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LAMPIRAN

(Lampiran 1)

Sketsa Simulasi PSAT Sistem Transmisi Kelistrikan Sulselbar

(Lampiran 2)

Hasil simulasi sistem normal

```
POWER FLOW REPORT

P S A T  2.1.9

Author:  Federico Milano, (c) 2002-2013
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website: faraday1.ucd.ie/psat.html
File:  C:\Users\Asus\Documents\MATLAB\baru\sldnormalfix.mdl
Date:  05-Jun-2020 16:13:00

NETWORK STATISTICS
Buses:                          55
Lines:                          61
Transformers:                   6
Generators:                     17
Loads:                          45

SOLUTION STATISTICS
Number of Iterations:           5
Maximum P mismatch [p.u.]       0
Maximum Q mismatch [p.u.]       0
Power rate [MVA]                100

POWER FLOW RESULTS
Bus          V          phase       P gen       Q gen       P load      Q load
             [p.u.]     [rad]       [p.u.]      [p.u.]      [p.u.]      [p.u.]

     BS1 S   1.02       -0.00689    1.3583      0.20604     0.274       0.062
BS10 MMUJU   1.0019     0.08354     0           0           0.157       -0.0392
BS11 GI BA   1          -0.24191    0.5153      0.76218     0.033       0.006
BS12 BARRU   0.99797    -0.27075    0           0           0.093       0.017
BS13 PNKEP   0.99777    -0.3141     0           0           0.206       0.044
BS14 PNKEP   1.0202     -1.0816     0           0           0           -0.19522
BS15 TNASA   1.0126     -1.0963     0           0           0.223       0
BS16 BSOWA   1.0046     -0.34648    0           0           0.099       0
BS17 KIMA    1.0068     -0.36476    0           0           0.211       0.067
BS18 TELLO   1.02       -0.39032    0           1.1838      0.551       0.121
BS19 PKANG   1.0183     -0.39663    0           0           0.748       0.184
BS2 SDRP 1   0.99584    -0.05674    0           0           0.293       0.079
BS20 TELLO   1.0043     -1.1112     0           0           0.006       -0.18794
BS21 BRLOE   0.99       -1.0873     0.09        -0.20763    0.009       0
BS22 MNDAI   1.0068     -1.1273     0           0           0.272       0.028
BS23. DAYA   1.0079     -1.1273     0           0           0.25        -0.15449
BS24 TELLO   1.02       -0.39032    0           0           0           0
BS25 BWAJA   1.02       -0.39033    0           0           0           0
BS26 TLAMA   1          -0.39327    0           0.80957     0.416       0.113
             A 1.0001   -0.39327    0           0           0           0
             A 1.0001   -0.39327    0           0           0           0
             A 0.98679  -0.37038    0           0           0.455       0.122
               0.99345  -0.04503    0           0           0.165       0.033
             A 0.98507  -0.30349    0           0           0.525       0.115
             A 0.98448  -0.35743    0           0           0.562       0.156
             N 0.98302  -0.30829    0           0           0.236       0.064
```

