

CAMERON WADE

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WORK EXPERIENCE

Sutubra Research Inc.

Founder and Principal

2020 –

Halifax, NS

- I offer consulting services, decision support tools and techno-economic analysis on issues related to energy systems and deep decarbonization.
- Areas of expertise: electric power systems; integrated energy systems; resource planning and production cost models; mathematical optimization; scientific writing.
- Recent activities: Working with Carnegie Mellon University, the Environmental Defence Fund and Princeton University on a power system model inter-comparison project; Advising groups at the University of Toronto and the University of Calgary on a national open-source energy system model; Performing resource planning optimization for merchant generators and utilities; Leading the development of an open-source energy system optimization model for Atlantic Canada.

Energy Modelling Hub

Committee Member (volunteer role)

2022 –

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

Research Assistant

2016 – 2020

Victoria, BC

- I was a member of a research group funded by the Pacific Institute for Climate Solutions and 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 model.

European Space Agency

Research Intern

2016

Noordwijk, The Netherlands

- As a member of the Advanced Concepts Team, I developed computational models for the design and feasibility assessment of using photonic crystals in solar sail attitude control and other deep-space applications.

EDUCATION

University of Victoria

PhD in Mechanical Engineering

2016 –

Note: I have been on personal leave since 2020 to run my consulting practice.

Focus: Energy Systems Modelling and Analysis

Supervisors: Dr. Peter Wild & Dr. Andrew Rowe

MathMods Erasmus Mundus Joint Master Degree

MSc in Applied Physics and Mathematics

MSc in Mathematical Engineering

Consortium: University of Hamburg, University of L'Aquila,
Gdańsk University of Technology

2014 – 2016

Acadia University

BSc in Physics and Mathematics (double major)

2009 – 2013

SELECTED AWARDS AND RECOGNITION

Academic:

- Pacific Institute for Climate Solutions Fellowship 2016 – 2020
- University of Victoria Fellowship 2016 – 2017
- University of Victoria Graduate Award 2016 – 2017
- Erasmus Mundus Category A Scholarship 2014 – 2016
- Acadia University Scholar 2013
- Acadia Golden ‘A’ Recipient 2013

Extracurricular:

- 3x Canadian Interuniversity Sport (CIS) All-Canadian (Football) 2010 – 2013
- 4x CIS Academic All-Canadian (Football) 2009 – 2013
- 2x Selected to Team World (Football) 2009 – 2011

SELECTED TALKS AND PRESENTATIONS

- 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). Panellist in sessions: *Using energy system modelling to explore the Atlantic Loop; Variable renewables and energy storage in ESMs.*
- C.O.R.E. Conference (2022; Halifax). Panellist in session: *Energy & Climate Modelling for a Resilient Future.*
- 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

- Sinha, A., Venkatesh, A., Jordan, K., Eshraghi, Wade, C., H., de Queiroz, A., Jaramillo, P., & Johnson, J. (2023). Diverse Decarbonization Pathways Under Near Cost-Optimal Futures. *In review.*
- Palmer-Wilson, K., Donald, J., Robertson, B., Lyseng, B., Keller, V., Fowler, M., Wade, C., Scholtyski, S., Wild, P., & Rowe, A. (2019). Impact of land requirements on electricity system decarbonisation pathways. *Energy policy*, 129, 193-205.
- Keller, V., Lyseng, B., Wade, C., Scholtysik, S., Fowler, M., Donald, J., Palmer-Wilson, K., Robertson, B., Wild, P., & Rowe, A. (2019). Electricity system and emission impact of direct and indirect electrification of heavy-duty transportation. *Energy*, 172, 740-751.
- Keller, V., English, J., Fernandez, J., Wade, C., Fowler, M., Scholtysik, S., Palmer-Wilson, K., Donald, J., Wild, P., Rowe, A, & Crawford, C. (2019). Electrification of road transportation with utility controlled charging: A case study for British Columbia with a 93% renewable electricity target. *Applied Energy*, 253, 113536.
- Wade, B., Pereira, R., & Wade, C. (2019). Investigation of offshore wind farm layouts regarding wake effects and cable topology. In *Journal of Physics: Conference Series* (Vol. 1222, No. 1, p. 012007). IOP Publishing.