supplier |  | |  | |  | |  | |
|  | Battery inverter |  | ≥5%, minimum 1 inverter of each type |  | |  | |  | |  | |
|  | Other key electrical components: cables, consumables, auxiliary, transformer, MV terminations & connectors, protection, breakers, etc. |  | To be defined by Bidder |  | |  | |  | |  | |
| **TOTAL B.** | | | |  | |  | |  | |  | |
|  | **Grid Integration**  **(meeting EMP requirements)** |  |  |  | |  | |  | |  | |
|  | Integration of wind turbine and battery energy storage system to the existing power plant. |  |  |  | |  | |  | |  | |
| **TOTAL C.** | | | |  | |  | |  | |  | |
|  |  |  |  |  | |  | |  | |  | |
| **TOTAL Column 7 to be carried forward to Schedule No. 6: Grand Summary** | | | | | | | |  | |  | |
| Name of Bidder | | | | |  | |  | |  | |
|  | | | | |  | |  | |  | |
| Signature of Bidder | | | | |  | |  | |  | |

*a* *Specify currencies in accordance with ITB 19.1 of the BDS. Create additional columns for foreign currencies if so required.*

Schedule No. 3: Plant and Mandatory Spare Parts Supplied from Within the Employer’s Country

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Item** | **Description** | **Quantity** | **Unit Price*a*** | | **Total EXW Price*a*** | **Sales and other Taxes** |
| **Local Currency** | **EXW Price*b*** |
| **1** | **2** | **3** | **4** | **5** | **6 = 3 x 5** | **7** |
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| **TOTAL Column 6 to be carried forward to Schedule No. 6: Grand Summary** | | | | |  |  |
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|  | | | |  |  |  |
|  | | | |  |  |  |
| Name of Bidder | | | |  |  |  |
|  | | | |  |  |  |
| Signature of Bidder | | | |  |  |  |
|  | | | |  |  |  |

*a* *Specify currency in accordance with ITB 19.1 of the BDS.*

*b* *Column 5 EXW Price shall include all customs duties and sales and other taxes already paid or payable on the components and raw materials used in the manufacture or assembly of the item or the customs duties and sales and other taxes already paid on previously imported items.*

Schedule No. 4: Design Services

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Item** | **Description** | **Quantity** | **Unit Price*a*** | | **Total Price*a*** | |
| **Local Currency Portion** | **Foreign Currency Portion** | **Local Currency Portion** | **Foreign Currency Portion** |
| **1** | **2** | **3** | **4** | **5** | **6 = 3 x 4** | **7 = 3 x 5** |
| **1.** | Front-end engineering design of the complete hybrid power plants systems and upgrade of the existing facilities according to Employer’s specification requirements and meeting EMP. | lump sum |  |  |  |  |
| **2.** | Detailed engineering design of the complete hybrid power plants systems and upgrade of the existing facilities according to Employer’s specification requirements and meeting EMP | lump sum |  |  |  |  |
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| **TOTAL Columns 6 and 7 to be carried forward to Schedule No. 6: Grand Summary** | | | | |  |  |
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|  | | | |  |  |  |
| Name of Bidder | | | |  |  |  |
|  | | | |  |  |  |
| Signature of Bidder | | | |  |  |  |

*a* *Specify currency in accordance with ITB 19.1 of the BDS.*

Schedule No. 5 - Installation and Other Services

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Item** | **Description** | **Quantity** | **Unit Price*a*** | | | **Total Price*a*** | | | |
| **Local Currency Portion** | **Foreign Currency Portion** | | **Local Currency Portion** | | **Foreign Currency Portion** | |
| **1** | **2** | **3** | **4** | **5** | | **6 = 3 x 4** | | **7 = 3 x 5** | |
|  | **Installation (all meeting EMP requirements)** |  |  |  | |  | |  | |
|  | All types of technical and environmental survey, soil tests, excavation, site filling and development (as per international standard and formation level fixation prior site visit performed by EPC contractor), other necessary tests as per Employer’s requirements described in Bidding Document | 1 lot |  |  | |  | |  | |
|  | Installation of all wind Turbine power plants | 1 lot |  |  | |  | |  | |
|  | Installation of all Battery storage system | 1 lot |  |  | |  | |  | |
|  | Commissioning of the whole hybrid systems | 1 lot |  |  | |  | |  | |
|  | Installation and commissioning of hybrid power system and its equipment (LV distribution Board, Main LV distribution board in Power house/s, Power Cables) and associated works | 1 lot |  |  | |  | |  | |
|  | All necessary civil works including wind turbine foundations, Distribution box foundation, modification of concrete cable trenches in the powerhouse. | 1 lot |  |  | |  | |  | |
|  | **Other services** |  |  |  | |  | |  | |
|  | O&M support services for the period of 1 year  (meeting EMP requirements) | 1 lot |  |  | |  | |  | |
|  | Overseas training program | 1 lot |  |  | |  | |  | |
|  | Overseas travel expenses | 1 lot |  |  | |  | |  | |
|  | Overseas training pocket expenses | 1 lot |  |  | |  | |  | |
|  | Training at the site (including EMP requirements) | 1 lot |  |  | |  | |  | |
|  | STI. STD and HIV/AIDS alleviation program*b* | 1 lot |  |  | |  | |  | |
| **TOTAL Columns 6 and 7 to be carried forward to Schedule No. 6: Grand Summary** | | | | | |  | |  | |
| Name of Bidder | | | | |  | |  | |  | |
| Signature of Bidder | | | | |  | |  | |  | |

*a* *Specify currency in accordance with ITB 19.1 of the BDS.*

*b* *As described in SCC 22.2.7.*

Schedule No. 6: Grand Summary

|  |  |  |  |
| --- | --- | --- | --- |
| **Schedule No.** | **Title** | **Total Price *a*** | |
| **Foreign** | **Local** |
| **1** | **Pre-development Studies** |  |  |
| **2** | **Plant and Mandatory Spare Parts Supplied from Abroad *b*** |  |  |
| **3** | **Plant and Mandatory Spare Parts Supplied from Within the Employer’s Country *b*** |  |  |
| **4** | **Design Services** |  |  |
| **5** | **Installation and Other Services** |  |  |
| **Grand Total to be carried forward to Letter of Price Bid** | |  |  |
|  | |  |  |
|  | |  |  |
|  | |  |  |
| Name of Bidder | |  |  |
|  | |  |  |
| Signature of Bidder | |  |  |

*a* *Specify currency in accordance with ITB 19.1 of the BDS. Create additional columns for foreign currencies if so required.*

*b Taxes and/or duties from Schedules 1 and 2 may be added to the contract price in accordance with GCC 14 (Taxes and Duties) but excluded from bid evaluation in accordance with ITB 39.2.*

Schedule No. 7: Recommended Spare Parts

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Item** | **Description** | **Quantity** | **Unit Price*a*** | | **Total Price*a*** | |
| **EXW**  **Local Parts**  **Local Currency** | **CIP**  **Imported Parts**  **Foreign Currency** | **Local Currency Portion** | **Foreign Currency Portion** |
| **1** | **2** | **3** | **4** | **5** | **6 = 3 x 4** | **7 = 3 x 5** |
| **1** | Spare parts & consumables for the first 2 years of operation | **1 lot** |  |  |  |  |
|  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |
| **TOTAL** | | | | |  |  |
|  | | | |  |  |  |
|  | | | |  |  |  |
|  | | | |  |  |  |
| Name of Bidder | | | |  |  |  |
|  | | | |  |  |  |
| Signature of Bidder | | | |  |  |  |

*a* *Specify currency in accordance with ITB 19.1 of the BDS.*

Tables of Adjustment Data

Not Applicable.

Bid Security

##### Bank Guarantee

[*Bank’s name, and address of issuing branch or office*]**[[4]](#footnote-5)**

**Beneficiary:** MINISTRY OF FINANCE

**Date:**

**Bid Security No.:**

We have been informed that [*name of the Bidder*] (hereinafter called "the Bidder") has submitted to you its bid dated [*insert date*] (hereinafter called "the Bid") for the execution of [*name of contract*] under Invitation for Bids No. [*insert IFB number*] (“the IFB”).

Furthermore, we understand that, according to your conditions, bids must be supported by a bid guarantee.

At the request of the Bidder, we [*name of Bank*]hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of [*amount in words*] [*amount in figures*]upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation(s) under the bid conditions, because the Bidder:

1. has withdrawn its Bid during the period of bid validity specified by the Bidder in the Letters of Technical and Price Bid; or
2. does not accept the correction of errors in accordance with the Instructions to Bidders (hereinafter “the ITB”); or
3. having been notified of the acceptance of its Bid by the Employer during the period of bid validity, (i) fails or refuses to execute the Contract Agreement, or (ii) fails or refuses to furnish the Performance Security, in accordance with the ITB.

This guarantee will expire (a) if the Bidder is the successful Bidder, upon our receipt of copies of the Contract Agreement signed by the Bidder and the Performance Security issued to you upon the instruction of the Bidder; or (b) if the Bidder is not the successful Bidder, upon the earlier of (i) our receipt of a copy of your notification to the Bidder of the name of the successful Bidder, or (ii) 28 days after the expiration of the Bidder’s bid.

Consequently, any demand for payment under this guarantee must be received by us at the office indicated above on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No.758.**[[5]](#footnote-6)**

[*Authorized signature(s) and bank’s seal (where appropriate)*]

Bid-Securing Declaration

Not Applicable.

Technical Proposal

**Site Organization**

**Method Statement**

**Mobilization Schedule**

**Construction Schedule**

**Environmental, Health and Safety Management Plan**

**Environmental, Health and Safety Code of Conduct**

**Plant**

**Personnel**

**Equipment**

**Proposed Subcontractors for Major Items of Plant and Services**

**Manufacturer’s Authorization**

**Affiliate Company Guarantee**

**Time Schedule**

**Functional Guarantee of the Proposed Facilities**

**Data Sheets**

Site Organization

The Bidder shall present a detailed organization chart and list of key personnel showing the intended project organization in the Contractor’s head office and at site, including involvement of subcontractors.

Outlines of the organization for the execution of the following activities:

* Quality Management
* Environmental Impact Assessment
* Health and Safety
* Environmental Management

Method Statement

The Bidder shall submit a program of work giving a general description of the methods which the Contractor intends to adopt for the execution of each major stage of the Works such as e.g. for the design, procurement, manufacturing, shipping time incl. custom clearance, inland transport, civil works, mechanical works, commissioning, trial run, training, and final completion.

Technical Approach and Methodology: Explain your understanding of the objectives of the assignment, approach to services, methodology for carrying out the activities and obtaining the expected output, and the degree of detail of such output. Highlight the problems being addressed and their importance, and explain your technical approach addressing them. Also explain the methodologies you propose to adopt and highlight the compatibility of those methodologies with the proposed approach.

The program must detail the project step by step including milestones, describing how the contractor intends to perform the Works and site supervision showing the function of their key personnel and the involvement of the subcontractors, if any, also reflecting the anticipated timing of the Contractor’s time schedule. The Bidder shall clearly show all major and important activities and number of staff involved e.g. number of teams/ personnel for foundation works and equipment intended to be deployed.

In particular, the method statements shall address, but not limited to:

1. Design and preparation of the environmental impact assessment.
2. Site investigation, technical and environmental survey of the Site and preparation of the land, including ground clearing, drainage, transportation of materials, etc.
3. Transportation and delivery of key items of plant to the Site.
4. Compliance with requirements of the Initial Environmental Examination and Environmental Management Plan.

Mobilization Schedule

The Mobilization Schedule should reflect the no-objection request and approval step for Site Specific Environmental, Health and Safety Management Plan as per Contract Conditions and EMP requirements.

The Bidder must show realistic, adequately detailed mobilization of staff, resources, equipment and materials to site, identify all significant activities, take due account of rainy season, environmental health and safety constraints and reflect timescales for preparation and approval of the Construction Site Specific Environmental, Health and Safety Management Plan.