BS33 MAROS	0.98228	-0.31444	0	0	0.215	0.045
BS34 TLASA	0.97664	-0.18636	0	0	0.194	0.036
BS35 PGAYA	1	0	1.5143	2.3416	0.0391	0.054
BS36 JNPTO	0.99253	-0.0297	0	0	0.226	0.041
BS37 BKMBA	0.98802	-0.06144	0	0	0.314	0.01402
BS38 SNJAI	1	-0.0793	0.02	0.03962	0.22	0.019
BS39 BONE	0.99019	-0.07209	0	0	0.323	0.00615
BS4 ERKNG	1.0033	-0.01087	0	0	0.119	0.017
BS40 MKALE	1.02	0.04232	0.0528	0.02489	0.113	0.026
BS41 PLOPO	1	0.1025	0.0313	1.0182	0.378	0.116
BS42 LTUPA	0.97919	0.31208	0	0	0	0
BS43 LTUPA	0.90615	0.60172	0	0	0	0
BS44 WOTU	1	0.52179	0	0.4369	0.1657	0.0346
BS45 PAMON	1	1.1481	2.061	0.33475	0	0
BS46 PAMON	0.99831	1.1463	0	0	0.0161	-0.0003
BS47 POSO	0.98389	1.1146	0	0	0.1255	0.0279
BS48 BNTNG	0.98708	-0.05939	0	0	0	0
BS49 BNTNG	0.98708	-0.05939	0	0	0	0
BS5 PPARE	0.99915	-0.09188	0	0	0.203	0.047
BS50 BNTNG	0.9924	-0.0425	0	0	0.117	0.009
BS51 JNPT	1	0.09845	1.9115	-1.4468	0	0
BS52 PLTU	1	-0.01461	1.1136	-0.09086	0	0
BS53 PLTD	1	-0.09241	0	0.13471	0	0
BS54 SIWA	1.0155	-0.01873	0	0	0.086	0.013
BS55 PLTU	1	0.16063	0.4995	-0.09893	0	0
BS6 PRANG	1	-0.06745	0.0081	-0.0329	0.296	0
BS7 PLMAS	1.0195	-0.02729	0	0	0.18	0.032
BS8 BKARU	1.03	0.016	1.26	0.05938	0.001	0
BS9 MJENE1	1.0101	-0.00857	0	0	0.156	0.016

GLOBAL SUMMARY REPORT

TOTAL GENERATION

REAL POWER [p.u.]	10.4356
REACTIVE POWER [p.u.]	5.4746

TOTAL LOAD

REAL POWER [p.u.]	9.2714
REACTIVE POWER [p.u.]	1.1875

TOTAL LOSSES

REAL POWER [p.u.]	1.1642
REACTIVE POWER [p.u.]	4.2871

(Lampiran 3)

Hasil simulasi sistem mengalami gangguan

```
POWER FLOW REPORT

P S A T  2.1.9

Author:  Federico Milano, (c) 2002-2013
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website: faraday1.ucd.ie/psat.html
File:  C:\Users\Asus\Documents\MATLAB\baru\sldnormalfixfault.mdl
Date:  31-May-2020 22:10:10

NETWORK STATISTICS
Buses:                          55
Lines:                          61
Transformers:                   6
Generators:                     17
Loads:                          45

SOLUTION STATISTICS
Number of Iterations:           5
Maximum P mismatch [p.u.]       0
Maximum Q mismatch [p.u.]       0
Power rate [MVA]                100

POWER FLOW RESULTS

Bus          V          phase       P gen       Q gen       P load      Q load
             [p.u.]     [rad]       [p.u.]      [p.u.]      [p.u.]      [p.u.]

     BS1 S  1.02       -0.00689    1.3583      0.20604     0.274       0.062
BS10 MMUJU  1.0026      0.08354    0           0           0.157      -0.0392
BS11 GI BA  1.0002     -0.24191    0.5153      0.76218     0.033       0.006
BS12 BARRU  1.0002     -0.27075    0           0           0.093       0.017
BS13 PNKEP  1.0032     -0.3141     0           0           0.206       0.044
BS14 PNKEP  1.0246     -1.0816     0           0           0          -0.19522
BS15 TNASA  1.0168     -1.0963     0           0           0.223       0
BS16 BSOWA  1.0082     -0.34648    0           0           0.099       0
BS17 KIMA   1.0095     -0.36476    0           0           0.211       0.067
BS18 TELLO  1.0205     -0.39032    0           1.1838      0.551       0.121
BS19 PKANG  1.0188     -0.39663    0           0           0.748       0.184
BS2 SDRP 1  0.995      -0.05674    0           0           0.293       0.079
BS20 TELLO  1.0280     -1.1112     0           0           0.006      -0.18794
BS21 BRLOE  0.9922     -1.0873     0.09       -0.20763     0.009       0
BS22 MNDAI  1.0371     -1.1273     0           0           0.272       0.028
BS23. DAYA  1.0321     -1.1273     0           0           0.25       -0.15449
BS24 TELLO  1.0206     -0.39032    0           0           0           0
BS25 BWAJA  1.0206     -0.39033    0           0           0           0
BS26 TLAMA  1.0001     -0.39327    0           0.80957     0.416       0.113
BS27 TLAMA  1.0002     -0.39327    0           0           0           0
BS28 BNTLA  1.0002     -0.39327    0           0           0           0
BS29 BNTLA  0.9871     -0.37038    0           0           0.455       0.122
BS3 SPENG   0.993      -0.04503    0           0           0.165       0.033
           A 0.9863    -0.30349    0           0           0.525       0.115
           A 0.9851    -0.35743    0           0           0.562       0.156
           N 0.9843    -0.30829    0           0           0.236       0.064
           S 0.9835    -0.31444    0           0           0.215       0.045
           A 0.9787    -0.18636    0           0           0.194       0.036
           A 1          0          1.5143      2.3416      0.0391      0.054
           O 0.992     -0.0297     0           0           0.226       0.041
```

