Brett Kerrigan, P.Eng., M.A.Sc.

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SUMMARY

Energy efficiency engineer with experience in simulation, data analytics, energy efficiency programs, and a Master's degree in energy systems research

PROFESSIONAL PROFILE

- Energy efficiency engineer with over eight years of relevant experience in the public, private, and research sectors
- Broad experience in modelling, data analytics, and energy efficiency programs
- Master's degree in energy systems simulation
- Licensed with Professional Engineers Ontario
- Fluent in English, functional in French

PROFESSIONAL EXPERIENCE

Posterity Group – Ottawa, ON Jan. 2016 - Present
Consultant

- Comprehensive experience in energy efficiency engineering, including efficiency program design and evaluation, third party measurement and verification, energy benchmarking, facility energy auditing, and technology pre-feasibility studies
- Administered the City of Edmonton's Building Energy Benchmarking Program
- Forecasted long-term peak demand impacts of various technical, economic, and policy scenarios for a natural gas utility

Natural Resources Canada – Buildings Division – Ottawa, ON Apr. 2014 – Jan. 2016
Technical Advisor – ENERGY STAR® Portfolio Manager program

- Developed ENERGY STAR scores for Canadian buildings using energy survey data and statistical analysis software (SAS®) in partnership with the US EPA
- Tracked and reported on Portfolio Manager user uptake and energy data trends using a variety of analysis and visualization tools (e.g. Excel, Python/Plotly, mySQL etc…)
- Worked with Statistics Canada on two nationally representative building energy surveys

Arborus Consulting – Ottawa, ON Feb. 2011 – Mar. 2014
Building Energy Consultant

- Simulated building energy performance to inform design and retrofit activities for commercial and residential projects (including LEED and code compliance projects)
- Provided live energy modelling services for integrated design process (IDP) charrettes

University of Victoria – Victoria, BC Sep. 2008 – Nov. 2010
Graduate Research Assistant – Institute for Integrated Energy Systems

- Used optimal power flow modelling to simulate behaviour of several Canadian provincial grids, including generator start-up/shutdown constraints and ramp rate characteristics, to investigate integration of wind power and electric vehicles
- Coauthored and published a peer-reviewed policy paper on electric vehicles

EDUCATION

Master of Applied Science – Mechanical Engineering Sep. 2008 – Nov. 2010
University of Victoria – Victoria, BC

- Thesis: *The Techno-Economic Impacts of Using Wind Power and Plug-In Hybrid Electric Vehicles for Greenhouse Gas Mitigation in Canada*
    - Modelled the electricity systems of several Canadian provinces to estimate the cost and emissions impacts of integrating clean technologies

Bachelor of Engineering – Aerospace Sep. 2003 – Apr. 2008
Carleton University – Ottawa, ON

- Specialized in Aerodynamics, Propulsion and Vehicle Performance

PUBLICATIONS

Knapp, D., C. Guénard, and B. Kerrigan, "Savings by Design: Benefits of Live Energy Modelling in Integrated Design Charrettes", *eSim 2014 – Canada's Building Simulation Conference*, Ottawa, ON, May 2014.

Kelly, L., T. Williams, B. Kerrigan, and C. Crawford, "Electrifying the BC Vehicle Fleet – Opportunities and Challenges for Plug-In Hybrid, Extended Range & Pure Electric Vehicles", Pacific Institute for Climate Solutions, Victoria, BC, Nov. 2009.