Construction Schedule

|  |
| --- |
| *Bidders shall describe the methods they will use to carry out the Contract Works on time and to the standards specified and must also submit a program for the Works. Bidders must also describe the means and methods by which the desired results will be achieved in a practicable and efficient manner with the aim to meet the standards specified in the Contract and in Section 6 of the Bid Documents. (5 pages maximum).* |

The Contractor shall provide a construction schedule where he proposes the main assignment activities, their content and duration, phasing and interrelations, milestones (including interim ADB approvals), and delivery dates for the reports. The proposed work plan should be consistent with the technical approach and methodology, showing understanding of the TOR and ability to translate them into a feasible working plan.

It should include a list of the final documents, including reports, drawings, and tables to be delivered as final output.

The construction schedule shall be consistent with mobilization schedule and the EMP requirements.

The Contractor shall among other show how the realization of the work on the island will be realized, which phases will be done in parallel, etc.

Environmental, Health and Safety Management Plan (EHSMP)

The Bidder shall submit an outline Environmental, Health and Safety Management Plan (EHSMP) commensurate with the risks and impacts of the proposed works and activities - Construction Site-Specific Environmental, Health and Safety Management Plan and Standard Operating Procedure (SOP) for environment, health and safety during operation. These strategies and plans shall describe in detail the actions, materials, equipment, management processes, etc. that will be implemented by the Contractor, and its subcontractors. It will indicate the anticipated locations of the Bidder’s temporary facilities in line with the EMP requirements.

In developing these strategies and plans, the Bidder shall have regard to the EHS provisions of the contract and EHS risks including those as may be more fully described in Section 6 (Employer’s Requirements) as well as the Environmental Management Plan (EMP) attached to the bidding document and also available at <https://www.adb.org/projects/documents/mld-55191-001-iee>.

Environmental, Health and Safety Code of Conduct

**Environmental, Health and Safety Code of Conduct**

**for Contractor’s Personnel Form**

***Note to Bidder***

***The minimum content of the EHS Code of Conduct form as set out by the Employer shall not be substantially modified.***

*However, the Bidder may add requirements as appropriate, including to take into account Contract-specific issues/risks.*

*The Bidder shall initial and submit the EHS Code of Conduct form as part of its bid.*

**ENVIRONMENTAL, HEALTH AND SAFETY CODE OF CONDUCT**

**FOR CONTRACTOR’S PERSONNEL**

We are the Contractor, [enter name of Contractor]. We have signed a contract with [enter name of Employer] for [enter description of the Works]. These Works will be carried out at [enter the Site and other locations where the Works will be carried out]. Our contract requires us to implement measures to address environmental, health and safety risks related to the Works.

This EHS Code of Conduct is part of our measures to deal with environmental, health and safety risks related to the Works. It applies to all our staff, labourers and other employees at the Works Site or other places where the Works are being carried out. It also applies to the personnel of each subcontractor and any other personnel assisting us in the execution of the Works. All such persons are referred to as “Contractor’s Personnel” and are subject to this EHS Code of Conduct.

This EHS Code of Conduct identifies the behavior that we require from all Contractor’s Personnel.

Our workplace is an environment where unsafe, offensive, abusive or violent behavior will not be tolerated and where all persons should feel comfortable raising issues or concerns without fear of retaliation.

**REQUIRED CONDUCT**

Contractor’s Personnel shall:

1. carry out his/her duties competently and diligently;
2. comply with this EHS Code of Conduct and all applicable laws, regulations and other requirements, including requirements to protect the health, safety and well-being of other Contractor’s Personnel and any other person;
3. maintain a safe working environment including by:
   1. ensuring that workplaces, machinery, equipment and processes under each person’s control are safe and without risk to health;
   2. wearing required personal protective equipment;
   3. using appropriate measures relating to chemical, physical and biological substances and agents; and
   4. following applicable emergency operating procedures.
4. report work situations that he/she believes are not safe or healthy and remove himself/herself from a work situation which he/she reasonably believes presents an imminent and serious danger to his/her life or health;
5. treat other people with respect, and not discriminate against specific groups such as women, people with disabilities, migrant workers or children;
6. report violations of this EHS Code of Conduct; and
7. not retaliate against any person who reports violations of this EHS Code of Conduct, whether to us or the Employer, or who makes use of the grievance mechanism for Contractor’s Personnel or the project’s Grievance Redress Mechanism.

**RAISING CONCERNS**

If any person observes behavior that he/she believes may represent a violation of this EHS Code of Conduct, or that otherwise concerns him/her, he/she should raise the issue promptly. This can be done by call [ ] to reach the Contractor’s hotline (if any) and leave a message.

The person’s identity will be kept confidential, unless reporting of allegations is mandated by the country law. Anonymous complaints or allegations may also be submitted and will be given all due and appropriate consideration. We take seriously all reports of possible misconduct and will investigate and take appropriate action. We will provide warm referrals to service providers that may help support the person who experienced the alleged incident, as appropriate.

**CONSEQUENCES OF VIOLATING THE ENVIRONMENTAL, HEALTH AND SAFETY**

**CODE OF CONDUCT**

Any violation of this EHS Code of Conduct by Contractor’s Personnel may result in serious consequences, up to and including termination and possible referral to legal authorities.

**FOR CONTRACTOR’S PERSONNEL:**

I have received a copy of this EHS Code of Conduct written in a language that I comprehend. I understand that if I have any questions about this EHS Code of Conduct, I can contact [enter name of Contractor’s contact person(s) with relevant experience)] requesting an explanation.

Name of Contractor’s Personnel: [insert name]

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: (day month year): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Countersignature of authorized representative of the Contractor:

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: (day month year): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Plant**

Personnel

Form PER – 1: Proposed Personnel

Bidders should provide the details of proposed personnel and their experience record in the relevant Information Forms below for each of the candidate.

|  |  |
| --- | --- |
| 1. | **Title of position** |
|  | **Name** |
| **2.** | **Title of position** |
|  | **Name** |
| **3.** | **Title of position** |
|  | **Name** |
| **4.** | **Title of position** |
|  | **Name** |
|  |  |
|  |
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|  |
|  |
| **etc.** | **Title of position** |
| **Name** |

***-- Note --***

*All titles of positions will be as listed in Section 6 (Employer’s Requirements).*

Form PER – 2: Resume of Proposed Personnel

The Bidder shall provide all the information requested below. Use one form for each position.

|  |  |  |
| --- | --- | --- |
| **Position** | | |
| **Personnel information** | **Full Legal Name** | **Date of Birth** |
|  | **Known as** | **Place of Birth** |
|  | **Nationality** | **Citizenship** |
|  | **Type of government ID**  **Attach a copy of ID to this form** | **ID number** |
|  | **Professional qualifications** | |
| **Present employment** | **Name of employer** | |
|  | **Address of employer** | |
|  | **Telephone** | **Contact (manager/personnel officer)** |
|  | **Fax** | **E-mail** |
|  | **Job title** | **Years with present employer** |

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

|  |  |  |
| --- | --- | --- |
| From | To | Company/Project/Position/Relevant Technical and Management Experience |
|  |  |  |
|  |  |  |
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Equipment

**Form EQU: Equipment**

The Bidder shall provide adequate information and details to demonstrate clearly that it has the capability to meet the equipment requirements indicated in Section 6 (Employer’s Requirements), using the Forms below. A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Bidder.

|  |  |  |
| --- | --- | --- |
| **Item of Equipment** | | |
| **Equipment Information** | **Name of manufacturer** | **Model and power rating** |
|  | **Capacity** | **Year of manufacture** |
| **Current Status** | **Current location** | |
|  | **Details of current commitments** | |
|  |  | |
| **Source** | **Indicate source of the equipment**  **o Owned o Rented o Leased o Specially manufactured** | |

Omit the following information for equipment owned by the Bidder.

|  |  |  |
| --- | --- | --- |
| **Owner** | **Name of owner** | |
|  | **Address of owner** | |
|  |  | |
|  | **Telephone** | **Contact name and title** |
|  | **Fax** | **Telex** |
| **Agreements** | **Details of rental/lease/manufacture agreements specific to the project** | |
|  |  | |
|  |  | |

Proposed Subcontractors and/or Manufacturers for Major Items of Plant and Services

The following Subcontractors and/or Manufacturers are proposed for carrying out the item of the facilities indicated based on Criterion 2.5 of Section 3 (Evaluation and Qualification Criteria). Bidders are free to propose more than one for each item.

|  |  |  |
| --- | --- | --- |
| **Major Items of Plant and Services** | **Proposed Subcontractors or Manufacturers** | **Nationality** |
|  |  |  |
|  |  |  |
|  |  |  |

Manufacturer's Authorization

Date: *[insert date (as day, month and year) of bid submission]*

OCB No.: *[insert number of bidding process]*

To: *[insert complete name of the Employer]*

WHEREAS

We *[insert complete name of the manufacturer or manufacturer’s authorized agent]*, who are official manufacturers or agent authorized by the Manufacturer of *[insert type of goods manufactured]*, having factories at *[insert full address of manufacturer’s factories]*, do hereby authorize *[insert complete name of the Bidder]* to submit a bid the purpose of which is to provide the following goods, manufactured by us *[insert name and/or brief description of the goods]*, and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 27 of the General Conditions of Contract, with respect to the goods offered by the above firm.

Signed: *[insert signature(s) of authorized representative(s) of the manufacturer]*

Name: *[insert complete name(s) of authorized representative(s) of the manufacturer]*

Title: *[insert title]*

Duly authorized to sign this Authorization on behalf of *[insert complete name of the manufacturer]*

Dated on \_\_\_\_\_\_\_\_\_\_\_\_ day of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_ *[insert date of signing]*

-- Note --

*The bidder shall require the manufacturer to fill out this form in accordance with the instructions indicated. This letter of authorization should be signed by a person with the proper authority to sign documents that are binding on the manufacturer. The bidder shall include it in its bid, if so indicated in the BDS.*

Affiliate Company Guarantee

Not Applicable.

Time Schedule

Not Applicable.

Functional Guarantee of the Proposed Facilities

**Form FUNC**

The Bidder shall copy on the left column of the table below, the identification of each functional guarantee required in the Specification and stated by the Employer in EQC 1.3.4 of Section 3, Evaluation and Qualification Criteria, and on the right column, provide the corresponding value for each functional guarantee of the proposed plant and equipment.

|  |  |
| --- | --- |
| **Functional Guarantee** *[as required by the Employer in Section 3]* | **Functional Guarantee Value Offered by the Bidder** |
| 1. |  |
| 2. |  |
| 3. |  |
| … |  |

Operation & Maintenance Schedule

Data sheets

Form Overview of System Main Components

To be filled by the Bidder to provide an overview of its bid. Add 1 line for each type offered.

|  | | **To be filled by Bidder** | | | |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Description** | **Manufacturer/Type** | **Quantity** | **Unit** | **Note** |
|  | Wind turbine generator |  |  |  |  |
|  | Wind turbine inverter |  |  |  |  |
|  | Wind turbine tower |  |  |  |  |
|  | Shadow flicker module |  |  |  |  |
|  | Battery |  |  |  |  |
|  | Battery inverter |  |  |  |  |
|  | Wind turbine foundation |  |  |  |  |
|  | PCMS – Plant Control and Monitoring System |  |  |  |  |
|  | AC & DC power cables |  |  |  |  |
|  | LVDB – Low Voltage Distribution Board |  |  |  |  |
|  | DB – Distribution Board |  |  |  |  |
|  | Power House |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Form Data Sheet Wind Turbine

To be filled by the Bidder.

