



**INDIAN BANK
ZONAL OFFICE
GHAZIABAD ZONE
UTTER PARDESH**

PART - II

PRICE BID

TENDER DOCUMENT FOR SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF 250 KVA UNITISED SUBSTATION FOR INDIAN BANK AT PLOT NO E-16B / 1, SECTOR-30;D-37/2,SECTOR-50 & D-211/,SECTOR 61 NOIDA, UTTER PRADESH.

ISSUED TO

M/s. _____

ARCHITCT

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This document contains 04 pages

**BOQ FOR UNITISED SUBSTATION WORKS FOR INDIAN BANK AT PLOT NO E-16B/1,SEC-30;
D-37/2,SEC-50 & D-211/,SECTOR 61,NOIDA,UP**

S.No.	Description	Unit	Qty.	Rate	Amount
A)	Unitised Substation with One panel SF6 Insulated VCB HT Panel, Dry Type Transformer and LT ACB/ MCCB.				
1.0	Design, Manufacturing & Supply of 11kV Outdoor type Package Sub-Station consisting of 11/0.433KV, DRY type transformer , HT panel, LT panel inside GI sheet steel enclosure with all interconnections, fully type tested as per the IEC-1330 complete in all respect consisting of following items & as per detailed technical specifications:				
	HT PANEL				
	11kV, 630A, 21kA/3 sec Compact VCB panel consisting of 1 no. fixed type Vacuum Circuit Breaker as main incomer for making and breaking of fault current. Vacuum Circuit Breakers along with air insulated Metering module. All the live parts, VCB modules, isolators, earth switches must be sealed within robotically welded single stainless steel tank filled with SF6 gas as insulation having IP67 degree of protection. VCB module of the panel should have hinged arc proof cable doors with self interlocking mechanism to the corresponding earth switch, all cable terminations shall be from the front, ring core CTs for metering & protection purposes, self powered microprocessor based numerical 3 O/C & 1 E/F relay for protection in VCBs. Transformer auxiliary protection relays for WTI trip & alarm with 4 window annunciation. Arrangement for connecting incoming cable and outgoing to primary of transformer.				
	Switchgear shall be complete with all connection, Copper bus-bars, cable supports, manometer, voltage indications, mechanical indications for breaker ON/ OFF/ TRIP/ SPRING CHARGED etc as per IS:13118, 5227, 5463. IEC:265, 129, 298, 694, 529.				
	Multifunction Meter (A, V, kWh, kVAR, PF) in the Line PT panel along with 1set of PT of 11kV/ 110V CL1.0, 50VA 24 V DC motorized system in VCB.				

LT PANEL				
433V LT Indoor panel with Aluminium Busbars, Fabrication using 1.5/2 MM CRCA sheet steel, Ingress protection IP4X, solidly earthed at substation complete with internal wiring, 1set of LT cast resin CT's, PT's & multifunction meter Load Manager (A, V, kWH, kVA, kVAR), R Y B indication lamps, ON/ OFF/ Trip indication lamps, control MCB's and wiring etc. consisting of following.				
The panel shall include 630Amp MCCB , 4 pole, 35 kA with microprocessor based O/C, S/C & E/F releases. Breaker to act as Incomer cum outgoing. Ics=Icu for the breaker.				
OUTDOOR ENCLOSURE :				
Outdoor type enclosure having modular construction of Galvanized Sheet Steel. The Enclosure shall have IP54 degree of protection for HT and LT switchgear compartment and IP23D degree of protection for Transformer compartment. The enclosure exterior shall be painted with poly urethane paint. Each compartment will be provided with the door and pad locking arrangement. The Compartment illumination lamp with door operated switch shall be provided for each compartment. Interconnection Between HT switchgear and Transformer using XLPE Single core cable & Interconnection between Transformer and LT switchgear using Busbars. All metallic components shall be earthed to a common earthing point.				
TRANSFORMER				
1 No. 250 kVA, 11kV/ 433V, DYn11, AN, Cast Resin , dry type transformer with off circuit tap changer of -5% to +5% in steps of 2.5 % Transformer. Losses should be as required by ECBC 2007 or less.				
INTERCONNECTOION & EARTHING :				
Internal factory connections Between HT switchgear and Transformer shall be done using 1Cx3Rx120Sq.mm XLPE single core copper condutor cable and interconnection between Transformer and LT switchgear using tinned copper busbars. All metallic components shall be earthed to a common earthing point.				
STATUARY APPROVAL AND CLEARANCE				
Obtaining necessary approvals from the chief electrical inspectorate of UP / Concerned department for electrical safety / norms / Approval of drawings etc. for 250KVA				
Unitised substation as described above including required approvals from the concerned department.	Set	3		
TOTAL				

2)	<u>MAINTENANCE</u>				
	YEAR (ALL INCLUSIVE COMPREHENSIVE MAINTENANCE)				
	DLP				
	First Year after DLP	Set	3		
	Second Year after DLP	Set	3		
	TOTAL				
	GRAND TOTAL				

(RUPEES _____
_____ Only)

CONTRACTOR'S SIGNATURE