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DRUK HOLDING & INVESTMENTS LTD.

GROUP STANDARD BIDDING DOCUMENT

GOODS



Part I: NOTICE INVITING TENDER

NIT No: BT/AMF panel, Dummy Load, DG Cranking/2022 dated 27th January 2022

1. Bhutan Telecom Ltd. invites eligible bidders to submit your e-bid for the supply of AMF panels, Dummy Load and DG cranking.
2. Bhutan Telecom Limited would like to inform the interested firms to kindly visit the website www.tender.bt for vendor registration and to submit the proposal online.
3. The user manual for vendor registration and bidding process is available on the website www.tender.bt or else can be downloaded from following links:-User manual for vendor registration-User manual for Bidding process
4. SBD Timeline

NIT No.	BT/AMF panel,Dummy Load,DG cranking/2022
Bid Submission & EMD Submission Date & Time	On or before 14 th February 2022 (17:00 hrs)
Bid Opening Date & Time	15 th February 2022 (14:00 hrs)
RFP shall be available at	www.tender.bt

Part II: Terms and Conditions

1. Scope of Supply

1.1. The bidder(s) may quote for any or all items as per the technical specification as attached at Annexure -IV

2. Clarification to the bidding document

2.1. Further information can be obtained in writing from procurement@bt.bt/sandeep.monger@bt.bt not later than 10th February 2022.

3. Documents comprising bid

3.1. The bid must be accompanied by the following document:

- i. Bid Security
- ii. Valid Trade license
- iii. Tax clearance
- iv. Integrity Pact Document
- v. OEM certificate
- vi. Catalogue and Datasheet
- vii. Any other relevant documents as required

4. Bid Price

4.1. All prices shall be quoted in BTN/INR. The quoted price shall be CIF, Thimphu including taxes, duties and other levies to the final place of delivery, if required.

4.2. The final place of delivery of Equipment is Central Stores, Thimphu

4.3. Each item shall be evaluated and contract awarded separately to the firm(s) offering the lowest evaluated price for each item.

Or

4.4. The bidder(s) must quote for all the items under this bid if in lot. Price bids will be evaluated for all the items together and contract awarded to the firm offering the lowest evaluated total cost of all the items.

4.5. All price quoted shall be on per unit basis and valid for 12 months from the date of bid opening. The selected bidders shall be contacted for additional supply of any in-listed item in the future or repeat order basis for the entire period.

5. Bid Validity

5.1. The bid shall be valid for 90 days from the date of submission of the bid. In exceptional circumstances, prior to the expiration of the bid validity period, the Purchaser may solicit the Bidder's consent to an

extension of the bid validity period. The request and responses shall be made in writing. A bid valid for a shorter period shall be considered non-responsive.

6. Bid Security

6.1. The bid shall be accompanied by the bid security of **2% of the bid value** in the form of Cash Warrant/ Unconditional Bank Guarantee/ Banker Cheque/ Demand draft in the name of the **Chief Executive Officer, Bhutan Telecom Ltd** issued by the Financial Institution enforceable in any Banks in Bhutan.

- a) The Bid security shall be valid up to 3 months.
- b) The Bid Security is to be submitted as a part of the Bid in a separate sealed envelope and be submitted to Finance & Accounts Division or to our nearest Branch Office within the specified time in SBD timeline.
- c) Any Bid not accompanied by bid security of adequate value and validity shall be rejected by the Purchaser and considered as non-responsive.

OR

- d) *The bid security /EMD to be directly deposited using BTL BOB Account No: 100914942 (BTL Disbursement account) and the deposit details to be emailed to sonam.dema2203@bt.bt along with tender and vendor details.*

6.2. The bid security shall be forfeited in the following cases:

- a) If the Bidder withdraws the bid after Bid opening during the period of Bid validity.
- b) If the Bidder does not accept the correction of the Bid price;
- c) In the case of a successful bidder, if the bidder fails within the specified time limit to sign the Contract or furnish Performance Security.

7. Purchaser's Right to Accept Any Bid, and Reject Any or All Bids

7.1. The Purchaser is not bound to accept the lowest bid and reserves the right to accept or reject any or all the bids without assigning any reason whatsoever.

