

MATTHEW W. TANNER
BERKELEY RESEARCH GROUP, LLC
1800 M Street, 2nd floor | Washington, DC 20036

Direct: 202.753.5823
mtanner@thinkbrg.com

SUMMARY

Matthew Tanner, PhD, is a managing director in BRG's Energy & Climate practice and has fifteen years of experience advising clients across the power-sector value chain on strategy, risk, and planning. He co-leads the Power and Renewables team, and his expertise includes power finance advising, renewable integration, emerging technologies, power procurement, market transformation, power market hedging, utility resource planning, and risk evaluation. He has advised some of the world's largest IPPs, investors, utilities, and corporate power consumers on market opportunities, risks of changing market structures, resource procurement, and investment strategies.

Dr. Tanner provides highly analytical and creative approaches for clients to adapt their business models as decarbonization regulations drive power market changes. He has deep expertise in power economics and valuation through modeling of power markets, optimizing generator portfolios, and assessing the impact of emerging technology on the power sector. He is an expert in helping clients understand fundamental underlying market drivers and regulatory and technological changes in the power sector that impact revenue, operations, and investment opportunities. He also helps utilities and system operators understand future requirements to operate the power system reliably while reducing emissions and minimizing cost.

Dr. Tanner has served as an expert witness in both federal and state courts and testified before state utility commissions on ongoing changes in power markets and the power system. His testimony in court has included opining on the generation financing process, damages from lost opportunities, evaluation of market-hedging programs, market rules, and support in understanding the implications of power and fuel procurement contracts. Before state utility commissions, he has testified on future system requirements to maintain reliability in high-renewable systems.

PREVIOUS POSITIONS

2017 – 2020, Director, Navigant Consulting
2012 – 2017, Associate Director, Navigant Consulting
2009 – 2012, Operations Research Analyst, U.S. Energy Information Administration

EDUCATION

Ph.D., Industrial Engineering
B.S.E., Operations Research and Financial Engineering

Texas A&M University, 2009
Princeton University, 2004

SELECTED RECENT PROFESSIONAL EXPERIENCE

Wholesale Power Market Advisory

- **IPP in Bankruptcy**, Talen bond holder Committee, 2022 – 2023. Supported the bondholders in understanding the on-going Talen business during bankruptcy to exit as they took ownership of the committee.
- **Power Procurement**, Confidential, 2023. Evaluated power procurement and construction opportunities for a Fortune 100 company.
- **Crypto Restructuring**, Argo, 2022. Helped the company understand and evaluate opportunities to hedge risks and reduce power costs through their financial restructuring process.
- **Power Hedging for a Paper Manufacturer**, Dunn Paper, 2022. Evaluated long-term hedging program for power costs through restructuring.
- **Hybrid battery, load, renewable development**, Alluvial Energy 2021 – 2023. Supported in developing the business case and configurations for large hybrid projects across North America.
- **Power Asset Sale**, Brazos Power, 2022 – 2023. Supported valuation of Brazos' assets in support of their asset divestment.
- **Hydro Transaction**, Government of Kazakhstan, 2021. Supported valuation and sales process of hydro facilities in a privatization process.
- **PJM thermal assets**, on-going 2021. Evaluated a portfolio of peaking facilities in PJM for potential energy and capacity revenue.
- **LNG demand forecast in Japan**, on-going 2021. Evaluated a utility's future demand for LNG given nuclear repowering and changing environmental requirements.
- **Strategic Pathways analysis**, FirstLight Power 2021. Evaluated the options and opportunities for FLP in ISONE, NYISO, and PJM.
- **Landfill gas to renewable natural gas**, Citizens Bank 2021. Evaluated the potential revenue and ability to service debt of a SPAC owning a LFG company.
- **Storage Market Assessments**, multiple clients, 2019 – 2020. Led analyses of market opportunities for battery storage providing value-stacked energy arbitrage, ancillary services, and capacity in CAISO, ERCOT, ISONE, NYISO, MISO, and Ontario.
- **Retainer Support**, multiple clients, 2017 – 2020. Led retainer engagements with clients to provide market advise, price forecasts, and due diligence across all regions of North America.
- **Global Market Forecast**, MHPS 2017 – 2020. Supported evaluation of the global market for gas turbines given on-going decarbonization.
- **California Behind-the-Meter Storage**, JBAM, 2020. Led due diligence assessment of a behind-the-meter storage company in CAISO considering current and future revenue opportunities.
- **Gas Hedged CC Analysis**, Harrison St, 2020. Led market evaluation of a new combined cycle in PJM with a long-term gas hedging agreement.

