



RAJASTHAN RAJYA VIDYUT PRASARAN NIGAM LIMITED
CIN: U40109RJ2000SGC016485 (An ISO 9001-2008 Certified Company)
OFFICE OF THE SUPERINTENDING ENGINEER (T&C)
CHITTORGARH-312201

Email: < se.tnc.chittor@rvpn.co.in >

NO: RVPN/SE/T&C/COR/TECH/F. /D.

849

/ Date:

22¹¹
2016

All Registered Contractors (Class E I & E II)
(T&C) Zone AJMER

Subject: Structure erection, Bus Bar, Jumphering, earthing work for construction of
132kV GSS Bhopalsagar

Reference: 1. CLRC order NO: RVPN/SE/SSPC/TK/ A.1/TN-2975/CLRC /
D.303 dated 18.05.15

2. CLRC extension order NO: RVPN/SE/SSPC/TK/A.1/ TN-2975/CLRC /
D: 1151 dated 11.09.15

You are hereby requested to submit your consent latest by December 2, 2016
positively for carrying out the **work as detailed below Under CLRC-13.**

Sr. NO.	Name of Work	Tentative Amount	Remarks
1	Structure Erection, Bus Bar, Jumphering, Earthing work for construction of 132kV GSS Bhopalsagar	₹ 10,26,965/-	As Per " G Schedule"

The "G Schedule" is being enclosed herewith for your reference with request to submit your consent before schedule date.

SUPERINTENDING ENGINEER (T&C)
RVPN CHITTORGARH

Copy to: -

1. The Executive Engineer (T&C) RVPN Chittorgarh
2. The Feeder Manager (T&C) RVPN Udaipur

SUPERINTENDING ENGINEER (T&C)
RVPN CHITTORGARH

OFFICE OF THE ASSISTANT ENGINEER (T&C),RRVPNL ,CHITTORGARH
RAJASTHAN RAJYA VIDYUT PRASARAN NIGAM LIMITED

G-Schedule of Structure erection, Bus bar , Jumpering , earthing work for constructin of 132 KV GSS Bhopalsagar

me of scheme :- 132 KV GSS Bhopalsagar

Scheme Code:- CGSS/16.23

ork Incharge :- AEN(T&C),RRVPNL,Chittorgarh

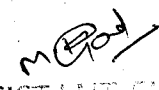
WBS Element :- CGSS/16.23.01

Schedule based on BSR-2011 for construction of GSS.