|  |  |  |  | **To be filled by Bidder** | |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Description** | **Unit** | **Requirements** | **Data** | **Note** |
| **1** | **General data** |  |  |  |  |
| 1.1 | Manufacturer |  | 5 years’ experience |  |  |
| 1.2 | Type |  | horizontal axis |  |  |
| 1.3 | Generator technology |  | permanent magnet |  |  |
| 1.4 | Drive type |  | no gearbox |  |  |
| 1.5 | Control system |  | electronic, MPPT |  |  |
| 1.6 | Environmental conditions description |  | local conditions must be respected |  |  |
| 1.7 | Special conditions |  | Salt Air, high humidity |  |  |
| 1.8 | Min/Max operation temperature | °C | 0°C / +80°C |  |  |
| 1.9 | On which page/chapter of the bid can the manufacturer datasheet be found ? |  |  |  |  |
| **2** | **Electrical data** |  |  |  |  |
| 2.1 | Maximum DC system voltage | V | 600 V |  |  |
| 2.2 | Nominal power of each turbine | kW | 25 kW[[6]](#footnote-7) |  |  |
| 2.3 | Total number of towers installed | No. | minimum of 2 |  |  |
| 2.4 | Total installed capacity | kW | >=100kW |  |  |
| **3** | **Mechanical Data** |  |  |  |  |
| 3.1 | Height | m | around 18m, galvanised monopole |  |  |
| 3.2 | Diameter | m | around 10 m |  |  |
| 3.3 | Weight | kg |  |  |  |
| 3.4 | Number of blades |  | 3 |  |  |
| 3.5 | Blade material |  | fibreglass |  |  |
| 3.6 | Front cover material (if applicable) |  |  |  |  |
| 3.7 | Back cover material (if applicable) |  |  |  |  |
| 3.8 | Frame material (if applicable) |  |  |  |  |
| 3.9 | Start-up wind speed | m/s | at most 2.5 m/s |  |  |
| 3.10 | Maximum admissible Wind loads | m/s | at least 59.5 m/s |  |  |
| 3.11 | Noise level | LAeq90 | 35dB at 10m/s at 10m height |  |  |
| **4** | **Quality Data** |  |  |  |  |
| 4.1 | Safety class |  | II |  |  |
| 4.2 | Required IEC 61400 certificate |  | yes |  |  |
| 4.3 | Required IEC 60364 certificate |  | yes |  |  |
| 4.5 | Required PID free certificate |  | yes |  |  |
| 4.6 | Product warranty | Years | Minimum 5 years |  |  |
| 4.7 | Power guarantee | %/Year | 80% after 25 years |  |  |
| 4.8 | Recycling guarantee / certification |  | yes |  |  |

Form Data Sheet AC Junction Box

To be filled by the Bidder.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  | **To be filled by Bidder** | |
|  | **Description** | **Unit** | **Requirements** | **Data** | **Note** |
| **1** | **General** |  |  |  |  |
| 1.1 | Manufacturer |  |  |  |  |
| 1.2 | Environmental Conditions |  | local conditions must be respected |  |  |
| 1.3 | Special conditions |  | Salt Air, high humidity |  |  |
| 1.4 | Type of box (DC or AC) |  |  |  |  |
| 1.5 | Operating Temperature Range | °C | +5 to +55°C |  |  |
| 1.6 | Relative Humidity | % | 100 |  |  |
| 1.7 | Product Warranty | Years | 5 |  |  |
| 1.8 | On which page/chapter of the bid can the manufacturer datasheet be found ? |  |  |  |  |
| **2** | **Electrical DC/AC Distribution Box** |  |  |  |  |
| 2.1 | Number of Incomer | No. | According to inverter concept |  |  |
| 2.2 | Maximum system voltage | V | According to inverter concept |  |  |
| 2.3 | Max Current | A | According to inverter concept |  |  |
| 2.4 | Number of Fuses | No. | Subject to number of incomers |  |  |
| 2.5 | Nominal Current Fuse | A | According to inverter concept |  |  |
| **3** | **Mechanical** |  |  |  |  |
| 3.1 | Enclosure Material |  | Fibreglass |  |  |
| 3.2 | Degree of Protection |  | IPW65 or equivalent |  |  |
| 3.3 | Dimension: Width / Height / Depth | mm |  |  |  |
| 3.4 | Weight | kg |  |  |  |
| 3.5 | Enclosure Material |  | Fibreglass |  |  |

Form Data Sheet Wind Turbine Inverter

To be filled by the Bidder.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  | **To be filled by Tenderer** | |
|  | **Description** | **Unit** | **Requirements** | **Data** | **Note** |
| **1** | **General** |  |  |  |  |
| 1.1 | Manufacturer |  |  |  |  |
| 1.2 | Type and product reference |  |  |  |  |
| 1.3 | Inverter description/technology |  | Hybrid |  |  |
| 1.4 | Environmental conditions description |  | local conditions must be respected |  |  |
| 1.5 | Min / Max operating temperature | °C | +5° / ≥ +55° |  |  |
| 1.6 | Location of installation (indoor / outdoor) |  | Indoor |  |  |
| 1.7 | Special conditions |  | Salt Air, high humidity |  |  |
| 1.8 | On which page/chapter of the bid can the manufacturer datasheet be found ? |  |  |  |  |
| **2** | **Electrical** |  |  |  |  |
| 2.1 | Maximum DC voltage | V | 1000 |  |  |
| 2.2 | Nominal MPP voltage range | V | N/A |  |  |
| 2.3 | Maximum DC current | A | 2000 |  |  |
| 2.4 | Number of DC inputs |  | 1 |  |  |
| 2.5 | Protection value of each DC input | A | 250 |  |  |
| 2.6 | Total nominal DC power | kW | 50 |  |  |
| 2.7 | Nominal AC output power | kVA | 62.5 |  |  |
| 2.8 | Maximum AC current | A | 125 |  |  |
| 2.9 | Nominal AC current | A | 90 |  |  |
| 2.10 | Nominal AC voltage | V | 230/400 |  |  |
| 2.11 | AC Isolated grid frequency | Hz | 50 |  |  |
| 2.12 | Power factors |  | Minimum: 0.80 lagging, 0.80 leading |  |  |
| 2.13 | Maximum THD | % | 3 |  |  |
| 2.14 | Minimum allowed Euro ETA | % | 97 |  |  |
| 2.15 | Operation consumption | W | <100W |  |  |
| 2.16 | Standby consumption | W | <100@ |  |  |
| 2.17 | Auxiliary power voltage | V | 12V |  |  |
| 2.18 | Protection class (EN 60529) |  | IP 21 if in closed container, outdoor IP65 |  |  |
| 2.19 | Protection class (EN 60721-3) |  | YES |  |  |
| 2.20 | Height / Width / Depth | mm | Suppliers Specification |  |  |
| 2.21 | Weight | kg |  |  |  |
| 2.22 | Total number of Inverters | No. | 5 |  |  |
| **3** | **Grid Connection Requirements** |  |  |  |  |
| 3.1 | Frequency measurement average | ms | 100 |  |  |
| **4** | **Interfaces** |  |  |  |  |
| 4.1 | Communication protocol |  | Modbus, RS 485 |  |  |

Form Data Sheet Battery

To be filled by the Bidder.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  | **To be filled by Bidder** | |
| **No.** | **Description** | **Unit** | **Requirements** | **Data** | **Note** |
| **1** | **General** |  |  |  |  |
| 1.1 | Manufacturer |  |  |  |  |
| 1.2 | Battery chemistry (active material) |  | LiFePO4 |  |  |
| 1.3 | Battery type (cylindrical, prismatic, etc.) |  | Container ESS |  |  |
| 1.4 | Enclosure Specifications (indoor, outdoor, IP-class) |  | IP65 |  |  |
| 1.5 | Min / Max operating temperature | °C | +5° / +40° |  |  |
| 1.6 | Special conditions |  | Salt Air, high humidity |  |  |
| 1.7 | Max. relative humidity | % | ≥95 |  |  |
| 1.8 | Calendar lifetime | Years | ≥20 |  |  |
| 1.9 | Cycle lifetime (Full cycles till EOL @ 80% with DOD 80%, 1C/1C at 25°C) | Nr. | ≥4000  *Certificate signed by Manufacturer to be provided* |  |  |
| 1.10 | On which page/chapter of the bid can the manufacturer datasheet be found ? |  |  |  |  |
| **2** | **Electrical** |  |  |  |  |
| 2.1 | Usable capacity @ nominal discharge C-Rate of the selected battery | kWh | 500 |  |  |
| 2.2 | Nominal discharge C-rate |  | Allowed range: 0.5 to 2C |  |  |
| 2.3 | Size of smallest unit to be changeable on site | kWh | 50 |  |  |
| 2.4 | Self-discharge | %/time | 0.1 |  |  |
| 2.5 | Cycle efficiency (round trip) | % | ≥95 |  |  |
| 2.6 | Maximum DC voltage | V | <1,000 |  |  |
| 2.7 | Minimum DC Voltage | V | 51.2 |  |  |
| 2.8 | Nominal DC current charge | A | 500 |  |  |
| 2.9 | Nominal DC current discharge | A | 500 |  |  |
| 2.10 | Maximum DC current charge | A | 1000 |  |  |
| 2.11 | Maximum DC current discharge | A | 1000 |  |  |
| 2.12 | Time limit for max. charge current (2.10) | Time | 30s |  |  |
| 2.13 | Time limit for max. discharge current (2.11) | Time | 30s |  |  |
| 2.14 | Nominal DC power charge | kW | 500 |  |  |
| 2.15 | Nominal DC power discharge | kW | 500 |  |  |
| 2.16 | Maximum DC power charge | kW | 1000 |  |  |
| 2.17 | Maximum DC power discharge | kW | 1000 |  |  |
| 2.18 | Cooling Technology (air, liquid, etc.) and power/energy used for cooling |  | air |  |  |
| 2.19 | Height / Width / Depth | mm |  |  |  |
| 2.20 | Weight | kg |  |  |  |
| 2.21 | Number of individual Battery Racks | No. |  |  |  |

Form Data Sheet Battery Inverter

To be filled by the Bidder using 1 dedicated form per battery inverter type

|  |  |  |  | **To be filled by Bidder** | |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Description** | **Unit** | **Requirements** | **Data** | **Note** |
| **1** | **General** |  |  |  |  |
| 1.1 | Manufacturer |  |  |  |  |
| 1.2 | Inverter description/technology |  |  |  |  |
| 1.3 | Environmental conditions description |  | local conditions must be respected |  |  |
| 1.4 | Min / Max operating temperature | °C | +5° / ≥ +40° |  |  |
| 1.5 | Location of installation (indoor / outdoor) |  | Indoor |  |  |
| 1.6 | Special conditions |  | Salt Air, high humidity |  |  |
| 1.7 | Grid building option (island operation) |  | Island operation |  |  |
| 1.8 | On which page/chapter of the bid can the manufacturer datasheet be found ? |  |  |  |  |
| **2** | **Electrical** |  |  |  |  |
| 2.1 | Nominal rated power (3-Phase) | kW | 50 |  |  |
| 2.2 | Number of parallel units in system | Nr. | 5 |  |  |
| 2.3 | Maximum DC voltage | V | <1,000 |  |  |
| 2.4 | Minimum DC Voltage | V | 51V |  |  |
| 2.5 | Maximum current AC and DC(short circuit) | A | 10000 |  |  |
| 2.6 | Maximum continuous discharge current | A | 200 |  |  |
| 2.7 | Maximum continuous charge current | A | 200 |  |  |
| 2.8 | Continuous discharge power | kW | 50 |  |  |
| 2.9 | Continuous charge power | kW | 50 |  |  |
| 2.10 | Overload capability | % | ≥150% for 30 seconds |  |  |
| 2.11 | Maximum efficiency | % | >94 |  |  |
| 2.12 | Cooling Technology (air, liquid, etc.) and power/energy used |  | air |  |  |
| 2.13 | Maximum AC current (short circuit) | A | 10000 |  |  |
| 2.14 | Nominal AC current | A | 150 |  |  |
| 2.15 | Nominal AC voltage | V | 230/400 |  |  |
| 2.16 | AC Isolated grid frequency | Hz | 50 |  |  |
| 2.17 | Power factors (grid connected) |  | Minimum 0.80 lagging to 0.80 leading |  |  |
| 2.18 | Power factors (grid building, island operation) |  | 0-1 lagging to 0-1 leading |  |  |
| 2.19 | Maximum THD | % | 5 |  |  |
| 2.20 | Operation consumption | W | <100W |  |  |
| 2.21 | Standby consumption | W | <100W |  |  |
| 2.22 | Auxiliary power voltage | V | 12 |  |  |
| 2.23 | Protection class (EN 60529) |  |  |  |  |
| 2.24 | Protection class (EN 60721-3) |  |  |  |  |
| 2.25 | Height / Width / Depth | mm |  |  |  |
| 2.26 | Weight | kg |  |  |  |
| 2.19 | Maximum THD | % | 5 |  |  |
| **3** | **Grid Connection Requirements** |  |  |  |  |
| 3.1 | Frequency measurement average | ms | 100 |  |  |
| **4** | **Interfaces** |  |  |  |  |
| 4.1 | Communication protocol |  | Modbus, RS485 |  |  |

