

M/s.....

TN: 10 (2017-18)
Bid Security: 8424.00
Tender Cost: 1,000.00
Last date of Submission: 23.06.2017 AT 15:00 Hrs
Date of opening: 23.06.2017 AT 16:30 Hrs

RAJASTHAN RAJYA VIDYUT PRASARAN NIGAM LTD

**G-Schedule for 2 X 220 KV Bays for 220 KV D/C Barli-Jodhpur New line at 220 KV GSS Barli as per BSR
01.04.2017**

CODE	DESCRIPTION	SAP code	Rate	QTY	Amount
1	2	3	4	5	6
1	EARTH MESH WORK				
A.1	Laying of earth mesh with 25mm/28mm dia ,M.S. Rod at depth Of 0.80 metre from top of				
	a) In case electricity is made available by RVPN without charges				
	iii) Soft Rock	PRJ1240	35	100	3500.00
	v) Hard rock (blasting Prohibited)	PRJ1242	60	200	12000.00
B.1	Laying of earthing risers of 50x6mm/50x10mm/50x12mm size M.S.Flat at a depth of 0.80 metre				
	a) In case electricity is made available by RVPN without charges				
	i) Normal dry soil	PRJ1258	27	250	6750.00
	iii) Soft Rock	PRJ1260	38	50	1900.00
	v) Hard rock (Blasting Prohibited)	PRJ1262	65	75	4875.00
C.1	Placing/Driving of earth electrode of 25/28mm dia M.S.Rod of Length 3.30 meters (approx) to a depth of 3.30 meters from the top Level of foundation including excavation of pit as required and back filling of the same, transportation of M.S.Rod from site store to locations, cutting of M.S.Rod to desired length preparation of one end as spike if necessary,welding of earth electrode to earth mesh of M.S. Rod as per drawing, application of bitumen compound and covering with bitumen impregnated tape on all welded joints for the type of soil prevalent at 3.30 meters below top level foundations (M.S.Rod of above sizes & M.S.Flat as required shall be made available by RVPN)				
	a) In case electricity is made available by RVPN without charges				
	v) Hard rock (with Prohibited)	PRJ1282	1057	6	6342.00
D.1	Placing/Driving of earth electrode of 25/28mm dia M.S.Rod of Length 7.50 meters (approx) to a depth of 8.00 meters from the top Level of foundation including drilling of 200mm dia earth pit having a throughout bore of 200mm dia to a depth of 8.00 meters from the top Level of the foundations in all types of rocks by DTH system and Over burden, including back filling of pit with Bentonite slurry(with Cost of Bentonite slurry),including its preparation, transportation of M.S.Rod and Benonite from site store to locations, cutting of M.S.Rod to desired length welding of earth electrode to earth mesh of M.S. Rod as per drawing, application of bitumen compound and covering with bitumen impregnated tape on all welded joints. (M.S.Rod of above sizes & M.S.Flat as required shall be made available by RVPN)				
	i) In case electricity is made available by RVPN without charges	PRJ1298	11230	6	67380.00
2	ERECTION OF SUB-STATION STEEL STRUCTURES columns, Beams ,lighting mast and equipment structures (excluding Circuit Breakers and nuts & bolts, washers etc from site store to locations Their assembly, placing on foundation, fixing of template, with Foundation, fixing of template, with foundation bolts as required Leveling and preparing for grouting as required but excluding Grouting, erection after grouting and tightening & punching of nuts & bolts. (Maximum height of structures up to 20 meters)				
		PRJ1306	2321	28	64988.00
3	BUS-BAR WORK:				
A.	STRINGING of 220KV,132KV, 33KV & 11KV Bus Bar of ACSR conductor, including transportation of conductor,disc Insulator and tension hardware from site stores to location laying And cutting required length of conductor, cleaning and assemblyof disc insulators as required along with fitting of bolted type or compression tape tension hardware as made available (compression machine shall be provided by RVPN on rent free basis) making up at one end, stringing of conductors between the beams with specified sag and tension, also equalizing sag and fitting spacer T-Clamps for twin conductor for three plates of conductors in each bus-section				
	ii) Single ACSR Zebra	PRJ1308	1356	2	2712.00
B.	JUMPERS OF ACSR conductor (3 nos Y- type)between bus To equipment or between equipment to equipment or between bus, including transportation of conductor, disc insulators and hardware from site stores to locations, cleaning and assembly of disc insulators as required along with fitting of suspension hardware and erection as required, cutting required length of conductor making connections, fixing of spacers & spacer T-Clamps as required, tightening of clamps/connectors, dressing etc. for three phases.				

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		PRJ1312	333	30	9990.00
	i) Single ACSR Zebra/Panther Conductor				
	ii) Double ACSR Zebra Conductor	PRJ1313	665	6	3990.00
4	STRINGING of Earth wire(size 7/3.15 mm or 7/4.00mm) Including transportation of earthwire, tension hardwares Etc.from site store to locations laying and cutting required Length of earthwire,fitting of bolted type or compression Type hardware as made available (compression machine Shall be provided by RVPN on rent free basis) making up at One end stringing of earthwire between structure peaks with Specified sag and tension, jumpering and connecting earth Bonds, for single earthwire.	PRJ1316	292	10	2920.00
5	ERECTION OF SUB-STATION EQUIPMENTS:				
	B. Erection of Current Transformer/Potential Transformer/ Capacitive voltage Transformer /Series Reactor /Residual Voltage Transformer /Neutral Current Transformer with Clamps & connectors, on already erected steel structure including transport-tation of base frame,fixing of terminal connectors,tightening of nuts & bolts etc. complete in all respect.				
	i) 220KV CT/PT/CVT	PRJ1319	2529	12	30348.00
	C. Erection of Lightening Arrestor on already erected steel structure Including transportation of Lightening Arrestor,clamps & connectors Surge counter etc. from site store to locations fabrication of base frame Fixing of terminal connectors, surge counter, tightening of nuts and Bolts etc. complete in all respect.				
	i) 220KV	PRJ1323	1996	6	11976.00
	D Erection of Isolators on already erected steel structure Including transportation of base frame,P contacts mechanism Box clamps & connectors etc from site store to locations,minor Fabrication as required, and fixing of terminal connectors,etc Adjustment/ alignment of isolator and its earth blade, if provided For their smooth operation and final adjustment if required after Jumpering.				
	i) 220KV				
	a) Without Earth Blade	PRJ1326	4400	4	17600.00
	b) With Single Earth Blade	PRJ1327	4899	2	9798.00
	d) Tandem	PRJ1329	4899	2	9798.00
	E Erection of Wave trap on already erected structure beam, Including transportation of wave tap, disc insulators,hardware Clamps and connectors,etc. from site store to locations,cleaning & assembly of disc insulators along with fitting of suspension Arrangement and erection, fixing of terminal connectors etc.				
	i) 220KV	PRJ1335	807	4	3228.00
	G. Erection of 220KV or 33KV or 132KV Circuit Breaker, including Transportation of equipment, structure members, nuts & bolts, Clamps & connectors, accessories etc. from site store to location, Assembly of support structure, their placing on foundation,levell- ing and p repairing for grouting as required, but excluding grouting, Assembly/placing of support colums/poles mechanism box/control Cubicle, and other accessories as per manufacturer's drawings, Fitting of SF 6 gas pipeline, fabrication of air/ oil pipeline as required, Electrical wiring from pole to control cubicle, fixing of terminal Connectors as required, but excluding commissioning of CB, for all Types of operating mechanism. as required.				
	i) 220 KV	PRJ1338	19216	2	38432.00
	I. Erection of Post Insulators on already erected structures including Transportation of P.I's nuts & bolts, clamps & connectors etc.from Site store to locations, fabrication of base frame & assembly if Required, fixing of clamps, etc.				
	i) 220KV	PRJ1342	883	84	74172.00
6	Erection of Control & Relay Panels complete in all respect. Including transportation from site store to control room, placingOn foundation/cable trench as per layout, interconnection between Control & Relay panels and with existing panels fixing of site/top Covers and doors earthing to existing earth strip in control room, And relay panel as required.				
	ii) Duplex Panel	PRJ1352	1265	2	2530.00
7	Erection of Marshalling Kiosk/Line Matching Unit(LMU)/Line Matching & Distribution Unit (LMDU) complete in all respect Including transportation from site store to location, placing on Foundation/ cable trench as per layout, preparing for grouting Of foundation bolts but excluding grouting etc.				
	ii) 33KV or 11KV Marshalling Kiosk	PRJ1356	192	4	768.00
10	LAYING AND TERMINATION OF CABLES:				
	A. Control Cable:				

