



DHAKA CENTRAL INTERNATIONAL MEDICAL COLLEGE & HOSPITAL

2/1 Ring Road, Shyamoli, Mohammadpur
Dhaka-1207, Bangladesh
Phone : +88 02 9124396
Fax : +88 02 9118598
E-mail : dcimchbd@yahoo.com
Web : dcimchbd.com

Date: 29.03.2018

To,

Cross World Power Ltd.

Plot no-1/B, Road no -99,
Gulshan -02, Dhaka-1212.

Dear Sir,

Subject: Work Order for three set of "DG Supply, Installation, Testing & Commissioning for "Dhaka Central International Medical Collage & Hospital" project at 2/1 Ring Road, Shyamoli, Mohammadpur, Dhaka-1207.

Reference: Your offer no-CWPL-AM/0121/18 dated January 15, 2018, subsquat discussion and your confirmation vide email dated January 14, 2018.

With reference to above, we are pleased to issue this **work order** for "**Genset Supply, Installation, Testing & Commissioning**" as outlined in our Tender Documents & BOQ to be installed at Dhaka Central International Medical College & Hospital at 2/1 Ring Road, Shyamoli, Mohammadpur, and Dhaka-1207.

With reference to above, we are pleased to issue this work order on the following terms and conditions:

1. Price :

Total accepted Price of three sets of DG Set (2 pcs 500 KVA & 1 pcs 300 KVA Genset) is **1,52,28,427/-** upto site (Taka One Crore Fifty Two Lacs Twenty Eight Thousand Four Hundred & Twenty Seven Only).



DHAKA CENTRAL INTERNATIONAL MEDICAL COLLEGE & HOSPITAL

2/1 Ring Road, Shyamoli, Mohammadpur
Dhaka-1207, Bangladesh
Phone : +88 02 9124396
Fax : +88 02 9118598
E-mail : dcimchbd@yahoo.com
Web : dcimchbd.com

2. Payment terms:

Mode of Payment will be as per below Table:

20% with order

20% on commissioning of 300 KVA DG

30% on delivery of 500 KVA DG

Balance on Commissioning

Payment through Local L/C in favor of Cross World Power Ltd

The above value is inclusive of all Taxes, Statutory Levies and including installation, Transportation, Loading, Unloading, etc. No additional charges are applicable / payable for escalation, price variation and other charges.

You have to submit PG (Performance Guarantee) 10% of the Order Value immediately on receipt of this PO valid for 2 years.

3. Brief Specification:

Genset Details:

For 500 KVA Genset, Brand: Tempest, Model : PM 500 , Country of origin : UK ,
Port of Shipment : Any port of UK , Capacity (Prime) : 500 KVA , Capacity (Stand by) : 550 KVA , Start system : Automatic microcontroller based as well manual start/stop system , Emergency Stop : Emergency stop available as protection device ,
Vibration Skid : Built in vibration skid for smooth operation , Fuel Tank Capacity : 1106 Ltr , Fuel consumption : 76 Ltr/ Hr at 75 % load

Engine: Brand/ ORIGIN: PERKINS, USA, Model: 2506A-E15TAG2

Alternator: Brand/ ORIGIN: MECC ALTE, UK, Model: ECO 40 – 3S

Genset Details:

For 300 KVA Genset, Brand: Tempest, Model : PM 300 , Country of origin : UK ,
Port of Shipment : Any port of UK , Capacity (Prime) : 300 KVA , Capacity (Stand by) : 330 KVA , Start system : Automatic microcontroller based as well manual start/stop system , Emergency Stop : Emergency stop available as protection device ,
Vibration Skid : Built in vibration skid for smooth operation , Fuel Tank Capacity : 435 Ltr , Fuel consumption : 48 Ltr/ Hr at 75 % load

Engine: Brand/ ORIGIN: PERKINS, USA, Model: 1506A- E88TAG5

Alternator: Brand/ ORIGIN: MECC ALTE, UK, Model: ECO 38-2LN



DHAKA CENTRAL INTERNATIONAL MEDICAL COLLEGE & HOSPITAL

2/1 Ring Road, Shyamoli, Mohammadpur
Dhaka-1207, Bangladesh
Phone : +88 02 9124396
Fax : +88 02 9118598
E-mail : dcimchbd@yahoo.com
Web : dcimchbd.com

- a) **Bill Address:** Dhaka Central International Medical Collage & Hospital, 2/1 Ring Road, Shyamoli, Mohammadpur, Dhaka-1207
- b) **Ship to Address:** Dhaka Central International Medical Collage & Hospital, 2/1 Ring Road, Shyamoli, Mohammadpur, Dhaka-1207.
- c) **Penalty:** If installation time exceeds 90 days from the date of delivery of Materials at site & after Site readiness as per approved GAD, then the client will charge @ 0.5% of order value for every week as penalty to the maximum of 5% of the total Contract Value. In this 90 Days'time frame any civil work Delay from Customer Side is not include.
- d) **Extension of Time:** If Installation Work is delayed due to site readiness/ civil work from customer's side, then day of completion also needs to be extended mutually.