Form Data Sheet PCMS

To be filled by the Bidder

|  |  |  |  | **To be filled by Bidder** | |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Description** | **Unit** | **Requirements** | **Data** | **Note** |
| **1** | **General** |  |  |  |  |
| 1.1 | Manufacturer and Type |  |  |  |  |
| 1.2 | No. of Hybrid projects operating with this PCMS | Nb | 1 |  |  |
| 1.3 | Communication protocol with WT inverters |  | MODBUS RS485 RS232 |  |  |
| 1.4 | Communication protocol with Genset controllers |  | MODBUS RS485 RS232 |  |  |
| 1.5 | Communication protocol with Battery inverters and BMS |  | MODBUS RS485 RS232 CAN BUS |  |  |
| 1.6 | On which page/chapter of the bid can the manufacturer datasheet be found ? |  |  |  |  |

Form Data Sheet for Meteorological station

To be filled by the Bidder.

|  | | | | **To be filled by Bidder** | |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Description** | **Unit** | **Requirements** | **Data** | **Note** |
| **1** | **General data** |  |  |  |  |
| 1.1 | Name of Manufacturer |  |  |  |  |
| 1.2 | Country of Manufacturer |  |  |  |  |
| 1.3 | Address of Manufacturer |  |  |  |  |
| 1.4 | Applicable standards |  | IEC 61439 |  |  |
| 1.5 | On which page/chapter of the bid can the manufacturer datasheet be found? |  |  |  |  |
| **2** | **Composition for Type 1** |  |  |  |  |
| **2.1** | **Pyrometer** | **pcs** | **2** |  |  |
| 2.1.1 | Applicable standards |  | ISO 9060 Secondary  Standard |  |  |
| 2.1.2 | Metering range | W/m2 | 0 to 2000 |  |  |
| 2.1.3 | Overall accuracy |  | ± 2 % of metered value (daily average) |  |  |
| 2.1.4 | Spectral Range | nm | 310 to 2800 |  |  |
| **2.2** | **Air temperature sensor** | **pcs** | **1** |  |  |
| 2.2.1 | Overall accuracy | °C | ± 0.5 |  |  |
| 2.2.2 | Metering range | °C | -40 to +70 |  |  |
| 2.2.3 | Response time | s | 20s (T90) |  |  |
| **2.3** | **Module temperature sensor** | **pcs** | **2 (independent)** |  |  |
| 2.3,1 | Type |  | PT1000 or PT100 adhesive foil resistor in 4 wire measuring technology |  |  |
| 2.3,2 | Module mounting technology |  | State of the art |  |  |
| **2.4** | **Anemometer** | **pcs** | **1** |  |  |
| 2.4,1 | Mounting type |  | Mounting on the mast |  |  |
| 2.4.2 | Sensor type |  | Solid state magnetic sensor |  |  |
| 2.4.3 | Wind direction sensor |  | Wind vane and potentiometer |  |  |
| 2.4.4 | Measurement range | m/s | 1 to 70 |  |  |
| 2.4.5 | Wind direction range | ° | 0 to 360 |  |  |
| 2.4.6 | The mast height | m |  |  |  |
| **2.5** | **Data logger** | **Pcs** | **5 (independent)** |  |  |
| 2.5.1 | Time synchronised |  | Yes |  |  |
| 2.5.2 | Analogue inputs resolution |  | 16 bits |  |  |
| 2.5.3 | Input voltage range |  | 10 mV to ± 10 V, full-scale |  |  |
| 2.5.4 | Memory Extension |  | SD card (4 units: 8 GB, 1 unit 32 GB) |  |  |
| 2.5.5 | Interface Base |  | RS 485 / RS 232 / Ethernet / Modbus(Must be compatible with SCADA system) |  |  |
| 2.5.6 | Standard protocol |  | ASCII / PROFIBUS/ Modbus |  |  |
| 2.5.7 | Linearity /Absolute Accuracy |  | ± 0.005% / 0.05% |  |  |
| 2.5.8 | Analogue inputs fault protection |  | Against: Short circuit, overvoltage, transient, and ESD |  |  |
| 2.5.9 | Data storage space |  | At least 1 GB |  |  |
|  |  |  |  |  |  |
| 2.5.10 | Internal memory |  | 4MB |  |  |
| 2.5.11 | Web application for Employer/Engineer |  | Keyword protected web application |  |  |
| 2.5.12 | Cloud upload |  | real time |  |  |
| 2.5.13 | Cloud storage |  | 1TB |  |  |
| 2.5.14 | Ambient temperature | °C | 0-55 |  |  |
| 2.5.15 | Humidity |  | Up to 100% non-condensing |  |  |
| 2.5.16 | WatchDog Timer |  | Yes |  |  |
| **3** | **Enclosure and Environmental conditions** |  |  |  |  |
| 3.1 | Power supply source |  | UPS |  |  |
| 3.2 | Cabinet construction |  | Standard sized steel cabinets |  |  |
| 3.3 | Cabinet protection class |  | IP31 |  |  |
| 3.4 | LAN cabling |  | Front patches |  |  |
| 3.5 | Internal and external cabling |  | Cable organisers, cable trays, suspension and termination components with strain relief |  |  |
| 3.6 | Housing space for future equipment | % | 20 |  |  |
| 3.7 | Cable access |  | Form bottom |  |  |
| 3.8 | Earthing |  | Grounding bus bar |  |  |
| 3.9 | Power socket for maintenance |  | Yes |  |  |

Form Data Sheet for DC Cables

To be filled by the Bidder.

|  |  |  |  | **To be filled by Bidder** | |
| --- | --- | --- | --- | --- | --- |
|  | **Description** | **Unit** | **Requirements** | **Data** | **Note** |
| **1** | **General** |  |  |  |  |
| 1.1 | Manufacturer |  |  |  |  |
| 1.2 | Environmental conditions |  | Outdoor with exposure to high salinity |  |  |
| 1.3 | On which page/chapter of the bid can the manufacturer datasheet be found? |  |  |  |  |
| **2** | **Standards / Specification** |  |  |  |  |
| 2.1 | Specification |  | XLPE or equivalent |  |  |
| 2.2 | Standards |  |  |  |  |
| 2.3 | Voltage Grade | V | minimum 1000 V |  |  |
| 2.5 | Cable length | m | 300 |  |  |
| 2.6 | Number of cores |  | 7 |  |  |
| 2.7 | Conductor |  | Copper |  |  |
| 2.7.1 | Cross Section | mm2 | 150 |  |  |
| 2.7.2 | Material |  | Polyethylene or equivalent |  |  |
| 2.7.3 | Shape |  | Circular or equivalent |  |  |
| 2.8 | Insulation Material |  | Plastic |  |  |
| 2.9 | Armour material |  | Metal |  |  |
| 2.10 | Outer Sheath material |  | Plastic |  |  |
| 2.11 | Cable gland size/dimensional details |  |  |  |  |
| 2.12 | Minimum bending radius (during laying) |  | 1m |  |  |
| 2.13 | Type test certificates |  |  |  |  |
| 2.14 | Routine tests |  |  |  |  |
| **3** | **Special Characteristics** |  |  |  |  |
| 3.1 | Flame retardant |  | For all above ground cables |  |  |
| 3.2 | Saline protection |  | For all buried cables |  |  |
| 3.3 | Colour coding |  |  |  |  |
| 3.4 | Derating factors |  |  |  |  |

Form Data Sheet for LVDB (Low Voltage Distribution Box)

