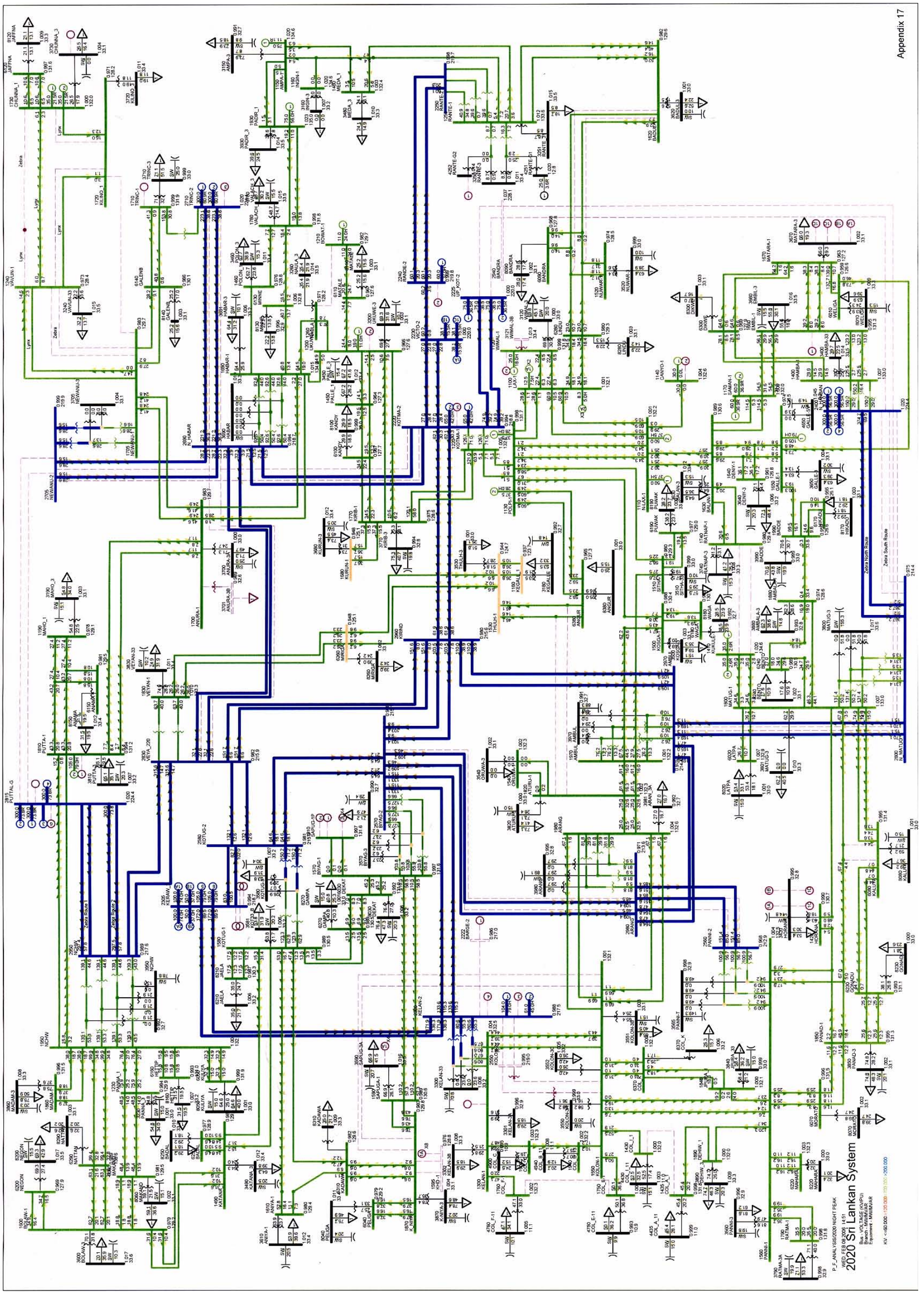
