

Information Sheet for Procurement Generator Sets

Section A

a) Bid Information

#	Description	Size	Quantity
1	Supply of Generator Set	2MW	02

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 bid, 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, taxes, 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 bidder 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.
- Generator set should comply our specification and requirements, if not the bid will be rejected
- The documents required for technical evaluation are:
 - Technical data sheets of engine and the alternator
 - Datasheets specifying cooling system rated at ambient temperature 50°C
 - Certificate of authenticity specifying manufacturer / assembler is an OEM of an engine brand

e) Factory Testing:

- The generator should be fully tested at the manufacturer workshop in the presence of client's appointees to check the ratings, overload, functional tests on a dummy load prior to dispatch. The testing shall be conducted to internationally accept testing standards.
- The bidder shall arrange airfare, transportation, accommodation and lodging for two of client's technicians for the testing (minimum of two day for testing)

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

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

h) Clarification Time: Please send your Queries to tender@fenaka.com.mv from 07th July 2019 till 14th July 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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Generator Set Specifications

S/N:	Description	Unit	Qty
1	<p>2000kW prime rated diesel generator set with parameters 0.8 P.F, 11kV, 3 Phase, 4 wires, 50 Hz at 1500 r.p.m. Powered by MTU/MANN/CATERPILLAR or equivalent (internationally reknowned Brand of) engine coupled with Stamford (or an equivalent Brand of) Alternator.</p> <p>The Generator set shall be powered by a MTU/MANN/CATERPILLAR or equivalent engine and assembled/manufactured by an Original Licenced OEM manufacturer/assembler.</p> <p>The engine must produce a mechanical power output (kW_m) which should meet the required electric power (kW_e) of 2000kW and must be coupled with a 2000kW alternator with pre-installed Droop CT and remote mounted control panel. Open type generator set</p>	1	2
	Engine to be complete with following auxilliary items :		
	• Heavy electrical flywheel		
	• SAE flywheel housing		
	• Air filters, Lubricating Oil Filters, Fuel Filters and all other such filter required for operation of the engine		
	• Low lubricating oil pressure switch		
	• High engine temperature switch		
	• lub oil sender		
	• Water Temperature Sender		
	• All necessary items to run and to protect the engine		
	• Starting equipment fitted to engine, consisting of :		
	▪ 24 Volt charging alternator (Brushless)		
	▪ 24 Volt starting motor		
	▪ Fuel Shut-off solenoid		
	▪ Heavy duty lead acid batteries, supplied in a dry charged condition		
	• Governing System		
	The engine to be fitted with a close tolerance Electronic Governing system, which should include efc, actuators, magnetic pickups, etc, including wiring		
	• Cooling Equipment		
	<p>Cooling equipment comprising a heavy-duty tropical remote radiator, with fans driven by Electric Motors (ABB or equivalent) . The radiator core should be electroplated with silver solder tin plated to prevent early failure due to corrosion. Coupon plated radiators are acceptable.</p> <p>Radiator must be designed to adequately cool the generator at an ambient temperature of 50°C</p>		
	• Exhaust system		
	450 mm length of stainless steel below type flexible exhaust, together with suitable flanges and fittings shall be supplied for each silencer.		

	<p>• Alternator</p>		
	<p>The alternator shall be brushless, self-excited revolving type alternator, having class H insulation on both the stator and field windings. It shall be built and rated to BS 5000, tropically impregnated with voltage regulation being in the order of +/- 1.5% from no load to full load under the steady state conditions assuming a speed variation not exceeding 4% on the engine. Anti-Condensation Coil to be fitted in the Alternator. The alternator must produce medium voltage of 11kV.</p>		
	<p>• Generator arrangement and drive</p>		
	<p>The engine and the alternator must be close coupled with SAE flange and shall be mounted on a simplex type base plate constructed of heavy duty rolled steel , bolted and electrically welded, drilled on the underside to allow the fitting of foundation bolts. The base plate shall allow anti-vibration mounts to be fitted. The anti-vibration mounts are to be supplied as loose item.</p>		
	<p>• Finishing</p>		
	<p>After assembling the genset zinc coated self-etching primer should be applied to the complete set.</p>		
1.2	Fuel system	1	No
	<p>A fuel day tank of 12 hours capacity complete with level indicator, drain plug, filler, fuel return with fuel outlet connections and a fuel filter fitted with outlet connection. The day tank and required fittings shall be supplied as loose items. All necessary fittings to be supplied in conformity with engine's fuel flow diagram.</p>		
1.3	Accessories		
	<p>Bidder shall supply following accessories required for installation of the above mentioned generator set. The Components shall meet the British Standard and ISO standards.</p>		
1.3.1	<p>Primary and secondary silencer barrels, exhaust pipe , elbows and flanges to match the engine exhaust</p>	1	Lot
1.3.2	<p>Bolts, nuts and washers for the flanges</p>	1	Lot
1.3.3	<p>Split type rockwool insulation lagging suitable for Exhaust pipes. The lagging shall be covered with High Quality Aluminium foil.</p>	1	Lot
1.4	Spare parts		
	<p>All spareparts and consumable (eg. Fuel filter , etc) required including first major overhaul of the generator set.</p>	1	Lot
1.5	Special Tools		
	<p>Special tools required for maintenance of the generator set</p>	1	Lot

1.6	<p>Factory Testing</p> <p>The generator should be fully tested at the manufacturer workshop in the presence of client's apointees to check the ratings,overload,functional tests on a dummy load prior to dispatch. The testing shall be conducted to internationally accepted testing standards.</p> <p>The bidder shall arrange airfare, transportation, accommodation and lodging for two of client's technicians for the testing (minimum of two day for testing)</p>	1	Lot
1.7	<p>Literature and drawings consisting of :</p>	1	Lot
	<ul style="list-style-type: none"> • 1 No x Manual on How to handle the generation equipment 		
	<ul style="list-style-type: none"> • 1 Nos x Electrical wiring diagram 		
	<ul style="list-style-type: none"> • 1 No x Engine operation and maintenance manual 		
	<ul style="list-style-type: none"> • 1 No x Engine parts catalogue 		
	<ul style="list-style-type: none"> • 1 No x Generator parts catalogue 		
	<ul style="list-style-type: none"> • 1 No x Generator operation and maintenace manual 		
	<ul style="list-style-type: none"> • 1 No x Generator AVR manual 		
	<ul style="list-style-type: none"> • 1 No x Governor control unit manual 		
	<ul style="list-style-type: none"> • 1 No x Engine shop manual 		
1.8	<p>Warranty</p>	1	Lot
	<p>Generator set should carry a warranty against any defect or malfunction for one year from the date of commisioning</p>		

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Section C

Required Document and Evaluation criteria

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Please submit your bids by 18th July 2019, Thursday 14:00pm. (Maldivian time), addressed to;

Tender Ref No: FNK-I/IUL/2019/125

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 unlabelled sealed proposals. The bids will be opened on 18th July 2019, Thursday 14:00pm. (Maldivian time), 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.mv

07th July 2019