To be filled by the Bidder

|  | | | | **To be filled by Bidder** | |
| --- | --- | --- | --- | --- | --- |
| **Sl No.** | **Description** | **Unit** | **Requirements** | **Data** | **Note** |
| **1** | **General data** |  |  |  |  |
| 1.1 | Manufacturer |  |  |  |  |
| 1.1.1 | Name |  |  |  |  |
| 1.1.2 | country of assembling |  |  |  |  |
| 1.2 | Applicable standards | IEC | IEC 60439 |  |  |
| 1.3 | Type test |  |  |  |  |
| 1.3.1 | carried out |  | Yes / No |  |  |
| 1.3.2 | date |  | dd-mm-yy |  |  |
| 1.3.3 | testing laboratory |  |  |  |  |
| 1.3.3.1 | name |  |  |  |  |
| 1.3.3.2 | country |  |  |  |  |
| 1.04 | On which page/chapter of the bid can the manufacturer datasheet be found ? |  |  |  |  |
| **2** | **Construction Data** |  |  |  |  |
| **A.** | **Housing** |  |  |  |  |
| 2.1 | Enclosure |  | NEMA 1 Powder Coated |  |  |
| 2.1.1 | material |  | Braced rolled steel |  |  |
| 2.1.2 | grade |  | G450 |  |  |
| 2.1.3 | applicable standards |  | BS -2989/729 |  |  |
| 2.1.4 | minimum thickness | mm | 2 |  |  |
| 2.2 | Degree of protection |  | IP-55 |  |  |
| 2.3 | Ventilation |  | Yes |  |  |
| 2.3.1 | applicable standards |  | BS5420 |  |  |
| 2.4 | Door fixings to fix the door panel during maintenance |  | Yes / no |  |  |
| 2.5 | Corrosion protection details |  |  |  |  |
| 2.5.1 | outside |  | Stove enamelled textured paint RAL 7032 |  |  |
| 2.5.2 | inside |  | Gloss White |  |  |
| 2.6 | Danger sign details |  |  |  |  |
| 2.6.1 | material |  | stainless steel |  |  |
| 2.6.2 | Grade |  | 1.4301 (V2A) |  |  |
| 2.6.3 | width | mm |  |  |  |
| 2.6.4 | height | mm |  |  |  |
| 2.6.5 | letters |  | sun light proof, no fading |  |  |
| 2.7 | quality of paint |  |  |  |  |
| 2.7.1 | height of letters | mm | 100 |  |  |
| 2.7.2 | colours |  | red |  |  |
| 2.7.3 | background |  |  |  |  |
| 2.7.4 | letters | mm | 100 |  |  |
| 2.7.5 | fixing bolts |  |  |  |  |
| 2.7.6 | material |  | stainless steel |  |  |
| 2.7.7 | grade |  | 1.4301 (V2A) |  |  |
| 2.7.8 | numbers | No. |  |  |  |
| 2.8 | Identification sign details |  |  |  |  |
| 2.8.1 | material |  | stainless steel |  |  |
| 2.8.2 | grade |  | 1.4301 (V2A) |  |  |
| 2.8.3 | width | mm |  |  |  |
| 2.8.4 | height | mm |  |  |  |
| 2.8.5 | letters |  |  |  |  |
| 2.8.6 | quality of paint |  | sun light proof, no fading |  |  |
| 2.8.7 | height of letters | mm | 100 |  |  |
| 2.8.8 | colours |  |  |  |  |
| 2.8.9 | background |  |  |  |  |
| 2.8.10 | letters |  | red |  |  |
| 2.9 | fixing bolts |  |  |  |  |
| 2.9.1 | material |  | stainless steel |  |  |
| 2.9.2 | grade |  | 1.4301 (V2A) |  |  |
| 2.9.3 | numbers | No. |  |  |  |
| **B.** | **Busbar** |  |  |  |  |
| 2.10 | Applicable standards |  | IEC 60865-1 |  |  |
| 2.11 | Material |  |  |  |  |
| 2.11.1 | Copper |  | Yes |  |  |
| 2.12 | Dimensions |  |  |  |  |
| 2.12.1 | height | mm |  |  |  |
| 2.12.2 | width | mm |  |  |  |
| 2.13 | Number of runs | No. |  |  |  |
| 2.14 | Minimum clearances |  |  |  |  |
| 2.14.1 | between phases | mm | 25 |  |  |
| 2.14.2 | phases to earth | mm | 20 |  |  |
| 2.15 | Phase barrier provided |  | yes/no |  |  |
| 2.16 | Busbar insulation |  | PVC or EPOXY |  |  |
| **C.** | **Neutral Bar** |  |  |  |  |
| 2.17 | Applicable standards |  | IEC-60865-1 |  |  |
| 2.18 | Material |  | copper |  |  |
| 2.19 | Dimensions |  |  |  |  |
| 2.19.1 | height | mm |  |  |  |
| 2.19.2 | width | mm |  |  |  |
| 2.20 | Minimum clearances |  |  |  |  |
| 2.22.1 | phases to neutral bus | mm | 30 |  |  |
| 2.22.2 | Barrier to phases provided |  | yes/no |  |  |
| 2.23 | Neutral bar insulation |  | PVC or EPOXY |  |  |
| **D.** | **Earthing Bar** |  |  |  |  |
| 2.24 | Applicable standards |  | 60865-1 |  |  |
| 2.25 | Material |  | copper |  |  |
| 2.26 | Dimensions |  |  |  |  |
| 2.26.1 | height | mm |  |  |  |
| 2.26.2 | width | mm |  |  |  |
| **E.** | **Support Insulators** |  |  |  |  |
| 2.27 | Manufacturer |  |  |  |  |
| 2.27.1 | name |  |  |  |  |
| 2.27.2 | country of manufacturer |  |  |  |  |
| 2.28 | Applicable standards |  | IEC |  |  |
| 2.29 | Type |  |  |  |  |
| 2.30 | Material |  |  |  |  |
| **F.** | **Generator Air Break Circuit Breaker / MCCB (Incomers & Bus Sectionaliser)** |  |  |  |  |
| 2.31 | Manufacturer |  |  |  |  |
| 2.31.1 | name |  |  |  |  |
| 2.31.2 | country of manufacturing |  |  |  |  |
| 2.32 | Applicable standards |  | IEC-60265 |  |  |
| 2.33 | No. of poles |  |  |  |  |
| 2.34 | Arc-quenching medium |  | air |  |  |
| 2.35 | Operating facilities |  |  |  |  |
| 2.35.1 | hand |  | yes |  |  |
| 2.35.2 | motor (provision) |  | yes |  |  |
| 2.35.3 | remote control (provision) |  | yes |  |  |
| 2.35.4 | counter |  | yes |  |  |
| 2.36 | Mechanical position indicator of main contact |  | yes |  |  |
| 2.37 | Operation mechanism |  |  |  |  |
| 2.37.1 | opening |  | spring |  |  |
| 2.37.2 | closing |  | spring |  |  |
| **G.** | **CT for metering** |  | **yes / no** |  |  |
| **H** | **BESS system -MCCB** |  |  |  |  |
| 2.38 | Manufacturer |  |  |  |  |
| 2.38.1 | name |  |  |  |  |
| 2.38.2 | country of manufacturing |  |  |  |  |
| 2.39 | Applicable standards |  | IEC-60265 |  |  |
| 2.40 | No. of poles |  |  |  |  |
| 2.41 | Arc-quenching medium |  | air |  |  |
| 2.42 | Operating facilities |  |  |  |  |
| 2.42.1 | hand |  | yes |  |  |
| 2.42.2 | motor (provision) |  | yes |  |  |
| 2.42.3 | remote control (provision) |  | yes |  |  |
| 2.42.4 | counter |  | yes |  |  |
| 2.43 | Mechanical position indicator of main contact |  | yes |  |  |
| 2.44 | Operation mechanism |  |  |  |  |
| 2.44.1 | opening |  | spring |  |  |
| 2.44.2 | closing |  | spring |  |  |
| **I.** | **Outgoing Feeders MCCB** |  |  |  |  |
| 2.45 | Manufacturer |  |  |  |  |
| 2.45.1 | Name |  |  |  |  |
| 2.45.2 | country of manufacturing |  |  |  |  |
| 2.46 | Type |  | molded case |  |  |
| 2.47 | Applicable standards |  | IEC-60947-2 / BS3871 |  |  |
| 2.48 | Number of poles |  |  |  |  |
| 2.49 | Protection |  |  |  |  |
| 2.49.1 | Thermal |  | yes |  |  |
| 2.49.2 | Magnetic |  | yes |  |  |
| **J.** | **Space Heater** |  |  |  |  |
| 2.50 | Manufacturer |  |  |  |  |
| 2.50.1 | name |  |  |  |  |
| 2.50.2 | country of manufacturing |  |  |  |  |
| 2.51 | Applicable standards |  | IEC |  |  |
| 2.52 | Control system |  |  |  |  |
| 2.52.1 | humidistat |  | PTC type |  |  |
| 2.52.2 | thermostat |  | PTC type |  |  |
| 2.53 | MCB for heater provided |  | yes |  |  |
| **3** | **ELECTRICAL DATA** |  |  |  |  |
| **A.** | **Common** |  |  |  |  |
| 3.1 | Rated voltage | V | 440 |  |  |
| 3.2 | Nominal operating voltage | V | 400 |  |  |
| 3.3 | Frequency | Hz | 50 |  |  |
| 3.4 | Power frequency withstand test voltage, 1s | kVrms | 2 |  |  |
| 3.4.1 | Rated short-circuit current, 1s | kA | 25 |  |  |
| 3.5 | Control supply voltage |  |  |  |  |
| 3.5.1 | trip and closing coils | V | 240 |  |  |
| 3.5.2 | spring charging motors | V | 240 |  |  |
| **B.** | **Busbars** |  |  |  |  |
| 3.6 | Bus Bar Rating | A |  |  |  |
| 3.7 | Busbar short circuit Rating | A |  |  |  |
| 3.8 | Type of Insulation for Busbar Mounting |  |  |  |  |
| **C.** | **Busbar Support Insulators** |  |  |  |  |
| 3.9 | Visible corona discharge voltage |  |  |  |  |
| 3.10 | Creepage distance | mm |  |  |  |
| **D.** | **Generator Air Break Circuit Breaker / MCCB (Incomers & Bus Sectionaliser)** |  |  |  |  |
| 3.11 | Rated current carrying capacity at max. 40°C | A |  |  |  |
| 3.12 | Operating current carrying capacity at max. 50°C |  |  |  |  |
| 3.13 | Rated symmetrical breaking current | kA |  |  |  |
| 3.14 | Rated making current | kA |  |  |  |
| 3.15 | Temperature rise of main contacts when carrying continuous current | ºC |  |  |  |
| 3.16 | Thickness of silver coating for main contact | micron |  |  |  |
| 3.17 | Number of operations circuit breaker can make without inspection replacement of contacts or other parts at 100% rated breaking current | No. | min. 20000 |  |  |
| 3.18 | Auxiliary contacts |  |  |  |  |
| 3.18.1 | number | No. |  |  |  |
| 3.18.2 | rating | A |  |  |  |
| 3.19 | Total operating time | msec |  |  |  |
| 3.19.1 | Trip free type | yes |  |  |  |
| 3.19.2 | Operating mechanism |  |  |  |  |
| 3.20 | motor rating |  |  |  |  |
| 3.21.1 | voltage | V | 240 |  |  |
| 3.21.2 | current | A |  |  |  |
| 3.21.3 | power | W |  |  |  |
| 3.22 | time for fully charging the closing spring | sec |  |  |  |
| 3.22.1 | emergency manual charging facility provided? | yes |  |  |  |
| 3.22.2 | limits of voltage for satisfactory operation of following devices, as percentage of normal Voltage |  |  |  |  |
| 3.22.3 | motor | % | 85 to 110 |  |  |
| 3.22.4 | closing coil | % | 85 to 110 |  |  |
| 3.22.5 | tripping coil | % | 70 to 110 |  |  |
| **E** | **BESS - MCCB** |  |  |  |  |
| 3.23 | Rated current carrying capacity at max. 40°C | A |  |  |  |
| 3.24 | Operating current carrying capacity at max. 50°C |  |  |  |  |
| 3.25 | Rated symmetrical breaking current | kA |  |  |  |
| 3.26 | Rated making current | kA |  |  |  |
| 3.27 | Temperature rise of main contacts when carrying continuous current | ºC |  |  |  |
| 3.28 | Thickness of silver coating for main contact | micron |  |  |  |
| 3.29 | Number of operations circuit breaker can make without inspection replacement of contacts or other parts at 100% rated breaking current | No. | min. 20000 |  |  |
| 3.30 | Auxiliary contacts |  |  |  |  |
| 3.30.1 | number | No. |  |  |  |
| 3.30.2 | rating | A |  |  |  |
| 3.31 | Total operating time | msec |  |  |  |
| 3.31.1 | Trip free type | yes |  |  |  |
| 3.31.2 | Operating mechanism |  |  |  |  |
| 3.32 | motor rating |  |  |  |  |
| 3.32.1 | voltage | V | 240 |  |  |
| 3.32.2 | current | A |  |  |  |
| 3.32.3 | power | W |  |  |  |
| 3.33 | time for fully charging the closing spring | sec |  |  |  |
| 3.33.1 | emergency manual charging facility provided? | yes |  |  |  |
| 3.33.2 | limits of voltage for satisfactory operation of following devices, as percentage of normal Voltage |  |  |  |  |
| 3.33.3 | motor | % | 85 to 110 |  |  |
| 3.33.4 | closing coil | % | 85 to 110 |  |  |
| 3.33.5 | tripping coil | % | 70 to 110 |  |  |
| **F.** | **Outgoing MCCB** |  |  |  |  |
| 3.34 | Rated current carrying at max. 40 degC |  |  |  |  |
| 3.34.1 | single-phase | A |  |  |  |
| 3.34.2 | three-phase | A |  |  |  |
| 3.35 | Operating current carrying at max. 50 degC |  |  |  |  |
| 3.35.1 | single-phase | A |  |  |  |
| 3.35.2 | three-phase | A |  |  |  |
| 3.36 | Overload and short circuit release |  | yes |  |  |
| 3.37 | Rated short-circuit current, 1s | kA |  |  |  |
| 3.38 | Rated breaking current | kA |  |  |  |
| 3.39 | Rated making current | kA |  |  |  |
| 3.40 | Rated short-circuit current, 1s | kA |  |  |  |
| 3.41 | MCCB characteristics co-ordinated with down-stream circuit protection |  | yes |  |  |
| **G.** | **Space Heater** |  |  |  |  |
| 3.42 | Power | W |  |  |  |
| 3.43 | Rated voltage | Vac | 230 |  |  |
| 3.44 | Rated current | A |  |  |  |
| 3.45 | MCCB |  |  |  |  |
| 3.45.1 | rated current | A |  |  |  |
| **H.** | **Socket** |  |  |  |  |
| 3.46 | Rated voltage | Vac | 230 |  |  |
| 3.47 | Rated current | A |  |  |  |
| 3.48 | MCCB |  |  |  |  |
| 3.48.1 | rated current | A |  |  |  |
| **I.** | **Lamp** |  |  |  |  |
| 3.49 | Power | W | 100 |  |  |
| 3.50 | Rated voltage | Vac | 230 |  |  |
| 3.51 | Rated current | A |  |  |  |
| 3.52 | Fuse |  |  |  |  |
| 3.52.1 | rated current | A |  |  |  |
| **4.** | **Generator Synchronization panel** |  |  |  |  |
| 4.1.1 | Name of Manufacturer |  |  |  |  |
| 4.1.2 | Country of Manufacturer |  |  |  |  |
| 4.1.3 | Address of Manufacturer |  |  |  |  |

Form Data Sheet for Distribution Boxes

To be filled by the Bidder.

