



संदर्भ: एएआई/टिरोओई/इएनजीजी(ई)/डब्ल्यू ओ-23/2022-23/403

Ref: AAI/TRY/ENGG (E)/WO-23/2022-23/403

सेवा मे/ To,

वी.के. सैम इंजीनियरिंग, / M/s. V.K. SAM ENGINEERING,

नंबर 5, राजीव गांधी नगर, / No.5, Rajiv Gandhi Nagar,

एक्कादुथंगल, / Ekkaduthangal,

चेन्नई - 600 032/ Chennai - 600 032.

दिनांक: 17.02.2023

Date: 17.02.2023

विषय/Sub: Provision of 33KV, HT Power cable for NITB i/c. SITC of VCB panel and other associated works at Trichy Airport.

संदर्भ /Ref.: (i) NIT No. AAI/TRY/ENGG(E)/Project/2022-2023/ Date : 30.12.2022
(ii) Tender ID: 2022_AAI_140055_1
(iii) Your financial bid opened on 09.02.2023

प्रियमहोदय/ Dear Sir,

1. ऊपर उल्लिखित कार्य के लिए आपकी निविदा अध्यक्ष, भारतीय विमानपत्तन प्राधिकरण की ओर से आपके द्वारा उद्धृत मद दरों पर रु. जीएसटी को छोड़कर 1,55,45,990/- रुपये (रु एक करोड़ पचपन लाख पैंतालीस हजार नौ सौ नब्बे मात्र) जो रुपये की अनुमानित / न्यायोचित लागत से 12.944% कम है। जीएसटी को छोड़कर 1,78,57,630

Your tender for the work mentioned above is hereby accepted on behalf of the Chairman, Airports Authority of India, at the item rates quoted by you to Rs.1,55,45,990/- excluding GST (Rupees One Crore Fifty Five Lakhs Forty Five Thousand Nine Hundred and Ninety only) which is 12.944% below the estimated /justified cost of Rs. 1,78,57,630 excluding GST.

2. संयुक्त महाप्रबंधक (इंजी.-ई), भाविप्रा, त्रिची एयरपोर्ट, कार्य के प्रभारी अभियंता होंगे। आपसे अनुरोध है कि अनुबंध समझौते पर हस्ताक्षर करने और उसे पूरा करने के लिए 18.02.2023 तक संयुक्त महाप्रबंधक (इंजी.-ई) एएआई, त्रिची एयरपोर्ट के कार्यालय में उपस्थित हों। अनुबंध 100/- रुपये (केवल सौ रुपये) के गैर-न्यायिक स्टॉप पेपर पर निष्पादित किया जाएगा और स्टॉप पेपर की लागत आपके द्वारा वहन की जाएगी।

Joint General Manager (Engg.-E), AAI, Trichy Airport, shall be the Engineer-in-charge of the work. You are requested to attend the office of Joint General Manager (Engg.-E) AAI, Trichy Airport by 27.02.2023 to sign and complete the contract agreement. The contract agreement shall be executed on a non-judicial stamp paper of value Rs.100/- (Rupees Hundred only) and the cost of the stamp paper shall be borne by you.

3. कृपया इस पत्र के जारी होने की तारीख से 10 दिनों के भीतर सुरक्षा जमा के रूप में रु. 15,54,599.00 (रु केवल पंद्रह लाख चौवन हजार पांच सौ निन्यानबे) जमा करें, ऐसा न करने पर आपके बिल से नियम के अनुसार कटौती कर दी जाएगी। अनुबंध दस्तावेज के पृष्ठ संख्या 45 पर अनुबंध की शर्त का खंड 1 ए।

Please deposit **Rs. 15,54,599.00 (Rupees Fifteen Lakhs Fifty Four Thousand Five Hundred and Ninety Nine Only)** towards Security Deposit within 10 days from the date of issue of this letter, failing which, the same will be deducted from your bill as per the Clause 1A of condition of contract at page number 45 of the contract document.

