

**Information Sheet for supply and Installation of Synchronizing
Panel – B. Eydhafushi**

Section A

a) **Information**

#	Description	Quantity
1	Synchronizing Panel Board	01 Nos
	Total	01 Nos

Quotation shall indicate the following;

a) **Price**

- The bidder shall submit quotation on CIF basis to Male' port.
- All items shall be quoted in the quotation, please refer section (b) specifications
- Price shall include travel/ accommodation charges for factory testing
- Quotation shall indicate the unit price, total price for each item and total price of the quotation and the quoted currency shall be clearly specified. The quotation shall separately indicate additional charges such as freight charges, insurance, etc.
- The unit rates and prices shall be quoted.

b) **Delivery Period**

- The delivery period shall be stated in 'calendar days'.
- If the delivery period indicates 'ex-stock', or if the duration is not specified, it shall be taken same as the party offering the longest delivery period.



c) Payment Terms

- The payment terms shall be stated in ‘days or months’, and the payments will be released in equal monthly instalments.
- No points will be given for payment terms if the supplier requests for Letter of Credit (LC).
- A maximum of 15% of the entire project can be provided as an advance if requested in the bid, however, it cannot be tied to the project starting date.
- For 15% advance bid awarded party shall submit a bank guarantee letter along with a pro-forma invoice.

d) Technical Specifications

- All the relevant information including the brand shall be given to enable technical evaluation of the items quoted.
- Technical compliance letter will be required to enable technical evaluation
- Feeder Panel should comply with the attached requirements, otherwise the quotation shall be rejected.

e) Quotation validity should be a minimum of 60 days from the date of quotation opening.

f) Bid Security validity is valid for Twenty (20) days beyond the validity of the bid.

g) Clarification Time: Please send your queries to tender@fenaka.com.mv from 16th September 2019, to 20th September 2019.

Note: It is in FENAKA Corporation Limited’s discretion to reject/cancel any quotation which does not fulfil or comply the above terms.

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Section B

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Specifications

a) Specification of Synchronizing Panel

Supply and Installation of Generator Synchronizing Panel Board

Technical Specification of Panel Board

Free Standing Synchronizing Panel complete with the following

A) 5 Nos x Generator cubicles (size: minimum 2100 x 660 x 900 mm) powder coated, anti-corrosive enclosure with cable bottom entry type. Each complete with;

- 1 Nos x 2500A, 3Pole, ACB, motorized with UVT 220Vac Coil
- Tin coated copper bus bar, 8000A
- Synchronizing and load share module; DEEP SEA 8810
- Analog Amp meter, volt meter, frequency meter, power factor meter, kW meter and kWh meter
- Over current and Earth fault protection
- RPM, Run hour, Lub oil pressure, water temperature readings
- ACB ON/OFF indicator lights and generator incoming lights
- Battery Charger, 24V, 5A
- Protection and measuring CTs, set of Relays, fuses and terminations.
- Internal wiring, termination and labelling

B) 1 Nos x Feeder Cubicle (size: minimum 2100 x 660 x 900 mm) powder coated anti-corrosive enclosure with cable bottom entry type, complete with;

- 4 Nos x 250A, 3Pole, MCCB with shunt trip-coil, volt: 220V
- 4 Nos x 300A, 3Pole, MCCB with shunt trip-coil, volt: 220V
- 2 Nos x 100A, 3Pole, MCCB with shunt trip-coil, volt: 220V
- 10 Nos x Earth leakage relays
- 10 Nos x Amp meter with selector switch
- 10 Nos x 4Pole Terminal Block
- 1 Lot protection and measuring CTs
- 1 Lot flexible power cables with terminations
- 1 Lot Control cable, internal wiring, termination and labelling
- All MCCBs make: Schneider, ABB , Terasaki or equivalent

C) 2 Nos, Transformer Feeder Cubicle (size: minimum 2100 x 660 x 900 mm) powder coated anti-corrosive enclosure with cable bottom entry, complete with;

- ACB, 3Pole, 4000A, motorized. Make: Schneider, ABB or Terasaki
- Bus bar rating, 8000A, Copper, tin coated
- Breaker ON/OFF control with push button, with indicating lights
- Analog Amp meter for R, Y, B and digital multifunction power meter
- Over current protection relay and earth fault protection relay
- 1 Lot flexible power cable with termination
- 1 lot control cable with internal wiring, termination and labelling

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1. The panel dimensions shall meet the given minimum dimensions for each cubicle (2100 X 660 X 900 mm) to allow same panel to be upgraded to larger size generator in future.
2. Bus bar shall be arranged to fit the full length of the panel board including the feeder panel.
3. Panel shall be designed in such a way that it could be transported to the islands in separate cubicles as there won't be any lifting mechanism if the whole panel set is sent to the island as a single object.
4. The generator controller DSE8810 cannot be replaced with any other model. The supplier shall provide the manufacturer's authorisation to confirm the origin of the controller.
5. The panel shall be manufactured using high quality electro galvanized MS plates, treated and powder coated upto 80 micron or higher.
6. The thickness of the metal sheet shall be at least 1.2 mm, and other plates shall be 1 mm. The thickness of the main frame shall not be less than 1.5 mm.
7. Bus bar to breaker connections shall use tin plated copper bus bars.
8. Main bus bar shall be tin plated, and rated 8000 amps, and copper content shall meet the relevant IEC and BS standards.
9. The panel internal wiring shall be wired using 2.5sqmm thick flexible copper cables. All the wires shall be properly labelled and terminated with suitable terminal.
10. The relays, battery chargers, and meters shall be from reputable brands and the drawings and technical specification must be provided with the bid documents.
11. Free technical support shall be provided during installation, and training for engineers must be given to install the panels.
12. A single line diagram must be provided with the technical specification of the materials used in the panels.
13. Feeder panel breakers must be labelled on both ends.
14. Stainless Steel Bolts and nuts must be provided to connect the outgoing feeder cables.
15. The cubicles must be arranged as the drawing given.
16. The ACB'S must be draw out type.
17. One computer system must be provided with all necessary items to install and monitor engine by using DSE module 8810.
18. A battery charger must be installed for every engine, inside the engine control panel.
19. The panel rate shall include assembling charges.

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Section C

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Required Document

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Please submit your bids addressed to;

Managing Director
Fenaka Corporation Ltd
Port Complex Building, 7th Floor
Hilaalee Magu, Maafannu
K. Male'

The proposal and the envelope must bear the reference number of the tender. All envelopes must be duly sealed and stamped. Fenaka Corporation will not be liable for the misplacement or premature opening of unlabeled sealed proposals. The bids will be opened in the presence of the bidders. The bids received after the stated time, and the bids received via email will not be accepted.

For more information and clarifications, please email us at tender@fenaka.com.my until

09th September 2019