

، در ۲ ری دی ۵ وسرم کا بر بر برمنه سر موجع ۲ بر مرجع بر مرجع

Ref: FNK-I/IUL

# **Information Sheet for Procurement Generator Sets**

## a) Bid Information

#	Description	Size	Quantity
1	Supply of Generator Set	1.2MW	02

Quotation shall indicate the following;

## a) Price

- The bidder shall quote for CIF value to Male' port 0
- o All items shall be quoted in the bid, please refer section (b) specifications
- Quotation shall indicate the unit price, total price for each item and total price of the quotation. The quotation shall separately indicate additional charges such as freight charges, insurance, taxes, etc.

# b) Delivery Period

- The delivery period shall be stated in 'calendar days'.
- o 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 0 released in equal monthly instalments.
- o 5% of the bid value will be hold as retention payment till the due of warrantee period.
- No points will be given for payment terms if the bidder requests for Letter of Credit (LC).
- $\circ$  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 has to submit bank guarantee letter along with performer invoice.



ومرما مامرو مندمور مروعه ومرما مامرو مروعه مرد مرمد م

### 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 assembler is a Cummins OEM
- 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) If there is any clarification regarding bid you may send email to <u>tender@fenaka.com.mv</u> from 15<sup>th</sup> October 2019 to 18<sup>th</sup> October 2019.

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



، در ۲ ری دی ده وسرم ماعرو مرموم و جوع فرور مرموع

# b) Generator Set Specifications

بمسبعة لترم الرخيم



، در ۲ ری دی ده وسرم ماعرو بوسطوس موجع ۲ برور بورمج

# SPECIFICATION FOR 1200Kw Generator Set

For Laam Gan

5/N:	Description	Unit	Qty
		1	No
1	1200 kW prime rated diesel generator set with parameters 0.8 P.F, 415 Volts, 3		
	Phase, 4 wires, 50 Hz at 1500 r.p.m. Powered by Cummins engine coupled with		
	the meand Alternator		
	The Generator set shall be powered by a Cummins engine origin (UK, USA) or		
	assembled/manufactured by an Original Cummin's Licenced OEM	100	
	for the and for some block	· 100/0-12	
	The agging must produce a mechanical power output (kWm) which should meet the		
	and must be coupled with a 1200kW and must be coupled with a 1200kW		
	Stamford Alternator with pre-installed Droop CT and remote mounted control panel.		
	The controller chould be Deensea model: 8810 / 8860 engine controller.		
	Motorised TP, 2000A ACB c/w UVT Coil AC 230 V, brand "MERLIN GERIN") or		
	equivalent.		1.3
	Engine to be complete with following auxilliary items :		
	Heavy electrical flywheel		
	and the standard		
	<ul> <li>Air filters, Lubricating Oil Filters, Fuel Filters and all other such little required</li> </ul>		
	for operation of the engine		
	Low lubricating oil pressure switch		
	High engine temperature switch     lub oil sender		
	- Mistor Temperature Sender		
	All pacescapy items to run and to protect the engine		
	<ul> <li>Starting equipment fitted to engine, consisting or .</li> </ul>	-	
	<ul> <li>24 Volt charging altenator (Brushiess)</li> </ul>		1.
	<ul> <li>24 Volt starting motor</li> </ul>		
	Fuel Shut-off solenoid		-
	<ul> <li>Fuel Shut-on solenoid</li> <li>Heavy duty lead acid batteries, supplied in a dry charged condition</li> </ul>		
	Governing System		
	The engine to be fitted with a close tolerance Cummins Electronic		
	Governing system, which should include efc, actuators, magnetic pickups,		
	etc, including wiring		
	Cooling Equipment	-	
	Cooling equipment compromising a heavy-duty tropical remote radiator,		
	Line hu Electric Motors (ABB of equivalent), the faulator core		
	the algoroplated with silver solder tin plated to prevent early lande		
	due to corrosion. Coupon plated radiators are acceptable.		
	Radiator must be designed to adequately cool the generator at an ambier	ıt	
	temperature of 50°C		1

