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LAMPIRAN

Lampiran 1. Tegangan Bus 13 Sistem IEEE 14 Bus

Pembebanan 60%						
Output PLTS 20%			Output PLTS 100%			
	Sebelum Optimasi	PSO	IPSO	Sebelum Optimasi	PSO	IPSO
Bus 1	1,018	1,036	1,012	1,02	1,036	1,016
Bus 2	0,994	1,016	0,997	1,005	1,016	1,008
Bus 3	0,98	1,002	0,97	1,01	1,002	1,001
Bus 4	0,983	1,008	0,986	0,995	1,008	1,004
Bus 5	0,985	1,01	0,99	0,994	1,01	1,004
Bus 6	0,995	0,991	1,02	1,03	0,991	1,022
Bus 7	0,987	1,004	1,016	1,023	1,004	1,014
Bus 8	0,971	1,023	1,04	1,023	1,023	1,018
Bus 9	0,992	1,014	1,016	1,026	1,014	1,022
Bus 10	0,992	1,017	1,017	1,022	1,017	1,027
Bus 11	0,996	1,006	1,017	1,024	1,006	1,026
Bus 12	0,987	0,987	1,012	1,022	0,987	1,017
Bus 13	0,986	0,993	1,011	1,021	0,993	1,02
Bus 14	0,978	0,993	1,002	1,013	0,993	1,01

Pembebanan 100%						
Output PLTS 20%			Output PLTS 20%			
	Sebelum Optimasi	PSO	IPSO	Sebelum Optimasi	PSO	IPSO
Bus 1	1,02	1,026	1,039	1,02	1,037	1,042
Bus 2	1,005	1,008	1,023	1,005	1,021	1,031
Bus 3	1,01	0,978	0,995	1,01	0,994	1,023
Bus 4	0,981	0,985	1,001	0,984	0,99	1,012
Bus 5	0,982	0,991	1,008	0,985	0,996	1,017
Bus 6	1,03	1,002	1,015	1,03	0,983	1,026
Bus 7	1,001	0,974	1,034	1,002	0,976	1,036
Bus 8	1,001	0,962	1,047	1,002	0,994	1,018
Bus 9	1,001	0,981	1,04	1,001	0,976	1,025
Bus 10	0,998	0,987	1,036	0,998	0,973	1,023
Bus 11	1,01	0,996	1,035	1,01	0,981	1,025
Bus 12	1,014	0,986	1,003	1,017	0,971	1,015
Bus 13	1,009	0,982	1,002	1,017	0,973	1,017
Bus 14	0,986	0,962	1,005	0,989	0,955	1,003



Lampiran 2. Tegangan Bus 14 Sistem IEEE 14 Bus

Pembebanan 60%						
	Output PLTS 20%			Output PLTS 100%		
	Sebelum Optimasi	PSO	IPSO	Sebelum Optimasi	PSO	IPSO
Bus 1	1,02	1,018	1,006	1,02	1,029	1,04
Bus 2	1,005	0,994	0,996	1,005	1,02	1,028
Bus 3	1,01	0,98	0,977	1,01	1,006	1,022
Bus 4	0,995	0,983	0,986	0,998	1,016	1,019
Bus 5	0,994	0,985	0,988	0,996	1,019	1,02
Bus 6	1,03	0,995	1,022	1,03	1,004	0,997
Bus 7	1,024	0,988	1,001	1,026	1,026	1,006
Bus 8	1,024	0,972	1,023	1,026	1,043	0,978
Bus 9	1,027	0,993	1,011	1,03	1,026	1,018
Bus 10	1,023	0,992	1,011	1,025	1,026	1,016
Bus 11	1,024	0,997	1,016	1,026	1,018	1,01
Bus 12	1,022	0,987	1,013	1,023	0,998	0,991
Bus 13	1,02	0,985	1,01	1,023	1	0,993
Bus 14	1,016	0,981	1,002	1,03	1,018	1,01