- **VDER Evaluations**, Multiple clients, 2019 – 2020. Led support of clients investing in and developing VDER projects in New York to understand current and future revenue sources.
- **Pumped Storage Assessment**, CIP, 2020. Evaluated the value and ability to contract that value for a large pumped storage project under development in Montana.
- **NYISO PPTN Testimony**, CVEC, 2020. Developed a report and testifying in NYISO on the economic needs for a new set of transmission upgrades that will impact CVEC’s market opportunity.
- **Offshore wind in New York**, 2020. Supported a client in evaluating the opportunity for offshore wind in New York for a potential investment in a large developer of such projects.
- **NYC Gas Plant Assessment**, NRG, 2020. Evaluated the economics and potential emissions impact of a new gas peaker in NYC compared to alternative investments in battery storage and/or offshore wind.
- **Hydro Valuations**, Brookfield, 2019 – 2020. Supported in evaluating the company’s portfolio of hydro assets considering how decarbonization is requiring the evolution of power markets.
- **Market Assessment of Texas Microgrid**, confidential investor, 2019. Evaluated the market opportunity for a large installation of microgrids in ERCOT.
- **Portfolio of Renewable Assets**, John Hancock, 2018. Evaluated the market opportunities and congestion risks for a portfolio of renewable assets spread across North America.
- **Ontario Bruce Nuclear**, Bruce Power, 2019. Evaluated the future revenue that Bruce could receive from a potential uprate in Ontario.
- **PJM CC Evaluation**, KOSPO 2017. Evaluated the market opportunity for a CC in PJM participating in energy and capacity markets.
- **City of Vernon CC**, KEPCO 2016. Evaluated the market value of a combined cycle located in CAISO subject to local and national environmental policies.
- **Colorado Solar**, KEPCO 2016. Evaluated the recontracting potential and value for a solar facility under an early PPA in Colorado.
- **SOO Green Transmission Line**, SooGreen 2016 – 2021. Evaluated the market and arbitrage opportunities of an HVDC line connecting MISO and PJM.
- **Ontario FIT Solar**, various 2016 – 2017. Provided sell-side support for solar projects under FIT contracts expiring in the next 10 years.
- **PJM Hydro Analysis**, PSP 2015. Evaluated the market value of a portfolio of hydro facilities located in PJM that faced capacity market risk, and energy price risk – largely driven by natural gas prices.
- **Northwestern Market Assessment**, FortisBC 2015. Forecasted energy prices in the Pacific Northwest in support of utility strategy.
- **San Vicente Pumped Storage**, City of San Diego 2015. Provided market evaluation support for San Vicente Pumped Storage that would provide energy and capacity and support decarbonization in CAISO.

Utility Strategy and Resource Planning

- **Strategic Transmission Planning**, LADWP, 2017 – present. Led broad support of LADWP in evaluating their transmission needs particular in response to decarbonization and market evolution in WECC.
- **Southeast Options Analysis**, Duke, 2019 – 2020. Led evaluation of the options, costs, and benefits to Duke Energy of changes to market structures in the Southeast.
- **Avoided Cost Study**, Santee Cooper, 2020. Evaluated the utility avoided costs for Santee and how they change as solar penetration increases.
- **Variable Generation Cost Study**, Dominion South Carolina, 2019 – 2020. Led study and testified on the variable generation cost impacts to solar penetration in the utility service territory.
- **Renewable Integration Impacts**, Chelan PUD, 2019 – 2020. Led studies of how renewable penetration impacts the operation and system requirements of the Chelan hydro fleet.
- **Retail Choice Impact Analysis**, 2019, FPL. Evaluated the impact of retail choice on the operations and costs for FPL.
- **Once-Through Cooling Retirement Impact Assessment**, LADWP, 2016 – 2019. Large study to evaluate the feasibility of retiring all in-base OTC units in LA and replace with zero carbon generation.
- **Variable Generation Study**, Northwestern Energy, 2018. Studied and testified on the requirements for integrating renewable generation into the Northwestern service territory.
- **Evaluation of a Local CC**. Austin Energy 2016. Studied multiple scenarios of resource mixes for Austin Energy. Presented results to Austin City Council.