Tender Cost: 1,000.00
Last date of Submission: 23.06.2017

i) Laying of P.V.C insulated unarmoured/ armoured control cable of 1.1 KV grade with copper conductor in cable trenches as per specification as required, including transportation of cable drums from site store to locations, laying in cable trenches, cutting to required length, placing them on cable racks/cable trays/ cable batten & dressing, including removing and re-fixing trench covers as required making necessary connections, testing, cable marking on both the terminating ends, etc. as required for all sizes from 2c x 2.5 sq.mm to 20c x 2.5 sq.mm and 4c x 6 sq.mm.				
a) Unarmoured control cable.	PRJ1381	5	5000	25000.00
ii) Fixing of control cable in position with single compression nickel plated brass cable glands conforming to IS: 12943 & having three metal washers and one rubber ring, including preparation of cable and drilling of corresponding holes in gland plates etc. as required, & including cost of cable glands, for each cable gland of size.				
a) 19mm unarmoured control cable	PRJ1383	44	20	880.00
c) 25mm unarmoured control cable	PRJ1385	67	72	4824.00
e) 32mm unarmoured control cable	PRJ1387	96	12	1152.00
iii) Termination of wires of cables with copper conductor using copper terminal ends (pin or ring type as required of Dowell's or equivalent make as approved by the Engineer-in-Charge duly crimped with crimping tool, including making wire ends ready for crimping, ferruling & dressing of wires etc. as required, including cost of terminal ends for all wires, for each cable at both ends for cables of the following sizes.				
a) 2x x 2.5 sq.mm	PRJ1389	21	5	105.00
b) 3c x 2.5sq.mm	PRJ1390	32	5	160.00
c) 4c x 2.5 sq.mm	PRJ1391	43	12	516.00
h) 18c x 2.5 sq.mm	PRJ1396	191	6	1146.00
In case all the wires of any cable are not got terminated, then a deduction at the rate Rs.6.00 shall be made for each end of wires not terminated.				
i) 4c x 4.0 sq.mm	PRJ1397	57	24	1368.00
In case all the wires of any cable are not got terminated, then a deduction at the rate Rs.7.00 shall be made for each end of wires not terminated.				
			TOTAL	421148.00


 SUPERINTENDING ENGINEER (T&C)
 RVPN, JODHPUR

I/We agree to% above/below to the RVPN BSR 01/04/2017.

Signature of the contractor Name of firm/contractor
with stamp and date

M/s.....


TN: 11 (2017-18)
Bid Security: 5472.00
Tender Cost: 1000.00
Last date of Submission: 23.06.2017 AT 15:00 Hrs
Date of opening: 23.06.2017 AT 16:30 Hrs

RAJASTHAN RAJYA VIDYUT PRASARAN NIGAM LTD
 G-Schedule for Augmentation of 220/132 KV, 160 MVA Transformer at 220 KV GSS Baithwasia

