

January 24, 2021

Cross World Power Ltd

Plot #1/B, Road #90 Gulshan # 2, Dhaka 1212

Fax: 58815160 Ph: 58811858

Attn: Md. Mizanur Rahman (Cel# 01755 69 41 21)

Ref: CWPL-AM/0160/21F

Sub : Work Order for Supply & Installation of Prime-100 KVA (01 Unit) Diesel Generator at our House # 02, Road # 96, Gulshan-02, Dhaka, Bangladesh.

Dear Sir.

In Accordance with above subject and subsequent quotation CWPL-AM/0160/21F dated January 18, 2021 the management of city group is pleased to issue the work order against purchase of 01 (One) unit Stand-by Generator for House # 02, Road # 96, Gulshan-02, Dhaka, Bangladesh. The rates, specification, terms & conditions are encloses herewith this Work Order.

Total Price: 1,325,000/-

(TAKA IN WORD: Thirteen Lac Twenty Five Thousand Taka only)

Other specification, rate, terms and conditions will be as below:

Generator Details:

Tempest (Manufactured by Allam Marine Limited, UK) Diesel Generating Set Model: PL100 (100KVA Prime & 110 KVA Standby) at 1500 rpm, 50 Hz, 3 phase, 4 wire, 400/230 volts at 0.8 power factor. All other details are as follows:



BRAND	:Tempest	MODEL :PL100
COUNTRY OF ORIGIN	:UK	PORT OF SHIPMENT : Any port, UK
CAPACITY (Prime)	: 100 KVA	CAPACITY (stand by): 110 KVA
START SYSTEM : Au	tomatic Microcontroller bas	sed as well manual Start / Stop System
EMERGENCY STOP: I	Emergency Stop available as	protection device
VIBRATION SKID : B	Built-in vibration skid for sm	nooth operation
BATTERY CHARGER	: Auto Battery Charger (ABC	c) included
DIMENSION (Open Set) (cm) : TBA (LxWxH)	FUEL TANK CAPACITY: 200 Liter
FUEL CONSUMPTION	: 17.00 Ltr./Hr. at 75% Load	

Engine Details:

BRAND/ORIG	IN : Perkins, UK	MODEL : 1104C-44TAG2		
SPEED	: 1500 RPM	INDUCTION SYSTEM : Turbocharged		
ENGINE TY	PE : 4 stroke multi cylir	nder industrial diesel Engine suitable for tropical environmen		
COOLING SY	STEM: Water cooled (I	Radiator cooled with engine driven fan)		
PROTECTIO	N : Over speed, under s	speed, oil pressure, Over heating etc		
FUEL TANK	: Built in with base			

All other details are as per attached Engine catalogues.



Alternator Details:

Industrial brushless AC Alternator model all other details are as follows:

BRAND/ORI Republic	GIN: Leroy Somer, Czech	Model/Frequency	: TAL 044 D, 50 Hz
PHASE	3 Phase	Output (Volts)	400/415 volts (Line toline)
COOLING	: Aircooling	Insulation Type	Class " H "
PROTECTION with IP21/IP		creen protected, fan venti	lated, drip-proof, self-exciting in accordance
VOLTAGE R	REGULATOR : Automatic V	oltage Regulator (AVR))
VOLTAGE R	EGULATION:+1%/+1.5%p	ower factor between 0.81	agging & unity (Depends on Connected Load

Alternator model may vary with the attached catalogues for manufacturing innovation

Control Module:

Deep Sea Electronics (DSE), UK control system is incorporated with automatic set to manually & automatically start & stop the generator indicating the operation status and fault conditions via a graphical LCD display and a flashing LED on the front panel. All other details are as follows:

CONTROL MODULE TYPE: Auto start (AMF) digital control module

OPERATION: Operation of the module is via push buttons mounted on the front panel with STOP, AUTO and MANUAL positions etc.

DIGITAL INSTRUMENTS: Ammeter, Voltmeter, Frequency meter, run hour meter, Oil Pressure, Water Temperature etc.

ALARM INDICATOR: Under/Over Volts, Under/over speed, Under/Over Frequency, Low Oil Pressure, High Engine Temperature, Fail to start and Loss of speed sensing etc.

LOAD TRANSFER TIME: Adjustable, Delay on start 1 to 25 sec, Delay on transfer 1 to 70 sec

ENGINE COOLING TIME: 5 minutes maximum

PHASE FAILURE RELAY: Digital option & control for Main's upper lower cut off voltage setting and



adjustable hysteresis voltage, sensing option etc.

All other details are as per attached Allam's/DSE Catalogue

Automatic Transfer Switch (ATS):

Local built ATS will be supplied in a suitable steel enclosure wall mounted/floor mounted, fuses, indicators etc with relevant accessories.

Interlocking	: Electrical	
Magnetic Contactor / Breakers	: 3 Pole 200Amp MC	
Brand of Breaker	: ABB	
Paint	: Powder coated	

Acoustic Canopy:

Local built Acoustic Enclosure will reduce the sound level to 75 dBA @ 3 meter in open space and is complete with:

Air inlet and outlet options at the alternator and radiator ends respectively. Hinged access doors on either side with proper locking option.

