



Dan Koehler

Managing Consultant and Director of Project Management

Dan works closely with energy sector investors and regulators to assess infrastructure economics, provide project due diligence, lead market analyses, and forecast wholesale electricity prices. He has appeared as an expert before state regulatory agencies on matters including resource planning and ratemaking.

SELECTED PROFESSIONAL EXPERIENCE

Wholesale Market Analytics

- Managed and coordinated the firm's wholesale market analytics practice area, including maintaining and extending the firm's capabilities and technology to analyze and forecast market trends in energy, capacity, natural gas and other markets.
- Supervising operator of Daymark's AURORAxmp Electric Market Model ("Aurora"), an hourly chronological dispatch model simulating the economic dispatch of North American power plants within a competitive framework. Manages the team that maintains, updates, and operates the Aurora model to support analysis for numerous client projects.
- Managed the development, maintenance, and operation of Daymark's proprietary wholesale market models including CapMarker (capacity markets), TideMarker2 (energy storage), and RECMarker (renewable energy credits) for various regions.
- Leads the Daymark teams providing primary production cost modeling services and advisory support to Kaua'i Island Utility Cooperative (using PCI GenTrader) and Green Mountain Power (using Aurora).
- Developed a study of the wholesale market benefits and other benefits of Vineyard Wind's offshore wind project submitted in 2017 as part of the winning bid in the Massachusetts 83C Clean Energy RFP.
- Advised an offshore wind developer on bid development into NYSERDA's clean energy solicitation based on comprehensive zonal and nodal production cost modeling in long-term scenario analysis considering key policies, infrastructure changes, and market design evolution associated with New York's aggressive decarbonization targets.
- Authored studies on behalf of multiple prospective investors in generation assets in PJM, New England, New York, and Ontario providing analysis and assessment of energy policy and regulation, resource adequacy constructs, and wholesale electricity and natural gas markets.
- Developed process improvement strategies in wholesale electricity market modeling for a large Canadian independent power producer. In particular, assisted the client in improving the representation of NYISO in AURORAxmp, with a focus on improved output benchmarking tools, supply stack representation, and fuel forecasts. Also assisted the client with programming AURORAxmp to conduct Monte Carlo risk analysis with multiple correlated continuous and discrete risk variables.

- Developed and successfully benchmarked models of various systems using AURORAxmp software including PJM, NYISO, Southern Company and neighboring Balancing Authority Areas, Duke Energy, and ISO New England.

Generation Asset Valuation

- Provided market analytic and strategic decision-making support to Osaka Gas USA in its acquisition of significant ownership shares in two natural gas combined cycle assets in New England and prospective acquisitions in other northeastern markets.
- Assisted with the preparation of an appraisal critique and alternative asset valuations for a 540 MW natural gas-fired generation unit in Rhode Island and several hydroelectric assets in northern New England. Supported expert witness Dan Peaco in multiple ongoing tax appeal litigation proceedings in Vermont, New Hampshire, and Rhode Island courts.
- Provided analysis, expert witness preparation, and litigation support in two arbitration cases concerning fair market value of hydroelectric generation assets in Maine and Vermont. Assisted expert witness Dan Peaco with testimony in arbitration proceedings regarding the valuation of 4 MW Brassua Dam in Maine (AAA Case No. 11 153 Y 02133 11) and the valuation of 7 MW Winooski One in Vermont (AAA Case No. 11 198 Y 002014 12).
- Co-authored a report with the New Hampshire Public Utilities Commission Staff on the market value of Public Service Company of New Hampshire's generation fleet.

