Table 1 Related reconstruction and feeder parameters

Table 1a Cost data of reconstruction strategies

Number	C^{In}/(10000￥)	C^{Op} / C^{In} (%)	m
X_1	13.2/km	3	20
X_2	14.7/km	3	15
X_3	2.5/unit	3	15
X_4	11.4/km	4	15
X_5	15.6/km	4	20
X_6	2/unit	4	20
X_7	3.5/unit	4	20
X_8	25/km	4	20
X_9	400/MW	4	20
X_{10}	26	—	—
X_{11}	37	—	—
X_{12}	28	—	—
X_{13}	40	—	—
X_{14}	22	—	—

Table 2a Parameters of the test distribution network

Area	Feeder length/km	P_L/MW	Initial N_S	Initial N_Z	Cable line λ_F	Cable line repair time(h)	Overhead line λ_F	Overhead line repair time(h)	Switching devices λ_F	Switching devices repair time(h)	Breaker λ_F
L1	1.39	0.36	2	58%	0.04	8	0.065	5	0.006	4	0.006
L2	1.12	0.93	2	56%	0.04	7	0.085	6	0.008	5	0.008
L3	2.24	0.92	2	67%	0.07	6	0.08	5.5	0.0065	4	0.0055
L4	4.18	0.88	2	75%	0.0.3	7	0.065	4	0.005	4	0.006
Area	Breaker repair time(h)	Distribution device λ_F	Distribution device repair time(h)	Main transformer λ_F	Main transformer repair time(h)	Inter-area fault location time(h)	Inter-section fault location time(h)	Fault isolation time(h)	Fault transfer time(h)	Organized power outage frequency	Organized power outage time(h)
L1	4	0.015	8	0.015	5.5	0.2	0.1	0.5	0.5	0.07	5.32
L2	4	0.025	7	0.025	6.5	0.2	0.1	0.4	0.7	0.05	6.74
L3	5	0.01	7	0.015	5.5	0.2	0.1	0.5	0.6	0.06	5.89
L4	4	0.015	7	0.015	5	0.2	0.1	0.3	0.6	0.05	7.66