BS37 BKMBA	0.9871	-0.06144	0	0	0.314	0.01402
BS38 SNJAI	1	-0.0793	0.02	0.03962	0.22	0.019
BS39 BONE	0.9896	-0.07209	0	0	0.323	0.00615
BS4 ERKNG	1	-0.01087	0	0	0.119	0.017
BS40 MKALE	1.012	0.04232	0.0528	0.02489	0.113	0.026
BS41 PLOPO	0.6	0.1025	0.0313	1.0182	0.378	0.116
BS42 LTUPA	0.575	0.31208	0	0	0	0
BS43 LTUPA	0.68	0.60172	0	0	0	0
BS44 WOTU	0.9997	0.52179	0	0.4369	0.1657	0.0346
BS45 PAMON	0.9997	1.1481	2.061	0.33475	0	0
BS46 PAMON	0.998	1.1463	0	0	0.0161	-0.0003
BS47 POSO	0.9836	1.1146	0	0	0.1255	0.0279
BS48 BNTNG	0.9861	-0.05939	0	0	0	0
BS49 BNTNG	0.9861	-0.05939	0	0	0	0
BS5 PPARE	0.999	-0.09188	0	0	0.203	0.047
BS50 BNTNG	0.9919	-0.0425	0	0	0.117	0.009
BS51 JNPT	1	0.09845	1.9115	-1.4468	0	0
BS52 PLTU	1	-0.01461	1.1136	-0.09086	0	0
BS53 PLTD	1	-0.09241	0	0.13471	0	0
BS54 SIWA	1.0154	-0.01873	0	0	0.086	0.013
BS55 PLTU	1	0.16063	0.4995	-0.09893	0	0
BS6 PRANG	1	-0.06745	0.0081	-0.0329	0.296	0
BS7 PLMAS	1.0198	-0.02729	0	0	0.18	0.032
BS8 BKARU	1.03	0.016	1.26	0.05938	0.001	0
BS9 MJENE1	1.0107	-0.00857	0	0	0.156	0.016

GLOBAL SUMMARY REPORT

TOTAL GENERATION

REAL POWER [p.u.]	10.4356
REACTIVE POWER [p.u.]	5.4746

TOTAL LOAD

REAL POWER [p.u.]	9.2714
REACTIVE POWER [p.u.]	1.1875

TOTAL LOSSES

REAL POWER [p.u.]	1.1642
REACTIVE POWER [p.u.]	4.2871

(Lampiran 4)