Code No.	Description	Unit	SAP Code	Rate	Qty	Amount
1	2	3	4	5	6	7
EARTH MESH WORK						
A 1	Laying of earth mesh with 25mmx28mm dia. M.S. Rod at depth Of 0.80 metre from top of foundation including excavation of Trench of required depth and backfilling of the same transportation of M.S Rods from site store to locations, welding of M.S Rod along the length, at crossings and with earth electrodes as per drawing application of bitumen compound and covering with bitumen impregnated tape on all welded joints, for the type of soil prevalent at 0.80 metre below top level of foundations (M.S Rod of above sizes & M.S Flat required shall be made available by RVPN)					
	a) In case electricity is made available by RVPN without charges					
	i) Normal dry soil	Mtr	PRJ1238	18.00	150	2700.00
	ii) Hard soil/Murrum/Black cotton soil	Mtr	PRJ1239	19.00	150	2850.00
	iii) Soft Rock	Mtr	PRJ1240	26.00	100	2600.00
B 1	Laying of earthing risers of 50x6mm/50x10mm/50x12mm size M.S Flat at a depth of 0.80 metre from top level of foundations. Including excavation of trench of required depth and backfilling of the same, transportation of M.S Flat from site store to location preparation of risers, bending as per requirement (after heating if necessary), fixing on and welding bolting to equipment, structure and oars of structures, laying in the trench, welding to the earth mesh of M.S Rod as per drawing including welding of extra length of M.S Flat if required, application of bitumen compound and covering with bitumen impregnated tape on all welded joints, painting of all surface of risers above ground level with red oxide and green paint, for the type of soil prevalent at 0.80 metre below top level of foundations (M.S Rod of above Sizes & M.S Flat as required shall be made available by RVPN)					
	a) In case electricity is made available by RVPN without charges					
	i) Normal dry soil	Mtr	PRJ1258	20.00	400	8000.00
	ii) Hard soil/Murrum/Black cotton soil	Mtr	PRJ1259	21.00	300	6300.00
	iii) Soft Rock	Mtr	PRJ1260	29.00	100	2900.00
C 1	Placing/Drilling of earth electrode of 25x28mm dia M.S Rod of Length 3.30 meters (approx) to a depth of 3.80 meters from the top level of foundation including excavation of pit as required and back filling of the same, transportation of M.S Rod from site store to locations, cutting of M.S Rod to desired length preparation of one end as spike if necessary, welding of earth electrode to earth mesh of M.S Rod as per drawing, application of bitumen compound and covering with bitumen impregnated tape on all welded joints for the type of soil prevalent at 3.80 meters below top level foundations. (M.S Rod of above sizes & M.S Flat as required shall be made available by RVPN)					
	a) In case electricity is made available by RVPN without charges					
	i) Normal dry soil	Nos	PRJ1278	150.00	4	600.00
	ii) Hard soil/Murrum/Black cotton soil	Nos	PRJ1279	250.00	4	1000.00
	iii) Soft Rock	Nos	PRJ1280	400.00	6	2400.00
2	ERECTION OF SUB-STATION STEEL STRUCTURES columns, Beams lighting mast and equipment structures including circuit Breakers and nuts & bolts, washers etc from site store to locations Their assembly, placing on foundation, fixing of template with Foundation, fixing of template with foundation bolts as required Leveling and preparing for grouting as required but excluding Grouting, erection after grouting and tightening & punching of nuts & bolts (Maximum height of structures up to 20 meters)	MT				
			PRJ1306	1744.00	25	43600.00
BUS BAR WORK:						
A	STRINGING OF 220KV,132KV, JJKV & 11KV Bus Bar of ACSR conductor, including transportation of conductor/disc Insulator and tension hardware from site stores to location laying And cutting required length of conductor, cleaning and assembly of disc insulators as required along with fitting of bolted type or compression tape tension hardware as made available (compression machine shall be provided by RVPN on rent free basis) making up at one end, stringing of conductors between the beams with specified sag and tension, also equalizing sag and fitting spacer T-Clamps for twin conductor for three plates of conductors in each bus-section					
	i) Single ACSR Zebra	Soc	PRJ1308	1019.00	1	1019.00
	ii) Double ACSR Zebra	Soc	PRJ1309	1469.00	3	4407.00
B	JUMPERS OF ACSR conductor (3 nos Y-type) between bus To equipment or between equipment to equipment or between bus, including transportation of conductor, disc insulators and hardware from site stores to locations, cleaning and assembly of disc insulators as required along with fitting of suspension hardware and erection as required, cutting required length of conductor making connections, fixing of spacers & spacer T-Clamps as required, tightening of clamps/connectors, dressing etc. for three phases					
	i) Single ACSR Zebra/Panther Conductor	Set	PRJ1312	250.00	6	1500.00
	ii) Double ACSR Zebra Conductor	Set	PRJ1313	500.00	18	9000.00
C	STRINGING of Earth wire size 7.315 mm ² or 7.40mm ² including transportation of earthwire, tension hardware etc from site store to locations laying and cutting required Length of earthwire, fitting of bolted type or compression Type hardware as made available (compression machine shall be provided by RVPN on rent free basis) making up at One end stringing of earthwire between structure peaks with Specified sag and tension, jumpering and connecting earth Bonds, for single earthwire	Each				
			PRJ1316	219.00	10	2190.00
ERECTION OF SUB-STATION EQUIPMENTS:						
B	Erection of Current Transformer Potential Transformer, Capacitive voltage Transformer /Series Reactor /Residual Voltage Transformer /Neutral Current Transformer with Clamps & connectors, on already erected steel structure including transportation of base frame fixing of terminal connectors tightening of nuts & bolts etc complete in all respect					
	i) 220KV CT/PT/CVT	Nos	PRJ1319	1900.00	3	5700.00
	ii) 132KV CT/PT/CVT	Nos	PRJ1320	1063.00	3	3189.00
C	Erection of Lightning Arrestor on already erected steel structure including transportation of Lightning Arrestor, clamps & connectors Surge counter etc from site store to locations fabrication of base frame Fixing of terminal connectors, surge counter, tightening of nuts and Bolts etc complete in all respect					
	i) 220KV	Nos	PRJ1323	1500.00	3	4500.00
	ii) 132KV	Nos	PRJ1324	1069.00	3	3207.00

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D	Erection of isolators on already erected steel structure including transportation of base frame, P contacts mechanism Box clamps & connectors etc from site store to locations, minor Fabrication as required, and fixing of terminal connectors etc. Adjustment alignment of isolator and its earth blade, if provided for their smooth operation and final adjustment if required after Jumpering					
	(i) 220KV					
	a) Without Earth Blade	Nos	PRJ1326	3306.00	3	9918.00
	d) Tandem	Nos	PRJ1329	3681.00	1	3681.00
	(ii) 132KV					
	a) Without Earth Blade	Nos	PRJ1330	1950.00	3	5850.00
G	Erection of 220KV or 132KV or 132KV Circuit Breaker, including Transportation of equipment, structure members, nuts & bolts, Clamps & connectors, accessories etc. from site store to location. Assembly of support structure, their placing on foundation, leveling and preparing for grouting as required, but excluding grouting. Assembly/placing of support columns/poles mechanism box/control Cubicle, and other accessories as per manufacturer's drawings. Fitting of SF 6 gas puffers, fabrication of air (oil) pipeline as required. Electrical wiring from pole to control cubicle, fixing of terminal connectors as required, but excluding commissioning of CB, for all types of operating mechanism, as required.					
	(i) 220 KV	Nos	PRJ1338	14438.00	1	14438.00
	(ii) 132 KV	Nos	PRJ1339	11438.00	1	11438.00
I	Erection of Post Insulators on already erected structures including Transportation of PJ's nuts & bolts, clamps & connectors etc from Site store to locations, fabrication of base frame & assembly if Required, fixing of clamps, etc					
	(i) 220KV	Nos	PRJ1342	663.00	6	3978.00
K	Erection of 220KV Class EHV Transformer (Gas filled tank Already placed on foundation with wheels), including transportation of accessories from site store to locations, erection of HV, IV, LV & Neutral bushings, erection of cooler bank with associated Pipe line, radiators, fans, pump, main & OLTC conservators, Equalizing pipe line, marshalling kiosk, etc. as per manufacturer's Drawing preparation of oil, oil filling, dehydration of transformer Along with cooler bank & diverter switch/filter machine oil tank & operating staff shall be provided by RVPN), electrical wiring From individual equipment, e.g. Buchholz relay, MOLG, OSR, Fans Pumps, Bushing CT's etc to marshalling kiosk etc. but Excluding testing & commissioning of transformer.					
	a) If electricity is available & arrange by RVPN without charges	Nos	PRJ1349	96625.00	1	96625.00
	(i) Erection of Control & Relay Panels complete in all respect. Including transportation from site store to control room, placing on foundation, cable trench as per layout, interconnection between Control & Relay panels and with existing panels, fixing of site top. Covers and doors earthing to existing earth strip in control room. And relay panel as required					
	(ii) Duplex Panel	Nos	PRJ1352	950.00	2	1900.00
	(iii) Simplex Panel, DC Panel, RTCC Panel, PLC Panel etc	Nos	PRJ1353	475.00	1	475.00
	(i) Erection of Marshalling Kiosk/Line Matching Unit(LMU)/Line Matching & Distribution Unit (LMDU) complete in all respect including transportation from site store to location, placing on Foundation/ cable trench as per layout, preparing for grouting. Of foundation bolts but excluding grouting etc					
	(ii) 220KV or 132KV Marshalling Kiosk	Nos	PRJ1355	281.00	2	562.00
III	LAYING AND TERMINATION OF CABLES:					
A	Control Cable					
	(i) Laying of P.V.C insulated unarmoured, armoured control cable of 11 KV grade with copper conductor in cable trenches as per specification as required, including transportation of cable drums from site store to locations, laying in cable trenches, cutting to required length, placing them on cable racks/cable trays, cable batten & dressing, including removing and re-laying trench covers as required making necessary connections, testing, cable marking on both the terminating ends, etc. as required for all sizes from 2c x 2.5 sq mm to 20c x 2.5 sq mm and 4c x 6 sq mm.					
	a) Unarmoured control cable	Mtr	PRJ1381	4.00	3000	12000.00
	(ii) Fixing of control cable in position with single compression nickel plated brass cable glands conforming to IS: 12943 & having three metal washers and one rubber ring, including preparation of cable and drilling of corresponding holes in gland plates etc as required, & including cost of cable glands. for each cable gland of size					
	a) 19mm unarmoured control cable	Nos	PRJ1383	33.00	12	396.00
	b) 25mm unarmoured control cable	Nos	PRJ1385	50.00	24	1200.00
	(iii) Termination of wires of cables with copper conductor using copper terminal ends (pin or ring type as required of Dowell's or equivalent make as approved by the Engineer-in-Charge duly crimped with crimping tool, including making wire ends ready for crimping, ferruling & dressing of wires etc. as required. including cost of terminal ends for all wires, for each cable at both ends for cables of the following sizes					
	a) 2c x 2.5 sq mm	Nos	PRJ1389	16.00	6	96.00
	b) 4c x 2.5 sq mm	Nos	PRJ1391	32.00	4	128.00
	c) 12c x 2.5 sq mm	Nos	PRJ1394	96.00	8	768.00
	d) 10c x 2.5 sq mm	Nos	PRJ1396	143.00	8	1144.00
	In case all the wires of any cable are not got terminated, then a deduction at the rate Rs 4.00 shall be made for each end of wires not terminated					
	e) 4c x 6 sq mm	Nos	PRJ1397	43.00	30	1290.00
	In case all the wires of any cable are not got terminated, then a deduction at the rate Rs 5.00 shall be made for each end of wires not terminated wires not terminated					
TOTAL AMOUNT IN Rs.						273549.00