[Signature]
12/02/23



4. आपसे अनुरोध है कि ठेका श्रम (विनियमन और उन्मूलन) अधिनियम 1970 के प्रावधान और अनुबंध श्रम (विनियमन और उन्मूलन) केंद्रीय नियम 1971 और न्यूनतम मजदूरी अधिनियम और केंद्र और राज्य सरकारों के नियमों का पालन करें।

You are requested to comply with the provision of Contract Labour (Regulation and Abolition) Act of 1970 and Contract Labour (Regulation and Abolition) Central Rules 1971 and minimum wages act and rules there of Central and State Governments.

5. प्रबंधक (इंजीनियरिंग-ई), भाविप्रा, त्रिची एयरपोर्ट से तुरंत संपर्क करने का निर्देश दिया जाता है, जो आपको साइट सौंपने की व्यवस्था करेगा।

You are also directed to contact Manager (Engg.-E), AAI, Trichy Airport, immediately who will arrange to handover the site to you.

6. कृपया यह नोट करें कि काम करने का समय 5 (पाँच) महीने, जिसे इस पत्र के जारी होने की तारीख के दस (10) दिन बाद से गिना जाएगा।

Please note that the time allowed for carrying out the work is **5 (Five) months**, which shall be reckoned from the **10th day** of issue of this letter.

7. दोष दायित्व अवधि के अनुबंध के कार्यों के पूरा होने की तारीख से बारह (12) महीने है, संविदा दस्तावेज के अनुसार पृष्ठा SPC-160 के खण्ड 13 पर दी गई है।

Defect liability period of the contract is TWELVE (12) MONTH from the certified date of completion of work as per clause No.13 of special condition (SPC Page-160) of the contract document.

8. अनुबंध के संबंध में कोई भी पत्राचार सामान्य रूप से संयुक्त महाप्रबंधक (इंजी.ई), एएआई, त्रिची एयरपोर्ट, त्रिची - 620 007 को संबोधित किया जाना चाहिए।

Any further correspondence in connection with the contract should normally be addressed to the Joint General Manager (Engg.E), AAI, Trichy Airport, Trichy – 620 007.

कृपया इस आदेश की प्रति को स्वीकार करें और स्वीकृति के एक टोकन के रूप में अधिसंख्यता पर हस्ताक्षर करने के बाद इसके साथ संलग्न इस पत्र की डुप्लिकेट प्रतिलिपि वापस करें।

9. Please acknowledge the receipt and return the duplicate copy of this letter enclosed herewith after signing it to the undersigned as a token of acceptance.

Encl: Schedule of Quantities.

भवदीय /Yours faithfully,

17/02/23

सहायक महाप्रबंधक (इंजी.-विद्युत)/ Asst. General Manager (Engg.-E)
कृते अध्यक्ष की ओर से / For and on behalf of Chairman,
भारतीय विमानपत्तन प्राधिकरण/Airports Authority of India.
तिरुचिहवाईअड्डा/Trichy Airport

Tender Inviting Authority: Assistant General Manager (Engg-Ele), AAI, Trichy International Airport, Trichy - 620 007.

Name of Work: Provision of 33 KV HT power cable for NITB i/c SITC of VCB panel and other associated works at Trichy Airport.

Contract No: Tender Ref No: AAI/TRY/ENGG(E)/Project/2022-23/ Dt: 30.12.2022 Tender ID: 2022_AAI_140055