Utility Planning

- Assisted PSEG Long Island with the design, administration, and evaluation of the 2015 Renewable RFP on behalf of Long Island Power Authority.
- Analyzed a request to the North Dakota Public Service Commission for an Advanced Determination of Prudence for installation of \$500 million Air Quality Control System at Big Stone coal-fired power facility. Assisted Richard Hahn with developing expert testimony on behalf of NDPSC Staff in Docket No. PU-11-165.
- Analyzed a petition to the Arkansas Public Service Commission for approval of installing \$500 million in environmental controls at Flint Creek coal-fired power plant in northwest Arkansas. Assisted Richard Hahn with developing expert testimony on behalf of APSC Staff in Docket No. 12-008-U.
- Evaluated the Integrated Resource Plan of a North Dakota utility and helped prepare expert testimony before the Public Service Commission on the utility's application to build a new generation unit.
- Evaluated application filings and drafted testimony for presentation to the Wisconsin Public Service Commission on a proposed 345kV transmission project and a quarter billion dollar distribution system upgrade.
- Assisted with developing and drafting Integrated Resource Plans for two Vermont utilities, including producing a multivariate regression analysis to forecast load.
- Monitors new and developing environmental regulations affecting electric generating units – particularly the Cross-State Air Pollution Rule (CSAPR), Regional Haze Rule, Mercury and Air Toxics Standards (MATS), and greenhouse gas standards – and has provided consultation to clients on potential impacts.

- Analyzed the application of a Utah utility for approval of a new 625 MW combined cycle generation resource, and assisted with expert testimony of Richard Hahn on behalf of the Division of Public Utilities in Utah PSC Docket No. 10-035-126.
- Provided analysis of climate change impacts and potential renewable energy export markets for independent consultant work on the Manitoba Hydro application to construct over 2,000 MW of new hydro facilities.

Rates and Regulation

- Advised PSEG Long Island on the development of three feed-in tariffs and a major RFP to encourage the development of clean energy resources on the Long Island Power Authority system.
- Filed testimony to FERC on behalf of the New York State Utility Intervention Unit, presenting analysis of and proposed adjustments to NEET New York's requested base ROE.
- Provided expert pre-filed and oral testimony to the Michigan Public Service Commission in Consumers Energy Company's last three general electric rate cases (Case Nos. U-17735, U-17990 and U-18322) focusing on coal-fired generation investment decisions and proposed investment recovery mechanisms.
- Managed the project team assisting Kaua'i Island Utility Cooperative (KIUC) with re-design of rates, with a focus on addressing issues related to widespread installation of distributed energy resources.
- Assisted the Utah Division of Public Utilities in a review of Rocky Mountain Power's net power cost reconciliation ("Energy Balancing Account") for each year since 2011, with particular focus on the prudence of natural gas and electric hedging transactions. Filed expert report and testimony in annual dockets auditing EBA costs in each calendar year since 2014 (Docket Nos. 15-035-03, 16-035-01, 17-035-01, 18-035-01 and 19-035-01).
- Conducted market research and designed Time of Use, Critical Peak Pricing and Real Time Pricing rates for multiple small New England municipal utilities.
- Assisted the Utah Division of Public Utilities with the analysis of capital expenditures in a major utility's general rate case, including a novel sampling approach to generalize findings, and assisted with preparation of expert testimony.
- Designed Allocated Cost of Service-based Critical Peak Pricing Rates for Stowe Electric Department and drafted supporting testimony to the Vermont Public Service Board.
- Worked with a team to develop testimony in several electric rate cases on behalf of the Wisconsin Citizens Utility Board.

Other

- Leads team providing electric energy advisory and procurement services to the Massachusetts Port Authority.
- Modeled, analyzed and contributed to a report on the current and potential impact of a Renewable Energy and Energy Efficiency Portfolio Standard in North Carolina.
- Analyzed the merger application of Duke and Progress and assisted with drafting testimony on behalf of environmental organizations in North Carolina and South Carolina Commission proceedings.

- Research and analytical support for Central Procurement Options study for Massachusetts DOER and Attorney General's Office.
- Provided research and market analytics support for expert witness testimony on the potential for Hydro Quebec to export wind power to New England markets.
- Analyzed PJM's proposed capacity market overhaul and assisted a large coalition of stakeholders with intervention at the FERC regarding the transition process.
- Co-authored a U.S. offshore wind market outlook report and presentation for a confidential client.