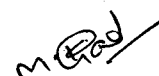
CODE	SAP CODE	DISCRIPTION	UNIT	QTY.	RATE in Rs.	AMOUNT in Rs.
		EARTH-MESH WORK				
		Laying of earth mesh with 25mm/28mm.Dia M.S.Rod at a depth of 0.80meter from top level of foundation including excavation of trench of required depth and back filling of the same transportation of M.S.Rod from site store tolocation Welding of M.S.Rod along thr length at crossinh and withearth electrodes as per drawing application of bitumen compound and covering with bitumen impregnated tape on all welding joints for thr type of soil prevalent at 0.80meter below top level of foundation (M.S. Rod of above size & M.S. flat as required shall be made available by RVPN)				
		(b) In case electrciv is made available by RVPN without Charges				
	PRJ1238	(i) Normal Dry soil	Mtrs.	1200	18	21600
	PRJ1239	(ii) Murram/Black cottan/hard soil/Dense soil	Mtrs.	900	19	17100
	PRJ1240	(iii) Soft rock/disintgrted rock	Mtrs.	250	26	6500
	PRJ1242	(iv) Hard rock (Blasting Prohibited)	Mtrs.	50	45	2250
		Laying of earthing risers with 50X6mm/50X10mm/50X12mm size M.S.Flat at a depth of .80meter from top level of foundations, including exqavation of trench of required depth and back filling of the same transportation of M.S.Flat from site store tolocation Welding /bolting to equipment/ structure and peaks of structures,laying in the trench,welding to the earth mesh of M.S.Rod as per drawing,including of extra length of M.S.Flat if required . Application of bitumen compound and covering with bitumen impregnated tape on all welding joints,painting of all surfaces of risers above ground level with red oxide and green paint for all type of soil prevalent at 0.80meter below top level of foundation (M.S. Rod of above size & M.S. flat as required shall be made available by RVPN)				
		(b) In case electrciv is made available by RVPN without Charges				
	PRJ1258	(i) Normal Dry soil	Mtrs.	900	20	18000
	PRJ1259	(ii) Murram/Black cottan/hard soil/Dense soil	Mtrs.	200	21	4200
	PRJ1260	(iii) Soft rock/disintgrted rock	Mtrs.	100	29	2900
	PRJ1262	(iv) Hard rock (Blasting Prohibited)	Mtrs.	50	49	2450
		Placing /driving of earth electrode of 25/28 mm dia M.S. Rod of length 3.30 meter (approx.) to a depth -3.80 meters from the top level of founlatin, including excavation of pit as per required and back filling of the same, transportation of M.S.Rod from site store to location, 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				
		(b) In case electrciv is made available by RVPN without Charges				
	PRJ1278	(i) Normal Dry soil	Nos.	30	150	4500
	PRJ1279	(ii) Murram/Black cottan/hard soil/Dense soil	Nos.	30	250	7500
	PRJ1280	(iii) Soft rock/disintgrted rock	Nos.	20	400	8000
	PRJ1282	(iv) Hard rock (Blasting Prohibited)	Nos.	10	794	7940

M. R. D.
ASSISTANT ENGINEER,
T&C,RRVPNL,
CHITTORGARH


Sl. No.	SAP CODE	DISCRIPTION	UNIT	QTY.	RATE in Rs.	AMOUNT in Rs.
2	PRJ1306	ERECTION OF SUB-STATION STEEL STRUCTURES columns,beams lighting mast and equipment structure (excluding Circuit Breakers and Capacitor Banks) of all types including transportation of structure members, nuts & bolts,washers,etc. from site store to locations as required .Their assembly placing on foundation ,foxing of template with foundation bolts as required,lavelling and preparing for grouting as required but excluding grouting,erection after grouting and tightining & punching of nuts &bolts (Maximum Height of structures up to 20 meters)	MT	90	1744	156960
3		BUS-BAR WORK				
A		Stringing of 220KV, 132KV, 33KV & 11KV Bus Bar of ACSR conductor,including transpotation of conductor ,disc insulator ,cleanoing and assembly of disc insulators as required along with fitting of bolted type or compression type 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				
	PRJ1307	(i) Single ACSR Panther	Section	5	875	4375
	PRJ1308	(ii) Single ACSR Zebra	Section	7	1019	7133
B		JUMPERS OF ACSR CONDUCROR (3Nos., Y-type) between bus to equipment or between equipment to equipment bus to bus, including transportation of conductor, dise insulatores and hardware from site stores to location, cleaning and assembly of dise insulators as required, cutting required length of conductors, making connections, fixing of spacer, T- clamps as required tightening of clamps/ connectors, dressing etc. for three phase				
	PRJ1312	(ii) Single ACSR Zebra/ Panther conductor	Set	180	250	45000
4	PRJ1316	STRINGING OF EARTH WIRE (Size 7/3.15mm) including transporation of earth wire, tension hardware etc. from site to locations.laying and cutting required length of earth wire fitting of bolted type or compression type hardware as made available (compression machine shall be provided by RVPN on rent free basis)	Each	60	219	13140
5		ERECTION OF SUB-STATION EQUIPMENTS				
B		Errection of current Transformer/Potential Transformer/ Capacitive voltage Transformer with clamps & connectbrs on already erected steel structure including transportation from site store to locations, fabrication of base frame,fixing of terminal connectors,tightening of nuts & bolts etc. complete in all respect.				
	PRJ1320	(ii) 132KV CT/ PT / CVT	Nos.	15	1063	15945
	PRJ1321	(iii) 33KV or 11KV CT/ PT / CVT	Nos.	27	400	10800
C		Errection of Lightening Assesor on already erected steel structure including transportation of Lightening Assesor ,clamps & connectors,surge counter etc. from site store to locations, fabrication of base frame,fixing of terminal connectors,tightening of nuts & bolts etc. complete in all respect.				
	PRJ1324	(iii) 132KV	Nos.	6	1069	6414
	PRJ1325	(iii) 33KV or 11KV	Nos.	21	238	4998