Name of the Bidder/ Bidding Firm / Company :	V.K.SAM ENGINEERING						
PRICE SCHEDULE (This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevent columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)							
NUMBER #	TEXT #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Item Code / Make	Quantity	Units	RATE Excluding GST In Figures To be entered by the Bidder Rs. P	TOTAL AMOUNT WITHOUT GST	TOTAL AMOUNT In Words
1	2	3	4	5	6	7	8
1	Supply of 33 kV(E) earthed, stranded Aluminium conductor , XLPE insulated, screened extruded PVC type ST2 inner sheath ,galvanized steel strip armoured & overall PVC ST2 sheathed power cable confirming to IS:7098(Part2)-2011 as amended up to date . (i) 3Core X 300 Sqmm	Item No. 1	3400	Mtr	2131	7245400.00	INR Seventy Two Lakh Forty Five Thousand Four Hundred Only
2	Supply of 160 mm dia size HDPE pipe, ISI marked along with all accessories like socket, couplers etc. conforming to IS 4984-1995, NP6 grade, PE63 etc., complete as required.	Item No. 2	100	Mtr	500	50000.00	INR Fifty Thousand Only
3	Making Horizontal boring by using suitable mechanical arrangement, Sensor operated, Min. 2.5Mtr Depth, horizontal bore well suitable for inserting 01 no 160mm Dia. HDPE Pipes. job including inserting of HDPE Pipes in bore well hole but welding etc., complete as per site requirement.	Item No. 3	100	Mtr	1725	172500.00	INR One Lakh Seventy Two Thousand Five Hundred Only
4	Supplying and laying of following size DWC HDPE pipe ISI marked ,450N,along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc. direct in ground (120 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc., complete as required. (i) 200 mm dia (OD-200 mm & ID-173 mm nominal)	Item No. 4	3000	Mtr	520	1560000.00	INR Fifteen Lakh Sixty Thousand Only
5	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 33 KV grade of following size in the existing RCC/HUME/ METAL/DWC pipe as required. Above 120 sq. mm and upto 400 sq. mm	Item No. 5	3220	Mtr	120	386400.00	INR Three Lakh Eighty Six Thousand Four Hundred Only
6	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 33 KV grade of following size in the existing masonry open duct as required. Above 120 sq. mm and upto 400 sq. mm	Item No. 6	80	Mtr	125	10000.00	INR Ten Thousand Only
7	Supplying and Making indoor cable end termination with heat shrinkable Joint kit (earthed) complete with all accessories, and including aluminium lugs for the following size of 33kV XLPE aluminium conductor cable as required. (i) 3 Core 300 sq. mm	Item No. 7	5	Set	12000	60000.00	INR Sixty Thousand Only
8	Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size XLPE aluminium conductor cable of 33 KV grade as required : (i) 3 Core 300 sq. mm	Item No. 8	2	Set	30000	60000.00	INR Sixty Thousand Only
9	Supplying and making straight through cable jointing with heat shrinkable jointing kit complete with all accessories including ferrules suitable for following size XLPE aluminium conductor cable of 33 KV grade as required : (i) 3 Core 300 sq. mm	Item No. 9	8	Set	30000	240000.00	INR Two Lakh Forty Thousand Only
10	Excavation of the cable trenches in hard rock/demolishing cement concrete/bituminous road/brick wall by manually / mechanical means not exceeding 1.5 meters in width and lift upto 1.5 meters, including getting out the excavated soil and disposal of excavated soil as directed within a lead of 50 meters.	Item No. 10	7	Cum	750	5250.00	INR Five Thousand Two Hundred & Fifty Only
11	Supplying and making cable route marker with cement concrete 1:2:4 (1 Cement : 2 Coarse sand :4 graded stone aggregate 20mm nominal size)of size 60cmx60cm at the bottom and 50x50cm at the top with a thickness of 10cm including inscriptions duly engraved as required (For 33 KV cable Route marking / identification)	Item No. 11	32	Each	1400	44800.00	INR Forty Four Thousand Eight Hundred Only
12	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - All work up to plinth level :1:3:6 (1 Cement: 3 coarse sand (Zone-III) : 6 graded stone aggregate 20mm nominal size)	Item No. 12	4	Cum	6500	26000.00	INR Twenty Six Thousand Only