|  | | | | **To be filled by Bidder** | |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Description** | **Unit** | **Requirements** | **Data** | **Note** |
| **1** | **General data** |  |  |  |  |
| 1.1 | Name of Manufacturer |  |  |  |  |
| 1.2 | Country of Manufacturer |  |  |  |  |
| 1.3 | Address of Manufacturer |  |  |  |  |
| 1.4 | Applicable standards |  | IEC 61439 |  |  |
| **2** | **Construction Data** |  |  |  |  |
| **2.1** | **Enclosure** |  |  |  |  |
| 2.1.1 | Material |  | Outdoor weatherproof GRP sealed |  |  |
| 2.1.2 | Thickness |  | 3mm |  |  |
| 2.1.3 | Colour |  | RAL 7032 |  |  |
| 2.2 | Dimension (Height / Width / Depth) | mm | As per project requirements |  |  |
| 2.3 | Weight | kg |  |  |  |
| 2.4 | Degree of protection | IP | 67 |  |  |
| 2.5 | Front cover material |  |  |  |  |
| 2.6 | Back cover material |  |  |  |  |
| 2.7 | Frame material (if applicable) |  |  |  |  |
| 2.8 | Locks-Material & Grade |  |  |  |  |
| 2.9 | Lifting devices |  |  |  |  |
| **3** | **Electrical data** |  |  |  |  |
| 3.1 | Rated voltage | V | 440 |  |  |
| 3.2 | Nominal operating voltage | V | 400 |  |  |
| 3.3 | Frequency | Hz | 50 |  |  |
| 3.4 | Power frequency withstand test voltage | kVrms | 2.5 |  |  |
| 3.5 | Busbar Rating | Amps | 100 |  |  |
| 3.6 | Rated Short Circuit Rating, 1s | kA | 46 |  |  |
| 3.7 | Type of Insulation on Busbars |  |  |  |  |
| 3.8 | Type of Terminal Blocks |  |  |  |  |
| 3.9 | Rating of Terminal Blocks |  |  |  |  |
| 3.10 | Earthing arrangement |  |  |  |  |
| **4.1** | **MCCB Data** |  |  |  |  |
| 4.1.1 | Name of Manufacturer |  |  |  |  |
| 4.1.2 | Country of Manufacturer |  |  |  |  |
| 4.1.3 | Address of Manufacturer |  |  |  |  |
| 4.1.4 | Applicable standards |  |  |  |  |
| **4.2** | **MCCB Construction Data** |  |  |  |  |
| 4.2.1 | Frame Size | Amps |  |  |  |
| 4.2.2 | Weight | kg |  |  |  |
| **4.3** | **MCCB Electrical Data** |  |  |  |  |
| 4.3.1 | Rated voltage | V | 440 |  |  |
| 4.3.2 | Nominal operating voltage | V | 400 |  |  |
| 4.3.3 | Rated Current | Amps |  |  |  |
| 4.3.4 | Frequency | Hz | 50 |  |  |
| 4.3.5 | Number of Poles | Nos. |  |  |  |
| 4.3.6 | Rated Insulation Voltage AC | V |  |  |  |
| 4.3.7 | Short-Circuit Interrupting Capacity Icu/Ics | kA |  |  |  |
| 4.3.8 | Rated Impulse Withstand U Imp | kV |  |  |  |
| 4.3.9 | Shunt Tripping Mode |  | Yes |  |  |
| **5** | **Supporting Documents** |  |  |  |  |
| 5.1 | All the drawings enclosed |  | Yes |  |  |
| 5.2 | All type test reports enclosed |  | Yes |  |  |
| 5.3 | Adequacy of busbar size for specified current rating |  | Yes |  |  |

Form Data Sheet for Armored Underground Cables

To be filled by the Bidder using 1 dedicated form per LV cable type

|  | | | | **To be filled by Bidder** | |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Description** | **Unit** | **Requirements** | **Data** | **Note** |
| **1** | **General data** |  |  |  |  |
| 1.1 | Name of Manufacturer |  | Must be accordance from the results of the relevant tests |  |  |
| 1.2 | Country of Manufacturer |  | Must be accordance from the results of the relevant tests |  |  |
| 1.3 | Address of Manufacturer |  | Must be accordance from the results of the relevant tests |  |  |
| **2** | **Construction Data** |  |  |  |  |
| **2.1** | **Conductor/Neutral** |  |  |  |  |
| 2.1.1 | Applicable standards |  | IEC 60228, BS 6360 |  |  |
| 2.1.2 | Conductor Material |  | Annealed Copper wires |  |  |
| 2.1.3 | Nominal cross-section of each conductor | mm2 |  |  |  |
| 2.1.4 | Neutral Material |  | Annealed Copper wires |  |  |
| 2.1.5 | Nominal cross-section of each Neutral | mm2 |  |  |  |
| 2.1.6 | Number of Cores |  |  |  |  |
| **2.2** | **Conductor/Neutral Insulation** |  |  |  |  |
| 2.2.1 | Applicable standards |  | BS 5467, BS 7655 |  |  |
| 2.2.2 | Material |  | XLPE |  |  |
| 2.2.3 | Nominal thickness of insulation | mm |  |  |  |
| 2.2.4 | Minimum average insulation thickness | mm |  |  |  |
| 2.2.5 | Colours |  | R=Red, S=Yellow, T=Blue, N=Black |  |  |
| 2.2.6 | UV-resistant |  | Yes |  |  |
| **2.3** | **Binder/separation** |  |  |  |  |
| 2.3.1 | Material |  | Polypropylene |  |  |
| 2.3.2 | Approximate diameter | mm |  |  |  |
| **2.4** | **Inner sheath (bedding)** |  |  |  |  |
| 2.4.1 | Applicable standards |  | BS 5467 |  |  |
| 2.4.2 | Material |  | PVC-ST2 |  |  |
| 2.4.3 | Nominal thickness | mm |  |  |  |
| 2.4.4 | Colour |  |  |  |  |
| 2.4.5 | Approximate diameter | mm |  |  |  |
| **2.5** | **Armour** |  |  |  |  |
| 2.5.1 | Applicable standards |  | BS 5467, BS EN 10257-1 |  |  |
| 2.5.2 | Material |  | Galvanised steel wires |  |  |
| 2.5.3 | Number of wires | Nos. |  |  |  |
| 2.5.4 | Nominal diameter of wires | mm |  |  |  |
| 2.5.5 | Shape |  | Round |  |  |
| 2.5.6 | Cross-section of armour | mm2 |  |  |  |
| 2.5.7 | Tensile strength | N/mm2 |  |  |  |
| 2.5.8 | Min. elongation after break | % |  |  |  |
| 2.5.9 | Approximate diameter | mm |  |  |  |
| **2.6** | **Outer sheath** |  |  |  |  |
| 2.6.1 | Applicable standards |  | BS 5467, BS 7655 |  |  |
| 2.6.2 | Material |  | PVC-ST2 |  |  |
| 2.6.3 | Nominal thickness | mm |  |  |  |
| 2.6.4 | Minimum thickness | mm |  |  |  |
| 2.6.5 | Resistant to sulphide |  | Yes |  |  |
| 2.6.6 | Chloride paraffin free |  | Yes |  |  |
| 2.6.7 | Fire retardant |  | Yes |  |  |
| 2.6.8 | Length marking at every meter interval |  | Yes |  |  |
| 2.6.9 | Text embossed as specified |  | Yes |  |  |
| 2.6.10 | Colour |  | Black |  |  |
| 2.6.11 | Approx. overall diameter of cable | mm |  |  |  |
| **2.7** | **Weights** |  |  |  |  |
| 2.7.1 | Complete cable | Kg/m |  |  |  |
| 2.7.2 | Copper | Kg/m |  |  |  |
| 2.7.3 | Steel | Kg/m |  |  |  |
| **3** | **Electrical data** |  |  |  |  |
| 3.1 | Rated voltage (Uo/U) | kV | 0.6/1 |  |  |
| 3.2 | Highest system voltage (Umax) | kV | 1.2 |  |  |
| 3.3 | Frequency | Hz | 50 |  |  |
| 3.4 | Power frequency withstand voltage (4 x Uo) | kV/4hrs | 2.4 |  |  |
| **3.5** | **Maximum current carrying capacity** |  |  |  |  |
| 3.5.1 | In ground: soil temperature=40oC, depth=75cm, T.R.=1.5mK/W |  |  |  |  |
| 3.5.1.1 | 1 cable | Amp |  |  |  |
| 3.5.1.2 | 2 cables (d=30cm) | Amp |  |  |  |
| 3.5.1.3 | 3 cables (d=30cm) | Amp |  |  |  |
| **3.5.2** | **in concrete cable trench/cable room: air=50°C** |  |  |  |  |
| 3.5.2.1 | 1 cable trays/racks | Amp |  |  |  |
| 3.5.2.2 | 2 to 3 cables trays/racks | Amp |  |  |  |
| 3.5.2.3 | 4 to 5 cables trays/racks | Amp |  |  |  |
| **3.6** | **Minimum short circuit current of the conductor** |  |  |  |  |
| 3.6.1 | For 1.0 s duration | kA |  |  |  |
| 3.6.2 | For 0.5 s duration | kA |  |  |  |
| **3.7** | **Minimum short circuit current of armouring** |  |  |  |  |
| 3.7.1 | For 1.0 s duration | kA |  |  |  |
| 3.8 | Maximum permissible continuous conductor temperature | °C | 90 |  |  |
| 3.9 | Maximum permissible continuous temperature of cable surface | °C |  |  |  |
| 3.10 | Maximum permissible conductor temperature for 117% of max. transmission capacity, prevailing maximum 100 hrs/year and 500 hrs in total (emergency overload) | °C | 105 |  |  |
| 3.11 | Maximum permissible short-circuit temperature for welded/pressed conductor connections | °C | 250 |  |  |
| 3.12 | Appropriate duration | s |  |  |  |
| 3.13 | Maximum DC conductor resistance at 20°C | Ω/km |  |  |  |
| 3.14 | Maximum AC conductor resistance at 90°C and for cable arrangements as per above | Ω/km |  |  |  |
| 3.15 | Insulation resistance at 20°C | μΩ/km |  |  |  |
| 3.16 | Capacitive reactance | μF/km |  |  |  |
| 3.17 | Inductive reactance | Ω/km |  |  |  |
| 3.18 | Resistance of cable armour at 20°C | Ω/km |  |  |  |
| **4** | **Other Data** |  |  |  |  |
| **4.1** | **Minimum permissible bending radius D** |  |  |  |  |
| 4.1.1 | In ducts | m |  |  |  |
| 4.1.2 | Laid direct or in air | m |  |  |  |
| 4.1.3 | Adjacent to joints or terminals | m |  |  |  |
| 4.1.4 | Maximum permissible pulling force | kN |  |  |  |
| 4.1.5 | Maximum permissible sidewall pressure to cable at bending point | kN/m |  |  |  |
| **5** | **Supporting Documents** |  |  |  |  |
| 5.1 | All the drawings enclosed |  | Yes |  |  |
| 5.2 | All type test reports enclosed |  | Yes |  |  |
| 5.3 | Technical literature enclosed |  | Yes |  |  |

Form Data Sheet for Power House

To be filled by the Bidder. The details of the location of power house will be discussed after site survey and meeting with the employer.

|  | | | | **To be filled by Bidder** | |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Description** | **Unit** | **Requirements** | **Data** | **Note** |
| **1** | **General data** |  |  |  |  |
| 1.1 | Name of Manufacturer |  | Must be accordance from the results of the site survey and meetings with the employer. |  |  |
| 1.2 | Country of Manufacturer |  | Must be accordance from the results of the site survey and meetings with the employer. |  |  |
| 1.3 | Address of Manufacturer |  | Must be accordance from the results of the site survey and meetings with the employer. |  |  |
| **2** | **Facility’s Construction Data** |  |  |  |  |
| 2.1 | Power and Lighting System | 1 lot | To be specified by the bidder in accordance with EMP |  |  |
| 2.2 | Working Office | 1 lot | To be specified by the bidder in accordance with EMP |  |  |
| 2.3 | Sanitary facilities | 1 lot | To be specified by the bidder in accordance with EMP |  |  |
| 2.4 | Water supply | 1 lot | To be specified by the bidder in accordance with EMP |  |  |
| 2.5 | Power outlet and lightings for operation | 1 lot | To be specified by the bidder in accordance with EMP |  |  |
| 2.6 | Ventilation system | 1 lot | To be specified by the bidder in accordance with EMP |  |  |
| 2.7 | Fencing | 1 lot | To be specified by the bidder in accordance with EMP |  |  |
| 3 | **Supporting Documents** |  |  |  |  |
| 3.1 | All the drawings enclosed |  | Yes |  |  |
| 3.2 | All type test reports enclosed |  | Yes |  |  |
| 3.3 | Technical literature enclosed |  | Yes |  |  |

Form List of non-compliance

To be filled by the Bidder´s for each declared non-compliance to the Employer´s requirements

| **List of non-compliance** | | | | **Bidder:** | ***[Name of Bidder]*** | |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Tender Spec Refer** | | |  |  | |
| **Section** | **Chapter** | **Page** | **Tender Specification Requirement** | | **Bidder´s Proposal** |
|  | *6* | *4* | *XX* | *XXX* | | *XXX* |
|  |  |  |  |  | |  |
|  |  |  |  |  | |  |
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|  |  |  |  |  | |  |
|  |  |  |  |  | |  |

Bidder’s Qualification

To establish its qualifications to perform the contract in accordance with Section 3 (Evaluation and Qualification Criteria) the Bidder shall provide the following information requested in the corresponding Information Sheets.

