



Ref. CPL/PD/FDDL/061018

Date : 08.10.2018

To,
Managing Director
Fine Desh Development Ltd.
Bismillah Tower, 9/10, Parboti Nagar,
Thana Road, Savar, Dhaka.

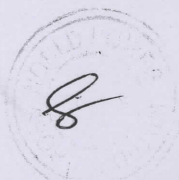
FINANCIAL PROPOSAL**Sub : Offer for supply, instalation, testing & commissioning of 315KVA Sub-Station Equipment.**

SL #	Descriptions	Qty.	Unit	Unit price in taka	Total price in taka
01)	<u>11KV Lightning Arrester:</u> -Cost of complete 11KV LA as per attached technical specification.	1	Set	6,000.00	6,000.00
02)	<u>11KV Drop Out Fuse:</u> -Cost of complete 11 DOF as per attached technical specification.	1	Set	7,000.00	7,000.00
03)	<u>HT SWITCHGEAR PANEL(LBS):</u> -Cost of complete HT Panel as per attached technical specification.	1	No.	200,000.00	200,000.00
04)	<u>315KVA Oil Immersed Transformer :</u> -Cost of complete 315KVA Transformer as per attached technical specification.	1	No.	600,000.00	600,000.00
05)	<u>LT Switchgear (500A) : Existing Panel Upgrade</u> -Cost of complete LT switchgear as per attached technical specification.	1	Set	85,000.00	85,000.00
06)	<u>190KVAR PFI plant : Existing Panel Upgrade</u> -Cost of complete 190 KVAR PFI plant as per attached technical specification.	1	Set	82,000.00	82,000.00
07)	<u>Heat Shrinkable Kit:</u>	2	Set	2,500.00	5,000.00
08)	<u>ELB Complete in Basement (with Govt. Fee):</u> (Price for Basement floor)	1	Job	60,000.00	60,000.00
09)	<u>Delivery, Installation & Testing :</u> -Cost of installation & testing of the above without any cable & civil works.	1	Job	30,000.00	30,000.00

Total Taka in BDT: 1,075,000.00

Existing 200KVA Transformer return value deduct: 200,000.00

Grand Total value in BDT (Excluding VAT & TAX: 875,000.00



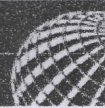
[Signature]
8.10.18

[Signature]
8.10

[Signature]
8/10/18

House 1/B, Road 90, Gulshan-2, Dhaka 1212, Bangladesh

Tel: (8802) 8811858, 8816528, 9891442 | Fax: (8802) 8816205 | E-mail: info@cross-world.com



TERMS & CONDITIONS :

- 01) Validity: Our offer will remain valid for a period of 30 days from the date of this offer.
- 02) Delivery: Within 30 days after receipt of confirmed order & payment as per clause # 3.
- 03) Payment: 50% Cash/PO/DD along with order & remaining 50% before delivery of goods.
- 04) Fabrication & assembly : Fabrication & assembly will be done at our factory.
- 05) Guarantee : We guarantee the goods of our supply against any defects in materials and workmanship during manufacturing for a period of 12 (Twelve) months from the date of delivery subject to non-repairing/dismantling equipments without our prior permission.
- 06) After-sales service : Our trained & skilled Engineers & technicians will be available within 24 hrs. notice for any problems related with our supplied equipments. All spare parts are available ready stock from our store located at Gulshan, Dhaka.

Thanking you.

Yours very truly,
Cross World Power Ltd.

Engr. Md. Shamim Mir
Sr. Engineer, Sales
Cell: 01755 694120

Sabbir Ahmed
Sr. Engineer, Sales
Cell: 01755 514740

8.10.18

8/10

8/10/18



TECHNICAL SPECIFICATION :

315KVA SUB-STATION: 01 Set

01) 11KV Drop-out fuse :

11KV drop-out fuse complete with all fitting, fixing and necessary accessories etc.