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1	2	3	4	5	6	7	8
13	Constructing brick masonry chamber in cement mortar 1:4 (1 Cement: 4 Coarse sand) with Precast top slab with 1:2:4 mix (1 Cement : 2 coarse sand : 4 graded aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement: 4 coarse sand:8 graded stone aggregate 20mm nominal size) inside and outside plastering 12mm thick with cement mortar 1:3 (1 cement: 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement: 2coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating cat of neat cemet complete as per standard design: inside size 300 X 200 cm and 150 cm deep including RCC cover with frame (Heavy duty). With common burnt clay F.P.S (non modular) bricks of class designation 7.5, including providing brick Partition wall with finish in the middle of the chamber to bifurcate HT cables.	Item No. 13	4	Each	9000	36000.00	INR Thirty Six Thousand Only
14	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 meter long etc. with charcoal/ coke and salt as required.	Item No. 14	6	Set	7500	45000.00	INR Forty Five Thousand Only
15	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50mm)	Item No. 15	60	Mtr	285	17100.00	INR Seventeen Thousand One Hundred Only
16	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I Pipe (Medium class) from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required.	Item No. 16	18	Mtr	630	11340.00	INR Eleven Thousand Three Hundred & Forty Only
17	Supply, Installation, Testing and Commissioning of outdoor type IP54 , fabricated of 2 mm thick CRCA sheet, 33KV VCB panel with 03 Nos. VCBs (1 no as a I/C & 2nos O/G), totally enclosed & electrically interlocked, Horizontal draw out on floor, horizontal isolation type VCB as per IEC62271-100 for breakers and IEC62271-200 for panels/IS 3247 of switch board as per specifications, having capacities as mentioned below, single break, trip free mechanism, electrically & manually charged and closing breaker suitable for use on 33KV, 3 phase, 50 HZ, A.C. supply with short circuit fault level of 10 MVA complete with self contained electrically interlocked rack in and rack out mechanism, Copper Bus bar of Suitable rating ,air insulated and encapsulated (with HT sleeves) copper bus bars, breakers featured with mechanical ON/OFF indicator with hand Trip device, spring release coil, shunt trip coil and auxiliary switch of 4NO + 4NC, Suitable 24 V and equipped with following switchgears and accessories i/c connections suitable for 3C X 300sqmm. XLPE 33KV cable as incomer as well as outgoing feeder. STC 25 kA for 3 sec, Internal arc Test for AFLR 25 kA for 1 sec. at individual compartments i.e. Busbar, VCB and Cable compartment. The panel shall be complete with surge protection device required for suitable voltage and withstanding current as per OEM standard. fixing of panel on existing outdoor concrete pedestal with suitable MS channel nut bolt etc. as required. Incomer VCB Panel comprising of: i. 33kV, 630A, 10MVA Vacuum Circuit Breaker ii. Set of 03nos. Caste Resin insulated Dual Core dual ratio CT, 33KV, 200-100/5-5A, Core1: Class 5P10, 10VA, Core2: class 0.2 s, 10VA iii. Set of 3 Nos. Cast resin drawout type PTs 33 kV / $\sqrt{3}$: 110 $\sqrt{3}$, class 0.2 s , Core 1: Class 0.2, 100VA, Core 2: class 3P, 100 VA burden including HT HRC fuse on 33 kV Side and MCBs on secondary side protection with digital Voltmeter (Acc. Class 0.5) having selector switches. iv. Breaker control switch 240 V AC, spring charging motor 24 V, DC Shunt/tripping coil/closing coil Lockable type, Trip/Neutral/Close (TNC) Switch, Set of ON/OFF/TRIP indicating, Set of R/Y/B Phase inciating lamps, Clear lamp for Trip Circuit health supply & Trip Circuit fails, DC Control Supply healthy & fails, indicating lamps, LED Illumination lamp for ON / OFF with limit Switch, space heater with thermostat with switch 6/16 amps 5 Pin switch socket outlet, control terminal as required. Auxillary contact for Aux.relays for Anti Pumping & indication, electrically/mechanically interlocking etc, as required, 8 window alarm annunciator with windows and buzzer ,powerpack, rest push button for electrical faults in incomer panel, complete with Control wiring, Terminal Blocks, cable-ducts, protection MCBs. v. 01 No. for each breaker:- Digital Multifunction Meter, accuracy class 0.5s, with LED/LCD screen of Max Demand Load, I;V; Hz; Active, Reactive , Apparent Power & Energy; Power factor; % unbalance of current & voltage, individual harmonics up to 15th level (complying with IEC61557-12) with RS 485 / Ethernet port and protection MCBs. and required accessories to complete the system.						