Bus	Pembebanan 100%					
	Output PLTS 20%			Output PLTS 100%		
	Sebelum Optimasi	PSO	IPSO	Sebelum Optimasi	PSO	IPSO
Bus 1	1,02	1,027	1,035	1,02	1,039	1,038
Bus 2	1,005	1,007	1,028	1,005	1,003	1,027
Bus 3	1,01	0,999	1,004	1,01	0,982	1,005
Bus 4	0,982	0,998	1,002	0,985	0,986	1,005
Bus 5	0,982	1,002	1,007	0,985	0,99	1,011
Bus 6	1,03	1,026	1,014	1,03	1,003	0,99
Bus 7	1,002	1,004	1,036	1,006	0,993	1,013
Bus 8	1,002	1,029	1,076	1,006	0,96	1,019
Bus 9	1,002	1,018	1,028	1,006	0,993	1,008
Bus 10	0,999	1,029	1,03	1,002	1	1,009
Bus 11	1,011	1,033	1,031	1,012	1,014	1,012
Bus 12	1,014	1,012	1,001	1,015	0,989	0,978
Bus 13	1,009	1,008	0,999	1,013	0,987	0,978
Bus 14	0,989	0,998	1	1,005	0,986	0,991



Lampiran 3. Tegangan Bus 13 dan Bus 14 Sistem IEEE 14 Bus

Bus	Pembebanan 60%					
	Output PLTS 20%			Output PLTS 60%		
	Sebelum Optimasi	PSO	IPSO	Sebelum Optimasi	PSO	IPSO
Bus 1	1,018	1,036	1,012	1,02	1,036	1,016
Bus 2	0,994	1,016	0,997	1,005	1,016	1,008
Bus 3	0,98	1,002	0,97	1,01	1,002	1,001
Bus 4	0,983	1,008	0,986	0,995	1,008	1,004
Bus 5	0,985	1,01	0,99	0,994	1,01	1,004
Bus 6	0,995	0,991	1,02	1,03	0,991	1,022
Bus 7	0,987	1,004	1,016	1,023	1,004	1,014
Bus 8	0,971	1,023	1,04	1,023	1,023	1,018
Bus 9	0,992	1,014	1,016	1,026	1,014	1,022
Bus 10	0,992	1,017	1,017	1,022	1,017	1,027
Bus 11	0,996	1,006	1,017	1,024	1,006	1,026
Bus 12	0,987	0,987	1,012	1,022	0,987	1,017
Bus 13	0,986	0,993	1,011	1,021	0,993	1,02
Bus 14	0,978	0,993	1,002	1,013	0,993	1,01

Bus	Pembebanan 100%					
	Output PLTS 20%			Output PLTS 60%		
	Sebelum Optimasi	PSO	IPSO	Sebelum Optimasi	PSO	IPSO
Bus 1	1,02	1,026	1,039	1,02	1,037	1,042
Bus 2	1,005	1,008	1,023	1,005	1,021	1,031
Bus 3	1,01	0,978	0,995	1,01	0,994	1,023
Bus 4	0,981	0,985	1,001	0,984	0,99	1,012
Bus 5	0,982	0,991	1,008	0,985	0,996	1,017
Bus 6	1,03	1,002	1,015	1,03	0,983	1,026
Bus 7	1,001	0,974	1,034	1,002	0,976	1,036
Bus 8	1,001	0,962	1,087	1,002	0,994	1,018
Bus 9	1,001	0,981	1,04	1,001	0,976	1,025
Bus 10	0,998	0,987	1,046	0,998	0,973	1,023
Bus 11	1,01	0,996	1,045	1,01	0,981	1,025
Bus 12	1,014	0,986	1,003	1,017	0,971	1,015
Bus 13	1,009	0,982	1,002	1,017	0,973	1,017
Bus 14	0,986	0,962	1,005	0,989	0,955	1,003