-----



، در ۲ ۲ د ۲ می و ج وسرم ما بر بر بور ج ۲ بر مردم

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 is to be mounted. These mounts are are to be suuplied as loose item. All necessary fittings to be supplied in conformity with fuel flow diagram.         1.3       Factory testing       1         The generator should be fully tested at the manufacturer workshop in the presence of client/apointees to check the ratings, overload, functional tests on a dummy load prior to dispatch <i>in case the bidder is unable to provide factory test</i> as required the bidder shall provide an extended warranty of one extra year than mentioned in iteme no 10 of this document.       1       No         1.4       Literature and drawings consisting of :       1       Lot         1       No x Electrical wiring diagram       1       Lot         1       No x Generator operation and maintenance manual       1       Lot         1       No x Generator operation and maintenance manual       1       No x Generator AVR manual         1       No x Generator AVR manual       1       No x Generator sets.         5.1       Primary silencer barrel (to match engine exhaust)       2       No         5.3       3m Exhaust pipe dia (to match engine exhaust)       4       No         5.4       Elbows having dia (to match the engine exhaust)       8       No		• Alternator	1.0	
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 Coll to be fitted in the Alternator.         • Generator arrangement and drive The simplex type base plate is of heavy duty rolled steel constructed, bolted and electrically welded, drilled on the underside to allow the fitting of foundation bolts. The engine and the alternator are to be mounted on a base plate and wibration mounts to be supplied as loose item.         • Finishing After assembling the genset zinc coated self-etching primer should be applied to the complete set.         12       Fuel system         1       No         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 is to be mounted. These mounts are are to be supplied so loose item. All necessary fittings to be supplied in conformity with fuel flow diagram.         1.3       factory testing The generator should be fully tested at the manufacturer workshop in the presence of client/apointees to check the ratings, overload, functional tests on a dummy load prior to dispatch <i>in cose the bidder is unable to provide factory test</i> as required the bidder shall provide an extended warranty of one extra year than mentioned in iteme no 10 of this document.       1       No         1.4       Literature and drawings consisting of : 1. No x Engine parts catalogue 1. No x Generator parts catalogue 1. No x Generator operation and maintenance manual 1. No x Generator opera				
The simplex type base plate is of heavy duty rolled steel constructed, bolted and electrically welded, drilled on the underside to allow the fitting of foundation bolts. The engine and the alternator are to be mounted on a base plate and vibration mounts to be mounted underside of the base plate. The vibration mounts are to be supplied as loose item.         Image: Construct of the base plate. The vibration mounts are to be supplied as loose item.           • Finishing After assembling the genset zinc coated self-etching primer should be applied to the complete set.         1         No           1.2         Fuel system         1         No           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 is to be mounted. These mounts are are to be supplied as loose item. All necessary fittings to be supplied in conformity with fuel flow diagram.         1         No           1.3         Factory testing The generator should be fully tested at the manufacturer workshop in the presence of client/apointees to check the ratings, overload, functional tests on a dummy load prior to dispatch in <i>case the bidder is unable to provide factory test</i> as required the bidder shall provide an extended warranty of one extra year than mentioned in iteme no 10 of this document.         1         Lot           1.4         Literature and drawings consisting of : • 1 No x Manual on How to handle the generation equipment • 1 No x Engine operation and maintenance manual • 1 No x Generator parts catalogue • 1 No x Generator parts catalogue • 1 No x Generator AVR manual • 1 No x Generator AVR manual • 1 No x Generator AVR manual • 1 No x Generator AVR manual		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-	48 4 1	
and electrically welded, drilled on the underside to allow the fitting of         foundation bolts. The engine and the alternator are to be mounted on a         base plate and vibration mounts to be mounted underside of the base         plate. The vibration mounts are to be supplied as loose item.         • Finishing         After assembling the genset zinc coated self-etching primer should be applied to the complete set.         1.2         Fuel system         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 is to be mounted. These mounts are are to be supplied as loose item.         All necessary fittings to be supplied in conformity with fuel flow diagram.         1.3       factory testing         The generator should be fully tested at the manufacturer workshop in the presence of client/apointees to check the ratings, overload, functional tests on a duminy load prior to dispatch <i>in case the bidder is unable to provide factory test</i> as required the bidder shall provide an extended warranty of one extra year than mentioned in iteme no 10 of this document.         1.4       Literature and drawings consisting of :       1       Lot         1       No x Selectical wing diagram       1       Lot         1       No x Generator operation and maintenance manual       1       No x Generator operation and maintenace manual         1       No x Generator AVR manual       1<		<ul> <li>Generator arrangement and drive</li> </ul>		
