


 REGISTERED OFFICE: RAHMAN CHAMBER (3RD FLOOR)
 12-13 MOTIJHEEL C/A, DHAKA, TEL : 9555842, 9550765, FAX : 880-2-9565328

 CORPORATE OFFICE : AMBON COMPLEX (10 TH & 11 TH FLOOR)
 99, MOHAKHALI C/A, DHAKA-1213, TEL : 48811481-6 (PABX), FAX : 880-2- 9887300, e-mail : ugi@uttara-group.com

BIN : 000210097-0406

Date: May 24, 2021

Cross World Power Ltd.

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

 Attn : 1) Md. Shamsul Alam, Sr. Manager
 2) Ayan Ghosh (Manager-Sales)

WORK ORDER

Re: Work Order For supply, installation, testing & commissioning of 11/415KV. 1250KVA Sub-station

Dear Sir,

With Reference to your Quotation No. CWPL/SS/US/050821-01 dated **19.05.2021** and subsequent discussion with us this Work Order is placed to you for supply, installation, testing & commissioning of 11/415KV. 1250KVA Sub-station to Uttara Spinning Mills as per specification, quantity and value Mentioned below:

SL#	Descriptions	Qty.	Unit
1	11KV DROP FUSE	1	Set
2	11KV LIGHTNING ARRESTOR	1	Set
3	11KV CT&PT(TS or EQUIVALENT BRAND)	1	Set
4	11KV HT SWITCHGERAR (INNCOME VCB)	1	Set
5	1250 KVA OIL IMMERSSED TRANSFORMER	1	Set
6	LT SWITCHGERAR	1	Set
7	750KVAR AUTO/MANUAL PFI PLANT	1	Set
8	HEAT SHRINKABLE KIT	1	Set
9	DELIVERY, INSTALLATION & TESTING (Cost of complete of the above without any cable & civil work)	1	Job
10	ELB COMPLETE (WITHOUT GOVT. FEE)	1	Job

 Total Amount: **Tk. 38,00,000.00 (Taka Thirty Eight Lac Only)**
Terms & Conditions:

1. Delivery: Within 45 days after receipt of work order.
2. You have to ensure the items specification, quality, quantity and country of origin as you specify in your quotation.
3. Payment: 40% advance will be paid with work order which is amount **Tk.15,20,000.00** by Cheque No. 4727695 dated 27.05.2021, IFIC Bank Limited, Federation Branch.
 30% before delivery at the site
 20% after ELB handover.
 10% after commissioning.
4. Warranty: one year after commissioning or one & half year from the date of delivery which come earlier.

Thanking you.

Yours faithfully,

UTTARA SPINNING MILLS LTD.


 MANAGING DIRECTOR

Factory : Gorai, Mirzapur, Tangail

Ref : CWPL/SS/US/050821-01

Date : 19.5.2021

To
The Managing Director
Uttara Spinning Mills limited
Gorai,Dhaka-Tangail Road

FINANCIAL OFFER

Sub : Offer for supply, installation, testing & commissioning of 11/.415KV, 1250KVA Sub Station

SL #	Descriptions	Qty.	Unit	Unit price in Taka	Total price in Taka
1	11KV DROP OUT FUSE :	1	Set	6,500	6,500
2	11KV LIGHTNING ARRESTOR :	1	Set	6,500	6,500
3	11 KV CT&PT(TS or EQUIVALENT BRAND)	1	Set	330,000	330,000
4	11KV HT SWITCHGEAR (INCOMING VCB):	1	Set	710,000	710,000
5	1250 KVA OIL IMMERSED TRANSFORMER:	1	Set	1,435,000	1,435,000
6	LT SWITCHGEAR:	1	Set	490,000	490,000
7	750kVAR AUTO/MANUAL PFI PLANT:	1	Set	687,000	687,000
8	HEAT SHRINKABLE KIT :	4	Set	2,500	10,000
10	DELIVERY, INSTALLATION & TESTING (Cost of complete of the above without any cable & civil works)	1	Job	55,000	55,000
11	ELB COMPLETE (WITHOUT GOVT. FEE):	1	Job	70,000	70,000

Total Price in Taka Excluding VAT & AIT **3,800,000.00**

Terms & Conditions :

- Validity : Our offer will remain valid for a period of 30 days from the date of this offer.
- Delivery: Within 45 days after receipt of confirmed order & payment as per clause # 3.
- Payment : 40% as advance along with order
30% before delivery at the site.
20% after Delivery and ELB certificate Handover
10% after commissioning
- Warranty : One year after commissioning or one & half year from the date of delivery which come earlier.