If the terms and Condition are acceptable to you, please sign the copy of this work order attached here to and return the same to the undersigned for our record and reference.

Thanking You,

Yours faithfully,

Dhaka Central International Medical Collage & Hospital

| Item | Description | Unit | Qty. | Rate (Taka) | Amount (Taka) |
|------|-------------|------|------|------------------|--------------------|
|------|-------------|------|------|------------------|--------------------|

A. SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF DG SET INCLUDING ALL

1 DG Sets

- 1.1 Supply, installation, testing and commissioning of 500 KVA Prime (actual) rating radiator cooled diesel generating set in accoutic enclosure, PMG ,base frame, Alternator, Static Excitation System, Lube Oil System, Electronic Governor (PCCM-3.3 OR Equivilent), Batteries, Battery Charger, Instrumentation, External day oil fuel tank, hospital Silencer with Bellows, Alarms, Engine Control Panel, AVM Pads, AVR Panel, Terminal Arrangements including cable termination box with all associated equipment / work as per specifications. Alternator shall have class H insulation . Engine shall not be derated upto 50 deg.C ambient.

| | | | | |
|--|-----|---|--------------|-----------------------------|
| 500 KVA Genset with Accoustic Enclosure (Sound level 74 dba @ 1 meter) | Set | 2 | 4,426,396.00 | 8,852,792.00 |
| 300 KVA Genset with Accoustic Enclosure (Sound level 74 dba @ 1 meter) | Set | 1 | 3,223,706.00 | 3,223,706.00 |
| TOTAL CARRIED TO SUMMARY PART A | | | | <u>12,076,498.00</u> |

| Item | Description | Unit | Qty. | Rate (Taka) | Amount (Taka) |
|------|-------------|------|------|------------------|--------------------|
|------|-------------|------|------|------------------|--------------------|

B. EXHAUST PIPE & CHIMNEY

1 EXHAUST PIPE

Supply, installation, testing and commissioning of exhaust pipe including bend,testing inspection hole, fabricated out of 6 mm thick MS pipe with all fixing accessories and hardwares. The exhaust pipes shall be insulated with 100 mm thick mineral wool insulation wrapped in chicken mesh and clad with 24 gauge aluminium sheet including all MS. support as required.MS structure shall be self standing but shall clamp with MS Structure with the Building.

| | | | | | |
|-----|--|-----|-----|-----------|-----------|
| 1.1 | 200 mm dia | RM | 140 | 6,069.00 | 849,660 |
| 1.2 | flexible bellows for 500kVA DG Set | No. | 4 | 15,263.00 | 61,052 |
| 1.3 | Cladding for the Hospital silencer for 500kVA DG Set | No. | 2 | 47,376.00 | 94,752 |
| 1.4 | Supply and Fabrication MS Structure, the cost shall include cutting ,belding,bolting,clamping and fastnering and civil work fo foundation and 2 coat of primer complete as required. | Ton | 10 | 109,000 | 1,090,000 |

TOTAL CARRIED TO SUMMARY PART B :

2,095,464.00

| Item | Description | Unit | Qty. | Rate (Taka) | Amount (Taka) |
|------|-------------|------|------|------------------|--------------------|
|------|-------------|------|------|------------------|--------------------|

C. STATUTORY APPROVAL & CLEARANCE

| | | | | | |
|---|---|-----|---|-----|-----|
| 1 | Obtaining clearance from Central Pollution Control Board (CPCB) & State Pollution Central Authority in respect of noise level and emission level being within permissible level and obtaining clearance from Electrical Inspectorate. | Lot | 1 | TBA | TBA |
|---|---|-----|---|-----|-----|

TOTAL CARRIED TO SUMMARY

D. HSD TRANSFER SYSTEM

| | | | | | |
|-----|--|-----|---|-----------|-----------|
| 1 | Supply, installation, testing & commissioning of electrical driven rotary gear pumps suitable for pumping of HSD consisting of following : a. Horizontally mounted single stage capable of delivering 90 LPM at 30 Mtr. Head while running at required 1440 RPM, complete with proper connection to suction and delivery line, bypass arrangement against over pressure. b. Flame proof motor for fire protection pumping unit suitable for 415 \pm 10% V, 3 phase, 50 Hz AC supply and of suitable HP for the above pumps. c. Flame proof ON/ OFF push button station suitable for above motor including connection and inter connection with starters's installed in MCC. d. Common base plate of required strength manufactured out of MS channels. e. Suitable RCC foundation and anti vibration damping arrangement with cushy foot or similar mounting arrangement. f. Coupling and coupling guard for direct coupling of pump and motor. g. Pressure gauge with valve on the delivery side. h. Strainer at inlet. | | | | |
| 2.1 | The pump set as described above | Set | 2 | 18,187.00 | 36,374.00 |

