

Grant Freudenthaler

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ENERGY AND ENVIRONMENTAL ECONOMICS, INC.

Calgary, AB

Senior Managing Consultant

Grant Freudenthaler supports E3's Asset Valuation and Markets team, focusing on transaction due diligence, energy storage and renewables contracting, price forecasting, and other Asset Valuation topics. At E3 he tackles questions about the future of the natural gas system from many angles including due diligence of natural gas pipeline transactions, analyses of the gas system in a decarbonized future, as well as gas supply strategy projects. He also manages E3's off-the-shelf and client-specific market price forecasts for both ERCOT and AESO markets and has supported many storage developers seeking entry into the ERCOT market.

Prior to joining E3, Grant worked in many aspects of electricity including regulatory, rate design, forecasting and analytics, system and connection planning, price forecasting, investment strategy, hedging & portfolio management, environmental policy, commercial structuring and origination of power purchase and interconnection agreements. Grant has a broad background in the power sector having worked in most sectors including small project finance development, large IPP development, an Independent System Operator, and consumer advocacy. Grant has earned both a Master of Arts and a Bachelor of Arts in Economics from the University of Calgary.

Select E3 projects include:

Early-Stage Energy Storage Market Entry and Financing Support (2023-2024). Provided support to early-stage battery developers on questions including the structure of a PPA, market opportunities, how to approach contract assets, as well as questions regarding interconnection. Support has focused primarily on ERCOT, CAISO, and WECC markets.

Energy Storage Financing Support for Revenue Forecasting (2024). Forecasted storage revenues so that battery storage developers can secure financing, providing bankable merchant energy storage market forecasts using E3's RESTORE model and market price forecasts.

Confidential Investors, Gas Utility Strategy and Natural Gas Market Analysis (2023-2024). Managed and supported several projects related to gas investment strategy including a gas pipeline acquisition, a gas supply sourcing strategy of power generators, managing transaction due diligences on pipeline assets, and constructing a gas price forecasting model.

KANIN ENERGY

Director of Commercial Development

Calgary, AB

March 2022 – October 2023

- Reporting to the Chief Development Officer, was responsible for originating, structuring, negotiating, and executing commercial and power purchase agreements (PPA) for all projects.
- Led all utility and RTO interconnections and securing interconnection agreements.

- Created market outlooks for energy, capacity, and environmental attributes across the US and Canadian markets to guide business development, origination, and inform PPA pricing.

UNIVERSITY OF CALGARY

Sessional Instructor

Calgary, AB
May 2021 – Present

- Teaches ECON 329, Electricity Markets. This class focusses on introducing students to the core principles of electricity market design and operation. The focus is on efficiency, market basics, market design, generation economics, and climate policy.
- Teaches ECON 311, Computer Applications in Economics. This is an applied class based in Microsoft Excel that teaches time value money, financial economics, project analysis, project finance, and other topics.

TRANSALTA CORPORATION

Lead Economist – Power Markets

Calgary, AB
October 2020 – March 2022

- Reporting to the Vice President of Strategy & Portfolio Optimization, developed portfolio strategy, led investment decisions & market outlooks using financial analysis optimization models.
- Led a team that created a full 10+ year hourly price forecasting model for the Alberta power market including load forecasting, hourly spot price forecasting, and ancillary service price forecasting.
- Interpreted internal model to drive investment strategy and used insights from the modelling for portfolio optimization and mid-term hedging decisions.

ALBERTA ELECTRIC SYSTEM OPERATOR (AESO)

Senior Economist

Calgary, AB
November 2018 – October 2020

- Reporting to the Chief Economist and the Forecasting & Analytics department, was responsible for consulting on the economic efficiency of transmission projects and market rules proposed by the AESO.
- Created an economic framework to evaluate transmission build, and what factors drive the need for transmission investment.
- Working with engineering teams, redesigned the AESO's interconnection process to incorporate economic efficiency analysis for interconnection options provided to market participants.

Economic Analyst

January 2016 – November 2018

- Reporting to the Manager, Forecasting, was responsible for preparing AESO's Long-term Outlook and capacity market forecasts.
- Developed models of load forecasting and generation economics to anticipate trends in demand and generation growth.
- Also responsible for short- and medium-term forecasts including market fundamentals to predict imports to Alberta from the United States.

UTILITIES CONSUMER ADVOCATE (UCA)

Regulatory Analyst

Calgary, AB
May 2013 – January 2016

- Reporting to the Director, Regulatory Affairs, or Manger, Regulatory, was responsible for drafting and reviewing information requests and responses, evidence, and argument in various proceedings regarding electricity and gas regulatory issues heard by the Alberta Utilities Commission (AUC).
- Wrote and evaluated requests for proposals to contract expert consultants to assist the UCA in regulatory interventions.
- Quantified the monetary impact of regulatory and market outcomes to consumers of natural gas and electricity to evaluate policy and AUC decisions.

Education

University of Calgary
M.A., Economics

Calgary, AB
May 2016

University of Calgary
B.A., Economics (Hons)

Calgary, AB
May 2014