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 (ELECTRICAL)

DE o.	SAP CODE	DISCRIPTION	UNIT	QTY.	RATE in Rs.	AMOUNT in Rs.
D		Erection of isolators on already erected steel structure including transportation of frame Pis. Contacts, Machanism- 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 adjustment if required after jumpering.				
		(ii) 132 KV				
	PRJ1330	a) With Out Earth Blade	Nos.	7	1950	13650
	PRJ1331	a) With Single Earth Blade	Nos.	2	2288	4576
		d) Tendum	Nos.	0	2288	0
		(ii) 33/11 KV				
	PRJ1333	a) With Out Earth Blade	Nos.	18	688	12384
	PRJ1334	a) With Single Earth Blade	Nos.	6	1025	6150
E		Erection of Wave trap on already erected structure beam including transportation of wave trap ,disc insulators,hardware, clamps and connectors etc form site store to locations,cleaning &assembly				
	PRJ1336	(ii) 132 KV	Nos.	2	450	900
F	PRJ1339	Erection of 132KV Circuit breakers, including transportation of equipment, structure member, nuts&bolts, clamps&connectors, accessoriesetc. 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, mechanismbox/controlcubicle and other accessories as per manufacturer's drawings, fitting of SF6 gas pieline, fabricaion of air /oil pipeline as reqd., electrical wiring from pole to control cable, fixing of terminal connectors as reqd., but excluding commissioning of CB for all types of operating mechanism as reqd.	Nos.	3	11438	34314
G	PRJ1340	Erection of 33/11KV Circuit breakers, including transportation of equipment, structure member, nuts&bolts, clamps&connectors 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 poles, mechanism box etc. on support structure as per manufacturer's drawings, fitting of terminal connectors etc., but excluding commissioning of CB.	Nos.	8	5563	44504
I		Erection of Post insulators on already erected structures including transporation of Pls nut & bolts, clamps & connectors, etc from site store to locations, fabrication of base frame & assemble if required, fixing of clamps. Etc.				
	PRJ1343	(ii) 132 KV	Nos.	82	500	41000
	PRJ1344	(iii) 33KV or 11KV	Nos.	222	56	12432
6		Erection of Control & Relay Panels complete in all respects including transportation form site store to control room ,placing on foundation /cable trench as per layout ,,interconnection between control & relay panels ,fixing of side /top covers and doors , earthing to existing earth strip in control room connection of bus wiring to existing panel and between control and relay panel as required.				
	PRJ1351	(i) 2 X 2 Duplex Panel	Nos.	3	1894	5682
	PRJ1352	(ii) Duplex Panel	Nos.	4	950	3800
	PRJ1353	(iii) Simple Panel ,DC Panel ,RTCC Panel ,PLCC Panel etc.	Nos.	3	475	1425

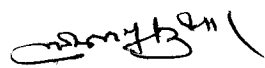

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 (T&C) B.P.V.P.N.L.
 CHENNAI


