	ID			
1		•		
2	BUSES OUTSIDE VOLTAGE LIMITS (100 %)			
3				
4	Bus ID	Zone	kV Base	Vmin - [pu]
5	B10	0	345.00	0.900
6	B11	0	345.00	0.900
7	B12	0	138.00	0.900
8	B13	0	345.00	0.900
9	B14	0	345.00	0.900
10	B9 INV	0	100.00	0.900
11	B4	0	345.00	0.900
12	B5	0	345.00	0.900
13	B6	0	345.00	0.900
14	B7	0	345.00	0.900
15	B8	0	345.00	0.900
16	B9	0	345.00	0.900
17				
18	OVERLOADED LINES & CABLES (WITHIN 100 %)			
19	ID	Bus From	Bus To	Power Flow - [pu]
20	L01	B1	B2	6.222
21	L02	B1	B39	6.222
22	L14	B8	B9	7.138
23	L17	B10	B13	6.410
24	L07	B4	B5	7.765
25	L18	B13	B14	6.610
26	L09	B5	B6	8.349
26 27	L09	B5	B6	8.349
27		B5	B6	8.349
	L09 UNDERLOADED LINES & CABLES (WITHIN 50 %) ID	Bus From	B6 Bus To	Power Flow
27 28 29	UNDERLOADED LINES & CABLES (WITHIN 50 %) ID	Bus From	Bus To	Power Flow
27 28 29 30	UNDERLOADED LINES & CABLES (WITHIN 50 %) ID L20	Bus From B15	Bus To	Power Flow - [pu] 2.945
27 28 29 30 31	UNDERLOADED LINES & CABLES (WITHIN 50 %) ID L20 L30	Bus From B15 B25	Bus To B16 B26	Power Flow - [pu] 2.945 0.290
27 28 29 30 31 32	UNDERLOADED LINES & CABLES (WITHIN 50 %) ID L20 L30 L31	Bus From B15 B25 B26	Bus To B16 B26 B27	Power Flow - [pul 2.945 0.290 2.509
27 28 29 30 31 32 33	UNDERLOADED LINES & CABLES (WITHIN 50 %) ID L20 L30 L31 L12	Bus From B15 B25 B26 B6	Bus To B16 B26 B27 B11	Power Flow - [pul 2.945 0.290 2.509 2.625
27 28 29 30 31 32 33 34	UNDERLOADED LINES & CABLES (WITHIN 50 %) ID L20 L30 L31 L12 L32	Bus From B15 B25 B26 B6 B26	Bus To B16 B26 B27 B11 B28	Power Flow - [pul 2.945 0.290 2.509 2.625 1.514
27 28 29 30 31 32 33 34 35	UNDERLOADED LINES & CABLES (WITHIN 50 %) ID L20 L30 L31 L12 L32 L13	Bus From B15 B25 B26 B6 B26 B7	Bus To B16 B26 B27 B11 B28 B8	Power Flow - [pul 2.945 0.290 2.509 2.625 1.514 2.527
27 28 29 30 31 32 33 34 35 36	UNDERLOADED LINES & CABLES (WITHIN 50 %) L20 L30 L31 L12 L32 L13 L23	Bus From B15 B25 B26 B6 B6 B26 B7 B16	Bus To B16 B26 B27 B11 B28 B8 B21	Power Flow - [pul 2.945 0.290 2.509 2.625 1.514 2.527 1.384
27 28 29 30 31 32 33 34 35 36 37	UNDERLOADED LINES & CABLES (WITHIN 50 %) L20 L30 L31 L12 L32 L13 L23 L33	Bus From B15 B25 B26 B6 B6 B26 B7 B16 B26	Bus To B16 B26 B27 B11 B28 B8 B21 B29	Power Flow - [pul 2.945 0.290 2.509 2.625 1.514 2.527 1.384 1.990
27 28 29 30 31 32 33 34 35 36 37 38	UNDERLOADED LINES & CABLES (WITHIN 50 %) L20 L30 L31 L12 L32 L13 L23 L33 L25	Bus From B15 B25 B26 B6 B26 B7 B16 B26 B17	Bus To B16 B26 B27 B11 B28 B8 B21 B29 B18	Power Flow - [pul 2.945 0.290 2.509 2.625 1.514 2.527 1.384 1.990 1.678
27 28 29 30 31 32 33 34 35 36 37 38 39	UNDERLOADED LINES & CABLES (WITHIN 50 %) L20 L30 L31 L12 L32 L13 L23 L33 L25 L16	Bus From B15 B25 B26 B6 B26 B7 B16 B26 B17 B10	Bus To B16 B26 B27 B11 B28 B8 B21 B29 B18 B11	Power Flow - [pul 2.945 0.290 2.509 2.625 1.514 2.527 1.384 1.990 1.678 2.934
