

Daniel F. Suurkask

Director, Energy and Economics Practice, Elevation Direct Corporation

3753 Howard Hughes Pkwy #200 Las Vegas, NV 89169 USA

daniel at elevationdirect dot com

five zero nine two seven zero two three four five (cell; WhatsApp) | daniel.suurkask (skype)

PROFESSIONAL HISTORY - SUMMARY

- 1. Elevation Direct Corporation (2014-Present)**
Director
 - 2. EPIS, Inc. (2008-2014)**
Director - Technical Sales, Director - Customer Support Lead, Integration Services Manager
 - 3. Energy Consultancy (2003-2008)**
Managing Director
 - 4. Global Energy Decisions, Inc. (2001-2003)**
Project Consultant
 - 3. Canadian Energy Research Institute (1998-1999)**
Economic Analyst
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ITEMIZED PROJECT HISTORY

2014-2019

- Overseeing development of software-as-a-service short term (14-day ahead) energy load, wind generation and market price forecast
- Market study and lenders report for 100 MW PV solar developer in Guadalajara
- Detailed network and generator unit commitment study for Wärstilä, the leading manufacturer (worldwide) of reciprocating engine generator sets.
- Detailed economic feasibility, system benefit, and market study of proposed hydro pump storage facility and accompanying desalination plant and PV facility in Sonora, Mexico.
- Market, congestion risk and curtailment studies for international solar PV developer in support of PPA negotiations with offtakers (loads).
- Market study of Baja California Sur system, considering generation, storage and demand alternatives to a proposed high voltage DC line
- Provided market analysis and project valuation analysis in support of the purchase of a combined cycle project connected to the California ISO grid.
- Completed study supporting the addition of solar PV and accompanying storage in the Mulegé isolated system in Mexico.
- Advisor to bidder of InterGen Mexico assets, providing regulatory, tariff, and market advisory, including portfolio valuation analysis.
- Oversaw the development and implementation of modeling system and front office system for the Comisión Federal de Electricidad (CFE) Subdirección de Generación (with a portfolio of more than 55 GW).
- Advised CFE Generación in the areas of asset optimization, power system simulation modeling, bidding strategies, and risk analysis.

- Completed business plan market and portfolio analysis for CFE (Corporate) using a leading power system simulation model.
- Completed long term strategic market analysis of CAISO for an existing independent generator. Focus of engagement was assessing impact of environmental policy (RPS, GHG) on revenue streams (LMP, ancillary services, capacity), costs and gross margins.
- U.S. Northeast power market analysis and modeling for ISO New England as part of larger (infrastructure) security of supply study.
- Completed for IPP in the Yucatan Peninsula a market analysis of Mexican power system in support of new combined cycle power plant and associated LNG facility.
- Studied, on behalf of Anchorage Municipal Light & Power, the benefits of coordinated commitment and dispatch with neighboring utilities in Alaska's Railbelt.
- Built user forms and reports, and automated simulation software system, for use by Municipal Light & Power (Alaska) day ahead dispatchers, and providing general modeling support