Lampiran 4. Tegangan Bus 15 Sistem IEEE 30 Bus

Bus	Pembebanan 60%					
	Output PLTS 20%			Output PLTS 60%		
	Sebelum Optimasi	PSO	IPSO	Sebelum Optimasi	PSO	IPSO
Bus 1	1,037	1,035	1,055	1,037	1,037	1,06
Bus 2	1,015	1,019	1,039	1,015	1,02	1,043
Bus 3	1,014	1,014	1,035	1,016	1,019	1,041
Bus 4	1,003	1,006	1,029	1,005	1,013	1,032
Bus 5	1	1,002	1,024	1,001	1,005	1,028
Bus 6	1,001	1,001	1,024	1,002	1,006	1,028
Bus 7	0,999	1,001	1,023	1	1,005	1,028
Bus 8	1,005	0,998	1,018	1,005	1,003	1,029
Bus 9	1,019	0,999	1,021	1,02	1,006	1,008
Bus 10	1,011	0,995	1,025	1,011	1,002	1,007
Bus 11	1,032	0,997	1,023	1,032	0,999	0,989
Bus 12	1,026	1,008	1,017	1,028	1,007	1,009
Bus 13	1,021	1,019	1,017	1,021	1,008	1,003
Bus 14	1,017	0,999	1,011	1,02	1,001	1,003
Bus 15	1,014	0,996	1,011	1,022	1,004	1,006
Bus 16	1,015	0,998	1,016	1,016	1	1,003
Bus 17	1,009	0,993	1,019	1,01	0,998	1,003
Bus 18	1,005	0,988	1,009	1,011	0,995	0,999
Bus 19	1,002	0,986	1,009	1,006	0,993	0,997
Bus 20	1,004	0,988	1,013	1,007	0,994	0,999
Bus 21	1,003	0,988	1,018	1,004	0,995	0,999
Bus 22	1,004	0,988	1,018	1,005	0,995	1
Bus 23	1,005	0,988	1,009	1,011	0,995	0,998
Bus 24	0,999	0,982	1,012	1,001	0,989	0,992
Bus 25	1,005	0,986	1,028	1,006	0,993	0,994
Bus 26	0,994	0,975	1,017	0,995	0,982	0,983
Bus 27	1,013	0,994	1,042	1,014	1,001	1
Bus 28	0,999	0,999	1,026	1	1,006	1,027
Bus 29	1,002	0,982	1,031	1,002	0,989	0,988
Bus 30	0,995	0,975	1,024	0,995	0,982	0,981



Bus	Pembebanan 100%					
	Output PLTS 20%			Output PLTS 60%		
	Sebelum Optimasi	PSO	IPSO	Sebelum Optimasi	PSO	IPSO
Bus 1	1,037	1,063	1,052	1,037	1,059	1,075
Bus 2	1,015	1,031	1,019	1,015	1,026	1,042
Bus 3	0,999	1,025	1,015	1,001	1,023	1,039
Bus 4	0,989	1,01	1,001	0,992	1,01	1,024
Bus 5	0,978	0,991	0,981	0,979	0,989	1,002
Bus 6	0,99	0,998	0,99	0,992	0,999	1,008
Bus 7	0,979	0,99	0,98	0,98	0,989	1,002
Bus 8	1,005	0,997	0,988	1,005	1,001	1,002
Bus 9	1,004	0,972	0,993	1,006	1,002	0,998
Bus 10	0,987	0,962	0,978	0,988	0,993	0,978
Bus 11	1,032	0,979	1,022	1,032	1,005	1,013
Bus 12	1,011	0,986	1,002	1,013	1	0,999
Bus 13	1,021	1,005	1,018	1,021	0,999	1,029
Bus 14	0,994	0,97	0,986	0,999	0,988	0,985
Bus 15	0,989	0,966	0,981	0,998	0,989	0,984
Bus 16	0,993	0,968	0,984	0,994	0,989	0,982
Bus 17	0,983	0,959	0,974	0,985	0,987	0,974
Bus 18	0,976	0,952	0,967	0,982	0,977	0,969
Bus 19	0,971	0,954	0,962	0,975	0,974	0,964
Bus 20	0,974	0,952	0,965	0,978	0,978	0,966
Bus 21	0,974	0,951	0,966	0,976	0,979	0,966
Bus 22	0,975	0,953	0,967	0,977	0,98	0,966
Bus 23	0,975	0,956	0,97	0,981	0,975	0,968
Bus 24	0,965	0,951	0,963	0,968	0,965	0,956
Bus 25	0,973	0,984	0,986	0,975	0,965	0,962
Bus 26	0,955	0,966	0,968	0,956	0,958	0,96
Bus 27	0,988	1,013	1,01	0,988	0,974	0,975
Bus 28	0,987	0,995	0,988	0,989	0,996	1,002
Bus 29	0,967	0,993	0,99	0,968	0,953	0,954
Bus 30	0,955	0,978	0,978	0,956	0,96	0,962



