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	

redProvide a separate graph for PV, Load forecasts for T = 5 and 12

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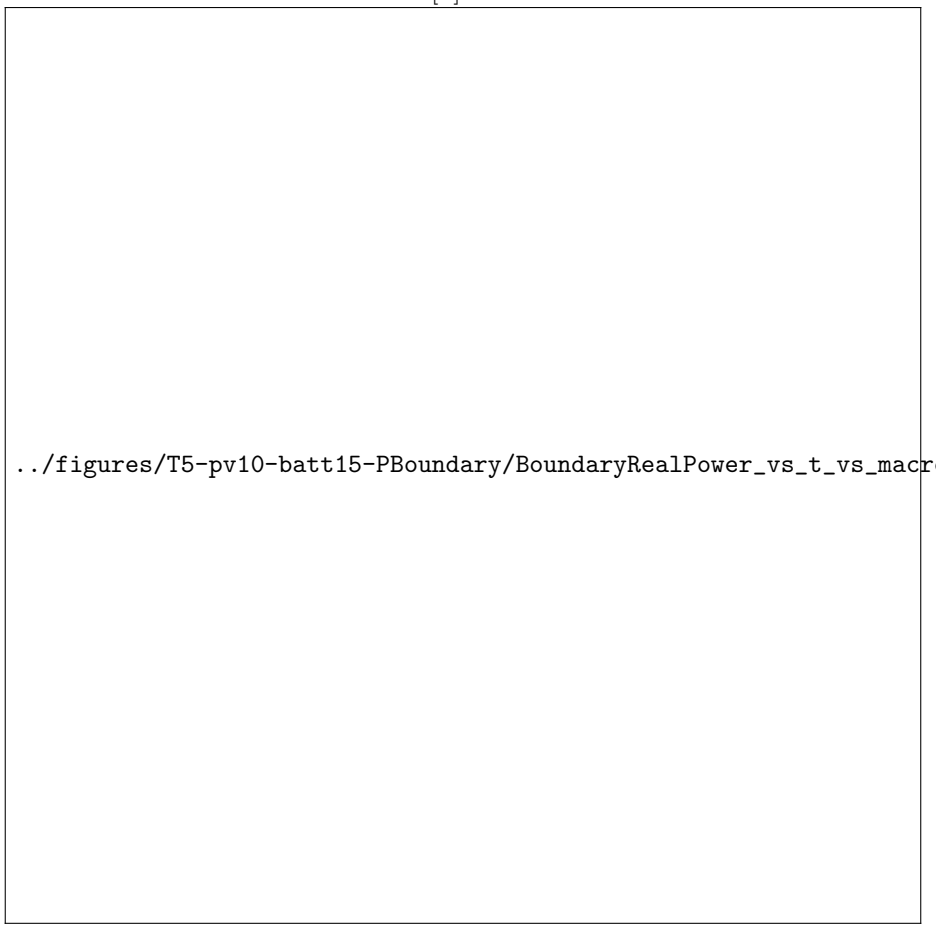

