

1 Results

Using ENApp, the

Various Analyses on IEEE 123 Node System in a 5 Hour Horizon

IEEE 123 Node System for a 12 Hour Horizon to Demonstrate Scalability

Table 1: Combined MPDOPF and OpenDSS Results (Substation Power Cost Minimization - 12 Hour Horizon)

Metric	MPDOPF	OpenDSS
Line Loss	194.14 kW	194.05 kW
Substation Real Power	10595.10 kW	10595.71 kW
Substation Reactive Power	2068.79 kVAr	2058.30 kVAr
PV Real Power	272.60 kW	272.60 kW
PV Reactive Power	66.04 kVAr	66.03 kVAr
Battery Real Power	-17.04 kW	-17.04 kW
Battery Reactive Power	-83.30 kVAr	-83.30 kVAr
Substation Power Cost	\$1424.54	\$1424.63
Demand Real Power	10657.21 kW	
Demand Reactive Power	5863.79 kVAr	

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.



Figure 1: Charging-Discharging and SOC graphs for Battery 9 located in Area 4