11KV Drop-out fuse has the following specifications :

Rated voltage (nominal)	: 11KV
Rated max.voltage	: 15KV
Rated current(conti.)RMS	: 60A
Interrupt current RMS	: 10KA
Rated frequency	: 50 Hz
BIL	: 75KV
Withstand test voltage	
Dry, 1 Min.	: 33KV
Wet, 10 sec.	: 30KV

02) Lightning Arrestor :

11KV lightning arrestor complete with all fitting, fixing and necessary accessories etc.

11KV Lightning arrestor of following specifications :-

Rated voltage	: 9KV
Rated system voltage	: 12KV
Frequency	: 50 Hz
Minimum spark over(Rms)	: 14KV
Maximum spark over(Rms)	: 40KV
Max. impulse spark(crest)	: 45KV
Withstand voltage	
Wet, 10 sec.	: 24KV
Dry, 1 Min.	: 28KV
Discharge 33KV(Crest)	: 5KA
Impulse current withstand	: 55KA

8.10.18 8/10 8/10/18

03) 11 KV HT SWITCHGEAR (LBS) :

This specification cover the supply of 11KV indoor, metal enclosed switchgear according to IEC publication-298

The medium voltage switchgear panel shall be used for secondary distribution sub-station upto 12KV and suitable for an ambient temperature of 45 deg.C and rated rupture capacity of 350 MVA complete with all accessories, diagrams, levels, wirings & terminals.

The 11 KV, 350 MVA rated switchboard would comply compulsory electricity regulations by standards. All cubicles are fitted with security interlocks and earthing switch.

The erection of the panel can be done directly on the levelled floor. Cable trenches are necessary. Cables can easily installed from the bottom side of the panel.

The design is done to allow safe operation in extremely tropical climate conditions :

Technical Data :

Service voltage : 11KV
Rated voltage : 12KV
Rated current of LBS : 630A

Insulation level :

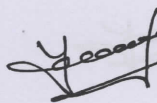
Impulse withstand voltage 1.2/50 micro-sec. : 75KV (Peak)

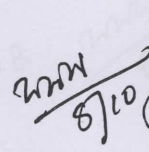
Power frequency withstand voltage/1 min. : 28KV rms.

The equipment proposed under this offer has been designed, manufactured & tested in accordance with the following applicable IEC standards.

- | | |
|---|-----------|
| - common clause for high voltage switchgear standards | : IEC 694 |
| - high voltage switchgear in metallic enclosure | : IEC 298 |
| - high voltage ac circuit breakers | : IEC 56 |
| - ac switches and earthing switches | : IEC 129 |
| - high voltage switches | : IEC 265 |
| - high voltage combined switch/fuse for ac current | : IEC 420 |
| - current transformers | : IEC 185 |
| - voltage transformers | : IEC 186 |
| - high voltage fuses | : IEC 282 |
| - control monitoring | : IEC 801 |



 8.10.18

 8/10/18



The panel shall comprise of :

- 1 11KV, 630A, 350MVA, triple pole spring charged **load break switch (LBS)** with fuse.
Brand: Siemens India
- 3 20A, HRC fuse.
- 2 Dry type cast resin insulated potential transformer
for open delta connection.
Ratio : 11000/110V
Burden : 50VA, Class : 0.5
Siemens, Germany
- 1 Volt Meter with Selector switch (0-15KV)
- 1 TP MCB for PT secondary protection.
- 3 Indicating lamp RED/YELLOW/BLUE.
- 1 Panel Heater
- 1 Set TP busbar suitably sized & air insulated.

8

[Signature] 8.10.18 *[Signature]* 8/10 *[Signature]* 8/10/18



04) 315KVA OIL IMMERSSED TRANSFORMER: 01 NO

Three phased transformers ground mounted, oil immersed, with standard accessories. Indoor use. Routine tests and first filling oil included.

Design, manufacturing, routine tests & tolerances according to IEC 76 standards.

Standard fittings : 4 flat bi-directional rollers.

2 lifting lugs

2 earthing points.