Hasil simulasi sistem normal menggunakan STATCOM

```
POWER FLOW REPORT
P S A T  2.1.9

Author:  Federico Milano, (c) 2002-2013
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File:  C:\Users\Asus\Documents\MATLAB\baru\sldnormalfixstatcom.mdl
Date:  05-Jun-2020 16:46:43

NETWORK STATISTICS
Buses:                          55
Lines:                          61
Transformers:                   6
Generators:                     17
Loads:                          45

SOLUTION STATISTICS
Number of Iterations:           5
Maximum P mismatch [p.u.]       0
Maximum Q mismatch [p.u.]       0
Power rate [MVA]                100

POWER FLOW RESULTS
Bus          V          phase       P gen       Q gen       P load      Q load
             [p.u.]     [rad]       [p.u.]      [p.u.]      [p.u.]      [p.u.]

     BS1 S   1.02       -0.01771    1.3583      0.21574     0.274       0.062
BS10 MMUJU   1.0017      0.07043    0           0           0.157      -0.03942
BS11 GI BA   1          -0.25411    0.5153      0.76107     0.033       0.006
BS12 BARRU   0.99797    -0.28305    0           0           0.093       0.017
BS13 PNKEP   0.99775    -0.32658    0           0           0.206       0.044
BS14 PNKEP   1.0199     -1.0943     0           0           0          -0.19521
BS15 TNASA   1.0123     -1.109      0           0           0.223       0
             1.0046     -0.35913    0           0           0.099       0
             1.0068     -0.37749    0           0           0.211       0.067
             1.02       -0.40325    0           1.2332      0.551       0.121
             1.0183     -0.40955    0           0           0.748       0.184
             0.99573    -0.06802    0           0           0.293       0.079
```

BS20 TELLO	1.0042	-1.124	0	0	0.006	-0.18794
BS21 BRLOE	0.98998	-1.1	0.09	-0.2076	0.009	0
BS22 MNDAI	1.0067	-1.14	0	0	0.272	0.028
BS23. DAYA	1.0078	-1.14	0	0	0.25	-0.15448
BS24 TELLO	1.02	-0.40325	0	0	0	0
BS25 BWAJA	1.02	-0.40325	0	0	0	0
BS26 TLAMA	0.99999	-0.40628	0	0.85455	0.416	0.113
BS27 TLAMA	1.0001	-0.40628	0	0	0	0
BS28 BNTLA	1.0001	-0.40628	0	0	0	0
BS29 BNTLA	0.98674	-0.38261	0	0	0.455	0.122
BS3 SPENG	0.99324	-0.05558	0	0	0.165	0.033
BS30 SGMSA	0.98483	-0.31492	0	0	0.525	0.115
BS31 TBNGA	0.98436	-0.36951	0	0	0.562	0.156
BS32 BOLAN	0.98279	-0.31975	0	0	0.236	0.064
BS33 MAROS	0.98204	-0.32596	0	0	0.215	0.045
BS34 TLASA	0.97624	-0.19611	0	0	0.194	0.036
BS35 PGAYA	0.99998	0	1.4995	0.99726	0.0391	0.054
BS36 JNPTO	0.99257	-0.03226	0	0	0.226	0.041
BS37 BKMBA	0.98807	-0.0676	0	0	0.314	0.01532
BS38 SNJAI	1	-0.08885	0.02	0.14053	0.22	0.019
BS39 BONE	0.98994	-0.08166	0	0	0.323	0.00641
BS4 ERKNG	1.0031	-0.02215	0	0	0.119	0.017
BS40 MKALE	1.02	0.03104	0.0528	0.02464	0.113	0.026
BS41 PLOPO	1	0.09122	0.0313	1.0182	0.378	0.116
BS42 LTUPA	1.022	0.30081	0	0	0	0
BS43 LTUPA	0.99658	0.59044	0	0	0	0
BS44 WOTU	1.0002	0.51051	0	0.4369	0.1657	0.0346
BS45 PAMON	1.0002	1.1368	2.061	0.33475	0	0
BS46 PAMON	0.99855	1.1351	0	0	0.0161	-0.0003
BS47 POSO	0.98413	1.1034	0	0	0.1255	0.0279
BS48 BNTNG	0.98714	-0.06538	0	0	0	0
BS49 BNTNG	0.98714	-0.06538	0	0	0	0
BS5 PPARE	0.99915	-0.10352	0	0	0.203	0.047
BS50 BNTNG	0.99242	-0.04592	0	0	0.117	0.009
BS51 JNPT	1	0.08997	1.9115	-0.93233	0	0
BS52 PLTU	0.99999	-0.02567	1.1136	0.51599	0	0
BS53 PLTD	1	-0.10397	0	0.11321	0	0
BS54 SIWA	1.0155	-0.02956	0	0	0.086	0.013
BS55 PLTU	1	0.14784	0.4995	-0.10968	0	0
BS6 PRANG	0.99999	-0.07904	0.0081	-0.13218	0.296	0
BS7 PLMAS	1.0195	-0.04068	0	0	0.18	0.032
BS8 BKARU	1.03	0.00074	1.26	0.20256	0.001	0
1	1.01	-0.02188	0	0	0.156	0.016

