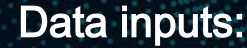# Long - And Short - Term Price Forecasting

Norm Richardson

VP, Modeling

Fundamental co-optimized power planning model, supporting the industry with:

- Market Price Forecasting
- Project Development
- Economic Transmission Analysis
- Integrated Resource Planning
- Portfolio & Asset Valuation
- Resource Adequacy

Forecast prices for:

- LMP with Congestion and Loss Components
- Ancillary Services (spin, non-spin, reg up/down, supplemental up/down)
- Capacity
- Environmental programs (carbon, RPS)

Long - Term Forecasting (Zonal)

Data inputs:
- Existing & future generators
- Availability
- Fuel Price forecasts
- Demand forecast (with DR)
- Ancillary services
- Zonal transmission limits
- PRM / ELCC curves
- Capital costs
- Emission limits / costs
- RPS requirements

Short - Term Forecasting (Nodal)

Additional Data Inputs:

- Bus/branch topology

- Demand & generator bus mappings

- Flowgate constraints

- Contingency definitions

- Trading hubs

Zonal Transmission   Nodal Transmission