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Sl. No.	Item Description	Item Code / Make	Quantity	Units	RATE Excluding GST In Figures To be entered by the Bidder Rs. P	TOTAL AMOUNT WITHOUT GST	TOTAL AMOUNT In Words
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17.01	Outgoing VCB Panels each comprising of: i. 33kV, 630A, 10MVA Vacuum Circuit Breaker. ii. Set of 03nos. Cast resin insulated Dual core dual ratio CT, 33kV, 200-100/5-5A, Core1: Class 5P10, 10VA, Core2: Class 0.2s, 10VA iii. Breaker control switch 240 V AC, spring charging motor, 24 V, DC Shunt/tripping coil/closing coil Lockable type, Trip/Neutral/Close (TNC) Switch, Set of ON/OFF/TRIP indicating, Set of R/Y/B Phase indicating lamps, Clear lamp for Trip Circuit healthy supply & Trip Circuit fails, DC Control Supply, indicating lamps. LED Illumination lamp for ON / OFF with limit Switch, space heater with thermostat, with switch 6/16 amps 5 Pin switch socket outlet, control terminal as required. Auxiliary contact for Aux. relays for Anti Pumping & indication, electrically/ Mechanically interlocking etc. as required, 12 window alarm annunciator with windows and buzzer, power pack, rest push button for electrical faults in panel, complete with control wiring, Terminal Blocks, cable-ducts, protection MCBs. iv. 01 No. for each breaker:- Digital Multifunction Meter, accuracy class 0.5s, with LED/LCD screen of Max Demand Load, I ;V; Hz; Active, Reactive, Apparent Power & Energy; Power factor; % unbalance of current & voltage; %THD, individual harmonics up to 15th level (complying with IEC61557-12) with RS 485 / Ethernet port and protection MCBs. and required accessories to complete the system. Numerical Protection Relay (Both Incoming & out going) modular design, confirming to IEC 60255, protection scheme for detecting, indicating and tripping the breaker on critical faults like: (a) over current & short circuit 5I, 5IN & one earth fault element in the three phases, (b) negative sequence currents due to line-to-line or conductor-break faults, (c) residual and three-phase under-voltages/over-voltages, (d) circuit-breaker-failure alarm, (e) tripping-circuit-failures and interpanel tripping/blocking signals via GOOSE based peer-to-peer communication, on IEC61850 protocol. (f) Master-Trip and Trip-Circuit Supervision The relay shall be integrated with the feeder, capturing status like Breaker On/Off/Spring charged/Test/Service/AC-Fail, Line-Current, Line-Voltage etc. and display the same on graphical display (MIMIC), remote communication on IEC61850 platform on Ethernet. vi. Arc Flash Protection shall be provided: Sensing of any ARC produced in any of the 3 chambers i.e. Breaker, Cable and Busbar apart from Protection features, along with arc sensors, fibre cables etc. along with other accessories to complete the system.	Item No. 17	1	Each	3431450	3431450.00	INR Thirty Four Lakh Thirty One Thousand Four Hundred & Fifty Only