Lampiran 5. Tegangan Bus 26 Sistem IEEE 30 Bus

Bus	Pembebanan 60%					
	Output PLTS 20%			Output PLTS 60%		
	Sebelum Optimasi	PSO	IPSO	Sebelum Optimasi	PSO	IPSO
Bus 1	1,037	0,998	0,998	1,037	1,045	1,05
Bus 2	1,015	0,981	0,981	1,015	1,028	1,033
Bus 3	1,014	0,977	0,977	1,016	1,025	1,031
Bus 4	1,003	0,97	0,97	1,004	1,018	1,025
Bus 5	1	0,966	0,966	1,001	1,012	1,019
Bus 6	1,001	0,967	0,967	1,002	1,012	1,02
Bus 7	0,999	0,965	0,965	1,001	1,012	1,019
Bus 8	1,005	0,961	0,961	1,005	1,008	1,013
Bus 9	1,019	0,986	0,987	1,02	1,004	1,019
Bus 10	1,011	0,973	0,976	1,011	1,007	1,021
Bus 11	1,032	1,031	1,031	1,032	0,993	1,022
Bus 12	1,026	0,986	0,993	1,026	1	1,027
Bus 13	1,021	0,991	0,991	1,021	0,984	1,025
Bus 14	1,016	0,977	0,983	1,016	0,993	1,018
Bus 15	1,012	0,974	0,979	1,013	0,993	1,016
Bus 16	1,015	0,976	0,981	1,015	0,998	1,02
Bus 17	1,009	0,971	0,974	1,009	1,001	1,017
Bus 18	1,004	0,966	0,97	1,005	0,99	1,01
Bus 19	1,002	0,963	0,967	1,002	0,991	1,009
Bus 20	1,003	0,965	0,969	1,004	0,994	1,011
Bus 21	1,004	0,967	0,969	1,004	1	1,014
Bus 22	1,004	0,968	0,97	1,005	1,001	1,014
Bus 23	1,005	0,97	0,972	1,007	0,993	1,012
Bus 24	1	0,969	0,968	1,004	0,998	1,012
Bus 25	1,009	0,995	0,982	1,022	1,023	1,03
Bus 26	1,009	0,995	0,982	1,028	1,039	1,036
Bus 27	1,015	1,012	0,992	1,019	1,025	1,028
Bus 28	0,999	0,969	0,967	1,002	1,012	1,023
Bus 29	1,004	1	0,98	1,008	1,014	1,017
Bus 30	0,997	0,993	0,973	1,001	1,007	1,01