Form ELI - 1: Bidder’s Information Sheet

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Bidder’s Information | | | | |
|  | | **Information of the Bidder** | **If the Bidder is a subsidiary or branch, information of any parent company/companies** |
| **Names** | **Full legal name(s)** |  |  |
| **Full trading name(s) (if any)** |  |  |
| **Addresses** | **Registered address(es)** |  |  |
| **Trading address(es)** |  |  |
| **Postal address(es) (if different from trading address)** |  |  |
| **Type of organization** | |  |  |
| **Country of constitution/incorporation/registration** | |  |  |
| **Year of constitution/incorporation/ registration** | |  |  |
| **Corporate or registration number** | |  |  |
| **In case of a Joint Venture, legal name of each partner** | |  | |
| **Bidder’s authorized representative**  (name, address, telephone number(s), fax number(s), e-mail address) | |  | |
| **Attached are copies of the following documents:**   * 1. In case of a single entity, articles of incorporation or constitution and company incorporation/registration of the legal entity named above, in accordance with ITB 4.1 and ITB 4.2. * 2. Authorization to represent the firm or Joint Venture named above, in accordance with ITB 22.2. * 3. In case of a Joint Venture, a letter of intent to form a Joint Venture or Joint Venture agreement, in accordance with ITB 4.1. * 4. In case of a government-owned enterprise, any additional documents not covered under 1 above required to comply with ITB 4.5. | | | |

Form ELI - 2: Joint Venture Information Sheet

Each partner of the Joint Venture and Specialist Subcontractor must fill out this form separately.

|  |  |  |  |
| --- | --- | --- | --- |
| Joint Venture / Specialist Subcontractor Information | | | |
| **Bidder’s legal name** | |  | |
|  | | **Information of Joint Venture Partner or Specialist Subcontractor** | **If any Joint Venture Partner or Specialist Subcontractor is a subsidiary or branch, information of any parent company/companies** |
| **Names** | **Full Legal name(s)** |  |  |
| **Full trading name(s) (if any)** |  |  |
| **Addresses** | **Registered address(es)** |  |  |
| **Trading address (es)** |  |  |
| **Postal address (es) (if different from trading address)** |  |  |
| **Type of organization** | |  | |
| **Country of constitution/**  **incorporation/ registration** | |  | |
| **Year of constitution/ incorporation/ registration** | |  | |
| **Corporate or registration number** | |  | |
| **Joint Venture Partner’s or Specialist Subcontractor’s authorized representative information**  (name, address, telephone number(s), fax number(s), e-mail address) | |  | |
| **Attached are copies of the following documents:**   * 1. Articles of incorporation or constitution and company incorporation/registration of the legal entity named above, in accordance with ITB 4.1 and ITB 4.2. * 2. Authorization to represent the firm named above, in accordance with ITB 22.2. * 3. In the case of a government-owned enterprise, documents establishing legal and financial autonomy and compliance with commercial law, in accordance with ITB 4.5. | | | |

Subcontractors are those listed in Technical Proposal – Proposed Subcontractors and/or Manufacturers for Major Items of Plant and Services

Form CON – 1: Historical Contract Nonperformance

Each Bidder must fill out this form in accordance with Criteria 2.2.1 and 2.2.3 of Section 3 (Evaluation and Qualification Criteria) to describe any history of nonperforming contracts and pending litigation or arbitration formally commenced against it.

In case of a Joint Venture, each Joint Venture Partner must fill out this form separately and provide the Joint Venture Partner’s name:

Joint Venture Partner: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| **Table 1: History of Nonperforming Contracts** | | | |
| **Choose one of the following:**   * No nonperforming contracts. * Below is a description of nonperforming contracts involving the Bidder (or each Joint Venture partner if Bidder is a Joint Venture). | | | |
| **Year** | **Description** | **Amount of Nonperformed Portion of Contract ($ equivalent)** | **Total Contract Amount ($ equivalent)** |
| *[insert year]* | Contract Identification: *[indicate complete contract name/ number, and any other identification]*  Name of Employer: *[insert full name]*  Address of Employer: *[insert street/city/country]*  Reason(s) for nonperformance: *[indicate main reason(s)]* | *[insert amount]* | *[insert amount]* |
|  |  |  |  |

Form CON – 2: EHS Performance Declaration

Each Bidder must fill out this form in accordance with Criterion 2.2.4 of Section 3 (Evaluation and Qualification Criteria).

In case of a Joint Venture, each Joint Venture Partner must fill out this form separately and provide the Joint Venture Partner’s name:

Joint Venture Partner: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

In case of a Specialist Subcontractors, each Specialist Subcontractor must fill out this form and provide the Specialist Subcontractor’s name:

Specialist Subcontractor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| **Environmental and Health and Safety Performance Declaration**  **in accordance with Section 3 (Evaluation and Qualification Criteria)** | | | |
|  **No suspension or termination of contract**: An employer has not suspended or terminated a contract and/or called the performance security for a contract for reasons related to Environmental or Health and Safety performance since the date specified in Criterion 2.5 of Section 3 (Evaluation and Qualification Criteria).   **Declaration of suspension or termination of contract**: The following contract(s) has/have been suspended or terminated and/or Performance Security called by an employer(s) for reasons related to Environmental or Health and Safety performance since the date specified in Criterion 2.5 of Section 3 (Evaluation and Qualification Criteria). Details are described below:   **Declaration of request for replacement of Key Environment, Health and Safety Personnel**: The following contract(s) has/have experienced a request by the Employer to replace Environmental, Health and Safety Personnel for reasons related to Environmental or Health and Safety performance since the date specified in Criterion 2.5 of Section 3 (Evaluation and Qualification Criteria). Details are described below:   **Declaration of past fatality resulted from EHS issues on site**: The following contract(s) has/have experienced a fatality resulted from EHS issues on site since the date specified in Criterion 2.5 of Section 3 (Evaluation and Qualification Criteria). Details are described below: | | | |
| **Year** | **Suspended or terminated portion of contract** | **Contract Identification** | **Total Contract Amount (current value, currency, exchange rate and US$ equivalent)** |
| *[insert year]* | *[insert amount and percentage]* | Contract Identification: *[indicate complete contract name/ number, and any other identification]*  Name of Employer: *[insert full name]*  Address of Employer: *[insert street/city/country]*  Reason(s) for suspension or termination: *[indicate main reason(s) e.g., discharge over environmental limit, workers did not have required health and safety permits to undertake high risk work, work carried out was not adhered to approved construction methodology and quality control plan]* | *[insert amount]* |
| *[insert year]* | *[insert amount and percentage]* | Contract Identification: *[indicate complete contract name/ number, and any other identification]*  Name of Employer: *[insert full name]*  Address of Employer: *[insert street/city/country]*  Reason(s) for suspension or termination: *[indicate main reason(s)]* | *[insert amount]* |
| *…* | *…* | *[list all applicable contracts]* | *…* |
| **Performance Security called by an employer(s) for reasons related to EHS performance** | | | |
| **Year** | **Contract Identification** | | **Total Contract Amount (current value, currency, exchange rate and US$ equivalent)** |
| *[insert year]* | Contract Identification: *[indicate complete contract name/ number, and any other identification]*  Name of Employer: *[insert full name]*  Address of Employer: *[insert street/city/country]*  Reason(s) for suspension or termination: *[indicate main reason(s) e.g. discharge over environmental limit, workers did not have required health and safety permits to undertake high risk work, work carried out was not adhered to approved construction methodology and quality control plan]* | | *[insert amount]* |
| **Key EHS personnel replacement requested by the Employer for reasons related to EHS performance** | | | |
| **Year** | **Contract Identification and Reasons** | | **Personnel replacement action and results** |
| *[insert year]* | Contract Identification: *[indicate complete contract name/ number, and any other identification]*  Name of Employer: *[insert full name]*  Address of Employer: *[insert street/city/country]*  Reason(s) for requesting for replacement: *[indicate main reason(s)]* | | *[insert description]* |
| **Fatality due to EHS issues on Site** | | | |
| **Year** | **Contract Identification** | | **Follow-on actions taken by the contractor** |
| *[insert year]* | Contract Identification: *[indicate complete contract name/ number, and any other identification]*  Name of Employer: *[insert full name]*  Address of Employer: *[insert street/city/country]*  Description of fatality event:  Causation: | | *[insert description]* |

Form FIN - 1: Historical Financial Performance

Each Bidder must fill out this form.

In case of a Joint Venture, each Joint Venture Partner must fill out this form separately and provide the Joint Venture Partner’s name:

Joint Venture Partner: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Financial Data for Previous \_\_\_\_\_ Years [$ Equivalent]** | | |
| **Year 1:** | **Year 2:** | **Year 3:** |

**Information from Balance Sheet**

|  |  |  |  |
| --- | --- | --- | --- |
| **Total Assets (TA)** |  |  |  |
| **Total Liabilities (TL)** |  |  |  |
| **Net Worth = TA-TL** |  |  |  |
| **Current Assets (CA)** |  |  |  |
| **Current Liabilities (CL)** |  |  |  |
| **Working Capital = CA - CL** |  |  |  |

|  |  |  |
| --- | --- | --- |
| **Most Recent**  **Working Capital** |  | To be obtained for most recent year and carried forward to FIN - 3 Line 1; in case of Joint Ventures, to the corresponding Joint Venture Partner’s FIN – 3. |

**Information from Income Statement**

|  |  |  |  |
| --- | --- | --- | --- |
| **Total Revenues** |  |  |  |
| **Profits Before Taxes** |  |  |  |
| **Profits After Taxes** |  |  |  |
| * Attached are copies of financial statements (balance sheets including all related notes, and income statements) for the last \_\_\_\_\_ years, as indicated above, complying with the following conditions.  1. Unless otherwise required by Section 3 of the Bidding Documents, all such documents reflect the standalone financial situation of the legal entity or entities comprising the Bidder and not the Bidder’s parent companies, subsidiaries or affiliates. 2. Historical financial statements must be audited by a certified accountant. 3. Historical financial statements must be complete, including all notes to the financial statements. 4. Historical financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted). | | | |

Form FIN - 2: Average Annual Turnover

Each Bidder must fill out this form.

The information supplied should be the Annual Turnover of the Bidder or each partner of a Joint Venture for the total certified payments received from the clients for contracts in progress or completed, converted to US dollars at the rate of exchange at the end of the period reported.

In case of a Joint Venture, each Joint Venture Partner must fill out this form separately and provide the Joint Venture Partner’s name:

Joint Venture Partner: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| **Annual Turnover Data for the Last \_\_\_\_\_ Years** | | | |
| **Year** | **Amount**  **Currency** | **Exchange**  **Rate** | **$**  **Equivalent** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| **Average Annual Turnover** | | |  |

Form FIN – 3: Availability of Financial Resources

Bidders must demonstrate sufficient financial resources, usually comprising of Working Capital supplemented by credit line statements or overdraft facilities and others to meet the Bidder’s financial requirements for

1. its current contract commitments, and
2. the subject contract.