2003-2008

- Completed analysis of several market purchase and sale options for confidential large oil and gas company. Modeled Alberta, B.C. and Northwest, under various scenarios, with a focus on market impacts and implications for the client's investment plans.
- Served as expert witness for the California Public Utilities Commission's Division of Ratepayer Advocates in San Diego Gas & Electric's Application for a Certificate of Public Convenience and Necessity for the \$1.8 billion, 500 kV Sunrise Powerlink Transmission Project. Reviewed cost-effectiveness of project, with a focus on generation and network modeling, reliability cost modeling, and renewable portfolio standard compliance analysis.
- Modeled, as part of strategic planning project for a utility, various North American markets of interest to client. In this large modeling undertaking, explored the impact of various macroeconomic, policy, technology, fuel, emission assumptions on modeling results.
- Reviewed the Integrated Resource Plan filings of Nevada Power Company and Sierra Pacific Power Company on behalf of the Nevada Office of the Attorney General's Bureau of Consumer Protection. Reviewed cost-effectiveness of utilities' plan to build significant amounts of new generation and transmission.
- Served as expert witness for the California Public Utilities Commission's Division of Ratepayer Advocates in Southern California Edison's Application for a Certificate of Public Convenience and Necessity for the Devers-Palo Verde 2 500 kV Transmission Project. Reviewed cost-effectiveness of project. Also served as an expert witness for the Division of Ratepayer Advocates in the California Public Utilities Commission's investigation into generic transmission evaluation methodology issues.
- Provided modeling services to EPCOR, in support of annual corporate planning review. Reviewed and validated assumptions and results. Focus of effort was B.C. and the U.S. Pacific Northwest.
- Developed a stochastic (Monte Carlo) risk margin calculator for use by Central Alberta Rural Electrification Association in its monthly retail rate determination process, per provincial government regulations.
- Reviewed and validated WECC production cost model dataset for the California Energy Commission. Focus of review was transmission ratings and expansion plan assumptions in all WECC regions outside of California.
- Supported Pinnacle Consulting in a California Energy Commission engagement exploring alternative transmission expansion evaluation methods. Focused on the application of portfolio theory to transmission planning.
- Market study for wind developer in Alberta. In this Global Energy Decisions subcontract, explored questions relating to market rules and market design, transmission policy and interconnection rules, greenhouse gas emission policy and opportunities related to environmental attributes.

- Risk management framework for Prairie Power, the electricity procurement arm of several electric co-operatives in Alberta. Quantified the risks and opportunities associated with potential different electric co-operative business paradigms.
- Provided supporting analysis for confidential merchant generator negotiating long-term power purchasing agreement with utility in Oklahoma.
- Market and stochastic portfolio analysis for a large Texas utility that was considering the “mothballing” of its older gas steam units. (Subcontract)
- Power market forecast and portfolio analysis to support a Texas utility considering adding nuclear capacity to its portfolio. (Subcontract)
- Key participant in comprehensive study of energy policy and electric power industry in Japan, complete with a twenty-year market outlook for the three largest utility regions. The purpose of this project was to assist a confidential multinational oil company with its “build or buy” decision to serve the electric energy needs of a proposed new refinery. (Subcontract)
- Study of the Texas electric system (ERCOT) exploring the revenue potential for “merchant wind” for a wind project developer. Assessed existing market rules and proposed market redesign initiatives as they relate to wind. Evaluated strategies to minimize integration costs and increase value opportunities available to wind.
- Developed an integrated, risk adjusted electricity procurement methodology for Empower Energy, a retail energy services company active in Texas. The methodology included integration of market, operational, cash flow, and credit risks.
- Assisted, as part of an ECCO International advisory team, Austin Energy in its preparation for nodal market by means of a process and systems requirements and gap analysis project. Principal role in project was in the preparation of an assessment of operations, trading and planning systems and processes requiring changes for successful participation in the newly re-designed LMP market (Needs Assessment).
- Provided integrated resource planning modeling software and methods workshops, and other software demonstrations and training services on behalf of Plexos Solutions.
- Developed and validated operations, portfolio, and regional market databases, on behalf of Plexos Solutions, for the latter’s software training and marketing purposes.
- Built, maintained and managed natural gas and electricity databases for analytical studies and modeling purposes.

EDUCATION

B.A., (First Class Hons.), Economics, University of Calgary (Canada)

M.A., Economics, University of Alberta (Canada)

PUBLICATIONS

Vatter, M.H., Suurkask, D.F. (2018). “The impact of trade with the United States on electric loads in Mexico”, *Heliyon* 4 e00717, doi: 10.1016/j.heliyon.2018.e00717

Vatter, M.H., Suurkask, D.F. (2017). *LAEE Energy Forum*, “The impact of international trade on electric loads in Mexico”, Second Quarter.

Suurkask, D.F. (2004) “Big Value on a Small Scale”, *The Rural Utilities Connection*, Fall.

Heintz, H., Spragins R., Suurkask, D.F. (2000). *Electricity and Gas: Market and Price Convergence*, Calgary: Canadian Energy Research Institute, June.