 SUPERINTENDING ENGINEER (T&C)
 RVPN, JODHPUR

I/We agree to% above/below to the RVPN BSR 01/04/2017.

Signature of the contractor Name of firm/contractor
with stamp and date

Annex '1'

M/s.....

TN: 12 (2017-18)
Bid Security: 4534.00
Tender Cost: 1,000.00
Last date of Submmision: 23.06.2017 AT 15:00 Hrs
Date of opening: 23.06.2017 AT 16:30 Hrs

RAJASTHAN RAJYA VIDYUT PRASARAN NIGAM LTD

G-Schedule for Aug. Work 132/33KV, 20/25MVA TRF at 132 KV GSS Chamu as per BSR 01.04.2017

CODE	DESCRIPTION	SAP code	Rate	QTY	Amount
1	2	3	4	5	6
1	EARTH MESH WORK				
A 1	Laying of earth mesh with 25mm-28mm dia M.S Rod at depth Of 0.80 metre from top of foundation including excavation of trench of required depth and backfilling of the same transportation of M.S.Rods from site store to locations, welding of M.S.Rod along the length, at crossings and with earth electrodes as per drawing application of bitumen compound and covering with bitumen impregnated tape on all welded joints, for the type of soil prevalent at 0.80 metre below top level of foundations (M.S.Rod of above sizes & M.S.Flat required shall be made available by RVPN)				
	a) In case electricity is made available by RVPN without charges				
	i) Normal dry soil	PRJ1238	24	100	2400.00
	ii) Hard soil/Murram/Black cotton soil	PRJ1239	26	150	3900.00
B 1	Laying of earthing risers of 50x6mm/50x10mm/50x12mm size M.S.Flat at a depth of 0.80 metre from top level of foundations, Including excavation of trench of required depth and backfilling of the same, transportation of M.S.Flat from site store to location preparation of risers, bending as per requirement (after heating if necessary), fixing on and welding/bolting to equipment/ structure and ocajs if structures, laying in the trench, welding to the earth mesh of M.S Rod as per drawing including welding of extra length of M.S.Flat if required, application of bitumen compound and covering with bitumen impregnated tape on all welded joints, painting of all surface of risers above ground level with red oxide and green paint, for the type of soil prevalent at 0.80 metre below top level of foundations (M.S.Rod of above Sizes & M.S.Flat as required shall be made available by RVPN)				
	a) In case electricity is made available by RVPN without charges				
	i) Normal dry soil	PRJ1258	27	200	5400.00
	ii) Hard soil/Murram/Black cotton soil	PRJ1259	28	150	4200.00
C 1	Placing Driving of earth electrode of 25/28mm dia M.S.Rod of Length 3.30 meters (approx) to a depth of 3.80 meters from the top Level of foundation including excavation of pit as required and back filling of the same, transportation of M.S.Rod from site store to locations, cutting of M.S.Rod to desired length preparation of one end as spike if necessary, welding of earth electrode to earth mesh of M.S. Rod as per drawing, application of bitumen compound and covering with bitumen impregnated tape on all welded joints for the type of soil prevalent at 3.80 meters below top level foundations (M.S.Rod of above sizes & M.S.Flat as required shall be made available by RVPN)				
	a) In case electricity is made available by RVPN without charges				
	ii) Hard soil/Murram/Black cotton soil	PRJ1279	333	6	1998.00
	iii) Soft Rock	PRJ1280	532	6	3192.00
2	ERECTION OF SUB-STATION STEEL STRUCTURES columns, Beams, lighting mast and equipment structures (excluding Circuit Breakers and nuts & bolts, washers etc from site store to locations Their assembly placing on foundation, fixing of template with Foundation, fixing of template, with foundation bolts as required Leveling and preparing for grouting as required but excluding Grouting, erection after grouting and tightening & punching of nuts & bolts. (Maximum height of structures up to 20 meters)	PRJ1306	2321	5	11605.00
3	BUS-BAR WORK:				
A	STRINGING of 220KV,132KV, 33KV & 11KV Bus Bar of ACSR conductor, including transportation of conductor,disc Insulator and tension hardware from site stores to location laying And cutting required length of conductor, cleaning and assembly of disc insulators as required along with fitting of bolted type or compression tape tension hardware as made available (compression machine shall be provided by RVPN on rent free basis) making up at one end, stringing of conductors between the beams with specified sag and tension, also equalizing sag and fitting spacer T-Clamps for twin conductor for three plates of conductors in each bus-section				
	i) Single ACSR Panther	PRJ1307	1165	2	2330.00
	ii) Single ACSR Zebra	PRJ1308	1356	1	1356.00