27 28 29 30 31 32 33 34 35 36 37 38 39 40	UNDERLOADED LINES & CABLES (WITHIN 50 %) L20 L30 L31 L12 L32 L13 L23 L33 L25 L16 L26	Bus From B15 B25 B26 B6 B26 B7 B16 B26 B17 B10 B17	Bus To B16 B26 B27 B11 B28 B8 B21 B29 B18 B11 B27	Power Flow - [pu] 2.945 0.290 2.509 2.625 1.514 2.527 1.384 1.990 1.678 2.934 1.726
27 28 29 30 31 32 33 34 35 36 37 38 39 40	UNDERLOADED LINES & CABLES (WITHIN 50 %) L20 L30 L31 L12 L32 L13 L23 L33 L25 L16 L26 L06	Bus From B15 B26 B6 B6 B7 B16 B26 B17 B10 B17 B3	Bus To B16 B26 B27 B11 B28 B8 B21 B29 B18 B11 B27 B18	Power Flow - [pu] 2.945 0.290 2.509 2.625 1.514 2.527 1.384 1.990 1.678 2.934 1.726 0.109
27 28 29 30 31 32 33 34 35 36 37 38 39 40 41	UNDERLOADED LINES & CABLES (WITHIN 50 %) L20 L30 L31 L12 L32 L13 L23 L33 L25 L16 L26 L06 L27	Bus From B15 B26 B26 B6 B7 B16 B26 B17 B10 B17 B3 B21	Bus To B16 B26 B27 B11 B28 B8 B21 B29 B18 B11 B27 B18 B27 B18	Power Flow - [pul 2.945 0.290 2.509 2.625 1.514 2.527 1.384 1.990 1.678 2.934 1.726 0.109 2.775
27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43	UNDERLOADED LINES & CABLES (WITHIN 50 %) L20 L30 L31 L12 L32 L13 L23 L33 L25 L16 L26 L06 L27 L08	Bus From B15 B26 B26 B6 B7 B16 B26 B17 B10 B17 B3 B21 B4	Bus To B16 B26 B27 B11 B28 B8 B21 B29 B18 B11 B27 B18 B22 B14	Power Flow - Ipul 2.945 0.290 2.509 2.625 1.514 2.527 1.384 1.990 1.678 2.934 1.726 0.109 2.775 2.851
27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43	UNDERLOADED LINES & CABLES (WITHIN 50 %) L20 L30 L31 L12 L32 L13 L23 L33 L25 L16 L26 L06 L27	Bus From B15 B26 B26 B6 B7 B16 B26 B17 B10 B17 B3 B21	Bus To B16 B26 B27 B11 B28 B8 B21 B29 B18 B11 B27 B18 B27 B18	Power Flow - [pu] 2.945 0.290 2.509 2.625 1.514 2.527 1.384 1.990 1.678 2.934 1.726 0.109 2.775
27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43	UNDERLOADED LINES & CABLES (WITHIN 50 %) L20 L30 L31 L12 L32 L13 L23 L33 L25 L16 L26 L06 L27 L08	Bus From B15 B26 B26 B6 B7 B16 B26 B17 B10 B17 B3 B21 B4	Bus To B16 B26 B27 B11 B28 B8 B21 B29 B18 B11 B27 B18 B22 B14	Power Flow - Ipul 2.945 0.290 2.509 2.625 1.514 2.527 1.384 1.990 1.678 2.934 1.726 0.109 2.775 2.851
27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44	UNDERLOADED LINES & CABLES (WITHIN 50 %) L20 L30 L31 L12 L32 L13 L23 L33 L25 L16 L26 L06 L27 L08 L29	Bus From B15 B26 B26 B6 B7 B16 B26 B17 B10 B17 B3 B21 B4	Bus To B16 B26 B27 B11 B28 B8 B21 B29 B18 B11 B27 B18 B22 B14	Power Flow - [pul 2.945 0.290 2.509 2.625 1.514 2.527 1.384 1.990 1.678 2.934 1.726 0.109 2.775 2.851