18	Supply, Installation, Testing and Commissioning of Indoor type IP4X, floor mounted metal clad, fabricated of 2 mm thick CRCA sheet, 11KV, VCB panel with 02 Nos. VCBs (1 no incoming & 1 no outgoing), totally enclosed & electrically interlocked, Horizontal drawout on floor, horizontal isolation type VCB as per IEC62271-100 for breakers and 200 for panels/IS 3247 of switch board as per specifications, having capacities as mentioned below, single break, trip free mechanism, electrically and manually charged and closing breaker suitable for use on 11KV, 3 phase, 50 HZ, A.C. supply with short circuit fault level of 10 MVA, complete with self contained electrically interlocked rack in and rack out mechanism, Copper Bus bar of suitable rating 630 Amps, air insulated and encapsulated (HT sleeve) copper bus bars, breakers featured with mechanical ON/OFF indicator with hand Trip device, spring release coil, shunt trip coil and auxiliary switch of 4NO + 4NC and equipped with following switchgears and accessories i/c connections suitable for 2R X 3C X 300sqmm. XLPE 33KV cable as incoming as well as outgoing feeder. including STC 25 kA for 3 sec, Internal arc Test for AFLR 25kA for 1 sec. at individual compartments i.e Busbar, VCB and Cable compartment. The VCB panel shall be either same make of existing 11 KV HT VCB panel available in 11 KV substation or it shall be compatible with the existing (AREVA make) panel Job i/c. providing necessary interconnection with existing busbar, extension of busbar, cables/wires interconnection etc as required to be provided in all aspects to operate with existing 11 Kv make VCB panel with suitable panel dimension The panel shall be complete with suitable surge protection device required for the suitable voltage and withstanding current. 01no. Incoming VCB Panel comprising of: i. 11kV, 630A, 10 MVA Vacuum Circuit Breaker ii. Set of 03nos. Cast Resin insulated Dual Core dual ratio CT, 11KV, 200-100/5-5A, Core1: Class 5P10, 10VA, Core2: class 0.2 s, 10VA iii. Set of 3 Nos. Cast resin drawout type PTs 11kV / $\sqrt{3}$: 110 $\sqrt{3}$, Sec1: Class 0.2 100VA, Sec 2: class 3P, 100 VA burden including HT HRC fuse on 11 kV Side and MCBs on secondary side protection with digital Voltmeter (Acc. Class 0.5) having selector switches. iv. Breaker control switch 240 V AC, spring charging motor 24 V, DC Shunt/tripping coil/closing coil Lockable type, Trip/Neutral/Close (TNC) Switch, Set of ON/OFF/TRIP indicating, Set of R/Y/B Phase indicating lamps, Clear lamp for Trip Circuit health supply & Trip Circuit fails, DC Control Supply healthy & fails, indicating lamps, LED Illumination lamp for ON / OFF with limit Switch, space heater with thermostat, switch 6/16 amps 5 Pin switch socket outlet, control terminal as required. Auxiliary contact for Aux. relays for Anti Pumping & indication, electrically/mechanically interlocking etc, as required, 8 window alarm annunciator with windows and buzzer rest push button for electrical faults in incoming panel, complete with FRLS wiring, Terminal Blocks, cable-ducts, protection MCBs. v. 01 No. for each breaker:- Digital Multifunction Meter, accuracy class 0.5s, with LED/LCD screen of Max Demand Load, I ;V; Hz; Active, Reactive, Apparent Power & Energy; Power factor; % unbalance of current & voltage, individual harmonics up to 15th level (complying with IEC61557-12) with RS 485 / Ethernet port and protection MCBs. and required accessories to complete the system.						