SUMMARY REPORT

ENERATION

REAL POWER [p.u.]	10.4208
REACTIVE POWER [p.u.]	5.4668

TOTAL LOAD

REAL POWER [p.u.]	9.2714
REACTIVE POWER [p.u.]	1.1889

TOTAL LOSSES

REAL POWER [p.u.]	1.1494
REACTIVE POWER [p.u.]	4.2779

(Lampiran 5)

Hasil simulasi sistem saat PLTB Sidrap terintegrasi

```
POWER FLOW REPORT
P S A T  2.1.9

Author:  Federico Milano, (c) 2002-2013
e-mail:  federico.milano@ucd.ie
website: faraday1.ucd.ie/psat.html
File:  C:\Users\Asus\Documents\MATLAB\baru\sldpltbsidrapfix25.mdl
Date:  05-Jun-2020 17:05:14

NETWORK STATISTICS
Buses:                          56
Lines:                          63
Transformers:                   6
Generators:                     17
Loads:                          45

SOLUTION STATISTICS
Number of Iterations:           5
Maximum P mismatch [p.u.]       0
Maximum Q mismatch [p.u.]       0
Power rate [MVA]                100

POWER FLOW RESULTS

Bus          V          phase       P gen       Q gen       P load      Q load
             [p.u.]     [rad]       [p.u.]      [p.u.]      [p.u.]      [p.u.]

     BS1 S   1.02       -0.0447     1.3583      0.15165     0.274       0.062
BS PLTB SI   1          -0.14305    0.1875      0.21069     0           0
BS10 MMUJU   0.99802     0.04928    0           0           0.157      -0.03944
BS11 GI BA   1          -0.25312    0.5153      0.66823     0.033       0.006
BS12 BARRU   0.99002    -0.279      0           0           0.093       0.017
BS13 PNKEP   0.97688    -0.31703    0           0           0.206       0.044
             0.97904    -1.0774     0           0           0          -0.19562
             0.97109    -1.0921     0           0           0.223       0
             0.97319    -0.34404    0           0           0.099       0
             0.96697    -0.35988    0           0           0.211       0.067
             0.97       -0.37958    0           1.1363      0.551       0.121
```