Figure 1: Real Power: Area 1 to Area 2

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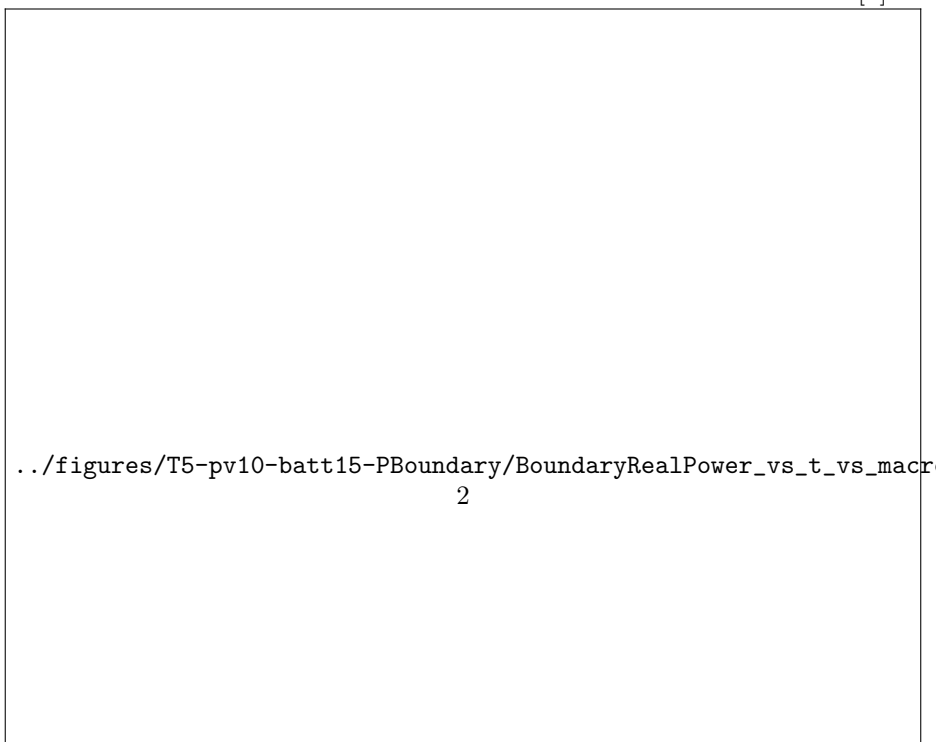

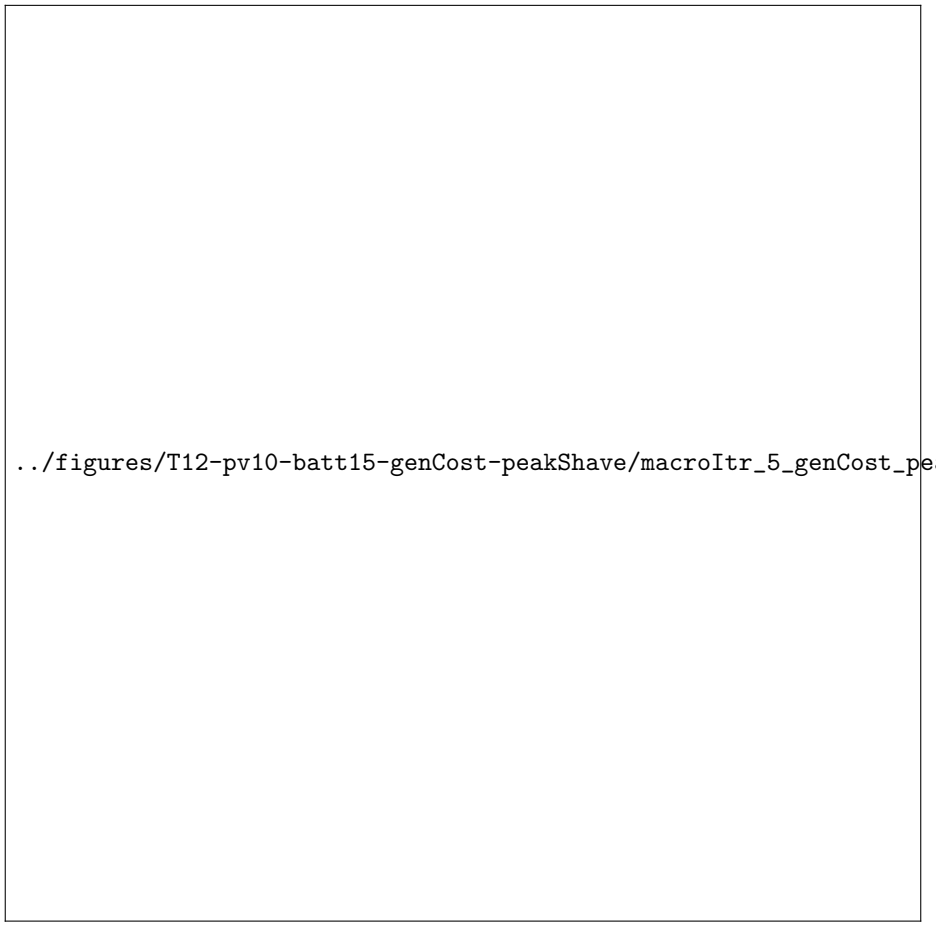

Figure 8: Charging-Discharging and SOC graphs for Battery 9 located in Area 4