8. Quantity Variation

8.1. Depending on the final requirement, at the time of the award of the Contract, the Purchaser may increase or decrease the quantities by twenty five percent (25%) of the indicated quantity.

9. Award of Contract

9.1. The Purchaser shall award the Contract to the Bidder whose offer has been determined to be the lowest evaluated Bid. The Purchaser shall issue Notification of Award/ Purchase Order to the successful Bidder. Until a formal Contract is prepared and executed, the Notification of Award/Purchase Order shall constitute a binding Contract.

10. Delivery Schedule

- 10.1. The supply of the Goods and related service shall be completed within **two months** from the date of issue of the Purchase Order/ signing of the contract.
- 10.2. Installation and commissioning of 11 numbers of AMF panels to be completed within two weeks from the date of ready of site.

11. Performance Security

- 11.1. The Supplier shall be required to furnish Performance Security of 10% of the quoted price in the form of cash warrant, demand draft or unconditional Bank Guarantee in the name of Chief Executive Officer, Bhutan Telecom issued by a financial institution enforceable in any Banks in Bhutan, which shall be furnished upon issuance of notification of the award. Performance Security shall be valid till the end of warranty period and will be returned after the end of warranty period.

12. Liquidated Damage

- 12.1. If the Supplier fails to deliver any or all of the Goods by the date(s) of delivery or fails to perform the Related Services within the period specified in the Contract/ Purchase Order, the Purchaser shall deduct Liquidated Damages at the rate of **0.1%** per day for each day to a maximum of 10% of the total PO value.

13. Payment Terms

- 13.1. Equipment: **100% payment** shall be released on receipt of full quantity of materials and no part payment shall be entertained during the execution of the supply order.
- 13.2. Services: 100% payment after successful completion of installation and commissioning of AMF panels and after UAT and taking over of component.
- 13.3. At the time of release of payment, Tax shall be deducted at Source [TDS] from the gross amount of bills as per the Income Tax Act of the Bhutan. The Purchaser shall furnish necessary TDS Certificate to the Bidders, issued by the Department of Revenue & Customs, RGoB.

14. Warranty Period

- 14.1. The Supplier shall provide the warranty for a period of **one year**, for the goods to be supplied and confirm that if any faults are detected within the warranty period in the supplied/installed Goods, the Supplier shall be bound to rectify the fault or replace the Goods as the case may be. The performance security shall be used to cover the cost of supplies not delivered or defective items not replaced or rectified.
- 14.2. Any goods found defective during the warranty period shall be replaced/ repaired by the supplier at his cost. If the supplier fails to rectify and or replace the defective goods, the Purchaser shall do it at the cost of the supplier.

15. Submission of Bid

- 15.1. The Bidder shall submit the Bid Submission Form using the Form in the Annexure I if so required: This form must be completed without any alterations to its format, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested.
- 15.2. As such a bid in which the Bid Submission Form not duly filled, signed and sealed by the bidder shall be rejected.

16. Termination

- 16.1. The Purchaser may, by written notice, terminate the Purchase Order or Contract in whole or in part at any time for its convenience:
- 16.1.1. If the Supplier fails to perform any other terms and conditions specified with the Purchase Order/ Contract, or exceeds the maximum amount of Liquidated Damages; and
- 16.1.2. If the Supplier fails to perform any other obligation(s) under the Purchase Order / Contract, and if the Supplier does not take any remedial action within a period of **one month** after receipt of a notice of default from the Purchaser specifying the nature of the default(s).

17. Governing Law

- 17.1. The Contract/ Purchase Order shall be governed by and interpreted in accordance with the Laws of Bhutan.

18. Dispute Resolution

- 18.1. Any settlement of dispute or arbitration of matter arising from the contract shall be settled as per the Alternative Dispute Resolution Act of Bhutan 2013 for Bhutanese Supplier and United Nations Commission on International Trade Law [UNCITRAL] Arbitration Rules of 1976 for International Supplier and will be binding for both parties.