BS19 PKANG	0.96654	-0.38589	0	0	0.748	0.184
BS2 SDRP 1	1.0042	-0.09999	0	0	0.293	0.079
BS20 TELLO	0.95975	-1.1059	0	0	0.006	-0.18798
BS21 BRLOE	0.94	-1.0819	0.09	-0.20858	0.009	0
BS22 MNDAI	0.95601	-1.1221	0	0	0.272	0.028
BS23. DAYA	0.95863	-1.122	0	0	0.25	-0.15455
BS24 TELLO	0.97001	-0.37958	0	0	0	0
BS25 BWAJA	0.97001	-0.37959	0	0	0	0
BS26 TLAMA	0.97	-0.38122	0	0.79242	0.416	0.113
BS27 TLAMA	0.97011	-0.38122	0	0	0	0
BS28 BNTLA	0.97012	-0.38122	0	0	0	0
BS29 BNTLA	0.95185	-0.35466	0	0	0.455	0.122
BS3 SPENG	1.0091	-0.0812	0	0	0.165	0.033
BS30 SGMSA	0.95038	-0.28306	0	0	0.525	0.115
BS31 TBNGA	0.94759	-0.34035	0	0	0.562	0.156
BS32 BOLAN	0.94922	-0.28403	0	0	0.236	0.064
BS33 MAROS	0.95126	-0.27294	0	0	0.215	0.045
BS34 TLASA	0.95161	-0.17639	0	0	0.194	0.036
BS35 PGAYA	1	0	1.2643	0.99926	0.0391	0.054
BS36 JNPTO	0.99418	-0.03526	0	0	0.226	0.041
BS37 BKMBA	0.99208	-0.07559	0	0	0.314	0.01535
BS38 SNJAI	1	-0.10152	0.02	0.13766	0.22	0.019
BS39 BONE	1	-0.10047	0	0	0.323	0.0063
BS4 ERKNG	1.0093	-0.05716	0	0	0.119	0.017
BS40 MKALE	1.02	-0.00764	0.0528	0.47301	0.113	0.026
BS41 PLOPO	1	0.05459	0.0313	0.70508	0.378	0.116
BS42 LTUPA	0.98393	0.26418	0	0	0	0
BS43 LTUPA	0.90819	0.55381	0	0	0	0
BS44 WOTU	1	0.47388	0	0.4369	0.1657	0.0346
BS45 PAMON	1	1.1002	2.061	0.33475	0	0
BS46 PAMON	0.99831	1.0984	0	0	0.0161	-0.0003
BS47 POSO	0.98389	1.0667	0	0	0.1255	0.0279
BS48 BNTNG	0.99168	-0.07299	0	0	0	0
BS49 BNTNG	0.99168	-0.073	0	0	0	0
BS5 PPARE	0.99979	-0.12486	0	0	0.203	0.047
BS50 BNTNG	0.99342	-0.05026	0	0	0.117	0.009
BS51 JNPT	1	0.08997	1.9115	-0.93233	0	0
BS52 PLTU	1	-0.01943	1.1136	0.38995	0	0
BS53 PLTD	1	-0.12492	0	0.01398	0	0
BS54 SIWA	1.0155	-0.05655	0	0	0.086	0.013
BS55 PLTU	1	0.12672	0.4995	-0.11071	0	0
BS6 PRANG	1	-0.10004	0.0081	-0.16021	0.296	0
	1.0082	-0.06186	0	0	0.18	0.032
	1.03	-0.02029	1.26	0.1969	0.001	0
1	1.0011	-0.04305	0	0	0.156	0.016

GLOBAL SUMMARY REPORT

TOTAL GENERATION

REAL POWER [p.u.]	10.3732
REACTIVE POWER [p.u.]	5.235

TOTAL LOAD

REAL POWER [p.u.]	9.2714
REACTIVE POWER [p.u.]	1.1883

TOTAL LOSSES

REAL POWER [p.u.]	1.1018
REACTIVE POWER [p.u.]	4.0468

(Lampiran 6)

Hasil simulasi sistem saat PLTB Jeneponto terintegrasi

```
POWER FLOW REPORT
P S A T  2.1.9

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File:  C:\Users\Asus\Documents\MATLAB\baru\sldpltbtolofix25.mdl
Date:  31-May-2020 21:23:43

NETWORK STATISTICS
Buses:                          56
Lines:                          62
Transformers:                   6
Generators:                     17
Loads:                          45

SOLUTION STATISTICS
Number of Iterations:           5
Maximum P mismatch [p.u.]       0
Maximum Q mismatch [p.u.]       0
Power rate [MVA]                100

POWER FLOW RESULTS

Bus          V          phase       P gen       Q gen       P load      Q load
             [p.u.]     [rad]       [p.u.]      [p.u.]      [p.u.]      [p.u.]

     BS1 S   1.02       -0.00343    1.3583       0.20943    0.274       0.062
BB PLTB TO   1          -0.01351    0.18        -0.21508    0           0
BS10 MMUJU   0.99626     0.08625    0            0          0.157      -0.0392
BS11 GI BA   1          -0.23993    0.5153       0.76515    0.033       0.006
BS12 BARRU   0.98955    -0.26887    0            0          0.093       0.017
BS13 PNKEP   0.97596    -0.3124     0            0          0.206       0.044
             0.97801    -1.0801     0            0          0          -0.19521
             0.97005    -1.0949     0            0          0.223       0
             0.97241    -0.34496    0            0          0.099       0
             0.96596    -0.36333    0            0          0.211       0.067
             0.97       -0.38909    0            1.1834     0.551       0.121
```

