Winter Storm Elliott Update

January 27, 2023

Georgia Power

General Information about Reserve Margin Studies

Reserve Margin Considerations

Target Reserve Margin considers:

- **Cost Optimization**

  Optimizes costs to customers (production costs, incremental capital costs, customer outage costs), plus consideration of “Value-at-Risk” (VaR)

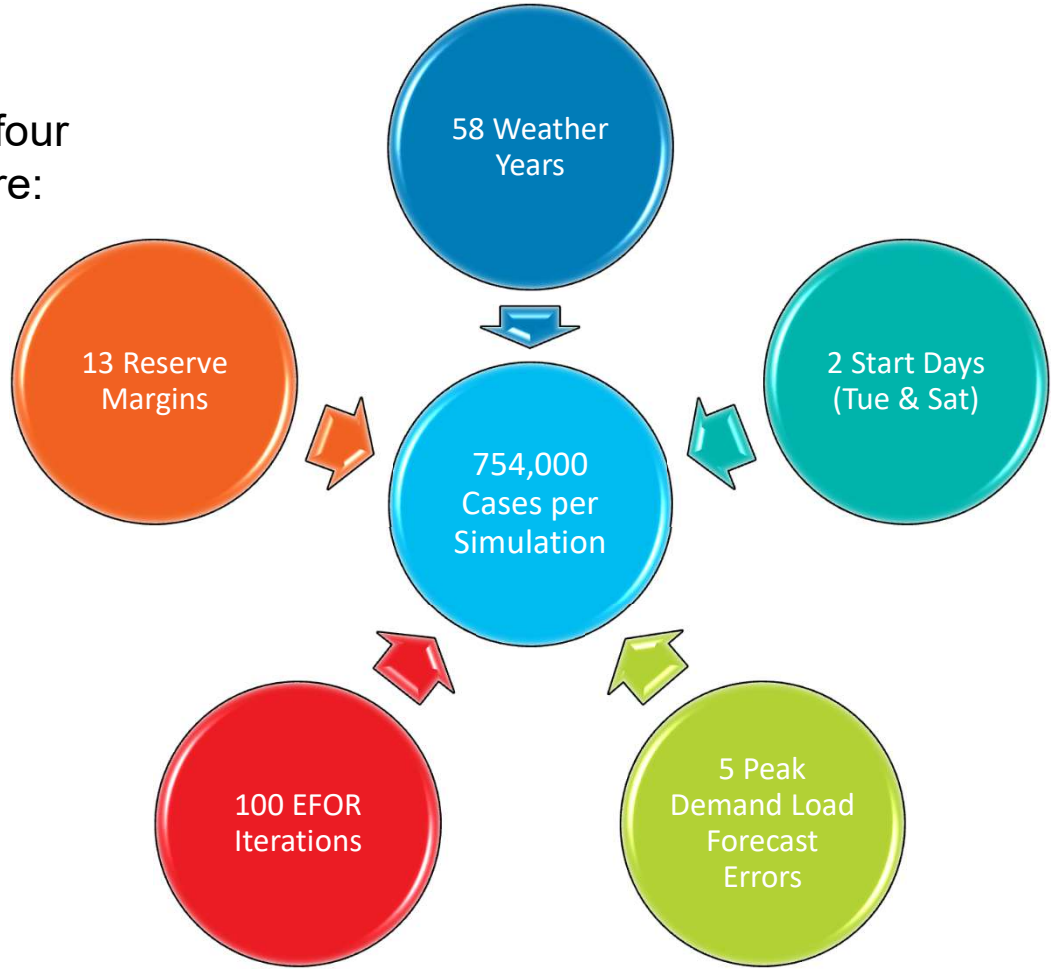
- **Minimum Reliability Threshold**

  Targets generation-related firm load curtailment of no more than 1 event every 10 years – called “1-in-10 LOLE” (Loss of Load Expectation)

