

## EDUCATION

Bachelor of Mechanical and Nuclear Engineering, Georgia Institute of Technology (Georgia Tech), Atlanta, GA, 1994

## SUMMARY

Mr. Copeland brings more than 16 years of experience in testimony, preparing energy and capacity price forecasts, providing detailed assessments of market fundamentals, analyzing transmission investment, providing nodal congestion and curtailment analysis, developing integrated resource plans, managing data gathering and price forecasting databases, and performing asset valuations for various power plants. Mr. Copeland has supported project development and financing for construction of new generation, acquisition, divestiture, refinancing, and bankruptcy proceedings. Mr. Copeland has completed numerous consulting engagements for diverse stakeholders, including regulatory agencies, project developers, load-serving entities, generating companies, private equity and investment banks. Mr. Copeland also has extensive experience with the use of commercial price forecasting tools such as the ABB/Ventyx *MarketPower* and *PROMOD IV* software.

## EXPERIENCE

- ③ Provided gross margin analysis and long term power price forecasts for power plants located in many areas of the United States and Canada. The analyses examine the current and future market structure and market demand in these areas. All aspects were included in these studies, including, but not limited to, transmission analysis and upgrades, new entrants into the market, retirements, fuel consumption, emissions controls and technology, and any potential EPA requirements that may affect the forecast. Types of projects and locations are listed below:
  - Combined cycle, peaking, and coal power plants located in WECC (AZ, NM, CO, CA, WA, MT), ERCOT (TX), SPP (TX), Southern (GA), Carolinas (SC, NC), NYISO (Zone C, F, G, J, K), ISONE (ME, MA, RI, NH), PJM (IL, PA, NJ, MD, VA), MISO (IL, IA, MI, KY, IN), Ontario, and New Brunswick.
- ③ Provided forecast and gross margin projections for the development and financing of wind projects in multiple areas of the United States. The forecasts included energy, capacity, and renewable energy credit (REC) prices, as well as the subsequent gross margins based on these prices. In addition, scenarios were produced for high and low carbon pricing, high and low fuel costs, and high and low capital costs for generic resources entering the system.
  - Wind plants located in ERCOT (TX), SPP (TX, KS), ISONE (NH, ME), PJM (IL, MD), MISO (MN, IL)
- ③ Provided short term (1-5 year) security constrained economic dispatch (SCED) analysis for the potential purchase, sale, refinancing or operational analysis of power plants within the United States. The SCED analysis examined the future market structure and market demand in the respective markets, including major backbone transmission additions that could affect the operation of the assets. Projections of market energy prices, unit production, curtailment, and key congestion facilities for the project node were provided, as well as revenue projections, performance projections, and projected gross margins.

- Thermal and wind plants located in WECC (CA), ERCOT (TX), SPP (TX, KS, NE), NYISO (Zone J), PJM (IL, PA, NJ, MD, VA, OH), MISO (IL, IA, KY) and Alberta.
- ⦿ Other notable experience also includes a position as a Senior Reactor Operator at the Georgia Tech steady state 5 MW nuclear research reactor, nuclear non-proliferation work inside North Korea, an engineer for the manufacturing of the reactor cores used by the US Navy, and sales for an IT start-up company.

## PREVIOUS EMPLOYMENT

**Black & Veatch Management Consulting, LLC, 2011 – April 2016**

***Managing Director***

**R. W. Beck, Inc., 2008 - 2011**

***Manager, Power Markets***

**Navigant Consulting, 2007 – 2008**

***Managing Consultant***

**ABB/New Energy Associates, 2001 – 2007**

***Manager and Lead Consultant***