Handwritten signature/initials

3	NUMBERS OF ACSR conductor (3 nos Y- type)between bus To equipment or between equipment to equipment or between bus, including transportation of conductor, disc insulators and hardware from site stores to locations, cleaning and assembly of disc insulators as required along with fitting of suspension hardware and erection as required, cutting required length of conductor making connections, fixing of spacers & spacer T-Clamps as required, tightening of clamps,connectors, dressing etc, for three phases.				
	i) Single ACSR Zebra/Panther Conductor	PRJ1312	333	60	19980.00
4	STRINGING of Earth wire(size 7/3 15 mm or 7/4 00mm) Including transportation of earthwire, tension hardwares, etc from site store to locations laying and cutting required Length of earthwire,fitting of bolted type of compression Type hardware as made available (compression machine Shall be provided by RVPN on rent free basis) making up at One end stringing of earthwire between structure peaks with Specified sag and tension, jumpering and connecting earth Bonds, for single earthwire.	PRJ1316	292	12	3504.00
5	ERECTION OF SUB-STATION EQUIPMENTS:				
B	Erection of Current Transformer/Potential Transformer/ Capacitive voltage Transformer /Series Reactor Residual Voltage Transformer /Neutral Current Transformer with Clamps & connectors, on already erected steel structure including transport-Tation of base frame,fixing of terminal connectors,tightening of nuts & bolts etc. complete in all respect				
	i) 132KV CT PT CVT	PRJ1320	1415	3	4245.00
	ii) 33KV or 11KV CT-PT	PRJ1321	532	3	1596.00
C	Erection of Lightning Arrestor on already erected steel structure Including transportation of Lightning Arrestor,clamps & connectors Surge counter etc. from site store to locations fabrication of base frame Fixing of terminal connectors, surge counter, tightening of nuts and Bolts etc. complete in all respect.				
	i) 132KV	PRJ1324	1422	3	4266.00
	ii) 33KV or 11KV	PRJ1325	317	3	951.00
D	Erection of Isolators on already erected steel structure Including transportation of base frame,P contacts mechanism Box clamps & connectors etc from site store to locations,minor Fabrication as required, and fixing of terminal connectors,etc Adjustment/ alignment of isolator and its earth blade, if provided For their smooth operation and final adjustment if required after Jumpering.				
	i) 132KV				
	a) Without Earth Blade	PRJ1330	2596	2	5192.00
	b) With Single Earth Blade	PRJ1331	3045	1	3045.00
	ii) 33KV & 11KV				
	a) Without Earth Blade	PRJ1333	916	4	3664.00
	b) With Single Earth Blade	PRJ1334	1364	1	1364.00
G	Erection of 220KV or 33KV or 132KV Circuit Breaker, including Transportation of equipment, structure members, nuts & bolts, Clamps & connectors, accessories etc from site store to location, Assembly of support structure, their placing on foundation,level- ing and p reparing for grouting as required, but excluding grouting Assembly placing of support columns poles mechanism box/control Cubicle, and other accessories as per manufacturer's drawings, Fitting of SF 6 gas pipeline, fabrication of air oil pipeline as required, Electrical wiring from pole to control cubicle, fixing of terminal Connectors as required, but excluding commissioning of CB, for all Types of operating mechanism, as required.				
	i) 132 KV	PRJ1339	15223	2	30446.00
H	Erection of 33KV or 11 KV Circuit Breakers including transport- Tation of equipment, structure members nuts & bolts clamps &Connectors etc from site store to locanon, assembly of support Structure their placing on foundation, leveling and preparing for Grouting as required, but excluding grouting assembly placing of Poles, mechanism box etc on support structure as per manufacturer's Drawings fitting of terminal connectors, etc but excluding Commissioning of CB.				
	i) 33KV or 11KVV Outdoor Type (VCB/SF 6)	PRJ1340	7404	1	7404.00
I	Erection of Post Insulators on already erected structures including Transportation of P.I's nuts & bolts, clamps & connectors etc from Site store to locations, fabrication of base frame & assembly if Required, fixing of clamps, etc.				
	i) 132KV	PRJ1343	665	27	17955.00
	ii) 33KV or 11KV	PRJ1344	75	45	3375.00
J	Erection of 132KV Class EHV Transformer (tank already placed on foundation with wheels), including transportation of accessories from site store to locations, erection of HV, IV, LV & Neutral bushings main & OLTC conservators, radiators, equalizing pipe line marshalling kiosk, etc as per manufacturer's drawing, prepare tion of oil, oil filling dehydration of transformer (filter machine, oil tank & operating staff) all be provided by RVPN), electrical wiring from individual equipment, e.g. Buchholz relay, MOFC, OSR, etc to marshalling kiosk, etc but excluding testing & commissioning of transformer				
	a) If electricity is available & arranged by RVPN without charges.				
	b) Transformer received oil filled	PRJ1345	42089	1	42089.00

J. S.

6	Installation of Control & Relay Panels complete in all respect. Including transportation from site store to control room, placing on foundation cable trench as per layout, interconnection between Control & Relay panels and with existing panels fixing of site top Covers and doors earthing to existing earth strip in control room. And relay panel as required.				
	ii) Duplex Panel	PRJ1352	1265	2	2530.00
	iii) Simplex Panel, DC Panel, RTCC Panel, PLCC Panel, etc.	PRJ1353	632	3	1896.00
7	Erection of Marshalling Kiosk Line Matching Unit (LMU) Line Matching & Distribution Unit (LMDU) complete in all respect. Including transportation from site store to location, placing on Foundation/ cable trench as per layout, preparing for grouting of foundation bolts but excluding grouting etc.				
	i) 22kV or 132KV Marshalling Kiosk	PRJ1355	374.00	1	374.00
	ii) 33KV or 11KV Marshalling Kiosk	PRJ1356	192.00	1	192.00
10	LAYING AND TERMINATION OF CABLES:				
	A) Control Cable:				
	ii) Laying of P.V.C insulated unarmoured, armoured control cable of 11 KV grade with copper conductor in cable trenches as per specification as required, including transportation of cable drums from site store to locations, laying in cable trenches, cutting to required length, placing them on cable racks cable trays/ cable batten & dressing, including removing and re-fixing trench covers as required making necessary connections, testing, cable marking on both the terminating ends, etc. as required for all sizes from 2c x 2.5 sq mm to 20c x 2.5 sq mm and 4c x 6 sq mm.				
	a) Unarmoured control cable	PRJ1381	5	5000	25000.00
	ii) Fixing of control cable in position with single compression nickel plated brass cable glands conforming to IS 5943 & having three metal washers and one rubber ring, including preparation of cable and drilling of corresponding holes in gland plates etc. as required, & including cost of cable glands, for each cable gland of size				
	a) 19mm unarmoured control cable	PRJ1383	44	16	704.00
	c) 25mm unarmoured control cable	PRJ1385	67	84	5628.00
	e) 32mm unarmoured control cable	PRJ1387	96	8	768.00
	iii) Termination of wires of cables with copper conductor using copper terminal ends (pin or ring type as required of Dowell's or equivalent make as approved by the Engineer-in-Charge duly crimped with crimping tool, including making wire ends ready for crimping, ferruling & dressing of wires etc. as required, including cost of terminal ends for all wires, for each cable at both ends for cables of the following sizes.				
	a) 2x x 2.5 sq.mm	PRJ1389	21	4	84.00
	b) 3c x 2.5sq.mm	PRJ1390	32	4	128.00
	c) 4c x 2.5 sq mm	PRJ1391	43	2	86.00
	d) 12c x 2.5 sq mm	PRJ1394	128	10	1280.00
	ii) 18c x 2.5 sq mm	PRJ1396	191	4	764.00
	In case all the wires of any cable are not got terminated, then a deduction at the rate Rs 6.00 shall be made for each end of wires not terminated				
	i) 4c x 4.0 sq mm	PRJ1397	57	30	1710.00
	In case all the wires of any cable are not got terminated, then a deduction at the rate Rs 7.00 shall be made for each end of wires not terminated.				
	TOTAL AMOUNT IN Rs.				226601.00


 SUPERINTENDING ENGINEER (T&C)
 RVPN, JODHPUR

I/We agree to% above/below to the RVPN BSR 01/04/2017.