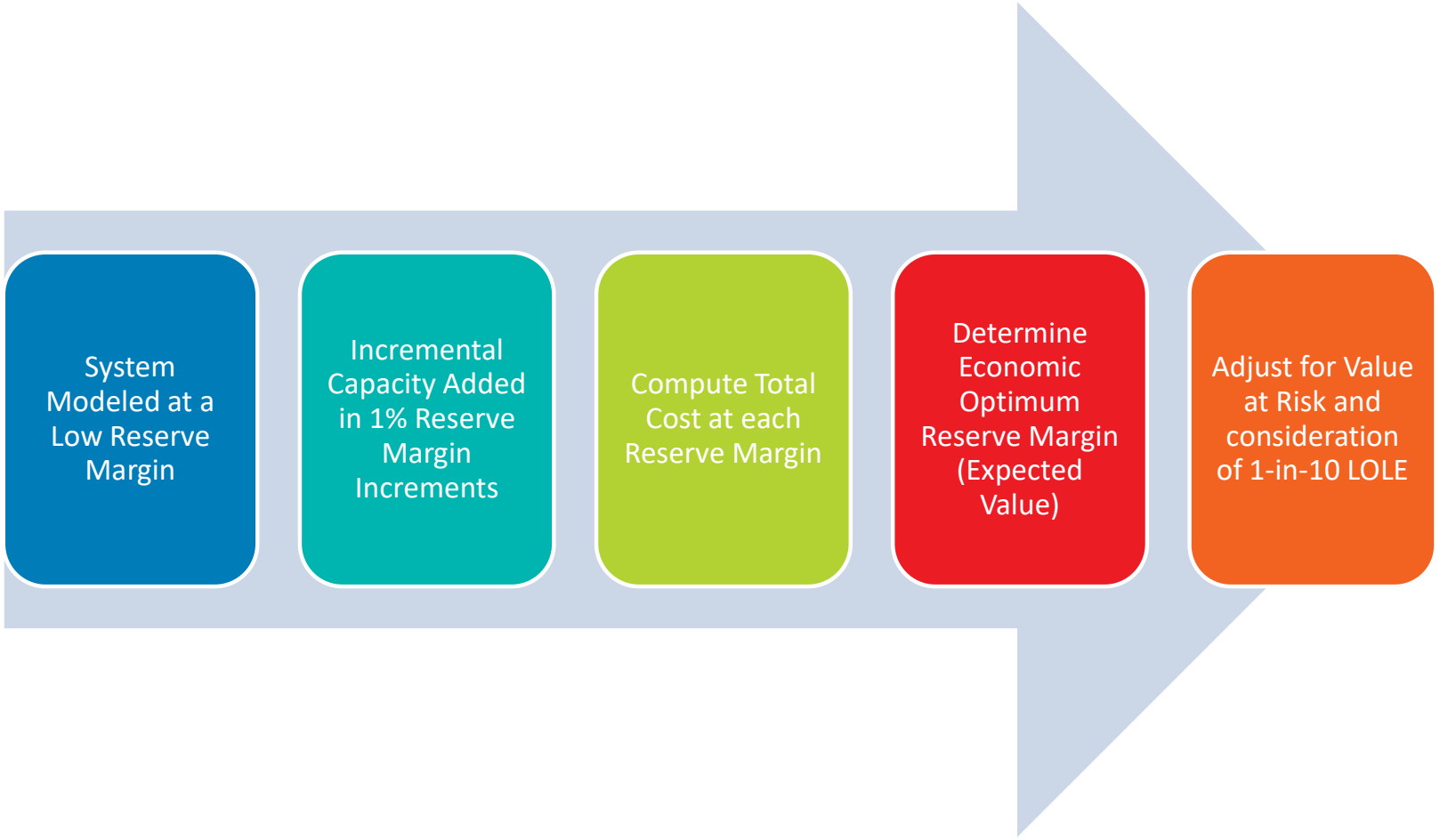
Reserve Margin Study Approach

Reserve Margins are necessary because of uncertainties in operational conditions. The four primary uncertainties influencing the TRM are:

- Weather
- Load Forecast
- Unit Performance
- Market Availability

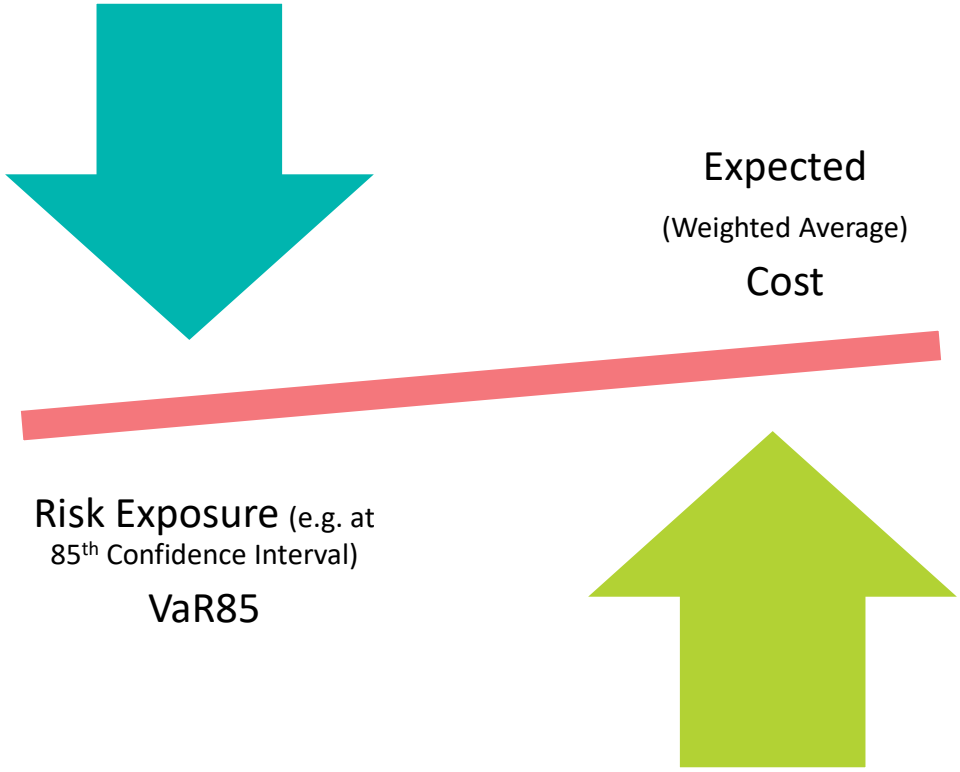


Reserve Margin Study Steps



Value at Risk

As the Reserve Margin Increases above EORM…



2021 Reserve Margin Study



2021 Target Reserve Margins

to be applied in the 2022 IRP

Georgia Power (and Southern Company) is maintaining the current 26% winter and 16.25% summer long-term system target reserve margins.

