

110 kV high voltage distribution system

Reference capacity: 150 MVA; reference voltage: 110 kV.

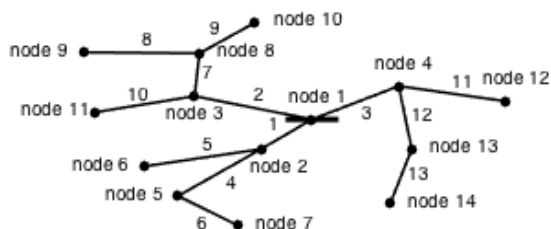


Figure 1 Diagram of the 110 kV high voltage distribution system

Branch parameters:

Branch ID	From Bus	To Bus	Length(km)	R (p.u.)	X (p.u.)	Capacity (MVA)
1	1	2	30	0.0317	0.0760	50.00
2	1	3	70	0.0739	0.1774	50.00
3	1	4	20	0.0211	0.0507	50.00
4	2	5	110	0.1793	0.2870	27.00
5	2	6	70	0.1952	0.1913	20.25
6	5	7	60	0.1674	0.1640	20.25
7	3	8	50	0.0815	0.1305	27.00
8	8	9	30	0.0837	0.0820	20.25
9	8	10	40	0.1116	0.1093	20.25
10	3	11	60	0.1674	0.1640	20.25
11	4	12	40	0.1116	0.1093	20.25
12	4	13	80	0.1304	0.2088	27.00
13	13	14	60	0.1674	0.1640	20.25

Bus Withdraw:

Bus ID	Active load(MW)	Reactive load (MVAR)	Reactive compensation (MVAR)
1	0	0	0
2	3.7500	3.0000	0
3	7.5000	5.0625	0
4	1.8750	1.6875	0
5	3.7500	1.5000	0.4688
6	5.6250	2.8125	0.3750
7	2.8125	2.2500	0
8	9.3750	5.6250	2.2500
9	8.4375	3.7500	9.3750
10	1.1250	0.1875	1.1250
11	1.8750	1.6875	3.3750
12	1.8750	1.3125	0
13	1.8750	1.6875	0
14	3.9375	1.8750	3.3750