1 rating plate(on HV side)

HV connections : 3 porcelain bushing

LV connections : 4 porcelain bushing,

Rated power in KVA	: 315 kVA
System voltage	: 12 Kv
Frequency	: 50Hz
Primary voltage	: 11000V
HV tapping by links(off circuit) in	: $\pm 2.5\%$, $\pm 5\%$
Secondary voltage	: 415V
HV impulse KV peak in KV	: 75 kV
Power frequency KV rms	: 28 kV
Vector group	: DYNII
Max. ambient temp. in Deg. C	: 40
Altitude lower than in meter	: 1000
Temp. rise in winding/oil in Deg. C	: 65/55
No load loss	: 500W
Full Load loss at 75 Deg. C	: 3900W
Impedance voltage	: 4%
Cooling System	: ONAN

Brand: CPL-transfo

Origin: CRGO M4 Grade Silicon steel sheet from USA.

HV/LV wires BRB, Bangladesh.

Other insulated materials and fittings, Italy.

[Signature]

mmw
8/10

[Signature] 8.10.18

[Signature]
8/10/18



05) LT SWITCHGEAR (500A) : 1 Set. (Existing Panel Upgrade) 320A to 500A

16 SWG Sheet steel fabricated, floor mounting, tropicalized design, indoor type, low tension switchgear for 3 phase, 4 wire, 50 Hz, 380/415V AC system & shall be supplied complete TP + N+ PE busbars suitably sized & properly insulated arrange to withstand & short current of 50KA for 1 sec.

The boards are designed & constructed in accordance with BS5486/IEC439.

Busbars and other live parts are spaced and insulated in accordance with European standards IEC158, UTE C 20 - 040, VDE - C 110 for 660V.

All ACB/MCCB units & panel boards shall fully comply regulations of the 15th edition IEE wiring regulation for isolation and switching.

The panel shall comprise of :

INCOMING :

- 1 500A, 45KA, 415V, 50Hz, (MCCB) with adjustable overcurrent & short circuit protection
Brand: Hyundai, Korea
- 3 Current transformer: 500/5A with suitable accuracy & burden.
- 1 Set Copper tube (R + Y + B)

OUTGOING :

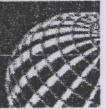
- 1 TPN+1/2E Copper Busbar (500A)

[Signature]

mmw
8/10

[Signature] 8.10.18

[Signature] 8/10/18



06) 190 KVAR PFI PLANT : 1 SET. Existing Panel Upgrade (120KVAR to 190KVAR)

Automatic power factor improvement plant, 190 KVAR in 6 steps. Sheet steel fabricated, floor mounting, tropicalized design, indoor type low tension switchgear for 3 phase, 4 wire, 50 Hz, 380/415V AC system and shall be supplied be supplied complete with TP+N busbars suitably sized and properly insulated arrange to withstand & short current of 50KA for 1 sec.

The boards are designed & constructed in accordance with BS5486/IEC439.

The Boards are factory assembled complete with all wiring, metal parts bonded ground points & finished with two coats of anti-rust paint.

Busbars and other live parts are spaced and insulated in accordance with European standards IEC158, UTE C20-040, VDE-C110 for 660V.

The panel shall fully comply regulations of the 15th edition IEE wiring regulation for isolation & switching.

The panel comprising of :

- 1 25 KVAR, 415V, 50 Hz, 3 Phase, dry type, self healing compact PF capacitors bank with discharge resistor.
Brand: Frako, Germany/ Schneider Electric
- 1 50 KVAR, 415V, 50 Hz, 3 Phase, dry type, self healing compact PF capacitors bank with discharge resistor.
Brand: Frako, Germany/ Schneider Electric
- 1 50A, triple phase air contactor for 25Kvar capacitor.
Brand: Hyundai, Korea
- 1 85A, triple phase air contactor for 50Kvar capacitor.
Brand: Hyundai, Korea
- 1 Set 160A, HRC Fuse with base
- 1 Set 63A, HRC Fuse with base
- 1 Set 32A, HRC Fuse with base
- 1 LT current transformer
- 1 Set TP busbar suitably sized.

8.10.18

mmu 8/10

8/10/18

House 06, Road 92, Gulshan, Dhaka 1212, Bangladesh

Tel: (8802) 8811858, 8816528, 9891442 | Fax: (8802) 8816205 | E-mail: info@cross-world.com