Part III: Forms:

Annexure-I Bid Submission Form

[The Bidder shall fill in this form in accordance with the instructions indicated. No alterations to its format shall be permitted and no substitutions shall be accepted.]

Date :*[insert date of Bid submission]*

Tender No.:*[insert number]*.

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

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda number: *[insert the number and date of issue of each addendum]*;
- (b) We offer to supply in conformity with the Bidding Documents and in accordance with the Schedule of Supply the following Goods and Related Services: *[insert a brief description of the Goods and Related Services]*;
- (c) The total price of our Bid, excluding any discounts offered in item is: *[insert the Bid Price in words and figures, indicating the various amounts and their respective currencies]*;
- (d) The discounts offered and the methodologies for their application are:

Discounts. If our Bid is accepted, the following discounts shall apply: *[Specify in detail each discount offered and the specific item of the Schedule of Supply to which it applies.]*

Methodology of Application of the Discounts. The discounts shall be applied using the following methodology: *[Specify in detail the methodology that shall be used to apply the discounts]*;

- (e) Our Bid shall be valid for a period of *[insert number]* from the date fixed for the Bid submission deadline and it shall remain binding upon us and may be accepted at any time before expiry of that period;
- (f) If our Bid is accepted, we commit to provide a Performance Security in accordance with Clause 15 for the due performance of the Contract;

- (h) We, including any subcontractors or suppliers for any part of the Contract, have nationality from eligible countries, viz: [insert the nationality of the Bidder, including that of all parties that comprise the Bidder if the Bidder is a JV/C, and the nationality each subcontractor and supplier]
- (i) We have no conflict of interest;
- (j) Our firm, its affiliates or subsidiaries - including any subcontractors or suppliers for any part of the contract - has not been declared ineligible by the Purchaser under the laws or official regulations of Bhutan;
- (k) We have read the terms and conditions carefully, understood and agree to comply with all the clauses which are mentioned therein. In case of any breach of any condition on our part, we shall be liable for actions as per terms and conditions of the Contract.
- (l) We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed.
- (m) We understand that you are not bound to accept the lowest evaluated Bid or any other Bid that you may receive.
- n) We accept the Vendor Performance Management System.

Signed: _____ [insert signature of person whose name and capacity are shown]

In the capacity of _____ [insert legal capacity of person signing the Bid Submission Form]

Name: _____ [insert complete name of person signing the Bid Submission Form]

Duly authorized to sign the bid for and on behalf of: _____ [insert complete name of Bidder]

Dated on _____ day of _____ [insert date of signing]

Annexure II- Performance Security Form

[The bank, as requested by the successful Bidder, shall fill in this form in accordance with the instructions indicated] Date: [insert date (as day, month, and year) of Bid submission]

IFB No. and title: *[insert no. and title of bidding process]*

Bank's Branch or Office: *[insert complete name of Guarantor]*^[SEP] **Beneficiary:** *[insert complete name of The company]*^[SEP] **PERFORMANCE GUARANTEE No.:** *[insert Performance Guarantee number]*

We have been informed that *[insert complete name of Supplier]* (hereinafter called "the Supplier") has entered into Contract No. *[insert number]* dated *[insert day and month]*, *[insert year]* with you, for the supply of *[description of Goods and related Services]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a Performance Guarantee is required.

At the request of the Supplier, we hereby irrevocably undertake to pay you any sum(s) not exceeding *[insert amount(s)]*¹ *in figures and words* upon receipt by us of your first demand in writing declaring the Supplier to be in default under the Contract, without cavil or argument, or you needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This Guarantee shall expire no later than the *[insert number]* day of *[insert month]* *[insert year]*,² and any demand for payment under it must be received by us at this office on or before that date. We agree to a one-time extension of this Guarantee for a period not to exceed *[six months]* *[one year]*, in response to The company's written request for such extension, such request to be presented to us before the expiry of the Guarantee.