Bus	Pembebanan 100%					
	Output PLTS 20%			Output PLTS 60%		
	Sebelum Optimasi	PSO	IPSO	Sebelum Optimasi	PSO	IPSO
Bus 1	1,037	1,049	1,054	1,037	1,044	1,042
Bus 2	1,015	1,016	1,021	1,015	1,032	1,04
Bus 3	1	1,01	1,016	0,999	1,027	1,036
Bus 4	0,991	0,995	1,002	0,989	1,013	1,023
Bus 5	0,979	0,977	0,983	0,978	0,996	1,003
Bus 6	0,992	0,985	0,993	0,99	1,008	1,013
Bus 7	0,981	0,976	0,983	0,979	0,997	1,004
Bus 8	1,005	0,982	0,992	1,005	1,005	1,014
Bus 9	1,005	0,989	0,979	1,005	1	1,012
Bus 10	0,988	0,977	0,975	0,987	0,993	1,009
Bus 11	1,032	1,014	0,99	1,032	1,029	1,017
Bus 12	1,011	0,992	0,989	1,011	1,009	1,015
Bus 13	1,021	1	1,01	1,021	1	1,02
Bus 14	0,994	0,976	0,973	0,994	0,994	1,001
Bus 15	0,989	0,971	0,969	0,988	0,99	0,998
Bus 16	0,993	0,978	0,975	0,993	0,994	1,005
Bus 17	0,984	0,972	0,969	0,983	0,988	1,002
Bus 18	0,976	0,96	0,958	0,975	0,978	0,989
Bus 19	0,971	0,957	0,955	0,97	0,974	0,987
Bus 20	0,974	0,961	0,959	0,974	0,978	0,992
Bus 21	0,976	0,964	0,963	0,974	0,982	0,997
Bus 22	0,976	0,965	0,963	0,975	0,983	0,998
Bus 23	0,977	0,96	0,96	0,975	0,982	0,993
Bus 24	0,971	0,955	0,956	0,966	0,98	0,994
Bus 25	0,993	0,97	0,98	0,978	1,014	1,026
Bus 26	1,023	0,962	0,972	0,97	1,044	1,046
Bus 27	0,996	0,984	0,999	0,99	1,024	1,036
Bus 28	0,991	0,982	0,992	0,988	1,008	1,011
Bus 29	0,975	0,963	0,978	0,97	1,004	1,017
Bus 30	0,963	0,951	0,966	0,958	0,993	1,005



Lampiran 6. Tegangan Bus 30 Sistem IEEE 30 Bus

Bus	Pembebanan 100%					
	Output PLTS 20%			Output PLTS 60%		
	Sebelum Optimasi	PSO	IPSO	Sebelum Optimasi	PSO	IPSO
Bus 1	1,032	1,047	1,054	1,032	1,057	1,064
Bus 2	1,015	1,03	1,037	1,015	1,04	1,047
Bus 3	1,01	1,025	1,034	1,011	1,039	1,045
Bus 4	1,001	1,016	1,028	1,002	1,032	1,037
Bus 5	1	1,013	1,022	1,001	1,026	1,032
Bus 6	1	1,009	1,022	1,002	1,027	1,033
Bus 7	0,999	1,011	1,021	1,001	1,026	1,032
Bus 8	1,005	1,01	1,017	1,005	1,021	1,029
Bus 9	1,019	0,991	1,019	1,019	1,035	1,021
Bus 10	1,01	0,985	1,019	1,01	1,026	1,017
Bus 11	1,032	0,97	1,027	1,032	1,042	1,024
Bus 12	1,025	0,986	1,022	1,025	1,027	1,019
Bus 13	1,021	0,989	1,017	1,021	1,018	1,008
Bus 14	1,015	0,978	1,013	1,015	1,018	1,011
Bus 15	1,012	0,976	1,011	1,012	1,017	1,009
Bus 16	1,014	0,981	1,016	1,014	1,022	1,014
Bus 17	1,008	0,981	1,015	1,008	1,022	1,013
Bus 18	1,004	0,972	1,007	1,004	1,013	1,005
Bus 19	1,001	0,971	1,006	1,001	1,012	1,004
Bus 20	1,003	0,974	1,008	1,003	1,015	1,006
Bus 21	1,003	0,978	1,012	1,003	1,019	1,009
Bus 22	1,003	0,978	1,012	1,003	1,019	1,01
Bus 23	1,004	0,972	1,008	1,005	1,013	1,005
Bus 24	0,998	0,972	1,007	1	1,012	1,005
Bus 25	1,006	0,985	1,022	1,011	1,023	1,018
Bus 26	0,995	0,974	1,011	1,001	1,013	1,007
Bus 27	1,016	0,998	1,036	1,024	1,035	1,031
Bus 28	0,999	1,007	1,024	1,002	1,029	1,033
Bus 29	1,008	0,99	1,028	1,029	1,04	1,037
Bus 30	1,005	0,987	1,025	1,041	1,052	1,049