applied to the complete set.       1       No         A fuel ay 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 is to be mounted. These mounts are are to be supplied as loose item. All necessary fittings to be supplied in conformity with fuel flow diagram.       1       No         1.3       Factory testing       1       No         1.3       Factory testing       1       No         1.3       Factory testing       1       No         1.4       Understand the fully tested at the manufacturer workshop in the presence of client/apointees to check the ratings, overload, functional tests on a dummy load prior to dispatch <i>in case the bidder is unable to provide factory test</i> as required the bidder shall provide an extended warranty of one extra year than mentioned in iteme no 10 of this document.       1       Lot         1.4       Uterature and drawings consisting of : <ul> <li>1 No x Electrical wiring diagram</li> <li>1 No x Electrical wiring diagram</li> <li>1 No x Generator parts catalogue</li> <li>1 No x Generator operation and maintenance manual</li> <li>1 No x Generator operation and maintenance manual</li> <li>1 No x Generator AVR manual</li> <li>1 No x Generator operation and maintenance manual</li> <li>1 No x Generator operation and maintenance manual</li> <li>1 No x Generator operation and maintenance manual</li> <li>1 No x Generator AVR manual</li> <li>1 No x Generator AVR manual</li> <li>1 No x Engine shop m</li></ul>		<ul> <li>and electrically welded, drilled on the underside to allow the fitting of foundation bolts. The engine and the alternator are to be mounted on a base plate and vibration mounts to be mounted underside of the base plate. The vibration mounts are to be supplied as loose item.</li> <li>Finishing         After assembling the genset zinc coated self-etching primer should be     </li> </ul>		
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 is to be mounted. These mounts are are to be supplied as loose item. All necessary fittings to be supplied in conformity with fuel flow diagram.       1       No         1.3       Factory testing The generator should be fully tested at the manufacturer workshop in the presence of client/apointees to check the ratings, overload, functional tests on a duminy load prior to dispatch <i>in case the bidder is unable to provide factory test</i> as required the bidder shall provide an extended warranty of one extra year than mentioned in iteme no 10 of this document.       1       Lot         1.4       Literature and drawings consisting of : • 1 No x Manual on How to handle the generation equipment • 1 No x Electrical wiring diagram • 1 No x Engine operation and maintenance manual • 1 No x Generator parts catalogue • 1 No x Generator operation and maintenance manual • 1 No x Generator parts catalogue • 1 No x Generator operation and maintenance manual • 1 No x Generator avR manual • 1 No x Generator sets.	1 2	applied to the complete set.		
filler, fuel return with fuel outlet connections and a fuel filter fitted with outlet       connection is to be mounted. These mounts are are to be suuplied as loose item.         All necessary fittings to be supplied in conformity with fuel flow diagram.       1       No         1.3       Factory testing       1       No         The generator should be fully tested at the manufacturer workshop in the presence of client/apointees to check the ratings, overload, functional tests on a dummy load prior to dispatch <i>in case the bidder is unable to provide factory test</i> as required the bidder shall provide an extended warranty of one extra year than mentioned in iteme no 10 of this document.       1       Lot         1.4       Literature and drawings consisting of :       1       Lot         1       No x Manual on How to handle the generation equipment       1       Lot         1       No X Engine operation and maintenance manual       1       No X Generator parts catalogue         1       No x Generator operation and maintenance manual       1       No x Generator AVR manual         1       No x Governor control unit manual       1       No x Segen and and ISO standards. Items are for the above mentioned generator sets.         5.1       Primary silencer barrel (to match engine exhaust)       2       No         5.3       3m Exhaust pipe dia ( to match engine exhaust)       4       No         5.4       Elbows having dia (to match the engine	1.2		1	No
The generator should be fully tested at the manufacturer workshop in the presence of client/apointees to check the ratings, overload, functional tests on a duminy load prior to dispatch <i>in case the bidder is unable to provide factory test</i> as required the bidder shall provide an extended warranty of one extra year than mentioned in iteme no 10 of this document.       1       No         1.4       Literature and drawings consisting of : • 1 No x Manual on How to handle the generation equipment • 1 No x Engine operation and maintenance manual • 1 No x Engine operation and maintenance manual • 1 No x Generator parts catalogue • 1 No x Generator operation and maintenace manual • 1 No x Generator AVR manual • 1 No x Engine shop manual       1         1.5       Accessories		filler, fuel return with fuel outlet connections and a fuel filter fitted with outlet connection is to be mounted. These mounts are are to be supplied as loose item.		
