

APPENDIX F

Load flow result for Sumatera Barat 30-bus system

Bus no.	Bus name	Volts (pu)	Angle (deg)	PG (Mw)	QG (Mvar)	PL (Mw)	QL (Mvar)
1	OMBLN	1.04795	-1.53	0	0	6	3
2	SALAK	1.046	-1.6	0	0	8	4
3	SOLOK	1.02682	-2.32	0	0	7	4
4	IND	1.00642	-3.02	0	0	20	10
5	SEMEN150	1.00639	-3.02	0	0	22	11
6	PLIMO	1.00422	-3.04	15	5	0	0
7	SHARU	0.9989	-3.34	0	0	46	22
8	LBALG	1.00273	-2.51	0	0	7	3
9	SNKRK	1	-2.28	30.55	-30.52	1	0.5
10	MNJAU	1.01549	-2.48	11	5.5	4	2
11	PDGLR	1.02785	-2.67	0	0	20	9
12	PYBUH	1.0449	-2.26	0	0	0	0
13	PYBUH-20	1.00225	-6.54	0	0	13	6
14	BAGAM	0.99662	-7.25	6	3	7	3
15	KTPJG	1.0675	-2.09	102	43.7	5	2
16	BNKNG	1.06226	-2.84	0	0	10	4
17	GRDSK	1.05295	-4.37	0	0	36	16
18	SHARUA20	0	0	0	0	0	0
19	72	0	0	0	0	0	0
20	PLIMO-B	1.00349	-3.04	0	0	6	3
21	PLIMO-20	1.1158	-3.04	0	0	0	0
22	TLMBU	1.05074	-4.59	14	9	35	15
23	DURI	1.05258	-5.53	0	0	0	0
24	DUMAI	1.05011	-6.09	0	0	0	0
25	BTSKR	1.04654	-1.92	0	0	2	1
26	Duri-20	1.17437	-7.62	0	0	9	4
27	Dumai-20	1.12055	-7.78	5	0	15	6
28	Unit 1	1.07966	1.92	75	40	0	0
29	Unit 2	1.06969	-0.14	30	26	0	0
30	PIP	1.00239	-2.83	0	0	7	3

From Bus. i	To Bus. j	Pij (Mw)	Qij (Mvar)	Pji (Mw)	Qji (Mvar)
1	2	38.8453	33.9184	-38.8144	-33.9963
1	4	30.5286	25.9962	-30.006	-27.8044
1	25	12.9636	-1.856	-12.9394	0.1332
1	28	-75.0693	-34.3727	75.0693	40.0034
1	29	-29.9812	-24.7519	29.9812	26.0004
2	3	34.2446	28.4446	-33.9765	-29.316
3	4	26.8779	24.4248	-26.6462	-25.5189
4	5	15.0963	15.0862	-15.0959	-15.106
4	6	7.1637	15.5191	-7.1535	-15.7452
6	8	-12.9307	5.0506	12.9663	-6.795
6	20	36.654	36.5532	-36.6274	-36.7281
6	21	0	-22.4326	0	24.9251
7	20	-45.8868	-22.1285	45.9818	21.989
8	9	-15.0222	15.3155	15.0432	-15.544
8	10	-3.5564	-11.7638	3.5959	10.327
8	30	16.6212	-3.9472	-16.5958	3.104
10	11	-0.2026	-17.8889	0.2602	15.1025
11	12	-20.2695	-25.4427	20.4284	23.6508
12	13	13.9967	8.5029	-13.9967	-7.131
12	15	-5.0356	-15.3404	5.1017	13.1505
12	25	-12.2635	-0.394	12.2838	-0.7254
13	14	1.0079	0.0011	-1.0022	-0.0026
15	16	46.6215	8.8993	-46.5126	-9.4691
15	17	39.9073	4.9473	-39.6288	-8.4207
16	17	36.6613	4.0673	-36.4906	-7.224
17	22	10.507	1.9028	-10.4944	-2.9859
17	23	9.597	-3.2622	-9.5428	1.7593
20	30	-9.834	5.7244	9.8458	-6.6271
23	24	10.0365	-1.5025	-10.0083	-0.5494
23	26	8.964	-25.3239	-8.964	28.6
24	27	10.0058	-21.177	-10.0058	22.9026