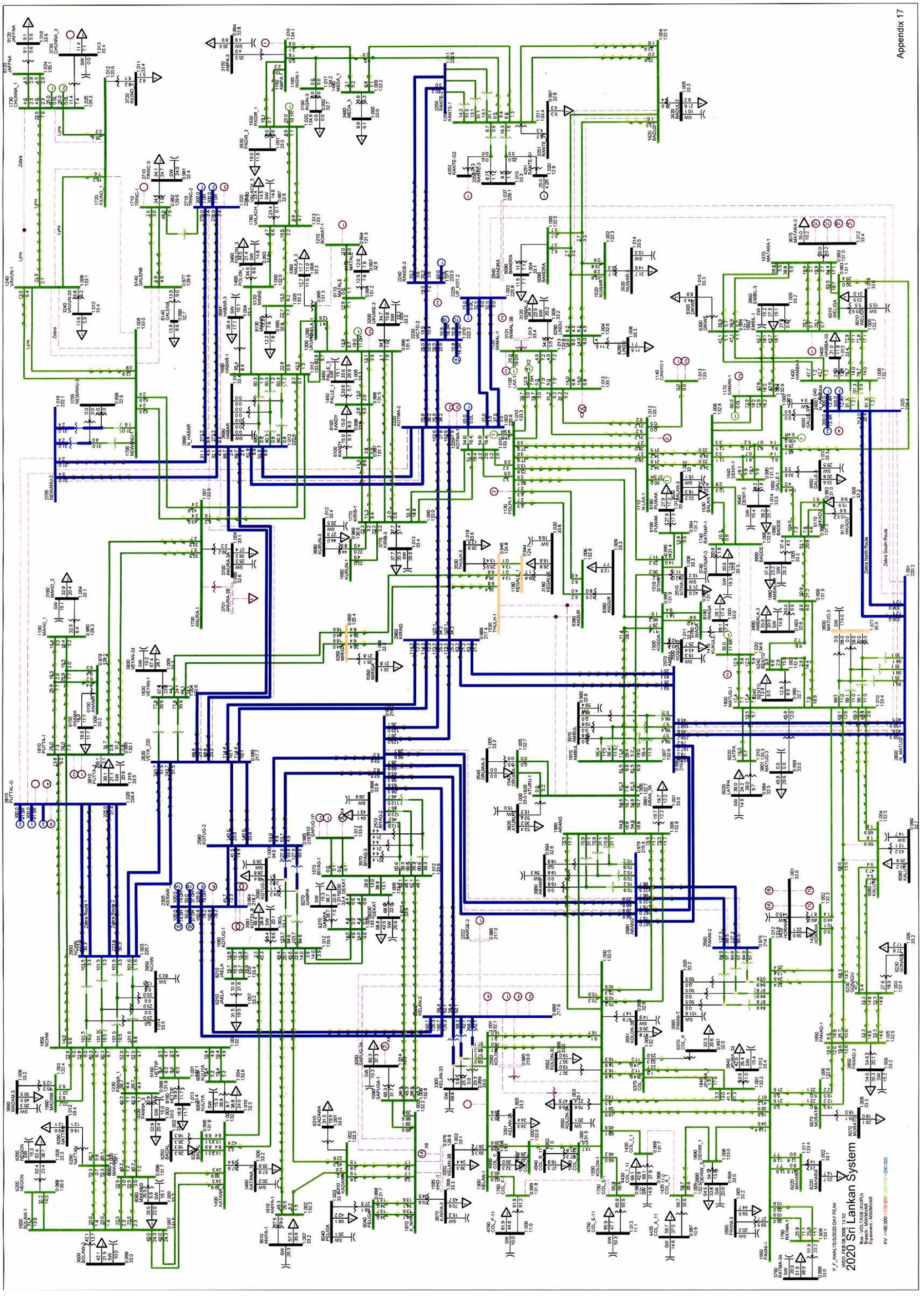