In case of a Joint Venture, each Joint Venture Partner must fill out this form separately and provide the Joint Venture Partner’s name:

Joint Venture Partner: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| **Financial Resources** | | |
| **No.** | **Source of financing** | **Amount ($ equivalent)** |
| 1 | Working Capital (to be taken from FIN - 1) |  |
| 2 | Credit Line***a*** |  |
| 3 | Other Financial Resources |  |
| Total Available Financial Resources | |  |

*a To be substantiated by a letter from the bank issuing the line of credit.*

Form FIN- 4: Financial Requirements for Current Contract Commitments

Bidders (or each Joint Venture partner) should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

In case of a Joint Venture, each Joint Venture Partner must fill out this form separately and provide the Joint Venture Partner’s name:

Joint Venture Partner: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |
| --- |
| **Current Contract Commitments** |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| No. | Name of Contract | Employer’s **Contact**  **(Address, Tel, Fax)** | **Contract Completion** Date | **Outstanding Contract  Value**  **(X) *a*** | **Remaining Contract Period in months (Y) *b*** | **Monthly Financial Resources Requirement**  **(X / Y)** |
| 1 |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |
| Total Monthly Financial Requirement for Current Contract Commitments | | | | | | **$** . . . . . . . . . . . . . . . . . |

*a Remaining outstanding contract values to be calculated from 28 days prior to the bid submission deadline ($ equivalent based on the foreign exchange rate as of the same date).*

*b Remaining contract period to be calculated from 28 days prior to bid submission deadline.*  
Form FIN - 5: Self-Assessment Tool for Bidder’s Compliance to Financial Resources (Criterion 2.3.3 of Section 3)

This form requires the same information submitted in Forms FIN - 3 and FIN - 4. All conditions of “Available Financial Resources Net of CCC **≥** Requirement for the Subject Contract” must be satisfied to qualify.

**Form FIN - 5A: For Single Entities**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| For Single Entities:  (A) | Total Available Financial Resources from FIN – 3 (B) | Total Monthly Financial Requirement for Current Contract Commitments (CCC) from FIN – 4 (C) | Available Financial Resources Net of CCC D = (B - C) | Requirement  for the Subject Contract  (E) | Results:  Yes or No  [*D must be greater than or equal to E*]  (F) |
| \_\_\_\_\_\_\_\_\_  (Name of Bidder) |  |  |  | . . . . . . . . . . . |  |

**Form FIN - 5B: For Joint Ventures**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| For Joint Ventures:  (A) | Total Available Financial Resources from FIN – 3  (B) | Total Monthly Financial Requirement for Current Contract Commitments (CCC) from FIN – 4 (C) | Available Financial Resources Net of CCC D = (B - C) | Requirement  for the Subject Contract  (E) | Results:  Yes or No  [*D must be greater than or equal to E*]  (F) |
| One Partner: |  |  |  |  |  |
| \_\_\_\_\_\_\_\_\_\_\_\_  (Name of Partner) |  |  |  | . . . . . . . . . . . |  |
| Each Partner: |  |  |  |  |  |
| \_\_\_\_\_\_\_\_\_\_\_\_\_  (Name of Partner 1) |  |  |  | . . . . . . . . . . . |  |
| \_\_\_\_\_\_\_\_\_\_\_\_\_  (Name of Partner 2) |  |  |  | . . . . . . . . . . . |  |
| \_\_\_\_\_\_\_\_\_\_\_\_\_  (Name of Partner 3) |  |  |  | . . . . . . . . . . . |  |
| All partners  combined | ∑ D = Sum of available financial resources net of current contract commitments for all partners | | ∑ D = \_\_\_\_\_\_\_ | . . . . . . . . . . . |  |

*- Note -*

*Form FIN – 5 is made available for use by the bidder as a self-assessment tool, and by the Employer as an evaluation work sheet, to determine compliance with the financial resources requirement as stated in 2.3.3. Failure to submit Form FIN - 5 by the Bidder shall not lead to bid rejection.*

Form EXP – 1: Contracts of Similar Size and Nature

Fill out one (1) form per contract. Each contract shall be supported by documents such as Signed Contract Agreement, Taking-Over Certificate, Contract Completion Certificate or Performance Certificate.

The exchange rate to be used to calculate the value of the contract for conversion to a specific currency shall be the selling rate of the Borrower’s Central bank on the date of the contract.

|  |  |  |  |
| --- | --- | --- | --- |
| **Contract of Similar Size and Nature** | | | |
| **Contract No** . . . . . . **of** . . . . . | **Contract Identification** |  | |
| **Award Date** |  | **Completion Date** |  |
| **Role in Contract** | * **Contractor** | * **Management Contractor** | * **Subcontractor** |
| **Total Contract Amount** | **$** | | |
| **If partner in a Joint Venture or Subcontractor, specify participation of total contract amount** | **Percent of Total** | **Amount** | |
| **Employer’s name**  **Address**  **Telephone number**  **Fax number**  **E-mail** |  | | |
| **Description of the Similarity in Accordance with Criterion 2.4.1 of Section 3 (Evaluation and Qualification Criteria)** | | | |
|  |  | | |

Form EXP - 2: Experience in Key Activities

Fill out one (1) form per contract. Each contract shall be supported by documents such as Signed Contract Agreement, Taking-Over Certificate or Contract Completion Certificate.

Each Bidder must fill out this form.

If complied by Specialist Subcontractor, each Specialist Subcontractor must fill out this form and provide the Specialist Subcontractor’s name:

Specialist Subcontractor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| **Contract with Similar Key Activities** | | | |
| **Contract No** . . . . . . **of** . . . . . | **Contract Identification** |  | |
| **Award Date** |  | **Completion Date** |  |
| **Role in Contract** | * **Contractor** | * **Management Contractor** | * **Subcontractor** |
| **Total Contract Amount** | **$** | | |
| **If partner in a Joint Venture or Subcontractor, specify participation of total contract amount** | **Percent of Total** | **Amount** | |
| **Employer’s name**  **Address**  **Telephone number**  **Fax number**  **E-mail** |  | | |
| **Description of the Key Activities in Accordance with Criterion 2.4.2 of Section 3 (Evaluation and Qualification Criteria)** | | | |
|  |  | | |

Form EXP – 3: Specific Experience in Managing Environmental, Health and Safety Aspects

Fill out one form per contract.

Each Bidder must fill out this form.

In case of a Joint Venture, each Joint Venture Partner must fill out this form separately and provide the Joint Venture Partner’s name:

Joint Venture Partner: \_\_\_\_\_\_\_\_\_

1. Key Requirement no 1 in accordance with Criterion 2.4.3 of Section 3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Contract Identification |  | | | |
| Award date |  | | | |
| Completion date |  | | | |
| Role in Contract | Prime  Contractor | Partner  In JV | Management  Contractor | Subcontractor |
| Total Contract Amount |  | | US$ | |
| Details of relevant experience |  | | | |

1. Key Requirement no 2 in accordance with Criterion 2.4.3 of Section 3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Key Requirement no 3 in accordance with Criterion 2.4.3 of Section 3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Form EXP – 4: Environmental, Health and Safety Certification

Please provide the following information:

Availability of the following valid ISO certification or internationally - recognized equivalent (equivalency to be demonstrated by the Bidder), and applicable to the worksite:

- ISO 14001: Environmental Management System

- ISO 45001: Occupational Health and Safety (OH&S) Management System

- ISO 9001: Quality Management System

Form EXP – 5: Environmental, Health and Safety Documentation

Please provide the following information:

Availability of in-house policies and procedures for ESHS management:

1. Existence of an Ethics Charter, including commitments to exclude (i) use of forced and child labor, and (ii) sexual exploitation, abuse, harassment.
2. Existence of a system for independent design checks process separate to design team for seismic safety etc.
3. Existence of a system for quality assurance of environmental impact assessment reports produced.
4. Existence of a system for monitoring compliance with EHS commitments for the Bidder, Bidder’s Subcontractors and all its partners.
5. Existence of a system for keeping EHS records (e.g. incidents, grievances, materials consumption, water consumption, waste volumes and disposal routes etc.) related to Bidder and subcontractor activities on-site
6. Existence of a system for ensuring only inducted, trained and qualified workers are on site and undertaking specific roles including of subcontractors and their workers whether formally or informally employed
7. Existence of a system for keeping labor records (e.g. identification, timesheets, pay slips etc.) including of subcontractors and their workers whether formally or informally employed
8. Existence of official company procedures for the management of the following during construction and O&M including of subcontractors:

* Health and Safety on worksites policy, occupational and community health and safety risk assessment, management planning and related guidance
* Worker code of conduct and disciplinary systems including for subcontractors and their workers whether formally or informally employed
* EHS trainings of local staff/subcontractors/local partners
* Community stakeholder engagement
* Grievance redressal including for workers and affected local community
* Labor management including sanitation and welfare and overnight accommodation
* Biodiversity management including invasive species control, wildlife encounter protocol, and ecological supervision and monitoring
* Change find procedures (physical cultural resources)
* Pollution prevention including emergency response protocols
* Solid and hazardous waste management practices including tracking of hazardous waste generation, storage, transport and disposal including transboundary movement
* Environmentally safe and sound system for take back and safe disposal [recycling] of defunct or used batteries
* Hazardous materials transport, use and storage
* Transport management including abnormal loads by sea and land
* Erosion and sedimentation practices
* Control of infectious and communicable diseases (e.g. dengue)

Form EXP – 6: Environmental, Health and Safety Dedicated Personnel

Please provide CV [Form PER-2] of the in-house personnel of the main contractor/ Joint Venture partners for the EHS positions specified in Section 6 (Employers Requirements):

Availability of in-house personnel to provide design input and conduct the EIA:

* EIA coordinator with international experience in wind turbine assessment, the IFC EHS wind energy guidelines and IFI safeguards/equator principles
* National impact assessor (registered under the Maldives EIA regulations)
* Natural and critical habitat assessment expert with international experience including of IFI safeguards/equator principles
* National terrestrial and marine ecologists
* Noise assessment and modelling consultant with experience in wind turbine assessment to international good industry practice e.g., ETSU
* Shadow flicker assessment and modelling consultant with experience in wind turbine assessment to international good industry practice
* Quantitative risk assessor for H&S having experience of wind turbines

Availability of in-house personnel dedicated to EHS issues per the EMP requirements during construction, operation and maintenance works:

* Environmental and Social Manager (Environmental Specialist)
* Health and Safety Specialist
* Terrestrial Ecologist
* EHS supervisor during construction and maintenance works
* H&S Steward(s) during construction and maintenance work

Form EXP - 7: Subcontractors

Fill out one (1) form per contract.

|  |  |  |  |
| --- | --- | --- | --- |
| **Contract for the Major Items** | | | |
| **Contract No** . . . . . . **of** . . . . . . | **Contract Identification** |  | |
| **Award Date** |  | **Completion Date** |  |
| **Role in Contract** | * **Contractor** | * **Management Contractor** | * **Subcontractor** |
| **Total Contract Amount** | **$** | | |
| **If partner in a Joint Venture or Subcontractor, specify participation of total contract amount** | **Percent of Total** | **Amount** | |
| **Employerʼs name**  **Address**  **Telephone number**  **Fax number**  **E-mail** |  | | |
| **Description of the Major Items in Accordance with Criterion 2.5 of Section 3 (Evaluation and Qualification Criteria)** | | | |
|  |  | | |

1. These institutions include African Development Bank, European Bank for Reconstruction and Development (EBRD), Inter-American Development Bank (IADB), and the World Bank Group. According to paragraph 9 of the Agreement, other international financial institutions may join upon the consent of all Participating Institutions and signature of a Letter of Adherence by the international financial institution substantially in the form provided (Annex B to the Agreement). Upon adherence, such international financial institution shall become a Participating Institution for purposes of the Agreement. Bidders are advised to check [www.adb.org/integrity](http://www.adb.org/integrity) for updates. [↑](#footnote-ref-2)
2. If none has been paid or is to be paid, indicate “None”. [↑](#footnote-ref-3)
3. Use one of the two options as appropriate. [↑](#footnote-ref-4)
4. All italicized text is for use in preparing this form and shall be deleted from the final document. [↑](#footnote-ref-5)
5. Or the employer may use “Uniform Rules for Demand Guarantees (URDG), ICC Publication No. 458” as appropriate. [↑](#footnote-ref-6)
6. Additional capacity beyond the standard requirements necessitates thorough demonstration to ensure full compliance with Integrated Environmental Evaluation (IEE) and Environmental Management Plan (EMP) guidelines before the design can be approved. [↑](#footnote-ref-7)