CAMERON WADE

cameron@sutubra.ca ◇ www.sutubra.ca ◇ (902) 292 4478

WORK EXPERIENCE

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

- I provide consulting services, develop decision support tools, and conduct techno-economic analyses for experts working in electric power systems and integrated energy systems.
- Areas of expertise: Resource planning models, production cost models, mathematical optimization, renewable energy integration, wind and solar resource mapping, hydrogen modelling, energy storage.
- Recent activities:
  - Working with Carnegie Mellon University, the Environmental Defence Fund and Princeton University on a power system model inter-comparison project
  - Participating in a model inter-comparison project with leading Canadian power system modelling groups.
  - Submitted comments with associated modeling to the U.S. Treasury Department regarding the proposed Clean Hydrogen Production Tax Credit, which were subsequently cited by 13 Senators in their letter to Secretary Yellen.
  - Providing decision support tools and analysis to several independent power producers and utilities.

Energy Modelling Hub **2022 – Present**
Committee Member (volunteer role) *Halifax, NS*

- I serve on the Energy Modelling Hub's platform committee, aiding EMH in strategizing and overseeing potential modelling platforms.

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

- I was a member of a research group funded by the Pacific Institute for Climate Solutions, tasked with charting techno-economic pathways for the decarbonization of the Western Canadian energy system.
- Focus areas: Power system model development; application of machine learning techniques to refine the temporal dimension in capacity expansion models; improving the representation of energy storage technologies in capacity expansion models.

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

- Developed computational models to assess 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

Acadia University *2009 – 2013*
BSc in Physics and Mathematics (double major) GPA: 3.9/4.0

TECHNICAL STRENGTHS

Computer Languages	Python, C, C++, MATLAB, GNU MathProg, SQL, Bash
Tools	PLEXOS, LaTeX.
Skills	Optimization, mathematical modelling, machine learning, data mining, statistical analysis, computer programming, science communication.

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* and *Variable renewables and energy storage in energy system models* (panellist)
- C.O.R.E. Conference (2022; Halifax). *Energy and Climate Modelling for a Resilient Future* (panellist)
- 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.*
- Pacific Institute for Mathematical Sciences Workshop on Mathematical Sciences and Clean Energy Applications (2019, Vancouver): *Improving the representation of temporal variability in energy systems models.*
- International Energy Workshop (2019; Paris): *Assessing the location specific grid impacts of prosumage futures.*
- International Energy Workshop (2018; Gothenburg): *A probabilistic method for selecting reduced representative days for long term energy system models.*

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]
- Keller, Victor, et al. "Electrification of road transportation with utility controlled charging: A case study for British Columbia with a 93% renewable electricity target." *Applied Energy* 253 (2019): 113536. [Co-Author]