EMPLOYMENT HISTORY

Daymark Energy Advisors, Inc.	Worcester, MA
<i>Managing Consultant and Director of Project Management</i>	2019 – Present
<i>Senior Consultant and Manager of Wholesale Market Analytics</i>	2017 – 2019
<i>Consultant</i>	2013 – 2017
<i>Analyst</i>	2010 – 2013
Kennebec Valley Organization	Waterville, ME
<i>Director</i>	2003 – 2009
United States Peace Corps	Paraguay
<i>Volunteer</i>	2000 – 2002

EDUCATION

University of Southern Maine	Portland, ME
<i>Master of Public Policy and Management</i>	2011
Yale University	New Haven, CT
<i>B.A., with Major in Applied Mathematics</i>	2000

PRESENTATIONS & TESTIMONY

Invited Speaker & Conference Presentations

- *Regulation, Markets and Headwinds for Coal Generation*, presented at the La Capra Associates Client Symposium, Burlington, VT, November 2012.
- *Incorporating Discrete Scenario Inputs in AURORA Monte Carlo Analysis*, presented at the EPIS Electric Market Forecasting Conference, Tucson, AZ, October 2013.

Expert Testimony

FORUM	ON BEHALF OF	TOPIC
Michigan Public Service Commission (Docket No. U-17735)	Michigan Environmental Council and Natural Resources Defense Council	Expert testimony in Consumers Energy general rate case focusing on proposed investment recovery mechanism and generation asset disposition. June 2015.
Utah Public Service Commission (Docket No. 15-035-03)	Division of Public Utilities	Joint testimony sponsoring an audit report of Rocky Mountain Power's Energy Balancing Account. July 2015.
New Hampshire Public Utilities Commission	PUC Staff	Valuation of PSNH generation assets.
Michigan Public Service Commission (Docket No. U-17990)	Michigan Environmental Council, Natural Resources Defense Council and Sierra Club	Expert testimony in Consumers Energy general rate case focusing on proposed investment recovery mechanism and generation asset disposition. July 2016.
Utah Public Service Commission (Docket No. 16-035-01)	Division of Public Utilities	Joint testimony sponsoring an audit report of Rocky Mountain Power's Energy Balancing Account filing. July 2016.
Federal Energy Regulatory Commission	NY State Utility Intervention Unit	Analysis of and proposed adjustments to NEET New York's requested base ROE. No. ER16-2719-000. December 2016.
Michigan Public Service Commission (Docket No. U-18142)	Michigan Environmental Council and Sierra Club	Impact of wind RFP non-selection decision on 2017 Power Supply Cost Recovery Plan filing. June 2017.
Michigan Public Service Commission (Docket No. U-18322)	Michigan Environmental Council, Natural Resources Defense Council and Sierra Club	Review of Consumers' proposed investment in life extension of coal-fired generation units, focusing on the modeling and economic analysis of various retirement dates. August 2017.
Utah Public Service Commission (Docket No. 17-035-01)	Division of Public Utilities	Joint testimony sponsoring an audit report of Rocky Mountain Power's Energy Balancing Account filing. November 2017.
Rhode Island Public Utilities Commission (Docket No. 4822)	Vineyard Wind	Retained to file testimony on cost/benefit evaluation provisions in draft RFP for renewable energy long-term contracts. August 2018
Utah Public Service Commission (Docket No. 18-035-01)	Division of Public Utilities	Joint testimony sponsoring an audit report of Rocky Mountain Power's Energy Balancing Account filing. November 2018.

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Utah Public Service Commission (Docket No. 19-035-01)	Division of Public Utilities	Joint testimony sponsoring an audit report of Rocky Mountain Power's Energy Balancing Account filing. November 2019.