Silencer.

Cable entry gland apertures.

Standard Items:

The following items will be supplied with the gen-set as standard:

- (i) Lead Acid Battery 12/24 Volts as required
- (ii) Silencer
- (iii) Rubber anti vibration mountings
- (iv) Flexible Bellows
- (v) Battery charger

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- (vi) Main Line 3 pole Circuit Breaker
- (vii) Alternator mounted Deep Sea UK original main controlling panel
- (viii) Fuel tank for 10 hours operation

Please note that toolbox is beyond this scope of supply.

Warranty/Guarantee:

As per standard of manufacturer warranty, we provide 18 month from the date of Delivery or 12 month / 1500 Hours from the date of commissioning whichever comes first (Except Battery, Battery have 1 year warranty effective from the date of delivery at the client's premise). Our warranty policy is for any manufacturing defects or any premature wear & tear due to usage. The faulty part(s) is/are replaced/repaired within the warranty period. However, Warranty doesn't cover improper maintenance by the user, consumable items, servicing by unauthorized person, running the genset above its capacity or any unauthorized modification of the genset.

Installation & Commissioning:

The price quoted here includes Carrying, Loading, Unloading, Installation & Commissioning charge provided the genset is installed in Basement or at Ground Floor level within Dhaka City. However, this offer does not include the cost of commissioning materials, such as, Power/Control Cable, Lube Oil, Coolant, Diesel, Civil works, Ducting, Manual labor, Silencer pipe Extension Work & any other materials that may be necessary for installation of the generator set

Cross World Group Service Engineers will supervise all the above mentioned works. Please call Manager, Commissioning Dept. Mob. 01755 514793 for your Installation Materials list or Commissioning, or for any Emergency Service please call Manager, Service Spare Sales Dept. Mob. 01755 514820

Spare parts, After Sales Service & AMC:

We maintain sufficient stock of spare parts to meet regular demands of our valued clients. After completion of warranty period, we extend our support for servicing of the generating sets at a reasonable charge by entering into a service agreement with the customers. Our service engineers are always kept ready 24x7 to attend emergency services to ensure uninterrupted power of the gen-sets. On-call service is also available to attend any types of emergencies.

Training:

We will provide training to your operator of the Generating set after completion of commissioning. For CROSS WORLD POWER LTD.



Terms & Conditions

- 01. Material: All goods/ service are to be supplied according to the description / specification given in the Work order & Bidders quotation (Ref: CWPL-AM/0160/21F dated January 18, 2021) No discrepancy is acceptable without prior agreement / consent in writing.
- **02.** Installation & Commissioning: Engineering supervision, Installation & Commissioning free of cost by the supplier. But cost of all materials i.e. Cement, M.S Rod, Sand, Brick, Bolts related to civil works & Electrical Power cables, Earthling etc. will be supplied by buyer.
- **03.** Challan: Challan in triplicate shall be submitted at the time of delivery of materials. One copy (Duplicate) will be returned after acknowledgement of receipt of materials and the company will retain other copies.
- **04.** Transit Risk: The supplies will bear full responsibility for carrying of materials and all costs expenses such as loading, unloading and transportation from Dhaka to the mentioned site shall be on account of the supplier at the time of delivery of the Generators. Any damage to the goods in transit will be supplier's responsibility.
- 05. After Sales Service: Supplier will ensure after sales service free of cost during the warranty period. And after completion of the period both party may engage in an agreement under mutual understanding.
- 06. Training: Necessary in country training for operators and mechanics will be provided free of charge at the time of Commissioning the Genset by the suppliers.
- 07. Spares: supplier will ensure the spare part availability during that life time. If the part is not locally available then the supplier will arrange it with 10 working days to make it air freighted to purchaser directly from UK.
- 08. Termination: City Group reserves the right to reject merchandise if the supplier failed to execute the contract within the stipulated time and as per specification. If the supplier fails to meet above terms and conditions City Group has every right to impose penalty against sole discretionary power of City Group management.



09. Mode of Payment:

- i. Taka 662,500/- (Six Lac Sixty Two Thousand Five Hundred) only will be paid as advance after delivery
- ii. Rest taka 662,500/- (Six Lac Sixty Two Thousand Five Hundred) will be paid after successful commissioning and handover.
- 10. Delivery: Cross World Power Ltd are committed to make the deliver from their ready stock after getting confirmation from City Group.
- 11. Warranty: 1-Year warranty from the date of hand over for all non-consumable items.

If the rates, terms & specification are acceptable to you please sign the duplicate copy of this letter as acceptance from your end.

Agreed

For City Group

A.S.M. Tauhid Ur Rashid Chowdhury Assistant General Manager- Procurement City Group For the Supplier

Md. Mizanur Rahaman Engineer- Project Sales Cross World Power Ltd.