```
nnodes      24
ngens 32
nlines      37
nloads      17
nscen 1
T     24
thetamax    100
thetamin    -100

lines
i     j     X     cap
0     1     0.0139      175
0     2     0.2112      175
0     4     0.0845      175
1     3     0.1267      175
1     5     0.192 175
2     8     0.119 175
2     23    0.0839      400
3     8     0.1037      175
4     9     0.0883      175
5     9     0.0605      175
6     7     0.0614      175
7     8     0.1651      175
7     9     0.1651      175
8     10    0.0839      400
8     11    0.0839      400
9     10    0.0839      400
9     11    0.0839      400
10    13    0.0418      500
11    12    0.0476      500
11    22    0.0966      500
12    22    0.0865      500
13    15    0.0389      350
14    15    0.0173      500
14    20    0.049 500
14    20    0.049 500
14    23    0.0519      500
15    16    0.0259      500
15    18    0.0231      500
16    17    0.0144      500
16    21    0.1053      500
17    20    0.0259      500
17    20    0.0259      500
18    19    0.0396      500
18    19    0.0396      500
19    22    0.0216      500
19    22    0.0216      500
20    21    0.0678      500

loads
0     72.36 73.44 64.80 63.72 63.72 64.80 79.92 92.88 102.60      103.68
      103.68      102.60      102.60      102.60      100.44      101.52
      106.92      108.00      108.00      103.68      98.28 89.64 78.84
      68.04
```

1	64.99	65.96	58.20	57.23	57.23	58.20	71.78	83.42	92.15	93.12	93.12
	92.15	92.15	92.15	90.21	91.18	96.03	97.00	97.00	93.12	88.27	80.51
	70.81	61.11									
2	120.60	122.40	108.00	106.20	106.20	108.00					
	133.20	154.80	171.00	172.80	172.80	171.00					
	171.00	171.00	167.40	169.20	178.20	180.00					
	180.00	172.80	163.80	149.40	131.40	113.40					
3	49.58	50.32	44.40	43.66	43.66	44.40	54.76	63.64	70.30	71.04	71.04
	70.30	70.30	70.30	68.82	69.56	73.26	74.00	74.00	71.04	67.34	61.42
	54.02	46.62									
4	47.57	48.28	42.60	41.89	41.89	42.60	52.54	61.06	67.45	68.16	68.16
	67.45	67.45	67.45	66.03	66.74	70.29	71.00	71.00	68.16	64.61	58.93
	51.83	44.73									
5	91.12	92.48	81.60	80.24	80.24	81.60	100.64	116.96	129.20		
	130.56	130.56	129.20	129.20	129.20	126.48					
	127.84	134.64	136.00	136.00	130.56	123.76					
	112.88	99.28	85.68								
6	83.75	85.00	75.00	73.75	73.75	75.00	92.50	107.50	118.75		
	120.00	120.00	118.75	118.75	118.75	116.25					
	117.50	123.75	125.00	125.00	120.00	113.75					
	103.75	91.25	78.75								
7	114.57	116.28	102.60	100.89	100.89	102.60					
	126.54	147.06	162.45	164.16	164.16	162.45					
	162.45	162.45	159.03	160.74	169.29	171.00					
	171.00	164.16	155.61	141.93	124.83	107.73					
8	117.25	119.00	105.00	103.25	103.25	105.00					
	129.50	150.50	166.25	168.00	168.00	166.25					
	166.25	166.25	162.75	164.50	173.25	175.00					
	175.00	168.00	159.25	145.25	127.75	110.25					
9	130.65	132.60	117.00	115.05	115.05	117.00					
	144.30	167.70	185.25	187.20	187.20	185.25					
	185.25	185.25	181.35	183.30	193.05	195.00					
	195.00	187.20	177.45	161.85	142.35	122.85					
12	499.15	506.60	447.00	439.55	439.55	447.00					
	551.30	640.70	707.75	715.20	715.20	707.75					
	707.75	707.75	692.85	700.30	737.55	745.00					
	745.00	715.20	677.95	618.35	543.85	469.35					
13	53.89	54.70	48.26	47.46	47.46	48.26	59.52	69.18	76.42	77.22	77.22
	76.42	76.42	76.42	74.81	75.61	79.63	80.44	80.44	77.22	73.20	66.76
	58.72	50.68									
14	88.06	89.38	78.86	77.55	77.55	78.86	97.26	113.04	124.87		
	126.18	126.18	124.87	124.87	124.87	122.24					
	123.55	130.12	131.44	131.44	126.18	119.61					
	109.09	95.95	82.81								
15	67.00	68.00	60.00	59.00	59.00	60.00	74.00	86.00	95.00	96.00	96.00
	95.00	95.00	95.00	93.00	94.00	99.00	100.00	100.00	96.00		
	91.00	83.00	73.00	63.00							
17	223.11	226.44	199.80	196.47	196.47	199.80					
	246.42	286.38	316.35	319.68	319.68	316.35					
	316.35	316.35	309.69	313.02	329.67	333.00					
	333.00	319.68	303.03	276.39	243.09	209.79					
18	50.28	51.03	45.03	44.28	44.28	45.03	55.54	64.54	71.30	72.05	72.05
	71.30	71.30	71.30	69.80	70.55	74.30	75.05	75.05	72.05	68.29	62.29
	54.79	47.28									