bidder shall provide an extended warranty of one extra year than mentioned in iteme       no 10 of this document.         1.4       Literature and drawings consisting of : <ul> <li>1 No x Manual on How to handle the generation equipment</li> <li>1 No x Electrical wiring diagram</li> <li>1 No x Engine operation and maintenance manual</li> <li>1 No x Generator parts catalogue</li> <li>1 No x Generator operation and maintenance manual</li> <li>1 No x Generator operation and maintenance manual</li> <li>1 No x Generator operation and maintenace manual</li> <li>1 No x Governor control unit manual</li> <li>1 No x Governor control unit manual</li> <li>1 No x Engine shop manual</li> </ul> <li>1.5 Accessories         <ul> <li>The Components shall meet the British Standard and ISO standards. Items are for the above mentioned generator sets.</li> <li>5.1 Primary silencer barrel (to match engine exhaust)</li> <li>2 No</li> <li>5.2 Secondary silencer barrel (to match engine exhaust)</li> <li>2 No</li> <li>5.3 3m Exhaust pipe dia ( to match engine exhaust)</li> <li>4 No</li> <li>5.5 Flanges having dia (to match the engine exhaust)</li> <li>8 No</li> </ul> </li>	1.3	The generator should be fully tested at the manufacturer workshop in the presence of client/apointees to check the ratings, overload, functional tests on a dummy load	1	No
• 1 No x Manual on How to handle the generation equipment       1       Lot         • 1 No x Manual on How to handle the generation equipment       1       No x Electrical wiring diagram         • 1 No x Engine operation and maintenance manual       1       No x Engine parts catalogue         • 1 No x Engine parts catalogue       1       No x Generator parts catalogue         • 1 No x Generator operation and maintenace manual       1       No x Generator operation and maintenace manual         • 1 No x Generator operation and maintenace manual       1       No x Generator AVR manual         • 1 No x Governor control unit manual       1       No x Engine shop manual         • 1 No x Engine shop manual       1       No x Engine shop manual         • 1 No x Engine shop manual       1       No x Engine shop manual         • 1 No x Engine shall meet the British Standard and ISO standards. Items are for the above mentioned generator sets.       2         5.1       Primary silencer barrel (to match engine exhaust)       2       No         5.2       Secondary silencer barrel (to match engine exhaust)       2       No         5.3       3m Exhaust pipe dia ( to match engine exhaust)       4       No         5.4       Elbows having dia (to match the engine exhaust)       6       No		bidder shall provide an extended warranty of one extra year than mentioned in iteme no 10 of this document.		
• 1 No x Engine operation and maintenance manual       • 1 No x Engine parts catalogue         • 1 No x Generator parts catalogue       • 1 No x Generator operation and maintenace manual         • 1 No x Generator operation and maintenace manual       • 1 No x Generator AVR manual         • 1 No x Generator AVR manual       • 1 No x Generator AVR manual         • 1 No x Generator AVR manual       • 1 No x Governor control unit manual         • 1 No x Engine shop manual       • 1 No x Engine shop manual         1.5 Accessories       —         The Components shall meet the British Standard and ISO standards. Items are for the above mentioned generator sets.       —         5.1 Primary silencer barrel (to match engine exhaust)       2 No         5.2 Secondary silencer barrel (to match engine exhaust)       2 No         5.3 3m Exhaust pipe dia ( to match engine exhaust)       4 No         5.4 Elbows having dia (to match the engine exhaust)       6 No	1.4	<ul> <li>1 No x Manual on How to handle the generation equipment</li> </ul>	1	Lot
1 No x Generator operation and maintenace manual     1 No x Generator AVR manual     1 No x Governor control unit manual     1 No x Engine shop manual     1 No x Engine shop manual     1 No x Engine shop manual     1 S     Accessories     The Components shall meet the British Standard and ISO standards. Items are for the     above mentioned generator sets.     5.1 Primary silencer barrel (to match engine exhaust)     2 No     5.2 Secondary silencer barrel (to match engine exhaust)     2 No     5.3 3m Exhaust pipe dia (to match the engine exhaust)     4 No     5.4 Elbows having dia (to match the engine exhaust)     8 No		<ul> <li>1 No x Engine operation and maintenance manual</li> <li>1 No x Engine parts catalogue</li> </ul>		28
1.5       Accessories       Image: constraint of the section o		<ul> <li>1 No x Generator operation and maintenace manual</li> <li>1 No x Generator AVR manual</li> <li>1 No x Governor control unit manual</li> </ul>		
above mentioned generator sets.	1.5			
5.1Primary silencer barrel (to match engine exhaust)2No5.2Secondary silencer barrel (to match engine exhaust)2No5.33m Exhaust pipe dia (to match engine exhaust)4No5.4Elbows having dia (to match the engine exhaust)6No5.5Flanges having dia (to match the engine exhaust)8No		The Components shall meet the British Standard and ISO standards. Items are for the above mentioned generator sets.		18
.5.2     Secondary silencer barrel (to match engine exhaust)     2     No       .5.3     3m Exhaust pipe dia ( to match engine exhaust)     4     No       .5.4     Elbows having dia (to match the engine exhaust)     6     No       .5.5     Flanges having dia (to match the engine exhaust)     8     No	.5.1		2	No
.5.3     3m Exhaust pipe dia ( to match engine exhaust)     4     No       .5.4     Elbows having dia (to match the engine exhaust)     6     No       .5.5     Flanges having dia (to match the engine exhaust)     8     No	a descent of the second	Secondary silencer barrel (to match engine exhaust)		
5.4         Elbows having dia (to match the engine exhaust)         6         No           5.5         Flanges having dia (to match the engine exhaust)         8         No	and the second	3m Exhaust pipe dia ( to match engine exhaust)		
.5.5 Flanges having dia (to match the engine exhaust) 8 No.	A COMPANY OF LAND	Elbows having dia (to match the engine exhaust)		
.5.6 Bolts, Nuts and Washers for the Flanges, (Each set shall include 1 holt 3		Flanges having dia (to match the engine exhaust)		
washers, 1spring washer 2 Nuts) 1 Lot	5.6	Bolts, Nuts and Washers for the Flanges. (Each set shall include 1 bolt, 2		