Study Year	Target Reserve Margin	
	Winter	Summer
2018	26.00%	16.25%
2021	**26.00%**	**16.25%**

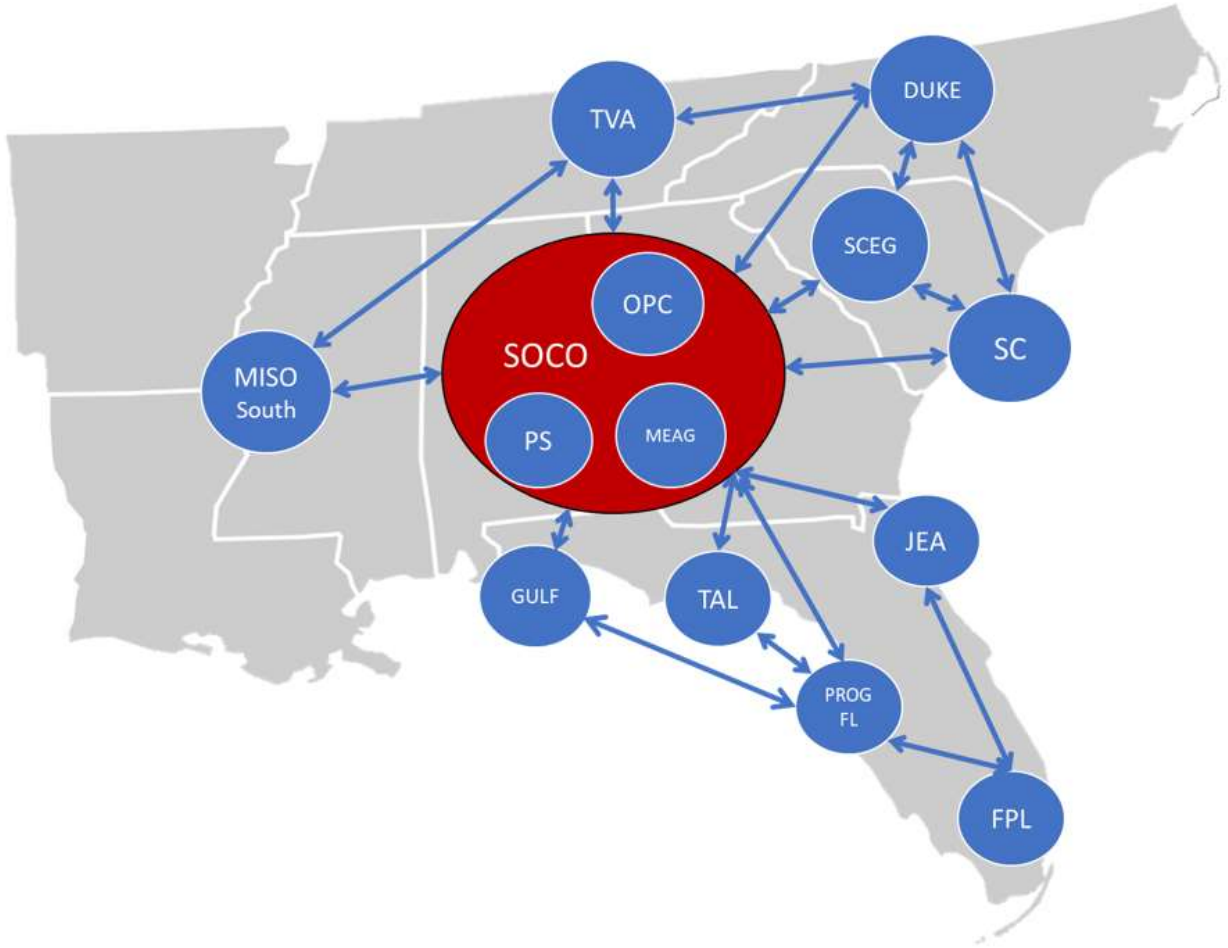
Notes

- 26% is above the 1:10 LOLE threshold and within the range between the EORM and VaR85, consistent with historical practice.
  - Resulting LOLE is ~1:18
- 26% is equivalent to VaR80, same as it was in the 2018 RMS.
- Short term Target Reserve Margins of Winter 25.5% and Summer 15.75%

Balancing Area Overview



Balancing Area (Modeled in the RMS)



Operating Reserves

Alert Levels



Elliott Briefing

Separate PDF File

Elliott Outages and Purchases