

Addendum

New Clauses

- **Payment (Clause no. 23 of special condition)**

The payment will be made only for the quantity actually supplied, executed and certified.

Payment will be made on completion of each item of work. However, payment of part quantity would be considered. Contractor shall submit their running bill for the payment after the measurement is recorded by the representative of the Engineer-in-charge in the measurement books. Part rate payment will not be permitted.

Necessary deduction for Security Deposit, TDS etc. shall be made from the bills

- **Clause no. 24 of Special Condition**

In case of any discrepancy between BOQ and Technical Specification, the BOQ shall prevail.

- **In BOQ Section - B, Part - I (G)**

Outdoor type LT Panel in thermoplastic enclosure may be read as polycarbonate enclosure.

- **In BOQ Section – A, Part – I (Item no. 1.1)**

The Annexure – A referred therein for equipment schedule for 1000 KVA outdoor unitized sub-station is attached.

Equipment Schedule For 1000 KVA Outdoor Unitized Sub - Station

S.No.	Description	Detail
A.	General Characteristics	
1.0	Ambient Temperature	50 °C
2.0	Installation	Outdoor
3.0	Compartmented	Yes
4.0	Sheet Steel type & thickness of enclosure	2.0 mm GI
5.0	Thickness of Partitions	2.0 mm GI
6.0	Base type & thickness	4.0 mm GI
7.0	Painting	Powder coated
8.0	Shade	Orange
9.0	Type of ventilation	Natural
10.0	Degree of standard protection	
a)	HT compartments	IP54
b)	MV and LV compartments	IP 54
c)	Transformer compartment	IP23
11.0	Temperature Class	K 10
B.	Electrical Characteristics	
1.0	Rated voltage (Kv)	11
2.0	Rated frequency (Hz)	50
C.	11 KV HT RMU	
1.0	Designation	11KV Incomer
2.0	System Voltage	11000 Volt, 3 phase, 3 wire. 50 HZ AC supply
3.0	System Fault Level	350 MVA
4.0	Type of switch gear	SF 6 Operated RMU
5.0	Rating	200A
6.0	Service	Indoor
7.0	Rated rupturing capacity	18.4KA at 11KV (170 KVP in pulse voltage/ 35 KV Power frequency Voltage)
8.0	Rated making capacity	47.0KA at 11 KV
9.0	Operating mechanism	Manual
10.0	Protection Relay	VIP-35 / EQUAL (self-powered).
11.0	Cable Box (Incoming / Outgoing)	Suitable for 3 Core 150sq.mm. XLPE Armoured cable 11 KV grade.
12.0	Bus Bars	3 wire air insulated 'copper' Bus Bars of rating 630 A, 11000 Volts.
13.0	Earth Bus	50 x 6 mm copper earth bus with proper bonding to the enclosure.
D.	TRANSFORMER	
1.0	Rating	1000 KVA
2.0	Ratio	11KV/ 415V, 3 Phase, 4 wire, 50 Hz, AC supply
3.0	Type	Oil immersed
4.0	Cooling	ONAN

5.0	Service	Indoor
6.0	Duty cycle	Continuous.
7.0	Insulation class	H
8.0	Temperature Rise	as per IS
9.0	No. of windings/ Phase	Two
10.0	Material of windings	Copper
11.0	Inter-Phase Connections	Delta - star
12.0	Reactance	As per IS
13.0	Tap changing Gear	Manual, Off load tap changer.
14.0	Terminal Arrangement	
i)	HT Side	3 core 150 sq. mm Al. XLPE cable (11KV Grade)
ii.	LT Side	3 nos 3.5 core 300 sq. mm Al. XLPE Cable (1.1 KV Grade)
15.0	Percentage Impedance	As per IS 2026
16.0	Accessories Desire :	
*	Two Nos. Grounding/ Earthing terminals for body	Required
*	Lifting eyes.	Required
*	Neutral bushing for LV windings	Required
*	Rating plate and terminal marking plate.	Required
E.	415 V Air Circuit Breaker	
1.0	Number of Poles	Four
1.2	Rated Operational Voltage	500 V AC
1.3	Rated Insulation Voltage	1000V
1.4	Frequency	50/ 60 Hz
1.5	Rated current	1600A
1.6	Rating of 4 th pole	1600 A
1.7	Built - in Microprocessor based Releases for Over Load, short Circuit and Earth Fault Protection.	Required
1.8	Ultimate Breaking capacity at 415 V AC (Icu)	50KA
2.0	Rated Service Breaking Capacity (Ics)	50KA
2.1	Rated short time withstand current (Icw) for 1.0 second	50KA
2.2	Rated making Capacity	As per IS
2.3	Type of Operation	Manual