Sl. No.	SAP CODE	DISCRIPTION	UNIT	QTY.	RATE in Rs.	AMOUNT in Rs.
	PRJ1354	(iv) L.T.Panel	Nos.	1	1306	1306
7		Erection of Marshalling Kiosk/Line Matching Unit (LMU) / Line Matching & Distribution unit (LMDU) complete in all respects including transportation to site to location, Placing on foundation/cable trench as per lay out, preparing for grouting etc.				
	PRJ1355	(i) 220KV or 132 KV Marshelling Kiosk	Nos.	3	281	843
	PRJ1356	(ii) 33Kv & 11 Kv Marshalling Kiosk	Nos.	5	144	720
8		Erection of Battery Charger complete in all terpect including transportation from site store to location , placing on foundation /cable trench as per layout etc.				0
	PRJ1359	(ii) 110Volts DC,200AH	Nos.	1	950	950
9		BATTERY SET				
B		Assembly erection and commissioning of Maintenance free VRLA type Battery set including transportation of cells, battery stand nuts&bolts etc.from site store to battery room assembly of stand, placing the cells on stand, making their interconnection charging and final charging as per procedure recommended by battery manufacturer				
		a) if electricity is available & arranged RVPN without charges				
	PRJ1372	(ii) 110Volts DC,200AH	Nos.	1	6031	6031
10		LAYING AND TERMINATION OF CABLES				0
A		Control Cable				
		(i) Laying of PVC insulated unarmoured armoured control cables of 1.1 KV grade with copper conductor in cable trench as per specification as required including transportation of cable drum from site to store to location 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 neneccessary connections, testing cable making on both the tremination ends. etc. as per required for all size from 2cX2.5sq.mm. to 20c x 2.5 sq.mm 4cx4sq.mm. and 4cx6sq.mm.				
	PRJ1381	a) Unarmoured control cables.	Mtrs.	7000	4	28000
		(ii) Fixing of control cable in position withsingle 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 gland fo size.				
	PRJ1383	a) 19 sq.mm. unamoured control cables	Nos.	350	33	11550
	PRJ1385	c) 25 sq.mm. unamoured control cables	Nos.	100	50	5000
	PRJ1387	e) 32 sq.mm. unamoured control cables	Nos.	50	72	3600
		(iii) Termination of wire of cables with copper couductor using copper terminal ends9Pin or ring type as required of Dowell's or equivalent make as approved by Engineer - in-Charge dully crimped with crimping tool ,including making wire end ready for all wires for each cable at both ends for cable of the following sizes.				
	PRJ1389	a)2CX2.5sq.mm	Each	100	16	1600
	PRJ1391	b) 4CX2.5sq.mm	Each	400	32	12800
	PRJ1394	c) 12CX2.5sq.mm	Each	100	96	9600
	PRJ1396	d)18CX2.5sq.mm	Each	50	143	7150
		In case all the wires of any cable are not terminated , then a deduction at the rate of Rs. 5.00 shall be made for each and of the wires not terminated.				


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 (T) O. S. S. S. S.
 C. E. S. S. S. S.

CODE No.	SAP CODE	DISCRIPTION	UNIT	QTY.	RATE in Rs.	AMOUNT in Rs.
B		L.T POWER CABLES				
		(i) laying of PVC insulated and PVC sheathed, unarmoured/armoured L.T. power cable of 1.1 KV grade with aluminium conductor in cable trench as per IS:1255 in ground/cable trench/wall/surface, including transportation of cable drum from site store to locations				
	PRJ1403	c) 3.5 core X 185sq.mm.	Meters	100	40	4000
		(ii) Fixing of power cables in position with single compression, heavy dutty nickel plated brass cable glands as per IS:12943 & having three metal washers and one rubber ring, including preparation of cable and drilling of corresponding holes in gland plate				
	PRJ1409	e) 57mm for 3.5 core X 185sq.mm. with material	Nos.	1	181	181
TOTAL AMOUNT IN Rs.						641853.00
Tender Primium @ 60% above BSR 2011						
TOTAL AMOUNT IN Rs.					(+)	385112
						1026965

In Words. Ten Lacks Twenty Six Thousand Nine Hundread and Sixty Five Only.


Executive Engineer (T&C)
 RRVPNL, Chitorgarh


ASSISTANT ENGINEER
 (T&C) R.V.P.N.L.
 CHITTORGARH


Superintending Engineer (T&C)
 RVPN Chittorgarh