[signatures of authorized representatives of the bank and the Supplier]

Annexure III- Contract Forms

[The successful Bidder shall fill in this form in accordance with the instructions indicated]

THIS CONTRACT AGREEMENT made the *[insert number]* day of *[insert month]*, *[insert year]*,

BETWEEN

1. (1) *[insert complete name of Purchaser]*, a *[insert description of type of legal entity, for example, an agency of the Ministry of of the Government of Bhutan, or corporation incorporated under the laws of Bhutan]* and having its principal place of business at *[insert address of Purchaser]* (hereinafter called “The company”), and [SEP]
2. (2) *[insert name of Supplier]*, a corporation incorporated under the laws of [SEP]*[insert country of Supplier]* and having its principal place of business at *[insert address of Supplier]* (hereinafter called “the Supplier”). [SEP]WHEREAS The company invited Bids for certain Goods and ancillary services, viz., *[insert brief description of Goods and Services]* and has accepted a Bid by the Supplier for the supply of those Goods and Services in the sum of *[insert Contract Price in words and figures, expressed in the Contract currency/ies]* (hereinafter called “the Contract Price”). [SEP]NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to. [SEP]

The following documents shall constitute the Contract between The company and the Supplier, and each shall be read and construed as an integral part of the Contract, viz.: [SEP]

- (a) This Contract Agreement; [SEP]
- (b) The Special Conditions of Contract; [SEP]
- (c) The General Conditions of Contract; [SEP]
- (d) Technical Requirements (including Schedule of Supply and Technical Specifications.) [SEP]
- (e) The Supplier’s Bid and original Price Schedules; [SEP]
- (f) The company’s Notification of Award of Contract; [SEP]
- (g) The form of Performance Security; [SEP]
- (h) The form of Bank Guarantee for Advance Payment; [SEP]
- (i) *[Insert here any other document(s) forming part of the Contract]* [SEP]

This Contract shall prevail over all other Contract documents. In the event of any discrepancy or inconsistency within the Contract documents, then the documents shall prevail in the order listed above.

In consideration of the payments to be made by The company to the Supplier as

3. hereinafter mentioned, the Supplier hereby covenants with The company to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The company hereby covenants to pay the Supplier in consideration of the provision of the Goods and Related Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.
5. IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of Bhutan on the day, month and year indicated above.
6. For and on behalf of The company Signed: *[insert signature]*
7. in the capacity of *[insert title or other appropriate designation]*^[]_[SEP] in the presence of *[insert signature]* *[insert identification of official witness]*
8. For and on behalf of the Supplier^[]_[SEP] Signed: *[insert signature of authorized representative(s) of the Supplier]*
9. in the capacity of *[insert title or other appropriate designation]*^[]_[SEP] in the presence of *[insert signature]* *[insert identification of official witness]*

Annexure IV- Technical Specifications

Description of Item:

Supplying of Auto Mains Failure panel suitable for different capacity of DG set as per the BOQ provided below (See Annexure 1) complete with

- ✓ EC2 microprocessor-based controller
- ✓ Relays, Timers, Set of CTs for metering and protection
- ✓ Energy analyser to indicate currents, voltages, frequency, power factor, KW, kWh, KVAR, KVA
- ✓ Provision for overload, short circuit, restricted earth fault, under frequency, undervoltage, overvoltage.
- ✓ Control Cabling from AMF Panel to Diesel engine and elsewhere if required, all complete and interlocking and existing power cables.
- ✓ Control cable from AMF Panel to the system battery voltage (48V DC) to sense the system voltage and start the DG.
- ✓ The coil of the Mains contactor should operate with the supply voltage ranging from 150 – 250 V

A. Operation:

- When the Mains (Grid Power) is healthy, the Mains contactor should be ON.
- When Mains is unhealthy, i.e. no voltage, undervoltage, overvoltage, the Mains contactor should trip. The DG should NOT start automatically. The station should run on the back up batteries and as and when the station batteries have been dropped below its threshold value, the DG should START automatically, develop the voltage and connect the DG breaker to Load.
- When the Mains is restored, the relay should monitor the Mains for healthiness for 05 minutes. Disconnect the DG supply and connect the Mains contactor ON. The DG should stop after 1 Minute (cool off time) and should go on stand by mode again.