BS19 PKANG	0.96654	-0.39539	0	0	0.748	0.184
BS2 SDRP 1	0.9989	-0.0537	0	0	0.293	0.079
BS20 TELLO	0.95963	-1.1098	0	0	0.006	-0.18794
BS21 BRLOE	0.94	-1.0859	0.09	-0.2076	0.009	0
BS22 MNDAI	0.95578	-1.1259	0	0	0.272	0.028
BS23. DAYA	0.95847	-1.1259	0	0	0.25	-0.15448
BS24 TELLO	0.97001	-0.38909	0	0	0	0
BS25 BWAJA	0.97001	-0.38909	0	0	0	0
BS26 TLAMA	0.97	-0.39207	0	0.80815	0.416	0.113
BS27 TLAMA	0.97011	-0.39208	0	0	0	0
BS28 BNTLA	0.97012	-0.39208	0	0	0	0
BS29 BNTLA	0.95024	-0.36935	0	0	0.455	0.122
BS3 SPENG	1.0079	-0.04136	0	0	0.165	0.033
BS30 SGMSA	0.94751	-0.30267	0	0	0.525	0.115
BS31 TBNGA	0.94569	-0.35646	0	0	0.562	0.156
BS32 BOLAN	0.94497	-0.30746	0	0	0.236	0.064
BS33 MAROS	0.94272	-0.31361	0	0	0.215	0.045
BS34 TLASA	0.95156	-0.18584	0	0	0.194	0.036
BS35 PGAYA	1.02	0	1.3331	2.5159	0.0391	0.054
BS36 JNPTO	1.0059	-0.02208	0	0	0.226	0.041
BS37 BKMBA	0.99931	-0.0552	0	0	0.314	0.01439
BS38 SNJAI	1	-0.07439	0.02	0.06861	0.22	0.019
BS39 BONE	1.0006	-0.06764	0	0	0.323	0.00623
BS4 ERKNG	0.99605	-0.00784	0	0	0.119	0.017
BS40 MKALE	1	0.04535	0.0528	0.02539	0.113	0.026
BS41 PLOPO	1	0.10553	0.0313	1.0182	0.378	0.116
BS42 LTUPA	0.98393	0.31511	0	0	0	0
BS43 LTUPA	0.90819	0.60474	0	0	0	0
BS44 WOTU	1	0.52482	0	0.4369	0.1657	0.0346
BS45 PAMON	1	1.1511	2.061	0.33475	0	0
BS46 PAMON	0.99831	1.1494	0	0	0.0161	-0.0003
BS47 POSO	0.98389	1.1177	0	0	0.1255	0.0279
BS48 BNTNG	0.99934	-0.05308	0	0	0	0
BS49 BNTNG	0.99934	-0.05308	0	0	0	0
BS5 PPARE	0.99806	-0.08917	0	0	0.203	0.047
BS50 BNTNG	1.0038	-0.03522	0	0	0.117	0.009
BS51 JNPT	1	0.09845	1.9115	-1.4468	0	0
BS52 PLTU	1	-0.01445	1.1136	-0.09356	0	0
BS53 PLTD	1	-0.08971	0	0.13642	0	0
BS54 SIWA	1.0155	-0.01528	0	0	0.086	0.013
BS55 PLTU	1	0.16334	0.4995	-0.09891	0	0
BS6 PRANG	1	-0.06474	0.0081	-0.03241	0.296	0
	1.0022	-0.02458	0	0	0.18	0.032
	1.02	0.01871	1.26	0.05948	0.001	0
1	0.99619	-0.00586	0	0	0.156	0.016

GLOBAL SUMMARY REPORT

TOTAL GENERATION

REAL POWER [p.u.]	10.4344
REACTIVE POWER [p.u.]	5.4675

TOTAL LOAD

REAL POWER [p.u.]	9.2714
REACTIVE POWER [p.u.]	1.188

TOTAL LOSSES

REAL POWER [p.u.]	1.163
REACTIVE POWER [p.u.]	4.2795