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Sl. No.	Item Description	Item Code / Make	Quantity	Units	RATE Excluding GST In Figures To be entered by the Bidder Rs. P	TOTAL AMOUNT WITHOUT GST	TOTAL AMOUNT In Words
1	2	3	4	5	6	7	8
18.01	01nos. Outgoing VCB Panels comprising of: i. 11kV, 630A, 10 MVA Vacuum Circuit Breaker ii. Set of 03nos. Cast resin insulated Dual core dual ratio CT, 11kV, 200-100/5-5A, Core1: Class 5P10, 10VA, Core2: Class 0.2, 10VA iii. Breaker control switch 240 V AC, spring charging motor 24 V, DC Shunt/tripping coil/closing coil Lockable type, Trip/Neutral/Close (TNC) Switch, Set of ON/OFF/TRIP indicating, Set of R/Y/B Phase indicating lamps, Clear lamp for Trip Circuit healthy supply & Trip Circuit fails, DC Control Supply healthy & fails, indicating lamps. LED Illumination lamp for ON / OFF with limit Switch, space heater with thermostat, switch 6/16 amps 5 Pin switch socket outlet, control terminal as required. Auxiliary contact for Aux. relays for Anti Pumping & indication, electrically/ Mechanically interlocking etc. as required, 12 window alarm annunciator with windows and buzzer, reset push button for electrical faults in incomer panel, complete with FRLS wiring, Terminal Blocks, cable-ducts, protection MCBs. iv. 01 No. for each breaker:- Digital Multifunction Meter, accuracy class 0.5s, with LED/LCD screen of Max Demand Load, I ;V; Hz; Active, Reactive, Apparent Power & Energy; Power factor; % unbalance of current & voltage; %THD, individual harmonics up to 15th level (complying with IEC61557-12) with RS 485 / Ethernet port and protection MCBs. and required accessories to complete the system. Numerical Protection Relay for both(Incomer & out going), modular design, confirming to IEC 60255, protection scheme for detecting, indicating and tripping the breaker on critical faults like: (a) over current & short circuit 51,51N & one earth fault element in the three phases, (b) negative sequence currents due to line-to-line or conductor-break faults, (c) residual and three-phase under-voltages/over-voltages, (d) circuit-breaker-failure alarm, (e) tripping-circuit-failures and interpanel tripping/blocking signals via GOOSE based peer-to-peer communication, on IEC61850 protocol. (f) Master-Trip and Trip-Circuit Supervision The relay shall be integrated with the feeder, capturing status like Breaker On/Off/Spring charged/Test/Service/AC-Fail, Line-Current, Line-Voltage etc. and display the same on graphical display (MIMIC), remote communication on IEC61850 platform on Ethernet. vi. Arc Flash Protection shall be provided: Sensing of any ARC produced in any of the 3 chambers i.e. Breaker, Cable and Busbar apart from Protection features, along with arc sensors, fibre cables etc. along with other accessories to complete the system. Vii. Auxiliary relay for transformer faults	Item No. 18	1	Each	1454750	1454750.00	INR Fourteen Lakh Fifty Four Thousand Seven Hundred & Fifty Only
19	Providing Concrete foundation platform for installing 33KV outdoor VCB panel as supplied in item number 1, including providing concrete M25 garde design Mix foundation of nominal dimension (7000X6000)mm with depth of 800 mm(500 mm above ground level & 300 mm Below ground level), 100mm base concrete with 1:3:6 PCC, RCC rafting with 10 mm steel rod with spacing 150 mm in foundation, suitable size covered cable trench/pipes for entry of 33KV cables, control cables in rear/front side side of Panel in the concrete platform etc. as required. Necessary steps as required to be provided in the platform for accessing the panel. Supply and fixing of fencing all around the pedestal made out of 40x40x6 MM MS angle with 6mm size 25 x25mm welded mesh, with Gate of size 1200(W)x 1800(H) mm. Proper supports shall be provided with MS Flats wherever necessary to prevent the welded mesh from warping. The 75x 40 mm. channel vertical support for the gate shall be fixed into the ground with PCC. with 2.5 Mtr. height, 40 mm M S fabricated Poles around the yard with suitable size of MS angles, M S Channels, MS flats, fixing wire mesh, fencing, concrete foundation with spacing not less than 2 mtrs span between poles. M S Poles and the wire mesh shall be painted with approved color as per E.I.C Direction. The length of the fencing should cover all sides of the foundation with sufficient clearance form sides of the pedestal, complete etc. as per site requirement.	Item No. 19	1	Job	175000	175000.00	INR One Lakh Seventy Five Thousand Only