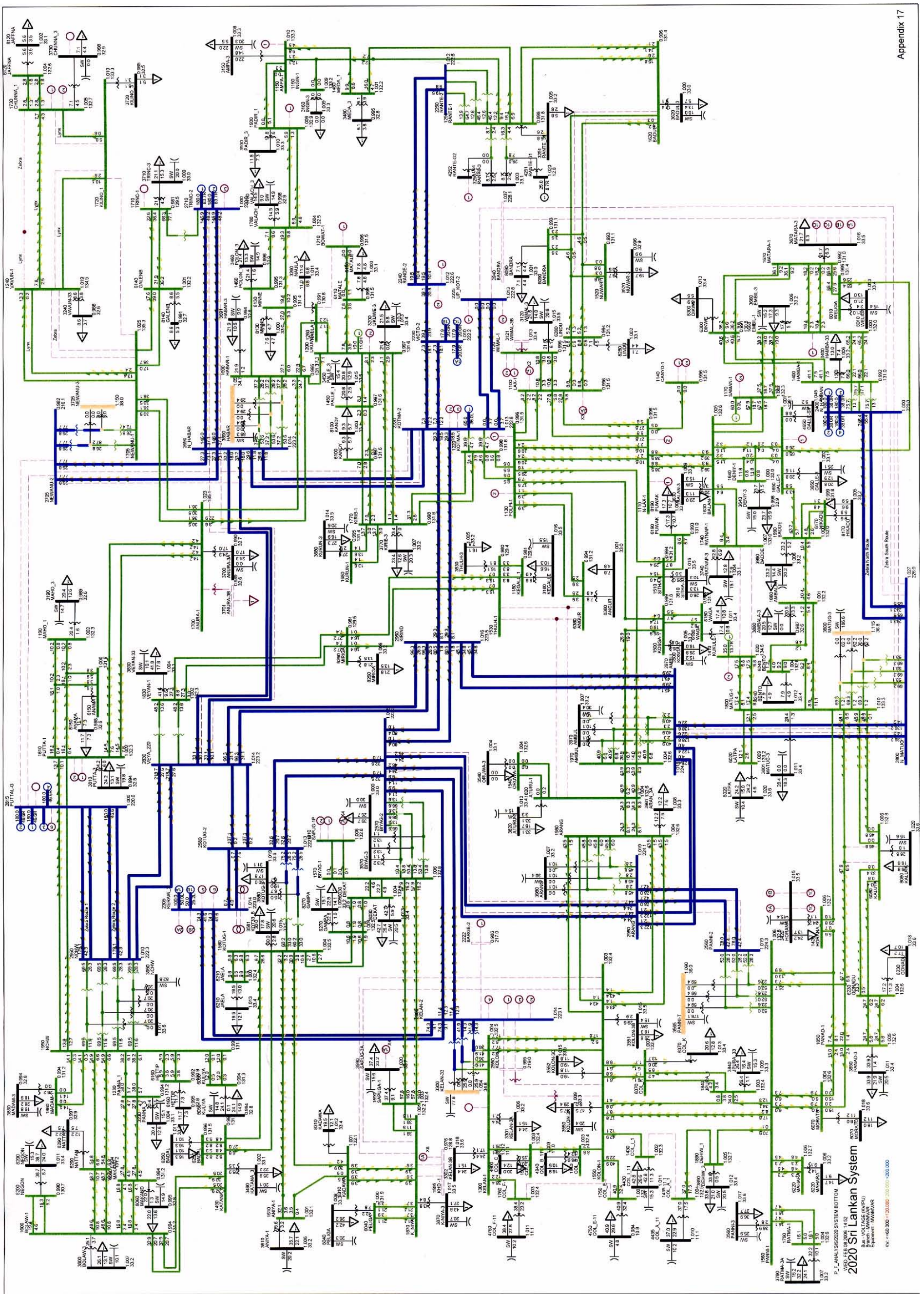