Thanking You

Ayan Ghosh
Manager-Sales
Cross-World power Ltd.

Md.Shamsul Alam
HOD,Sub Station Sales
Cross-World power Ltd.

TECHNICAL SPECIFICATION :1250 KVA SUB-STATION:

	Unit	Qty
1 <u>11KV DROP OUT FUSE :</u>	Set	1
11kV Drop -Out Fuse of following specifications :-		
Rated voltage (nominal)	: 11kV	
Rated max. voltage	: 15kV	
Rated current (conti.) RMS	: 40A	
Interrupt current RMS	: 10kA	
Rated frequency	: 50Hz	
Withstand test voltage	: 75kV	
Dry 1 Min.	: 33kV	
Wet, 10 sec	: 30kV	
2 <u>11KV LIGHTNING ARRESTOR :</u>	Set	1
11kV Lighting Arrestor of following specification :-		
Rated voltage (Nominal)	: 9kV	
Rated system voltage	: 12kV	
Frequency	: 50Hz	
Minimum spark over (Rms)	: 14kV	
Maximum spark over (Rms)	: 40kV	
Max. impulse spark (crest)	: 45kV	
Withstand voltage		
(Power frequency 1 Min. dry)	: 28kV	
Withstand voltage		
(Power frequency 10 sec. wet)	: 24kV	
Nominal discharge current	: 5kA	
Impulse current withstand	: 55kA	

3	11KV HT SWITCHGEAR (INCOMING VCB):	Set	1
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14 & 16SWG Sheet steel fabricated 11KV indoor metal enclosed switchgear.
This medium voltage switchgear panel shall be used for secondary distribution sub-station upto 12KV & suitable for an ambient temperature of 45 deg.C and rated rupture capacity of 350MVA complete with all accessories, diagrams, levels, wirings & terminals.

Technical Data :

Service voltage	: 12KV
Rated voltage	: 11KV
Rated current of circuit breaker	: 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 |

The switchgear panels shall comprise of :

630A, 12KV, 20KA, 50Hz triple pole, Withdrawable Type vacuum circuit breaker with motor/manually operated spring charged mechanism with tripping coil & auxiliary contacts.	Set	1
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Brand : ABB, ITALY

Cast resin insulated dry type 11KV double core current transformer, ratio : 60/5/5A.	Set	3
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Core 1 : 10VA, class 0.5M5 for metering

Core 2 : 15VA, class 10P10 for protection

Dry type cast resin insulated potential transformer for open delta connection.	Set	3
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Ratio : 11000/110V

Burden : 50VA, Class : 0.5

Protection, Measurement and control unit :

Microprocessor based Protection unit having	Set	1
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- Overcurrent (ANSI code 50/51) &

- Earth fault (50N/51N) protection

The tripping characteristics of the protection unit shall be of IDMT nature with a setting possibility to IDMT & different tripping curves.

Brand : Entras

Origin : Turkey

Ampere Meter (0-150A) with Selector Switch	Set	1
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Voltmeter (0-15)KV with Selector Switch	Set	1
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6A TP MCB for PT secondary protection.	Set	1
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ON/OFF Push button.	Set	1
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Indicating Lamp	Pcs	5
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Panel Heater with thermostat	Set	1
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11/0.415 kV, 50 Hz, 3 Phase, 4 Wire oil immersed naturally cooled (ONAN) type transformer with 3 HT & 4 LT bushing arranged on tank top conservator, oil level indicator, drain & filling valves, lifting lugs with first filling of transformer.