19 35.56 36.09 31.84 31.31 31.31 31.84 39.27 45.64 50.42 50.95 50.95
50.42 50.42 50.42 49.36 49.89 52.54 53.07 53.07 50.95 48.30 44.05
38.74 33.44

gens

n	pmax	pmin	prod	suc	sdc	mru	mrd	sur	sdr	mu	md
0	20	15	224	76	0	20	20	10	10	1	1
0	20	15	224	76	0	20	20	10	10	1	1
0	76	7.6	21	1061	0	22.8	22.8	22.8	22.8	8	4
0	76	7.6	21	1061	0	22.8	22.8	22.8	22.8	8	4
1	20	15	224	76	0	20	20	10	10	1	1
1	20	15	224	76	0	20	20	10	10	1	1
1	76	7.6	21	1061	0	22.8	22.8	22.8	22.8	8	4
1	76	7.6	21	1061	0	22.8	22.8	22.8	22.8	8	4
6	100	15	79	4754	0	50	50	40	40	8	8
6	100	15	79	4754	0	50	50	40	40	8	8
6	100	15	79	4754	0	50	50	40	40	8	8
12	197	59.1	77	6510	0	50	50	50	50	12	10
12	197	59.1	77	6510	0	50	50	50	50	12	10
12	197	59.1	77	6510	0	50	50	50	50	12	10
14	12	0	98	571	0	12	12	12	12	4	2
14	12	0	98	571	0	12	12	12	12	4	2
14	12	0	98	571	0	12	12	12	12	4	2
14	12	0	98	571	0	12	12	12	12	4	2
14	12	0	98	571	0	12	12	12	12	4	2
14	155	46.5	16	1696	0	46.5	46.5	46.5	46.5	8	8
15	155	46.5	16	1696	0	46.5	46.5	46.5	46.5	8	8
17	400	40	6	5000	0	400	400	400	400	1	1
20	400	40	6	5000	0	400	400	400	400	1	1
21	50	0	0	0	0	50	50	50	50	1	1
21	50	0	0	0	0	50	50	50	50	1	1
21	50	0	0	0	0	50	50	50	50	1	1
21	50	0	0	0	0	50	50	50	50	1	1
21	50	0	0	0	0	50	50	50	50	1	1
21	50	0	0	0	0	50	50	50	50	1	1
22	155	46.5	16	1696	0	46.5	46.5	46.5	46.5	8	8
22	155	46.5	16	1696	0	46.5	46.5	46.5	46.5	8	8
22	350	122.5	16	7953	0	105	105	105	105	12	12