Appendix 17
Zebra North Route
Zebra South Route
2020 Sri Lankan System
WED, FEB 08 2006 14:51
P_F_ANALYSIS\2020 NIGHT PEAK
Bus - VOLTAGE (KV/PU)
Branch - MW/MVAR
Equipment - MW/MVAR
KV : <=50.000 >100.000 >200.000


Appendix 17
2020 Sri Lankan System
WED FEB 08 2006 14:52
P_F_ANALYSIS/2020 DAY PEAK
Zebra North Route
Zebra South Route


Appendix 17
Zebra North Route
Zebra South Route
Zebra Route 1
Zebra Route 2
2020 Sri Lankan System
WED, FEB 08 2006 14:52
P_F_ANALYSIS\2020 SYSTEM BOTTOM
KV: <=60.000 >60.000 >120.000 >200.000

N-1 Checking based on 2020_Night_Peak

1. Branches and Tie Lines

Monitored Elements	Base Flow	Maximum Flow	Impact	Rate	%	Contingency	Countermeasures
1130 POLPI-1 132.00 6380 ANGUR 132.00 1	63.68	112.65	119.93	100	119.9%	OPEN LINE FROM BUS 1130 [POLPI-1 132.00] TO BUS 6380 [ANGUR 132.00] CKT 2	switching off lines: Thulhiriya – Anguruwella, Load redispatching with distribution lines
1130 POLPI-1 132.00 6380 ANGUR 132.00 2	63.68	112.65	119.93	100	119.9%	OPEN LINE FROM BUS 1130 [POLPI-1 132.00] TO BUS 6380 [ANGUR 132.00] CKT 1	switching off lines: Thulhiriya – Anguruwella, Load redispatching with distribution lines
2580 KOTUG-2 220.00 5581 KOTU-DU1 220.00	166.2		292.25	250	116.9%	OPEN Transformer Unit1	switching off lines: Kotugoda – Aniyakanda, Kotugoda – Kadawatta, Kotugoda – Gampaha
2580 KOTUG-2 220.00 5582 KOTU-DU2 220.00	166.2		292.25	250	116.9%	OPEN Transformer Unit2	switching off lines: Kotugoda – Aniyakanda, Kotugoda – Kadawatta, Kotugoda – Gampaha
1640 DENIY-1 132.00 5641 DENIY-T1 132.00 1	39.95	79.95	85.39	80	106.7%	OPEN LINE FROM BUS 1640 [DENIY-1 132.00] TO BUS 5641 [DENIY-T1 132.00] CKT 2	switching over is effective
1640 DENIY-1 132.00 5642 DENIY-T2 132.00 2	39.95	79.95	85.39	80	106.7%	OPEN LINE FROM BUS 1640 [DENIY-1 132.00] TO BUS 5641 [DENIY-T1 132.00] CKT 1	switching over is effective
1570 BIYAG-1 132.00 1590 SAPUGA-1 132.00 1	124.16	229.6	233.52	225	103.8%	OPEN LINE FROM BUS 1570 [BIYAG-1 132.00] TO BUS 1590 [SAPUGA-1 132.00] CKT 2	switching over is effective
1570 BIYAG-1 132.00 1590 SAPUGA-1 132.00 2	124.16	229.6	233.52	225	103.8%	OPEN LINE FROM BUS 1570 [BIYAG-1 132.00] TO BUS 1590 [SAPUGA-1 132.00] CKT 1	switching over is effective
1530 THULH-1 132.00 5531 THULH-T1 132.00 1	48.34	87.29	93.82	100	93.8%		-
1530 THULH-1 132.00 5532 THULH-T2 132.00 2	48.34	87.29	93.82	100	93.8%		-
2560 PANNI-2 220.00 2980 ARANG 220.00 1	173.62	332.97	345.29	375	92.1%		-
2560 PANNI-2 220.00 2980 ARANG 220.00 2	173.62	332.97	345.29	375	92.1%		-

2. Voltage

220kV

Bus	Voltage	Contingency	Countermeasures
Nothing			

132kV

Bus	Voltage	Contingency	Countermeasures
1460 POLON_1 132.00	0.8852	OPEN LINE FROM BUS 1460 [POLON_1 132.00] TO BUS 1690 [HABAR-1 132.00] CKT 1	Redispatching load with distribution lines
1710 TRINC-1 132.00	0.8756	OPEN LINE FROM BUS 1710 [TRINC-1 132.00] TO BUS 2710 [TRINC-2 220.00] CKT 1	Starting operation of Trincomalee GT