TECHNICAL DATA

Rated Capacity	:1250	kVA
Rated Frequency	:50	Hz
Rated Voltage		
~ Input Voltage	:11000	Volt
~ Output Voltage	:415	Volt
Vector Group	Dyn11	
Tapchanger (Off-Load)	5 Position (0, +/-2.5%, -5%, -7.5%)	
Ambient Temperature	:40	0 C
Temperature Rise		
~ In Oil (max)	:60	0 C
~ In Coil (max)	:65	0 C
Star point brought out and loadable upto	:100	%
Max Service Altitude	:1000	meter
Installation	Indoor	
No Load Loss	:1500	Watt
Load Loss	:10200	Watt
Impedance	:5.80	%
Accessories	:Silica Gel, Breather	
Special Item(s)	:Bucholz Relay, Dial	
Tolerance	As Per IEC 60076	
STANDARD	<u>IEC 60076</u>	

ORIGIN

Silicon Steel	: USA/Japan/Korea
Super Enamelled Wire	:BRB/Gazi (Bangladesh)/RR(India)/Equivalent
Insulating Materials	:Italy
Copper Wire/Strip	:Singapore/Malaysia/India(Processed in Bangladesh)
Transformer Oil	:Electrol/Sabita/Apar (India)
Color	: RAL 7035 Light Grey, Brand: BERGER

MANUFACTURED BY: SHAKTI ENGINEERING LTD.

5 LT SWITCHGEAR

Set 1

Sheet steel clad powder coated (14 & 16SWG), dust and vermin proof, free standing, floor mounting, 415V, 50 Hz, Indoor type LT Switchgear Panel with **2000A Hard Drawn Copper Busbar**. Set of components required for the manufacture of LT Panel comprising :-

INCOMING:

2000A, 66KA, TP fixed type ACB with closing solenoid and store -energy spring charged operating mechanism and solid state microprocessor controlled adjustable thermal overload and short-circuit releases with following accessories:

1 X Auxilliary Contact	Pcs	1
1 X Closing Coil		
1 X Gear motor for spring charge		
1 X Under Voltage Release		
2000/5A Current Transformer 10/5VA, Class-1	Pcs	3
Digital AV Meter	Pcs	1
Phase indicating lamp RED/YELLOW/BLUE.	Pcs	3
1x6A,TP MCB for the protection of control circuit	Pcs	1
1x2A,SP MCB for the protection of control circuit	Pcs	3

OUTGOING:

BUSBAR Details

2000A TPN Common Busbar
1000 E Earthing Busbar
1x2000A TP Terminal Busbar

Enclosure As Standard

General Accessories

BRAND

BREAKER: ABB,ITALY

6 750kVAR AUTO/MANUAL PFI plant

Set 1

Sheet steel clad powder coated (14 & 16SWG), dust and vermin proof, free standing, floor mounting, 415V, 50 Hz, Indoor type PFI Panel.

Set of components required for the manufacture of PFI Panel comprising :-

The panel comprising of :

1250A,TP,50KA,415V,50Hz (MCCB) adjustable overcurrent & magnetic short circuit protection.(ABB,ITALY)	Pcs	1
2x160kVAR,415V,50 Hz, 3 Phase, normal duty type, self healing compact PF capacitors bank with discharge resistor.	Nos.	24
3X80kVAR,415V,50 Hz, 3 Phase, normal duty type, self healing compact PF capacitors bank with discharge resistor.	Nos.	4
3X40 KVAR, 415V, 50 Hz, 3 Phase, dry type, self healing compact PF capacitors bank with discharge resistor.	Nos	1
2X20KVAR, 415V, 50 Hz, 3 Phase, dry type, self healing compact PF capacitors bank with discharge resistor.	Nos	1
2X10KVAR, 415V, 50 Hz, 3 Phase, dry type, self healing compact PF capacitors bank with discharge resistor.	Nos	1
1X10KVAR, 415V, 50 Hz, 3 Phase, dry type, self healing compact PF capacitors bank with discharge resistor(fixed).	Nos	1
Magnetic Contactor All capacitor at adquate Rating MCCB/MCB at Adquate ratings	Nos	14
Indicating lamp	Nos	12
Auto/manual selector switch with adder block.	Nos	1
10A TP MCB	Nos	1
2A SP MCB	Nos	12
1250A TP Common Busbar		
Enclosure As Standard.		
Accessories		

12 Steps reactive power regulator which performs the switching of capacitor bank in automatic power factor correction equipments depending on charges of reactive power complete with p.f.luminescent indicators & digital power factor meter

Set

1

Brand

Capacitor Bank:Aener-EU

Magnetic Contactor:DONGA,KOREA

Circuit Breaker; Brand :HYUNDAI,KOREA

12 Steps reactive power regulator :DELAB/MIKRO,Malaysia