B. General Features:

- The AMF Panel should be indoor type, floor mounted, dust and vermin proof in sheet still construction.
- The panel should have doors at the front and back for proper maintenance.
- The panel should have steel channel fabricated kick plate and bolted type cable gland plate fitted at the bottom.
- The panel shall be constructed from 2 mm thick steel sheet. All the joints shall have proper gaskets.
- All incoming and outgoing power and control cables shall be from the bottom.

C. Panel to be equipped with the following:

- Contactors of suitable rating...2 nos and of suitable rating
- Circuit breakers. Ratings and numbers as required for necessary isolation.
- CT for metering energy analyser

- Composite meter for digital display of current, voltage, frequency, kWh, kVAR, kVA, etc
- Battery Charger
- Terminal blocks and wiring terminal blocks of robust type and generally not less than 15 amps capacity with appropriate volt grade for DC and AC and rest of the junction shall be employed in such a manner so that they are freely accessible for maintenance.
- All control and small wiring inside the panel shall also be done with suitable current rating copper conductor PVC insulated and suitable working volts grade.
- All ends shall be identified with ferrules at the ends.

D. Indications:

- Set Running
- DG on Load
- Mains On
- Mains on Load
- Phase Indication

E. Painting:

- The entire panel shall be given primer coat after proper treatment and powder coating before assembling of various items.

F. Equipment Requirements

- Control system equipment and components such as relays, contactors, timers, etc., both for automatic operation on main failure and as well as for manual operation.
- Equipment and components necessary for testing generating sets healthiness with test mode and with load on mains.
- Necessary instruments and accessories such as voltmeter, power factor meter, kW meter, kVAh/kWh meter, ammeter, frequency meter, etc in one analyser unit with selector switch to obtain the readings of desired parameters.
- Necessary indicating lamps, fuses, terminal blocks, push buttons, control switches as required.
- Necessary engine/generating set shut down devices due to fault/abnormalities.
- Necessary visual audio alarm indication as specified.
- Necessary battery charger.

G. Engine shutdown and alternator protection equipment.

Following shutdown and protection system shall be integrated in the control panel

- a) Engine:
 - Engine overspeed shutdown
 - Low fuel sensor level.
- b) Alternator
 - Overload

- Short Circuit
- Earth Fault
- Overvoltage

H. Monitoring and Metering Facilities

Necessary energy analyser unit for visual monitoring of mains, alternator and load voltage, current, frequency, kWh, power factor etc.

A. Set of visual monitoring lamp indication for

- Load on Set
- Load on Mains
- Set on Test
- Set lamp for engine shutdown for overspeed, low lube oil pressure, and high coolant water temperature, overload trip of alternator, earth fault trip of alternator, engine lock out and fail to start, etc.

All these indications shall have an audio and visual alarm, when operator operates the alarm, the hooter will be silenced and the fault indication will become steady until reset by operating a reset button.

I. Operating Devices

A set of operation devices shall be incorporated in the front panel as under

- It shall be feasible to lock the switch in OFF position for maintenance and shutdown purpose.
- Operation selector switch OFF/AUTO/MANUAL/TEST position.
All the functional requirements in Auto Mode are to be achieved through microprocessor-based AMF controller. The logic for starting and stopping shall be:
 - If the mains fail, or more phase is not available and if phase reversal.
 - If any phase voltage of mains is out of present limits, however, there should be a provision to set the limits of higher and lower phase voltages as per the site requirement.
 - The mains supply within this range shall be considered as healthy so as to avoid continuous running of DG set.
 - The AMF Panel system should operate with allowable operating range of mains AC supply & the AMF relay should be able to trigger DG set for starting and stopping in accordance with this range.
 - Switch the load to the engine supply after suitable time delay, after starting the engine on mains failure/low voltage/high voltage/phase reversal.
 - Suitable the load back to the mains supply after suitable time delay when the healthy mains supply is restored and stopping the engine.
 - Attempt to start the engine up to three times on failure of earlier attempts with suitable time interval.