Bus	Pembebanan 100%					
	Output PLTS 20%			Output PLTS 60%		
	Sebelum Optimasi	PSO	IPSO	Sebelum Optimasi	PSO	IPSO
Bus 1	1,037	1,033	1,043	1,037	0,05	1,049
Bus 2	1,015	1	1,03	1,015	1,019	1,026
Bus 3	1	0,995	1,024	0,999	1,017	1,022
Bus 4	0,991	0,981	1,008	0,989	1,003	1,007
Bus 5	0,979	0,962	0,991	0,978	0,982	0,988
Bus 6	0,992	0,972	0,997	0,99	0,993	0,997
Bus 7	0,981	0,961	0,99	0,979	0,983	0,988
Bus 8	1,005	0,972	0,995	1,005	0,992	0,991
Bus 9	1,005	0,985	0,988	1,004	0,986	1,007
Bus 10	0,987	0,974	0,971	0,987	0,976	0,998
Bus 11	1,032	1,014	1,018	1,032	1,001	1,019
Bus 12	1,011	0,99	0,991	1,011	0,997	1,013
Bus 13	1,021	1,005	1,01	1,021	1,009	1,013
Bus 14	0,994	0,973	0,974	0,993	0,98	0,997
Bus 15	0,988	0,968	0,969	0,988	0,975	0,993
Bus 16	0,993	0,975	0,975	0,993	0,98	0,999
Bus 17	0,984	0,969	0,966	0,983	0,972	0,993
Bus 18	0,975	0,957	0,956	0,974	0,963	0,982
Bus 19	0,971	0,954	0,952	0,97	0,958	0,979
Bus 20	0,974	0,958	0,956	0,973	0,962	0,983
Bus 21	0,975	0,96	0,957	0,974	0,964	0,985
Bus 22	0,976	0,961	0,958	0,975	0,965	0,986
Bus 23	0,976	0,956	0,956	0,974	0,964	0,982
Bus 24	0,968	0,958	0,957	0,965	0,959	0,976
Bus 25	0,984	0,956	0,959	0,976	0,981	0,991
Bus 26	0,965	0,958	0,95	0,957	0,963	0,973
Bus 27	1,002	0,971	0,975	0,992	1,004	1,01
Bus 28	0,992	0,971	0,992	0,988	0,994	0,997
Bus 29	1,001	0,954	0,958	0,975	1,003	1,008
Bus 30	1,009	0,956	0,95	0,968	1,011	1,016



