CAMERON WADE

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WORK EXPERIENCE

Sutubra Research Inc. 2020 – Present
Founder and Principal *Halifax, NS*

- Lead an independent consultancy specializing in power system and integrated energy system modelling and analysis.
- Develop and apply custom capacity expansion and production cost models for asset valuation, renewable integration, portfolio optimization, and sector coupling.
- Advise utilities and IPPs on investment decisions, asset valuation, and system planning.
- Collaborate with top Canadian and U.S. power system modelling groups on model intercomparison studies.
- Provide technical modelling insights to private and public sector clients, supporting regulatory, policy, and market analyses.
- Partner with academic institutions (Carnegie Mellon, University of Toronto, University of Calgary) on cutting-edge energy system modelling research.

Institute for Integrated Energy Systems, University of Victoria 2016 – 2020
Research Assistant *Victoria, BC*

- Conducted long-term energy system modelling for Western Canada.
- Applied machine learning techniques for temporal aggregation in capacity expansion models.

European Space Agency 2016
Research Intern *Noordwijk, The Netherlands*

- Developed computational models assessing the feasibility of photonic crystals for solar sail attitude control and deep-space applications as part of the Advanced Concepts Team.

EDUCATION

***MathMods* Erasmus Mundus Joint Master Degree** 2014 – 2016

- MSc in Applied Physics and Mathematics *GPA: 5.0/5.0*
- MSc in Mathematical Engineering *GPA: 107/110*
- Consortium: University of Hamburg, University of L'Aquila, Gdańsk University of Technology
- Erasmus Mundus Scholarship Recipient

Acadia University 2009 – 2013

- BSc in Physics and Mathematics (double major) *GPA: 3.9/4.0*
- Recognized as a University Scholar and 3x CIS All-Canadian athlete (varsity football)

PROFESSIONAL ACTIVITIES

Energy Modelling Hub 2022 – Present
Platform Committee Member

- Advise on strategic direction and oversight of potential modelling platforms used in Canadian energy system modelling.

Open Energy Outlook 2023 – Present
Core Team Member

· The Open Energy Outlook, an initiative of Carnegie Mellon University and NC State University, aims to examine U.S. energy futures to inform energy and climate policy efforts by applying the gold standards of policy-focused academic modelling.

TECHNICAL STRENGTHS

Energy System Modelling & Optimization: Expertise in Temoa, with knowledge of GenX, PyPSA, Calliope, ReEDS, and PLEXOS (trained). Skilled in capacity expansion, production cost modelling, and sector coupling.

Data Analysis & Computational Methods: Proficient in Python (Pyomo, Pandas, NumPy, SciPy), SQL, and HPC environments, with expertise in LP/MILP optimization and statistical analysis.

Policy & Market Analysis: Strong understanding of electricity market fundamentals, energy policy, and regulatory frameworks.

Communication & Leadership: Extensive experience in technical writing, presenting to diverse audiences, and mentoring junior researchers.

SELECTED TALKS AND PRESENTATIONS

· New York Climate Week (2024; New York City). *How to Use Electricity Models to Unlock the Clean Energy Transition.*
· International Symposium on Sustainable Systems and Technology (2024; Baltimore). *A Model Inter-Comparison Study of Open-Source Power System Models.*
· Energy Storage Canada Webinar (2024). *Long-Duration Energy Storage in System Planning Models.*
· US Association for Energy Economics (2023; Chicago). *Developing a CO2 abatement cost curve using an energy system optimization model.*
· Atlantic Canadian Energy System Modelling Conference (2023; Halifax). *Using energy system modelling to explore the Atlantic Loop*
· Macro-Energy Systems Workshop (2022; Stanford): *Including temperature-dependent efficiencies in energy system planning models.*
· Energy Modelling Initiative (2021; Ottawa): *Exploring the near-optimal solution space of an energy system optimization model using modelling to generate alternatives.*

SELECTED PUBLICATIONS

· Schivley, Greg, et al. "Process and Policy Insights from Intercomparing Electricity System Capacity Expansion Models." arXiv preprint arXiv:2411.13783 (2025) [Co-Author]
· Blackhurst, Michael, et al. "Marginal abatement costs for greenhouse gas emissions in the United States using an energy systems approach." In review (Environmental Research: Energy). [Co-Author]
· Blackhurst, Michael, et al. "Hydrogen Subsidy Design: A Case Study in Applying Power and Energy Systems Models to Policy Decisions." In review (Environmental Research Letters). [Co-Author]
· Sinha, Aditya, et al. "Diverse decarbonization pathways under near cost-optimal futures." *Nature Communications* 15.1 (2024): 8165. [Co-Author]
· Smillie, Sean, et al. "Hybrid heat pumps avoid extreme marginal abatement costs of electrifying peak heating loads in cold regions." Environmental Research Letters 19.9 (2024): 094054. [Co-Author]
· Palmer-Wilson, Kevin, et al. "Impact of land requirements on electricity system decarbonisation pathways." *Energy Policy* 129 (2019): 193-205. [Co-Author]
· Keller, Victor, et al. "Electricity system and emission impact of direct and indirect electrification of heavy-duty transportation." *Energy* 172 (2019): 740-751. [Co-Author]