Auto Mode:

- As soon as the mains supply has failed/low voltage/high voltage/phase missing/phase reversal, the DG set should automatically start after only when the telecom system voltage reaches below threshold, say 46.0V which should be adjustable.
- After reaching the threshold battery voltage, when the mains supply voltage is still not available or falls below set value on any phase, the monitor module should initiate a start up a DG set. If the mains is available, the AMF should sense it and take the load through mains supply.
- Cranking up time – 1 to 99 seconds enabling time for starter. The timer is reset if the engine starts before the programmed time.
- Start attempts – 1 to 3 numbers of automatic attempts during automatic start cycle & attempts interval – 1 to 99 seconds time interval between starting pulse attempts.
- A three-attempt starting facility shall be provided 6 seconds ON, 5 seconds OFF, 6 seconds ON, 5 seconds OFF, 6 seconds ON. If at the end of the third attempt, the engine does not start, it shall be locked out of start and a master timer shall be provided for this function.
- Suitable adjustment timers are to be incorporated which will make it feasible to vary independently ON-OFF setting periods from 1 – 10 seconds. If alternator does not build up after the first or second start as may be further starting attempt will not be made until the starting facility is reset.
- Generator voltage time – time for stable generator voltage to close DG contactor to load (0 to 300 seconds). Once the alternator has built up the voltage, the alternator circuit breaker shall close connecting the load to the alternator. The load is now supplied by the alternator.
- Mains restore time – to initiate automatic stop of DG after 0 to 300 seconds of mains in stable conditions. When the mains supply is restored and is healthy as sensed by the line voltage monitoring setting both for under voltage and unbalance, the system shall be monitored by a suitable timer which can be set between 1 minute to 10 minutes for the load to be transferred automatically to mains supply.
- Stop solenoid time – 10 to 99 seconds enabling time for stop solenoid.
Manual Mode:
 - In a manual mode it shall be feasible to start the generator set by the operator on pressing the start push button.
 - Three attempts starting facility shall be operative for the start-up functions.
 - Alternator circuit breaker closing the trip operations through operator only by pressing the appropriate button on the panel and closure shall be feasible only after alternator has built up full voltage. If the load is already on Mains, pressure on close button shall be ineffective.
 - Engine shut down, otherwise due to faults shall be manual by pressing a stop button.

J. Standards, Safety

- Safety of household & similar electrical appliances/IEC 60364-1/ISO 20282-1:2006
- Electrical safeties shall meet IEC 60335-1, IEC 60364-1. Voltage, frequency & phasing single phase, three phase.

K. Manufacturer/Supplier shall furnish

- List of important spare parts and accessories with their part number and costing.
- Provide a comprehensive technical literature/manual, illustrated (including all wiring diagram) suitable for use by the site engineers including trouble shooting manual.
- CD consisting the PPT of logical flow of operations/Circuit Diagram/Controller details information, etc.

AMF Panel Single Phase 12 V							
Sl.No	Pc	Site Location	Material Description	Qty	Existing DG capacity	Required DG capacity (Minimum)	Existing DG type
	Samste	Gomtu Exchange	AMF Pannel with RMS, 1Phase 12V (AMF Pannel with RMS, 1Phase 12V (Phase/Ip Rting/Power rating/Mater type)	1	20 KVA	25 KVA	Kirloskar
		Tendu Exchange		1	20 KVA	25 KVA	Kirloskar
		Sibsoo exchange		1	20 KVA	25 KVA	Kirloskar
		Namgay choling		1	20 KVA	25 KVA	Kirloskar
		Chargari		1	16.5 KVA	20 KVA	FG Wilson
1	Phuntsholing	Allay Top		1	16.5 KVA	20 KVA	FG Wilson
2		Pasakha BTS		1	20 KVA	20 KVA	Kirloskar
	Samdrup Jongkhar	Gayzor		1	16.5 KVA	20 KVA	FG Wilson
				8			

AMF Panel Three Phase 24 V								
Sl.No	Region	Pc	Site Location	Material Description	Qty	Existing DG capacity	Required DG capacity (Minimum)	Existing DG type
1	SWR	Gedu	Gedu Exch	AMF Pannel with RMS, 3 Phase 24 V (AMF Pannel with RMS, hase/Ip Rting/Power rating/Mater type)	1	26 KVA	35 KVA	NEC
	Total				1			