Modeling and Analysis of a Grid-Connected Hybrid Power System with Wind and Solar PV Integration

LOAD FLOW REPORT

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
* Bus1	34.500	100.000	0.0	-3.001	0.176	0.000	0.000	Bus2	-3.001	0.176	50.3	-99.8	
Bus2	4.160	100.014	0.7	0.000	0.000	0.000	-1.000	Bus1	3.003	-0.140	417.2	-99.9	
								Bus7	-2.105	1.104	329.8	-88.6	
								Bus12	-0.880	0.034	122.2	-99.9	
								Bus14	-0.018	0.003	2.6	-98.3	
Bus3	0.600	98.967	5.6	0.230	0.000	0.000	0.000	Bus4	-1.939	0.911	2082.7	-90.5	
								Bus7	2.168	-0.911	2286.6	-92.2	
Bus4	0.600	99.592	7.2	0.225	0.100	0.000	0.000	Bus5	-1.751	0.962	1930.1	-87.6	
								Bus3	1.976	-0.862	2082.7	-91.7	
Bus5	0.600	100.006	8.6	0.600	0.000	0.000	0.000	Bus6	-1.182	0.920	1441.6	-78.9	
								Bus4	1.782	-0.920	1930.1	-88.9	
* Bus6	0.600	100.000	9.8	1.200	-0.897	0.000	0.000	Bus5	1.200	-0.897	1441.6	-80.1	
Bus7	0.600	98.243	3.8	0.000	0.000	0.000	0.000	Bus3	-2.124	0.969	2286.6	-91.0	
								Bus2	2.124	-0.969	2286.6	-91.0	
Bus8	0.600	103.529	3.2	0.225	0.000	0.000	0.000	Bus9	0.225	0.000	209.1	100.0	
Bus9	0.600	102.836	3.1	0.225	0.000	0.000	0.000	Bus8	-0.223	0.001	209.1	100.0	
								Bus10	0.448	-0.001	419.7	100.0	
Bus10	0.600	101.447	2.8	0.225	0.000	0.000	0.000	Bus9	-0.442	0.003	419.7	100.0	
								Bus11	0.667	-0.003	633.1	100.0	
Bus11	0.600	100.933	2.4	0.225	0.000	0.000	0.000	Bus10	-0.664	0.007	633.1	100.0	
								Bus12	0.889	-0.007	847.6	100.0	
Bus12	0.600	100.251	1.9	0.000	0.000	0.000	0.000	Bus11	-0.883	0.015	847.6	-100.0	
								Bus2	0.883	-0.015	847.6	-100.0	
Bus14	0.220	100.013	0.7	0.018	-0.003	0.000	0.000	Bus2	0.018	-0.003	48.7	-98.3	

* Indicates a voltage regulated bus (voltage controlled or swing type machine connected to it)

# Indicates a bus with a load mismatch of more than 0.1 MVA