Signature of the contractor Name of firm/contractor
with stamp and date

M/s.....

TN: 13 (2017-18)

Bid Security: 3554.00

Tender Cost: 750.00


Last date of Submission: 23.06.2017

AT 15:00 Hrs

Date of opening: 23.06.2017 AT 16:30
Hrs**RAJASTHAN RAJYA VIDYUT PRASARAN NIGAM LTD****G-Schedule for erection of 02 Nos. 132 KV Bay at 132 KV GSS Sanwreej for providing Grid Connectivity to 160 MW M/S Suzlon Gujrat Wind Park as per BSR 01.04.2017**

CODE NO.	DESCRIPTION	SAP code	Rate	QTY	Amount
1	2	3			
1	EARTH MESH WORK				
A	Laying of earth mesh with 25mm 28mm dia. M.S. Rod at depth Of 0.80 metre from top of foundation including excavation of trench of required depth and backfilling of the same transportation of M.S.Rods from site store to locations, welding of M.S. Rod along the length, at crossings and with earth electrodes as per drawing application of bitumen compound and covering with bitumen impregnated tape on all welded joints, for the type of soil prevalent at 0.80 metre below top level of foundations (M.S. Rod of above sizes & M.S. Flat required shall be made available by RVPN)				
	a) In case electricity is made available by RVPN without charges				
	i) Normal dry soil	PRJ1238	24	50	1200.00
	ii) Hard soil/Murram/Bael cotton soil.	PRJ1239	26	100	2600.00
B	Laying of earthing risers of 50x6mm 50x10mm 50x12mm size M.S Flat at a depth of 0.80 metre from top level of foundations. Including excavation of trench of required depth and backfilling of the same, transportation of M.S Flat from site store to location preparation of risers, bending as per requirement (after heating if necessary), fixing on and welding bolting to equipment structure and ceags if structures, laying in the trench, welding to the earth mesh of M.S. Rod as per drawing including welding of extra length of M.S.Flat if required, application of bitumen compound and covering with bitumen impregnated tape on all welded joints, painting of all surface of risers above ground level with red oxide and green paint, for the type of soil prevalent at 0.80 metre below top level of foundations (M.S. Rod of above Sizes & M.S. Flat as required shall be made available by RVPN)				
	a) In case electricity is made available by RVPN without charges				
	i) Normal dry soil	PRJ1258	27	150	4050.00
	ii) Hard soil/Murram/Bael cotton soil	PRJ1259	28	100	2800.00
C	Placing/Driving of earth electrode of 25/28mm dia M.S Rod of Length 3.30 meters (approx) to a depth of 3.80 meters from the top Level of foundation including excavation of pit as required and back filling of the same, transportation of M.S.Rod from site store to locations, cutting of M.S.Rod to desired length preparation of one end as spike if necessary, welding of earth electrode to earth mesh of M.S. Rod as per drawing, application of bitumen compound and covering with bitumen impregnated tape on all welded joints for the type of soil prevalent at 3.80 meters below top level				
	a) In case electricity is made available by RVPN without charges				
	iii) Soft Rock	PRJ1280	532	6	3192.00
2	ERECTION OF SUB-STATION STEEL STRUCTURES columns, Beams lighting mast and equipment structures (excluding Circuit Breakers and nuts & bolts, washers etc from site store to locations Their assembly, placing on foundation, fixing of template, with Foundation, fixing of template, with foundation bolts as required Leveling and preparing for grouting as required but excluding Grouting, erection after grouting and tightening & punching of nuts & bolts (Maximum height of structures up to 20 meters)	PRJ1306	2321	22	51062.00
3	BUS-BAR WORK:				
A	STRINGING of 220KV,132KV, 33KV & 11KV Bus Bar of ACSR conductor , including transportation of conductor, disc Insulator and tension hardware from site stores to location laying And cutting required length of conductor, cleaning and assembly of disc insulators as required along with fitting of bolted type or compression tape tension hardware as made available (compression machine shall be provided by RVPN on rent free basis) making up at one end, stringing of conductors between the beams with specified sag and tension, also equalizing sag and fitting spacer T Clamps for twin conductor for three plates of conductors in each bus-section				
	a) Single ACSR Zebra	PRJ1308	1356	2	2712.00
B	JUMPERS OF ACSR conductor (3 nos Y- type) between bus To equipment or between equipment to equipment or between bus, including transportation of conductor, disc insulators and hardware from site stores to locations, cleaning and assembly of disc insulators as required along with fitting of suspension hardware and erection as required, cutting required length of conductor making connections, fixing of spacers & spacer T-Clamps as required, tightening of clamps connectors, dressing etc, for three phases				
	i) Single ACSR Zebra/Panther Conductor	PRJ1312	333	24	7992.00
4	STRINGING of Earth wire (size 7/3.15 mm or 7/4.00mm) Including transportation of earthwire, tension hardwares etc from site store to locations laying and cutting required Length of earthwire, fitting of bolted type or compression Type hardware as made available (compression machine Shall be provided by RVPN on rent free basis) making up at One end stringing of earthwire between structure peaks with Specified sag and tension, jumpering and connecting earth Bonds, for single earthwire	PRJ1316	292	7	2044.00
5	ERECTION OF SUB-STATION EQUIPMENTS:				
B	Erection of Current Transformer/Potential Transformer/ Capacitive voltage Transformer /Series Reactor /Residual Voltage Transformer /Neutral Current Transformer with Clamps & connectors, on already erected steel structure including transportation of base frame, fixing of terminal connectors, tightening of nuts & bolts etc complete in all respect.				
	i) 132KV C/P/C/V	PRJ1320	1415	12	16980.00
C	Erection of Lightning Arrestor on already erected steel structure Including transportation of Lightning Arrestor, clamps & connectors Surge counter etc from site store to locations fabrication of base frame Fixing of terminal connectors, surge counter, tightening of nuts and Bolts etc complete in all respect.				