27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	UNDERLOADED LINES & CABLES (WITHIN 50 %) L20 L30 L31 L12 L32 L13 L23 L23 L33 L25 L16 L26 L06 L27 L08 L29 OVERLOADED TRANSFORMERS (WITHIN 100 %)	Bus From B15 B25 B26 B6 B6 B7 B16 B26 B17 B10 B17 B3 B21 B4 B23 Bus From	Bus To B16 B26 B27 B11 B28 B8 B21 B29 B18 B11 B27 B18 B21 B29 B18 B11 B27 B18 B22 B14 B24	Power Flow - [pul 2.945 0.290 2.509 2.625 1.514 2.527 1.384 1.990 1.678 2.934 1.726 0.109 2.775 2.851 0.343 Power Flow - [MVA]
27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	UNDERLOADED LINES & CABLES (WITHIN 50 %) ID L20 L30 L31 L12 L32 L13 L23 L33 L25 L16 L26 L06 L27 L08 L29 OVERLOADED TRANSFORMERS (WITHIN 100 %)	Bus From B15 B26 B26 B6 B7 B16 B26 B17 B10 B17 B3 B21 B4 B23	Bus To B16 B26 B27 B11 B28 B8 B21 B29 B18 B11 B27 B18 B22 B14 B24	Power Flow - [pul 2.945 0.290 2.509 2.625 1.514 2.527 1.384 1.990 1.678 2.934 1.726 0.109 2.775 2.851 0.343
27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	UNDERLOADED LINES & CABLES (WITHIN 50 %) L20 L30 L31 L12 L32 L13 L23 L23 L33 L25 L16 L26 L06 L27 L08 L29 OVERLOADED TRANSFORMERS (WITHIN 100 %)	Bus From B15 B25 B26 B6 B6 B7 B16 B26 B17 B10 B17 B3 B21 B4 B23 Bus From	Bus To B16 B26 B27 B11 B28 B8 B21 B29 B18 B11 B27 B18 B21 B29 B18 B11 B27 B18 B22 B14 B24	Power Flow - [pul 2.945 0.290 2.509 2.625 1.514 2.527 1.384 1.990 1.678 2.934 1.726 0.109 2.775 2.851 0.343 Power Flow - [MVA]

4			
1			
3			
3			Ann and
4	Vmax - [pu]	V sol - [pu]	Ang sol -
-	1.100	0.897	[deq]
5			-14.6
6 7	1.100	0.885	-14.8
	1.100	0.866	-15.6
8	1.100	0.891	-16.4
9	1.100	0.887 0.707	-20.7
10	1.100		5.8
11	1.100	0.872	-22.9
12	1.100	0.856	-16.3
13	1.100	0.864	-15.0
14	1.100	0.829	-16.5
15	1.100	0.818	-16.5
16	1.100	0.719	1.8
17			
18		E	
19	Loading	Emergency	
19	Limit - [pu]	Loading	
20	5.976	Limit - [pul 8.963	
21	5.976	8.963	
	5.976		
22	5.976	8.963	
23		8.963	
24	5.976	8.963	
25	5.976	8.963	
26	5.976	8.963	
27			
28			
29	Loading		
20	Limit - [pu]		
30	3.585		
31	2.988		
32	2.988		
33	2.988		
34	2.988		
35	2.988		
36	2.988		
37	2.988		
38	2.988		
39	2.988		
40	2.988 2.988		
41			
42	3.884		
43	2.988		
44	2.988		
45			
46		Emarcia:	
	Loading	Emergency	
47	Limit -	Loading	
	[MVA]	Limit -	
48	800.000	[MVA] 850.000	
49	000.000	000.000	
50			
30			

	ID			
51	ID	Bus From	Bus To	Power Flow - [MVA]
52	T10	B2	B30	396.850
53	T01	B12	B11	45.646
54	T02	B12	B13	55.556
55	T12	B19	B20	377.254
56				
57	GENERATORS AT REACTIVE LIMITS (WITHIN 0%)			
58	ID	Bus From	P Gen - [MW]	Q Gen - [MVAR]
59	G03	B32	650.00	453.07
60	G06	B35	650.00	578.33
61	G07	B36	560.00	519.91
62				
63	TRANSFORMERS AT TAP LIMITS (WITHIN 0%)			
64	ID	Bus From	Bus To	Tap Pos -

51	Loading Limit - IMVAl		
52	550.000		
53	250.000		
54	250.000		
55	550.000		
56			
57			
58	Q Min - [MVAR]	Q Max - [MVAR]	
59	-192.00	448.00	
60	-192.00	448.00	
61	-168.00	392.00	
62			
63			
64	Min Tap - [%]	Max Tap - [%]	