N-1 Checking based on 2020_Day_Peak

1. Branches and Tie Lines

Monitored Elements	Base Flow	Maximum Flow	Impact	Rate	%	Contingency	Countermeasures
1830 VEYAN-1 132.00 2830 VEYA_220 220.00 1	88.38	182.86	182.86	150	121.9%	OPEN LINE FROM BUS 1830 [VEYAN-1 132.00] TO BUS 2830 [VEYA_220 220.00] CKT 2	Connecting lines: Polpitiya – Angulwella – Thulhiriya
1830 VEYAN-1 132.00 2830 VEYA_220 220.00 2	88.38	182.86	182.86	150	121.9%	OPEN LINE FROM BUS 1830 [VEYAN-1 132.00] TO BUS 2830 [VEYA_220 220.00] CKT 1	Connecting lines: Polpitiya – Angulwella – Thulhiriya
1570 BIYAG-1 132.00 1590 SAPUGA-1 132.00 1	106.94	197.69	197.45	165	119.7%	OPEN LINE FROM BUS 1570 [BIYAG-1 132.00] TO BUS 1590 [SAPUGA-1 132.00] CKT 2	Switching off lines: Biyagama – Sapugaskanda, Connecting lines: Kolonnawa – Kelaniya
1570 BIYAG-1 132.00 1590 SAPUGA-1 132.00 2	106.94	197.69	197.45	165	119.7%	OPEN LINE FROM BUS 1570 [BIYAG-1 132.00] TO BUS 1590 [SAPUGA-1 132.00] CKT 1	Switching off lines: Biyagama – Sapugaskanda, Connecting lines: Kolonnawa – Kelaniya
1260 NAULA_1 132.00 1690 HABAR-1 132.00 1	42.52	52.87	52.29	45	116.2%	OPEN LINE FROM BUS 1200 [UKUWE-1 132.00] TO BUS 1690 [HABAR-1 132.00] CKT 1	Switching off lines: Naula – Habarana
2560 PANNI-2 220.00 2980 ARANG 220.00 1	153.93	295.39	303.63	275	110.4%	OPEN LINE FROM BUS 2560 [PANNI-2 220.00] TO BUS 2980 [ARANG 220.00] CKT 2	Switching off Trformers: Pannipitiya
2560 PANNI-2 220.00 2980 ARANG 220.00 2	153.93	295.39	303.63	275	110.4%	OPEN LINE FROM BUS 2560 [PANNI-2 220.00] TO BUS 2980 [ARANG 220.00] CKT 1	Switching off Trformers: Pannipitiya
1200 UKUWE-1 132.00 1690 HABAR-1 132.00 1	34.58	47.95	47.36	45	105.2%		Switching over is effective
1680 KURUN-1 132.00 1770 KIRIB-1 132.00 1	22.45	45.21	46.34	45	103.0%		Switching over is effective
1680 KURUN-1 132.00 1770 KIRIB-1 132.00 2	22.45	45.21	46.34	45	103.0%		Switching over is effective
1640 DENIY-1 132.00 5641 DENIY-T1 132.00 1	20	40.25	40.87	40	102.2%		Switching over is effective
1640 DENIY-1 132.00 5642 DENIY-T2 132.00 2	20	40.25	40.87	40	102.2%		Switching over is effective

2. Voltage

220kV

Bus	Voltage	Contingency	Countermeasures
Nothing			

132kV

Bus	Voltage	Contingency	Countermeasures
1180 KEGALL_1 132.00	0.8331	SINGLE 201 : OPEN LINE FROM BUS 1830 [VEYAN-1 132.00] TO BUS 6260 [MIRIGA 132.00] CKT 1	Connecting lines: Polpitiya – Angulwella – Thulhiriya
1530 THULH-1 132.00	0.835	SINGLE 201 : OPEN LINE FROM BUS 1830 [VEYAN-1 132.00] TO BUS 6260 [MIRIGA 132.00] CKT 1	Connecting lines: Polpitiya – Angulwella – Thulhiriya
6260 MIRIGA 132.00	0.8399	SINGLE 201 : OPEN LINE FROM BUS 1830 [VEYAN-1 132.00] TO BUS 6260 [MIRIGA 132.00] CKT 1	Connecting lines: Polpitiya – Angulwella – Thulhiriya
1180 KEGALL_1 132.00	0.8331	SINGLE 202 : OPEN LINE FROM BUS 1830 [VEYAN-1 132.00] TO BUS 6260 [MIRIGA 132.00] CKT 2	Connecting lines: Polpitiya – Angulwella – Thulhiriya
1530 THULH-1 132.00	0.835	SINGLE 202 : OPEN LINE FROM BUS 1830 [VEYAN-1 132.00] TO BUS 6260 [MIRIGA 132.00] CKT 2	Connecting lines: Polpitiya – Angulwella – Thulhiriya
6260 MIRIGA 132.00	0.8399	SINGLE 202 : OPEN LINE FROM BUS 1830 [VEYAN-1 132.00] TO BUS 6260 [MIRIGA 132.00] CKT 2	Connecting lines: Polpitiya – Angulwella – Thulhiriya