Wholesale Market Design and Participation

- **Capacity Market Design**, NEPGA 2020 – 2021. Supported NEPGA in evaluating the validity of ISO-NE's Net CONE methodology. Prepared testimony on their behalf.
- **Southeastern EEM**, Southeast Utilities, 2020. Led the benefits analysis of the Southeastern Energy Exchange Market for a consortium of utilities.
- **Joint Economic Dispatch in Florida**, FPL, 2017. Modeled the economic benefits and dispatch changes that would result from full joint economic dispatch in the state of Florida.
- **Market Renewal Strategic Support**, IESO, 2016 – 2018. Supported the IESO in educational outreach, market design, and strategic considerations in their Market Renewal efforts.
- **RTO Membership Study**, LADWP, 2017. Evaluated the costs and benefits of RTO membership for LADWP. Considered the impacts that joining CAISO would have on the utility vs. joining an expanded Western RTO.
- **Default Emissions Factor Analysis**, Ontario Ministry of Energy, 2016 – 2018. Developed the methodology and calculated the default emissions factor that Ontario applies to electricity imports from unspecified generators.

Expert Testimony and Regulatory Experience

- **North Carolina State Court, 2023.** Submitted written testimony on behalf of Kruger Energy in a dispute over a solar PPA contract.
- **Texas State Court, 2023.** Supported written testimony for a confidential client on a dispute over ERCOT fees that were allocated after Winter Storm Uri.
- **International Arbitration 2022.** Supported written testimony on behalf of NextEra Energy Resources in a dispute over the unwinding of trade positions under an ISDA agreement.
- **United States Bankruptcy Court for the Southern District of Texas Houston Division June 2022,** Submitted rebuttal testimony on behalf of Brazos Electric Power Cooperative, Inc. on the topic of hedging during Winter Storm Uri.
- **International Court of Arbitration 2022,** Submitted expert testimony on behalf of CEPM on the topic of generator fuel indexing.
- **United States Federal Court, North Carolina Division 2022,** Submitted expert testimony on behalf of Duke Energy on the topic of power plant financing and potential damages.
- **United States Bankruptcy Court for the Southern District of Texas Houston Division January 2022,** Submitted expert testimony on behalf of Brazos Electric Power Cooperative, Inc. on the topic of utility hedging strategy.
- **FERC 2021,** Testified to FERC on behalf of the New England Power Generators Association on the validity of the ISO-NE Net CONE methodology.
- **South Carolina PSC 2019,** Testified in front of the South Carolina Public Service Commission on behalf of Dominion Energy on the costs to integrate renewable generation in the service territory.
- **Los Angeles City Government 2018,** Presented analysis of the costs and impacts of retirement options for once-through-cooling units to representatives of the city council.
- **Montana PSC 2018,** Testified in front of the Montana Public Service Commission on behalf of Northwestern Energy on the system operating requirements to integrate renewable generation.
- **EPA 2015,** Presented an analysis of CO₂ generation impacts of RICE units to the U.S. EPA.
- **Austin City Council 2015,** Presented an analysis of strategic alternatives to a natural gas combined cycle to the city council in support of the decision whether or not to build.

Publications & Presentations

- *From Resource Scarcity to Energy Abundance and Infinite Supply: The Paradigm Shift Being Wrought by the Energy Transition*, Chris Goncalves, Matthew Tanner, Alayna Tria, Tristan Van Kote, **Transition Economist**, 2021.
- *Update on electric storage participation in wholesale markets – FERC order 841*, Matthew Tanner, **IESO**, 2018.
- *Greenhouse Gas Reductions from Demand Response: Impacts in Three U.S. Markets*, Frank Stern, Maggie Shober, Matthew Tanner, Dan Violette, **IEPPEC**, 2016.
- *Independent Review of Austin Energy Resource Plan*, Dan Bradley, Matthew Tanner, Amanvir Chahal, **Austin Energy**, 2015.
- *Peak Demand Reduction Strategy*, Brett Feldman, Matthew Tanner, Cliff Rose, **Advanced Energy Economy**, 2015.

- *Planning for GHG Regulation*, Matthew Tanner, Maggie Shober, **Spark**, 2013.
- *The Potential for Continued Growth in Demand Response and Energy Efficiency Participation in Organized Capacity Markets*, Matthew Tanner, **USAEE Conference**, 2012.
- *Annual Energy Outlook 2012*, EIA staff, **EIA**, 2012.
- *The potential scale of the CO₂-EOR pipeline network with implications for CCS*, Matthew Tanner, **Transatlantic Infraday Conference**, 2010.