| Item | Description | Unit | Qty. | Rate (Taka) | Amount (Taka) |
|------|---|------|------|------------------|--------------------|
| 3 | Providing & fixing M.S. class 'C' (heavy duty) pipe & fittings like tees, elbows, junctions, unions, bends, plugs etc. RCC pipe sleeves of larger diameter to the provided wherever the pipes are crossing the wall / slab and sleeves as per Consultant's requirement, including clamps hangers, nuts, bolts etc for pipe supports from wall / ceiling and wrapping of under Ground pipe with wrapping coating material including cutting and making hole in wall / slab and | | | | |
| 3.1 | 25 mm dia | RM | 100 | 850.00 | 85,000.00 |
| 3.2 | 40 mm dia | RM | 160 | 1,170.00 | 187,200.00 |
| 4 | Excavation of required depth and back filling with compaction in soil for HSD fuel oil piping including ramming the earth and making good. | | | | |
| 4.1 | Pipe up to 40 mm dia | RM | 100 | 140.00 | 14,000.00 |
| 5 | Providing & fixing CI plug valves of the following sizes suitable for pressure of 10 kg/sqcm complete with all necessary fittings | | | | |
| 5.1 | 20 mm dia | No. | 10 | 1,605.00 | 16,050.00 |
| 5.2 | 40 mm dia | No. | 5 | 2,675.00 | 13,375.00 |
| 6 | Providing and fixing flame proof level controller for day oil storage tanks, including wiring, cabling, probes with all other accessories ready for automatic operation of fuel oil pump complete as required. | Set | 4 | 34,565.00 | 138,260.00 |

| Item | Description | Unit | Qty. | Rate (Taka) | Amount (Taka) |
|------|---|------|------|------------------|--------------------|
| 7 | Providing & fixing 50mm dia oil flow meter with flanged end for HSD service | Set | 1 | 44,813.00 | 44,813.00 |
| 8 | Providing and fixing Y strainer for oil supply line | | | | |
| 8.1 | 25 mm dia | No. | 2 | 3,200.00 | 6,400.00 |
| 8.2 | 40 mm dia | No. | 2 | 4,800.00 | 9,600.00 |
| 9 | Supply, installation, testing and commissioning of 990 litres capacity day oil storage tank fabricated from 4 mm thick MS plates. Tank shall include 450 mm ID manhole cover, level indicator and flanged connection for inlet, outlet, overflow drain and probe provision for level controller. Tank shall be mounted near HSD receiving Point. (painted with 2 coats of red oxide primer) | Set | 2 | 26,745.00 | 53,490.00 |
| 10 | Supply, installation, testing and commissioning of 990 litres capacity day oil storage tank fabricated from 4 mm thick MS plates. Tank shall include 450 mm ID manhole cover, level indicator and flanged connection for inlet, outlet, overflow drain and probe provision for level controller. Tank shall be mounted on 2 m high structure support (painted with 2 coats of red oxide primer) | Set | 2 | 26,745.00 | 53,490.00 |

| Item | Description | Unit | Qty. | Rate (Taka) | Amount (Taka) |
|------|-------------|------|------|------------------|--------------------|
|------|-------------|------|------|------------------|--------------------|

- 11 Design, manufacturing, supply, installation, testing and commissioning Weather proof (IP-55) electrical control panel anchoring on floor including 'FRLS' cables from motor to panel including supporting arrangement. The panel shall be suitable for 415 volts, 50 cycles 4 wire supply system. All internal wiring with in the panel and copper earthing, painting etc. with following switch gear and components

Incoming:

- a. 1 No. 63 A 4 Pole MCB
- b. 1 No. 0-500 V Digital electronic type Voltmeter with selector switch
- c. 1 No. Digital electronic type Ammeter 0-60 A with selector switches
- d. 1 Set phase indication lamps with control MCB's

Bus Bars:

100 A TPN Aluminum Bus bars

Outgoing:

i. 2 Nos. 32 A TP MPCB 3/5 HP DOL Starter for HSD pumps motor (including 1 No. standby). Each compartment shall contain 0-30 amps direct operated ammeter, Auto / Manual selector switch, ON/Off / Trip indicating lamps with control MCB's complete as required (if one pump fail to starts then other pumps starts automatically).

ii. 1 No. 32 A TP MPCB as spare.

Note:

- 11.1 i. Potential free contacts to be provided to remote starting facilities of pumps through BAS

| | | | |
|-----|---|------------|------------|
| Set | 1 | 131,933.00 | 131,933.00 |
|-----|---|------------|------------|

TOTAL CARRIED TO SUMMARY : PART D

789,985.00

E. BOQ of Exhaust Pipe for 300 KVA Genset

- | | | | | | |
|-----|--|-----|-----|------------|------------|
| 1.1 | Exhaust Silencer straight Pipe , MS Pipe bore 200mm, thickness 4mm , Exhaust Heat Insulation | M | 40 | 5,412.00 | 216,480.00 |
| 1.2 | Exhaust Pipe Stack Support / Fitting(s) , MS Structure for exhaust pipe (72kg/Meter), including C-Channel/Angle/Welding/Bending/Fitting/bolting/clamping with 2 coat of primer | Ton | 0.5 | 100,000.00 | 50,000.00 |

TOTAL CARRIED TO SUMMARY : PART E

266,480.00

TOTAL CARRIED TO SUMMARY : PART A + B + D + E

15,228,427.00

N.B : As there is no panel position finalized here , so we are not including here any type of Power cable , our price is including AIT , Subject to payment by Local L/C