

Grid Analysis Documentation

1 Grid

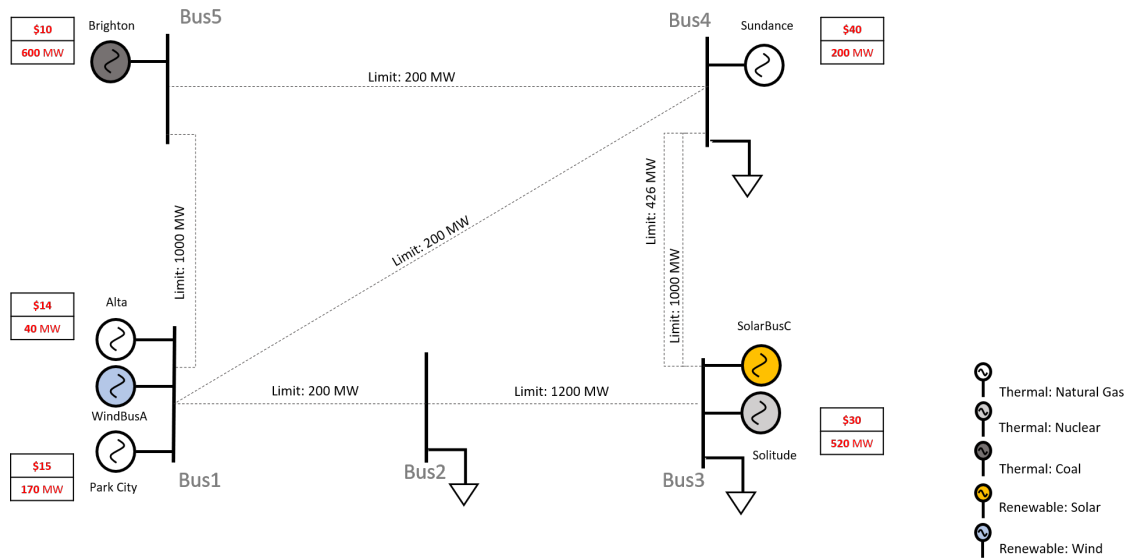


Figure 1: 5_bus Grid

2 Data

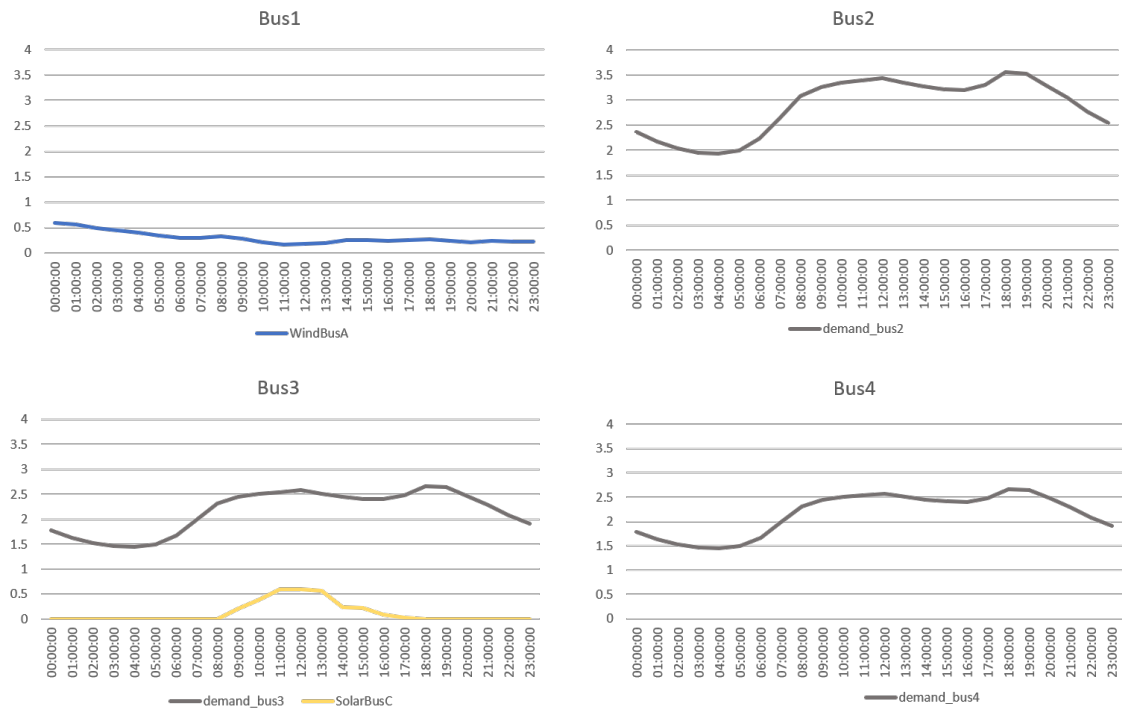


Figure 2: Demanda and Renewable Generation Forecasts

name	Park City	Alta	Solitude
available	true	true	true
status	true	true	true
bus	Bus1	Bus1	Bus3
active_power	1.7	0.4	3.24498
reactive_power	1.275	0.3	3.9
active_power_limits	(min = 0.5, max = 1.7)	(min = 0.05, max = 0.4)	(min = 2.6, max =
reactive_power_limits	(min = -1.275, max = 1.275)	(min = -0.3, max = 0.3)	(min = -3.9, max =
ramp_limits	(up = 0.0, down = 0.0)	(up = 0.0, down = 0.0)	(up = 0.0, down =
operation_cost	((0.0, 15.0)), 0.0, 0.0, 0.0)	((0.0, 14.0)), 0.0, 0.0, 0.0)	((0.0, 30.0)), 0.0, 0
base_power	100	100	100
fuel	ThermalFuels.NATURAL_GAS = 7	ThermalFuels.NATURAL_GAS = 7	ThermalFuels.NU

name	bus1-bus2-i_1	bus1-bus4-i_2	bus1-bus5-i_3
available	true	true	true
active_power_flow	0	0	0
reactive_power_flow	0	0	0
arc	Arco	Arco	Arco
r	0.00281	0.00304	0.00064
x	0.0281	0.0304	0.0064
b	(from = 0.00356, to = 0.00356)	(from = 0.00329, to = 0.00329)	(from = 0.01563, to = 0.01563)
rate	2	2	10
angle_limits	(min = -0.5235987755982988, max = 0.5235987755982988)	(min = -0.5235987755982988, max = 0.5235987755982988)	(min = -0.5235987755982988, max = 0.5235987755982988)