Lampiran 7. Tegangan Bus 15 dan Bus 26 Sistem IEEE 30 Bus

Bus	Pembebanan 100%					
	Output PLTS 20%			Output PLTS 60%		
	Sebelum Optimasi	PSO	IPSO	Sebelum Optimasi	PSO	IPSO
Bus 1	1,037	1,012	1,032	1,037	1,031	1,048
Bus 2	1,015	0,995	1,015	1,015	1,013	1,031
Bus 3	1,014	0,991	1,01	1,016	1,012	1,029
Bus 4	1,003	0,984	1,002	1,004	1,006	1,022
Bus 5	1	0,978	0,998	1,001	0,998	1,016
Bus 6	1,001	0,977	0,997	1,002	0,998	1,016
Bus 7	0,999	0,977	0,997	1,001	0,998	1,016
Bus 8	1,005	0,974	0,992	1,005	0,994	1,011
Bus 9	1,019	0,964	0,999	1,02	1,006	1,014
Bus 10	1,011	0,962	0,997	1,011	1,005	1,018
Bus 11	1,032	0,97	1,003	1,032	0,997	1,007
Bus 12	1,026	0,976	0,999	1,027	1,012	1,017
Bus 13	1,021	0,996	1,004	1,021	1,015	0,999
Bus 14	1,016	0,967	0,991	1,018	1,004	1,01
Bus 15	1,013	0,964	0,99	1,018	1,005	1,012
Bus 16	1,015	0,966	0,993	1,016	1,004	1,013
Bus 17	1,009	0,96	0,993	1,01	1,001	1,014
Bus 18	1,005	0,956	0,985	1,008	0,997	1,007
Bus 19	1,002	0,953	0,984	1,004	0,995	1,006
Bus 20	1,004	0,955	0,987	1,006	0,997	1,008
Bus 21	1,004	0,956	0,99	1,005	0,998	1,012
Bus 22	1,004	0,957	0,991	1,005	0,998	1,012
Bus 23	1,005	0,959	0,988	1,01	0,999	1,009
Bus 24	0,999	0,956	0,99	1,004	0,995	1,01
Bus 25	1,007	0,977	1,014	1,016	1,008	1,03
Bus 26	1,001	0,972	1,008	1,03	1,022	1,044
Bus 27	1,014	0,993	1,032	1,018	1,011	1,037
Bus 28	0,999	0,977	0,997	1,001	0,997	1,017
Bus 29	1,003	0,981	1,02	1,006	0,999	1,026
Bus 30	0,996	0,974	1,013	0,999	0,992	1,019



Bus	Pembebanan 100%					
	Output PLTS 20%			Output PLTS 60%		
	Sebelum Optimasi	PSO	IPSO	Sebelum Optimasi	PSO	IPSO
Bus 1	1,037	1,055	1,065	1,037	1,075	1,075
Bus 2	1,015	1,022	1,032	1,015	1,042	1,042
Bus 3	0,999	1,016	1,026	1	1,039	1,039
Bus 4	0,989	1,001	1,01	0,991	1,023	1,024
Bus 5	0,978	0,982	0,992	0,979	1,004	1,004
Bus 6	0,99	0,99	0,999	0,992	1,011	1,012
Bus 7	0,979	0,981	0,991	0,981	1,004	1,004
Bus 8	1,005	0,984	0,997	1,005	1,008	1,008
Bus 9	1,005	1,008	0,985	1,006	0,989	0,996
Bus 10	0,987	1,001	0,979	0,988	0,977	0,991
Bus 11	1,032	1,027	0,98	1,032	0,985	0,985
Bus 12	1,011	1,018	0,994	1,012	0,991	0,996
Bus 13	1,021	1,024	1	1,021	1,001	1,001
Bus 14	0,994	1,001	0,978	0,997	0,977	0,983
Bus 15	0,989	0,997	0,975	0,994	0,977	0,984
Bus 16	0,993	1,003	0,98	0,994	0,977	0,986
Bus 17	0,983	0,996	0,974	0,985	0,972	0,984
Bus 18	0,975	0,985	0,963	0,979	0,964	0,973
Bus 19	0,971	0,982	0,96	0,974	0,959	0,97
Bus 20	0,974	0,986	0,964	0,976	0,963	0,975
Bus 21	0,974	0,987	0,967	0,976	0,966	0,98
Bus 22	0,975	0,988	0,968	0,977	0,968	0,981
Bus 23	0,975	0,983	0,965	0,98	0,969	0,978
Bus 24	0,965	0,974	0,962	0,97	0,968	0,979
Bus 25	0,976	0,976	0,986	0,986	1,007	1,015
Bus 26	0,963	0,963	0,973	0,993	1,014	1,022
Bus 27	0,989	0,985	1,008	0,994	1,029	1,035
Bus 28	0,988	0,987	0,997	0,99	1,011	1,013
Bus 29	0,968	0,964	0,988	0,973	1,009	1,016
Bus 30	0,956	0,952	0,976	0,961	0,997	1,005

