



Item	Payment Reference	Description	Unit	Qty	Rate (R)	Amount (R)
		<b>BILL NO 6.1</b>				
		<b><u>SWITCHING STATION SS 1A3</u></b>				
		<b><u>CIVIL WORKS</u></b>				
6.1.1		(a) Make provision for temporary works to accommodate existing cables during extension of the switching station building	Sum	1		
		<b><u>BUILDINGS (Contractor to do quantity survey on all buildings extensions)</u></b>				
		<b><u>Extension to existing control building</u></b>				
		Construct an extension to the switching room building inclusive of all required foundations, brickwork, roof & tiles, gutters, down-pipes, plumbing, electrical works, earth bonding to main earthgrid, carpentry, plastering, painting, doors, air ventilation, concrete ramp/porch and control cable trench entry into building. All accessories such as nuts, bolts, brackets, supports, etc. included				
6.1.2		.1 Supply	m <sup>2</sup>	25		
6.1.3		.2 Install	m <sup>2</sup>	25		
		<b><u>Demolish existing wall 5m long and 3 meter high</u></b>				
6.1.4		.1 Supply	ea	-		
6.1.5		.2 Install	ea	0		
		<b><u>Wall mounted cable rack (flush to wall) - heavy duty</u></b>				
6.1.6		.1 Supply	m	10		
6.1.7		.2 Install	m	10		
		<b><u>Overhead mounted cable rack - heavy duty</u></b>				
6.1.8		.1 Supply	m	10		
6.1.9		.2 Install	m	10		
		<b><u>Safety signs/Danger labels</u></b>				
6.1.10		.1 Supply	ea	2		
6.1.11		.2 Install	ea	2		
		<b><u>Hardwood wall mounted drawing frame to house drawings</u></b>				
6.1.12		.1 Supply	ea	1		
6.1.13		.2 Install	ea	1		
		<b><u>6m 300mm PE sleeves for power cable entry</u></b>				
6.1.14		.1 Supply	ea	7		
6.1.15		.2 Install	ea	7		
		<b><u>Lock and keys for doors and gates</u></b>				
6.1.16		.1 Supply	ea	2		
6.1.17		.2 Install	ea	2		
					Carried Forward	
					Brought Forward	

Item No.	Description	Unit	Quantity
	<b><u>EARTHING</u></b>		
	<b><u>Main Earthgrid</u></b>		
	Extend the existing switching station's earthgrid to cover the switching station building's		
	(a) Trenching		
6.1.18	.1 Supply	m <sup>3</sup>	-
6.1.19	.2 Install	m <sup>3</sup>	18
	<b><u>Install Horizontal Grid (10mm<sup>2</sup> annealed round copper - 0.7kg/m)</u></b>		
6.1.20	.1 Supply	m	50
6.1.21	.2 Install	m	50
	<b><u>Equipment Earth Tails (50x3mm - 1.38kg/m)</u></b>		
6.1.22	.1 Supply	m	21
6.1.23	.2 Install	m	21
	<b><u>Vertical 16mm<sup>2</sup> rods</u></b>		
6.1.24	.1 Supply	m	8
6.1.25	.2 Install	m	8
	<b><u>Bentonite (conductive concrete)</u></b>		
6.1.26	.1 Supply	m <sup>3</sup>	1
6.1.27	.2 Install	m <sup>3</sup>	1
	<b><u>Exo-welding (bonding)</u></b>		
6.1.28	.1 Supply	ea	4
6.1.29	.2 Install	ea	4
	<b><u>Backfill and compaction</u></b>		
6.1.30	.1 Supply	m <sup>3</sup>	10
6.1.31	.2 Install	m <sup>3</sup>	10
	<b><u>Indoor Equipment earthing</u></b>		
	<b><u>11 kV Switchgear panels</u></b>		
6.1.32	.1 Supply	ea	7
6.1.33	.2 Install	ea	7
	<b><u>Earthing accessories (1000x100x50 earth bar, down conductor, BCEW) for extension</u></b>		
6.1.34	.1 Supply	Lot	1
6.1.35	.2 Install	Lot	1
	<b><u>Measure Earthgrid Resistance (Soil resistivity testing to be included.)</u></b>		
6.1.36	.1 Supply	ea	1
6.1.37	.2 Install	ea	1