	ii) 132KV	PRJ1324	1422	6	8532.00
D	Erection of Isolators on already erected steel structure. Including transportation of base frame, P contacts mechanism Box clamps & connectors etc from site store to locations, minor Fabrication as required, and fixing of terminal connectors, etc Adjustment alignment of isolator and its earth blade, if provided For their smooth operation and final adjustment if required after Jumpering.				
	ii) 132KV				
	a) Without Earth Blade	PRJ1330	2596	4	10384.00
	b) With Single Earth Blade	PRJ1331	3045	2	6090.00
E	Erection of Wave trap on already erected structure beam. Including transportation of wave trap, disc insulators, hardware Clamps and connectors, etc from site store to locations, cleaning & assembly of disc insulators along with fitting of suspension Arrangement and erection, fixing of terminal connectors etc.				
	ii) 132KV	PRJ1336	599	4	2396.00
G	Erection of 220KV or 33KV or 132KV Circuit Breaker, including Transportation of equipment, structure members, nuts & bolts, Clamps & connectors, accessories etc. from site store to location, Assembly of support structure, their placing on foundation, levelling and preparing for grouting as required, but excluding grouting. Assembly/placing of support columns poles mechanism box control Cubicle, and other accessories as per manufacturer's drawings. Fitting of SF 6 gas pipeline fabrication of air oil pipeline as required. Electrical wiring from pole to control cubicle, fixing of terminal Connectors as required, but excluding commissioning of CB, for all Types of operating mechanism, as required.				
	ii) 132 KV	PRJ1339	15223	2	30446.00
6	Erection of Control & Relay Panels complete in all respect. Including transportation from site store to control room, placing on foundation cable trench as per layout, interconnection between Control & Relay panels and with existing panels fixing of site top Covers and doors earthing to existing earth strip in control room. And relay panel as required.				
	a) Duplex Panel	PRJ1352	1265	2	2530.00
7	Erection of Marshalling Kiosk Line Matching Unit (LMI) Line Matching & Distribution Unit (LMDU) complete in all respect Including transportation from site store to location, placing on Foundation/ cable trench as per layout, preparing for grouting. Of foundation bolts but excluding grouting etc.				
	ii) 220KV or 132KV Marshalling Kiosk	PRJ1355	374.00	1	374.00
10	LAYING AND TERMINATION OF CABLES:				
	A. Control Cable.				
	i) Laying of P.V.C insulated unarmoured, armoured control cable of 1.1 KV grade with copper conductor in cable trenches as per specification as required, including transportation of cable drums from site store to locations, laying in cable trenches, cutting to required length, placing them on cable racks cable trays cable batten & dressing, including removing and re-fixing trench covers as required making necessary connections, testing, cable marking on both the terminating ends, etc. as required for all sizes from 2c x 2.5 sq mm to 20c x 2.5 sq mm and 4c x 6 sq mm.				
	a) Unarmoured control cable.	PRJ1381	5	3000	15000.00
	b) Fixing of control cable in position with single compression nickel plated brass cable glands conforming to IS: 12943 & having three metal washers and one rubber ring, including preparation of cable and drilling of corresponding holes in gland plates etc. as required, & including cost of cable glands for each cable gland of size				
	a) 19mm unarmoured control cable	PRJ1383	44	16	704.00
	c) 25mm unarmoured control cable	PRJ1385	67	52	3484.00
	e) 32mm unarmoured control cable	PRJ1387	96	8	768.00
	iii) Termination of wires of cables with copper conductor using copper terminal ends (pin or ring type as required of Dowell's or equivalent make as approved by the Engineer-in-Charge duly crimped with crimping tool, including making wire ends ready for crimping, ferruling & dressing of wires etc. as required. including cost of terminal ends for all wires for each cable at both ends for cables of the following sizes				
	a) 2c x 2.5 sq mm	PRJ1389	21	4	84.00
	b) 3c x 2.5sq mm	PRJ1390	32	4	128.00
	c) 4c x 2.5 sq mm	PRJ1391	43	10	430.00
	h) 18c x 2.5 sq mm	PRJ1396	191	4	764.00
	In case all the wires of any cable are not got terminated, then a deduction at the rate Rs 6.00 shall be made for each end of wires not terminated.				
	i) 4c x 10 sq mm	PRJ1397	57	16	912.00
	In case all the wires of any cable are not got terminated, then a deduction at the rate Rs.7.00 shall be made for each end of wires not terminated.				
TOTAL AMOUNT IN Rs.					177658.00


 SUPERINTENDING ENGINEER (T&C)
 RVPN, JODHPUR

I/We agree to% above/below to the RVPN BSR 01/04/2017.

Signature of the contractor Name of firm/contractor
with stamp and date

M/s.....

TN: 14 (2017-18)
Bid Security: 2832.00
Tender Cost: 750.00
Last date of Submission: 23.06.2017 AT 15:00 Hrs
Date of opening: 23.06.2017 AT 16:30 Hrs

RAJASTHAN RAJYA VIDYUT PRASARAN NIGAM LTD

G- Schedule for Construction of 132KV Bus coupler bay at 220KV GSS Jodhpur as per BSR 01.04.2017

CODE	DESCRIPTION	SAP code	Rate	QTY	Amounts
1	2	3			
1	EARTH MESH WORK				
A.1	Laying of earth mesh with 25mm/28mm dia M.S. Rod at depth Of 0.80 metre from top of foundation including excavation of Trench of required depth and backfilling of the same transportation of M.S.Rods from site store to locations, welding of M.S.Rod along the length, at crossings and with earth electrodes as per drawing application of bitumen compound and covering with bitumen impregnated tape on all welded joints, for the type of soil prevalent at 0.80 metre below top level of foundations (M.S.Rod of above sizes & M.S.Flat required shall be made available by RVPN)				
	a) In case electricity is made available by RVPN without charges				
	i) Normal dry soil	PRJ1238	24	200	4800.00
	ii) Hard soil/Murram/Black cotton soil	PRJ1239	26	250	6500.00
B.1	Laying of earthing risers of 50x6mm/50x10mm/50x12mm size M.S.Flat at a depth of 0.80 metre from top level of foundations. Including excavation of trench of required depth and backfilling of the same, transportation of M.S.Flat from site store to location preparation of risers, bending as per requirement (after heating if necessary), fixing on and welding/bolting to equipment/ structure and oaks if structures, laying in the trench, welding to the earth mesh of M.S. Rod as per drawing including welding of extra length of M.S.Flat if required, application of bitumen compound and covering with bitumen impregnated tape on all welded joints, painting of all surface of risers above ground level with red oxide and green paint, for the type of soil prevalent at 0.80 metre below top level of foundations (M.S.Rod of above Sizes & M.S.Flat as required shall be made available by RVPN)				
	a) In case electricity is made available by RVPN without charges				
	i) Normal dry soil	PRJ1258	27	250	6750.00
	ii) Hard soil/Murram/Black cotton soil	PRJ1259	28	100	2800.00
C.1	Placing/Driving of earth electrode of 25/28mm dia M.S.Rod of Length 3.30 meters (approx) to a depth of 3.80 meters from the top level of foundation including excavation of pit as required and back filling of the same, transportation of M.S.Rod from site store to locations, cutting of M.S.Rod to desired length preparation of one end as spike if necessary, welding of earth electrode to earth mesh of M.S.Rod as per drawing, application of bitumen compound and covering with bitumen impregnated tape on all welded joints for the type of soil prevalent at 3.80 meters below top level foundations (M.S.Rod of above sizes & M.S.Flat as required shall be made available by RVPN)				
	a) In case electricity is made available by RVPN without charges				
	ii) Hard soil/Murram Black cotton soil	PRJ1279	333	2	666.00
	iii) Soft Rock	PRJ1280	532	8	4256.00
2	ERECTION OF SUB-STATION STEEL STRUCTURES columns, Beams, lighting mast and equipment structures (excluding Circuit Breakers and nuts & bolts, washers etc from site store to locations Their assembly, placing on foundation, fixing of template, with Foundation, fixing of template, with foundation bolts as required Leveling and preparing for grouting as required but excluding Grouting, erection after grouting and tightening & punching of nuts & bolts. (Maximum height of structures up to 20 meters)	PRJ1306	2321	16	37136.00
3	BUS-BAR WORK:				
A.	STRINGING of 220KV, 132KV, 33KV & 11KV Bus Bar of ACSR conductor. including transportation of conductor, disc Insulator and tension hardware from site stores to location laying And cutting required length of conductor, cleaning and assembly of disc insulators as required along with fitting of bolted type or compression tape tension hardware as made available (compression machine shall be provided by RVPN on rent free basis) making up at one end, stringing of conductors between the beams with specified sag and tension, also equalizing sag and fitting spacer T-Clamps for twin conductor for three plates of conductors in each bus-section				
	ii) Single ACSR Zebra	PRJ1308	1356	2	2712.00
	iii) Double ACSR Zebra	PRJ1309	1955	1	1955.00