بسب المدالرم الرضيم



، رز ۲ ری، ری، رو وسرس ماعر پرمصوص مرح ۲ برور برمدج

1.5.7	Split type rockwool insulation lagging suitable for 75 to 125mm dia. Exhaust pipes. The lagging shall be covered with High Quality Aluminium foil.	1	Lot
1.6	Warranty Generator set should carry a warranty of one year from the date of commisioning	1	Lot

#### **Documents Required for technical evaluation**

- · technical data sheets of engine
- technical data sheets of Alternator
- datasheets specifying cooling system rated at ambient temperature 50°C
- Certificate of Authenticity specifying Assembler is a Cummins OEM

Prepared and checked by :

Abdulla Nashith Director Technical Services & Green Energy Department



، در ۲ بر ۲ بر ۲ مرد م وسرم ما مربو موجع ۲ بره بر مردج

# c)Required Document and Evaluation criteria

بمسبعة لترم الرخيم



و مرما ما مربر من مور مع م و مرما ما مربر مربوع ما مرد مرمد م

# **Required Documents**

- Quotation (inclusive of the delivery period and the payment terms)
- 1 compact disc (CD), along with 2 sets of the bid documents (One Original and One copy set) separately packed and sealed with company stamp. All the pages in bid documents should be stamped and Bind properly
- Specification of the offered product
- Bid Security (As per Announcement), Original
- Experience Letter
- Details of the company
- Specification of the offered product
- Certificate of Authenticity specifying manufacturer /Assembler is an OEM of a genuine reputed international Engine Brand
  - Company profile (This should include the background of the company with the products they supply)
  - Company registration certificate
  - o GST registration certificate
  - o Tax clearance report (6 months validity )
  - o Contact details (Name, Designation, Mobile number, Email)

### **Important Note:**

- Bids lacking the documents above are subjected to be rejected during bid opening. Also it is in FENAKA's discretion to cancel this invitation to bid at any time.
- Bidders can submit maximum of 2 options

#### **Evaluation Criteria**

- Proposal Cost: 50 points
  - o (Lowest proposed price / proposed price) x 50 points
- Delivery: 30 Point
  - o (Shortest Delivery Period) / (Quoted Delivery Period) x 30
- Payment Terms: 20 points for the maximum days given for payment
  - o (Proposed credit period / longest credit period) x 20



و سرم ما مرور می مور مع و و سرم ما مرور می مرد مور مع و بر و ر مرد م

Please submit your bids addressed to;

Tender Ref No: FNK-I/IUL/2019/173 Managing Director Fenaka Corporation Ltd Port Complex Building, 7<sup>th</sup> 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 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* 

01st October 2019