				Brought Forward	
		<b><u>PRIMARY PLANT - OUTDOOR</u></b>			
		Allow for all costs which the Contractor may incur in terms of any or all of descriptions the drawings which costs are not specifically covered in the Schedule hereafter.			
		<u>Install 11 kV Cables</u>			
		Complete installation of two 11kV three core cables per between Leaches Bay MV panel (switchgear) and and SS 1A1 11kV switchgear including all indoor terminations and connections. Complete installation of wooden cable supports in the Switching Station cable trenches and sealing off of cable ducts/sleeves across road. Rearrange panels such that power is balanced as much as possible on the MV board's busbar			
		<u>Trenching (Note existing services. Any damage will be to the contractor's cost)</u>			
6.1.38	.1	Supply	m <sup>3</sup>		
6.1.39	.2	Install	m <sup>3</sup>	2480	
		<u>Install 11 kV 240mm<sup>2</sup> three core Cu XLPE SWA cable</u>			
6.1.40	.1	Supply	m	8400	
6.1.41	.2	Install	m	8400	
		<u>Backfill and compaction and test</u>			
6.1.42	.1	Supply	m <sup>3</sup>	1984	
6.1.43	.2	Install	m <sup>3</sup>	1984	
		<u>Install 160mm dia. Class 6 sleeves</u>			
6.1.44	.1	Supply	m	500	
6.1.45	.2	Install	m	500	
		<u>Install 110mm dia. Class 6 sleeves</u>			
6.1.46	.1	Supply	m	180	
6.1.47	.2	Install	m	180	
		<u>Make-off 11 kV 240mm<sup>2</sup> three core Cu XLPE cable indoor shrouded termination</u>			
6.1.48	.1	Supply	ea	6	
6.1.49	.2	Install	ea	6	
		<u>Make-off 11 kV 240mm<sup>2</sup> three core Cu XLPE SWA cold shrink cable joint</u>			
6.1.50	.1	Supply	ea	28	
6.1.51	.2	Install	ea	28	
		<u>Install 11 kV 185mm<sup>2</sup> three core Cu XLPE SWA cable</u>			
6.1.52	.1	Supply	m	20	
6.1.53	.2	Install	m	20	
		<u>Make-off 11 kV 185mm<sup>2</sup> three core Cu XLPE cable indoor shrouded termination</u>			
6.1.54	.1	Supply	ea	2	
6.1.55	.2	Install	ea	2	
		<u>Install 2 x 70mm<sup>2</sup> BCEW ECC including joints, termination and other accessories</u>			
6.1.56	.1	Supply	m	16800	
6.1.57	.2	Install	m	16800	
		<u>Install 1 x 70mm<sup>2</sup> BCEW ECC including joints, termination and other accessories</u>			
6.1.58	.1	Supply	m	20	
6.1.59	.2	Install	m	20	
				Carried Forward	



				Brought Forward	
		<b><u>MISCELLANEOUS</u></b>			
		<b><u>Pipes and Sleeves</u></b>			
		160mm 6m PE pipe/sleeve, include sealing and draw wires			
6.1.77	.1	Supply	item	2	
6.1.78	.2	Install	item	2	
		110mm 6m PE pipe/sleeve, include sealing and draw wires			
6.1.79	.1	Supply	item	5	
6.1.80	.2	Install	item	5	
		<b><u>Testing</u></b>			
		Testing of power cables			
6.1.81	.1	Supply	item	-	
6.1.82	.2	Install	item	2	
		Earth continuity test between structure and earthgrid			
6.1.83	.1	Supply	item	-	
6.1.84	.2	Install	item	7	
		Resistance test of Switching Station earthgrid with report			
6.1.85	.1	Supply	item	-	
6.1.86	.2	Install	item	1	
		<b><u>Signs/Notices</u></b>			
		Station labels (safety/danger/access/medical/identification)			
6.1.87	.1	Supply	Lot	2	
6.1.88	.2	Install	Lot	2	
		Equipment labels			
6.1.89	.1	Supply	Lot	14	
6.1.90	.2	Install	Lot	14	
		<b><u>Excavations</u></b>			
		Excavations - pickable soil			
6.1.91	.1	Supply	m³	-	
6.1.92	.2	Install	m³	7392	
		Excavations - Intermediate soil			
6.1.93	.1	Supply	m³	-	
6.1.94	.2	Install	m³	4435	
		Excavations - soft rock (machine)			
6.1.95	.1	Supply	m³	-	
6.1.96	.2	Install	m³	1478	
		Excavations - hard rock (machine)			
6.1.97	.1	Supply	m³	-	
6.1.98	.2	Install	m³	1478	
				Carried Forward	



				Brought Forward		
		Concrete Lintol (1,2m)				
6.1.123	.1	Supply	ea	2		
6.1.124	.2	Install	ea	2		
		Concrete Lintol (2,4m)				
6.1.125	.1	Supply	ea	1		
6.1.126	.2	Install	ea	1		
		Paint (20 litre)				
6.1.127	.1	Supply	ea	5		
6.1.128	.2	Install	ea	5		
		Tools (brick laying, shovels/markings/waterpas/mixer)				
6.1.129	.1	Supply	Lot	1		
6.1.130	.2	Install	Lot	1		
		Transport - travelling required other than allowed for on contract				
		Truck (1 Ton)				
6.1.131	.1	Supply	km	300		
6.1.132	.2	Install	km	300		
		4 x 4 LDV				
6.1.133	.1	Supply	km	300		
6.1.134	.2	Install	km	300		
		Make provision for the architectural design of the switching station extension				
6.1.135	.1	Supply	Sum	1		
6.1.136	.2	Install	Sum	1		
		Make provision for the civil design of the switching station extension				
6.1.137	.1	Supply	Sum	1		
6.1.138	.2	Install	Sum	1		
		Install OPTEX (purpose designed) duct system for 7 cores optic fibre				
6.1.139	.1	Supply	m	1600		
6.1.140	.2	Install	m	1600		
		Install 7 Core 2.5mm2 Cu PVCPCSWASWA Pilot Cable				
6.1.141	.1	Supply	m	3200		
6.1.142	.2	Install	m	3200		
		(a) Make provision for the decommissioning of the old switch - board and commissioning of the new switch-board	item	1		
		<b>BILL NO 6.1</b> <b>SWITCHING STATION SS 1A3</b>				
		<b>Carried forward to Summary of Bills</b>			<b>Total</b>	