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B	JUMPERS OF ACSR conductor (3 nos Y- type)between bus To equipment or between equipment to equipment or between bus. including transportation of conductor, disc insulators and hardware from site stores to locations, cleaning and assembly of disc insulators as required along with fitting of suspension hardware and erection as required, cutting required length of				
	i) Single ACSR Zebra/Panther Conductor	PRJ1312	333	15	4995.00
	n) Double ACSR Zebra Conductor	PRJ1313	665	1	665.00
4	STRINGING of Earth wire(size 7/3 15 mm or 7/4.00mm) Including transportation of earthwire, tension hardwares Etc from site store to locations laying and cutting required Length of earthwire,fitting of bolted type or compression Type hardware as made available (compression machine Shall be provided by RVPN on rent free basis) making up at One end stringing of earthwire between structure peaks with Specified sag and tension, jumpereing and connecting earth Bonds, for single earthwire	PRJ1316	292	6	1752.00
5	ERECTION OF SUB-STATION EQUIPMENTS:				
B	Erection of Current Transformer/Potential Transformer/ Capacitive voltage Transformer /Series Reactor /Residual Voltage Transformer /Neutral Current Transformer with Clamps & connectors, on already erected steel structure including transportation of base frame,fixing of terminal connectors,tightening of nuts & bolts etc. complete in all respect.				
	n) 132KV CT/PT/CVT	PRJ1320	1415	6	8490.00
C	Erection of Lightning Arrestor on already erected steel structure Including transportation of Lightning Arrestor,clamps & connectors Surge counter etc from site store to locations fabrication of base frame Fixing of terminal connectors, surge counter, tightening of nuts and Bolts etc complete in all respect				
	n) 132KV	PRJ1324	1422	3	4266.00
D	Erection of Isolators on already erected steel structure Including transportation of base frame,P contacts mechanism Box clamps & connectors etc from site store to locations,minor Fabrication as required, and fixing of terminal connectors,etc Adjustment/ alignment of isolator and its earth blade, if provided For their smooth operation and final adjustment if required after Jumpereing				
	ii) 132KV				
	a) Without Earth Blade	PRJ1330	2596	3	7788.00
	b) With Single Earth Blade	PRJ1331	3045	1	3045.00
E	Erection of Wave trap on already erected structure beam. Including transportation of wave tap, disc insulators,hardware Clamps and connectors etc from site store to locations,cleaning & assembly of disc insulators along with fitting of suspension Arrangement and erection, fixing of terminal connectors etc.				
	ii) 132KV	PRJ1336	599	2	1198.00
G	Erection of 220KV or 33KV or 132KV Circuit Breaker, including Transportation of equipment, structure members, nuts & bolts, Clamps & connectors, accessories etc from site store to location, Assembly of support structure, their placing on foundation,levelling and repairing for grouting as required, but excluding grouting Assembly/placing of support columns/poles mechanism box/control Cubicle, and other accessories as per manufacturer's drawings, Fitting of SF 6 gas pipeline, fabrication of air/ oil pipeline as required, Electrical wiring from pole to control cubicle, fixing of terminal Connectors as required, but excluding commissioning of CB, for all Types of operating mechanism, as required.				
	n) 132 KV	PRJ1339	15223	1	15223.00
6	Erection of Control & Relay Panels complete in all respect. Including transportation from site store to control room, placingOn foundation-cable trench as per layout, interconnection between Control & Relay panels and with existing panels fixing of site/top Covers and doors earthing to existing earth strip in control room. And relay panel as required				
	n) Duplex Panel	PRJ1352	1265	1	1265.00
7	Erection of Marshalling Kiosk/Line Matching Unit(LMU)/Line Matching & Distribution Unit (LMDU) complete in all respect Including transportation from site store to location, placing on Foundation/ cable trench as per layout, preparing for grouting Of foundation bolts but excluding grouting etc.				
	i) 220KV or 132KV Marshalling Kiosk	PRJ1355	374	2	748.00
10	LAYING AND TERMINATION OF CABLES:				
A	Control Cable				
	n) Laying of P V C insulated unarmoured/ armoured control cable of 1.1 KV grade with copper conductor in cable trenches as per specification as required, including transportation of cable drums from site store to locations, laying in cable trenches, cutting to required length, placing them on cable racks/cable trays/ cable batten & dressing, including removing and re-fixing trench covers as required making necessary connections, testing, cable marking on both the terminating ends, etc. as required for all sizes from 2c x 2.5 sq mm to 20c x 2.5 sq mm nd 4c x 6 sq mm.				
	a) Unarmoured control cable	PRJ1381	5	3000	15000.00
	n) Fixing of control cable in position with single compression nickel plated brass cable glands confirming to IS 12943 & having three metal washers and one rubber ring, including preparation of cable and drilling of corresponding holes in gland plates etc as required, & including cost of cable glands, for each cable gland of size.				
	a) 19mm unarmoured control cable	PRJ1383	44	24	1056.00
	c) 25mm unarmoured control cable	PRJ1385	67	60	4020.00
	e) 32mm unarmoured control cable	PRJ1387	96	16	1536.00

2 or

m) Termination of wires of cables with copper conductor using copper terminal ends (pin or ring type as required of Dowell's or equivalent make as approved by the Engineer-in-Charge duly crimped with crimping tool, including making wire ends ready for crimping, ferruling & dressing of wires etc. as required. including cost of terminal ends for all wires, for each cable at both ends for cables of the following sizes.				
a) 2x x 2.5 sq.mm	PRJ1389	21	6	126.00
b) 3c x 2.5sq.mm	PRJ1390	32	6	192.00
b) 4c x 2.5sq.mm	PRJ1391	43	6	258.00
f) 12c x 2.5 sq.mm	PRJ1394	128	8	1024.00
In case all the wires of any cable are not got terminated, then a deduction at the rate Rs.6.00 shall be made for each end of wires not terminated				
d) 4c x 4.0 sq.mm	PRJ1397	57	24	1368.00
In case all the wires of any cable are not got terminated, then a deduction at the rate Rs7.00 shall be made for each end of wires not terminated. wires not terminated.				
TOTAL AMOUNT IN Rs.				141590.00


 SUPERINTENDING ENGINEER (T&C)
 RVPN, JODHPUR


I/We agree to% above/below to the RVPN BSR 01/04/2017.

Signature of the contractor Name of firm/contractor
with stamp and date