17/02/23

NUMBER #	TEXT #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Item Code / Make	Quantity	Units	RATE Excluding GST In Figures To be entered by the Bidder Rs. P	TOTAL AMOUNT WITHOUT GST	TOTAL AMOUNT In Words
1	2	3	4	5	6	7	8
20	SITC of 33 KV, outdoor type double pole structure, with 10.05 Mtr. height 2 Pole structure ,200mm x 100mm RS Joist and 100mm x 50mm cross channel for supporting HT equipments with MS base plates 375mm x 375mm x 10mm provided at the bottom for grouting to cement concrete foundation including paintings, bolt and nuts etc., with 1Coat of anti corrosive paint and finishing with 2Coat of Aluminium paint as per site requirements and with all accessories required to complete the work comprising of the following items. Cross arms and the angles to support 2 Pole structure included. Erection of following item a) 33KV Disc Insulator (1 Set of 3 Nos.) - 1 Set b) 33KV 400A Triple pole 3 insulator double break operator air break switch complete with insulator operating rod, handles etc., As per standard practice 3 Nos. - 1Set c) 33KV PT insulator with metal part (1 Set of 3 Nos.) - 2 Set d) 33KV Station class lighting arrester,suitable DP structure (1 Set of 3 Nos.) - 1 Set e) 33KV HG Fuse with Insulator (1 Set of 3 Nos.) - 1 Set f) Necessary guysackel insulators with stay wire and accessories – 2 Set g) Bi – metallic clamp, 'A' Tool & DMC Support with Suitable bolt Nut Item With all accessories suitable above DP structure. h)Providing Interlock between 33KV Point of supply VCB and 33KV 400/800A AB Switch for No load operation as per Electrical inspectorate norms i)Laying of 40 x 6mm Cu flat for connecting the insulators for 33KV DP Structure. j)Fixing of 33KV Danger Board. k)Laying of 25 x 3mm Copper ribbon for AB switch handl earthing and fencing door earthing. & 95 Sq.mm Cu. Socket. L)Laying of loop earthing for the above 2 pole structure with earth pits with 6 SWG GI wire in 20 mm GI pipe B class pipe . m) Supply of fixing 75mm x 10mm GI Flat for the 2 Pole structure earthing. n)Erection of 14/16 SWG Tinned Cu Wire. o)Supply of brided ribbon Copper with Suitable Copper Socket. p) Supply and fixing of fencing all around double pole structure made out of 40x40x6 MM MS angle with 6mm size 25 x25mm welded mesh, with Gate of size 1200(W)x 1800(H) mm. Proper supports shall be provided with MS Flats wherever necessary to prevent the welded mesh from warpping.The 75x 40 mm. channel vertical support for the gate shall be fixed into the ground with PCC. with 2.5 Mtr. height ,40 mm M S fabricated Poles around the yard with suitable size of MS angles, M S Channels, MS flats, fixing wire mesh, fencing ,concrete foundation with spacing not less than 2 mtrs span between poles. M S Poles and the wire mesh shall be painted with approved color,providing of 40 mm. blue metal jelly fully in the yard at a height of 100 mm. on the layer of sand of 150 mm as per E.L.C Direction .The length of the fencing should cover all sides of the double pole structure with sufficient clearance ,complete etc. as per site requirement.	Item No. 20	1	Job	515000	515000.00	INR Five Lakh Fifteen Thousand Only
Total in Figures						15545990.00	INR One Crore Fifty Lakh Thirty Thousand Nine Hundred & Ninety Only
Quoted Rate in Words		INR One Crore Fifty Lakh Thirty Thousand Nine Hundred & Ninety Only					

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17/02/22

Signature Not Verified

Digitally signed by G N D KUMARAN
Date: 2023.02.20 17:51:58 IST
Location: eProcurement System for Central PSUs

